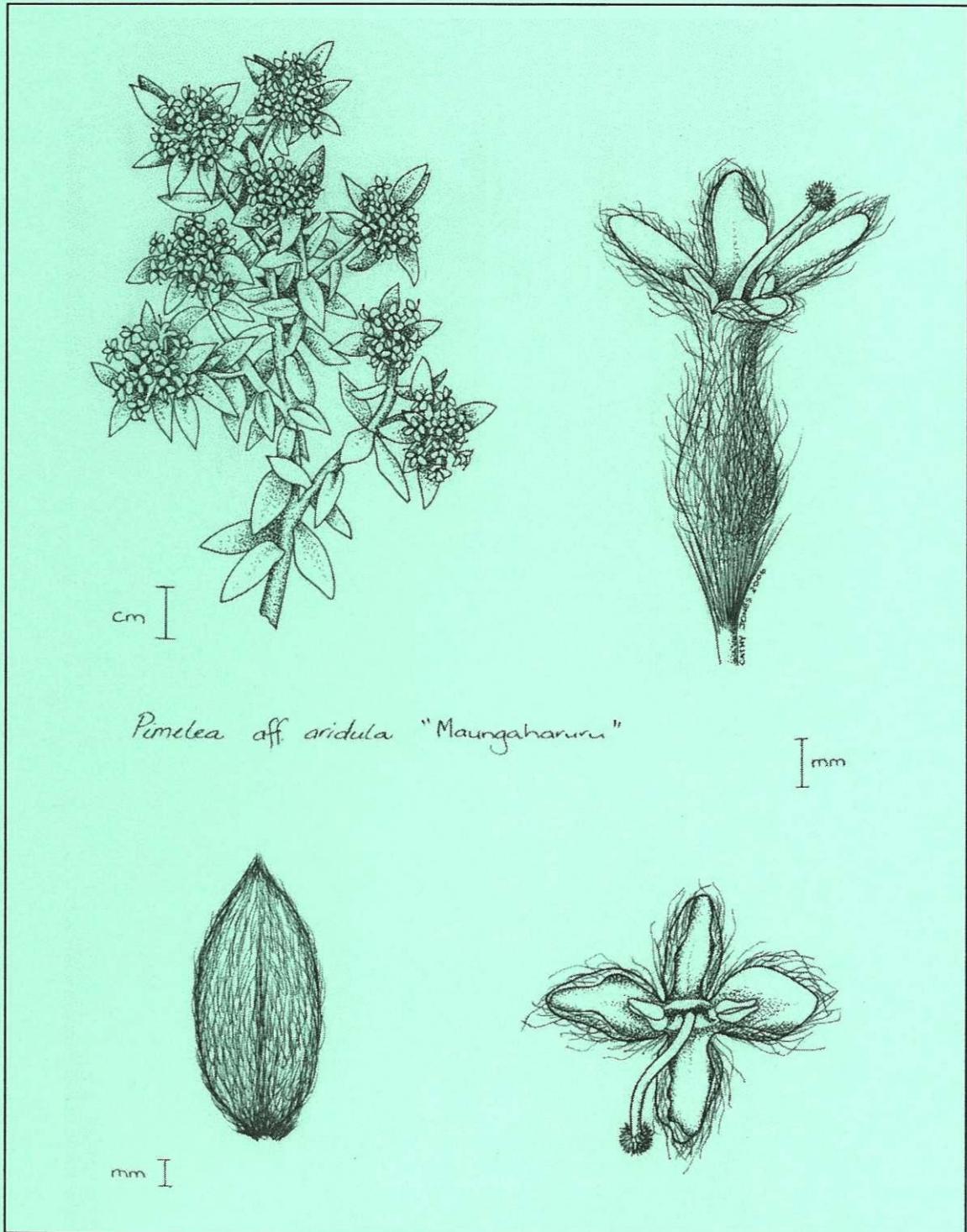


NEW ZEALAND BOTANICAL SOCIETY

NEWSLETTER

NUMBER 84

JUNE 2006



New Zealand Botanical Society

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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 2006 issue is 25 August 2006

Please post contributions to: Joy Talbot
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Send email contributions to joytalbot@free.net.nz or talbotj@cpit.ac.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

Pimelea aff. *aridula* "Maungaharuru" drawn by Cathy Jones from a cultivated plant grown by Shannel Courtney. The original plant was from the Maungaharuru Range, Hawkes Bay.

NEW ZEALAND BOTANICAL SOCIETY
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NEW ZEALAND BOTANICAL SOCIETY

NEWS

Regional Botanical Society News

■ Auckland Botanical Society

AGM and March Meeting

Following the AGM, at which Mike Wilcox was re-elected as President, Ross Beever spoke on the geology and botany of the Hawaiian Islands. Some familiar genera – *Coprosma*, *Metrosideros* and *Cordyline* – were emphasized in passing.

March Trip

A busy day saw Bot Soc visiting 4 sites in the Waipu area. The first of these was Waipu Scenic Reserve where, under regenerating kauri forest, was to be found an abundance of a small shrubby *Alseuosmia*, bearing both flowers and fruit. As is often the case in this tricky genus there was a problem with allocating a name, but we settled on *Alseuosmia banksii* var. *linariifolia*. A nearby patch of gumland scrub yielded *Halocarpus kirkii*, *Epacris pauciflora* and *Lycopodiella lateralis*. Saltmarsh plants were studied on the lower reaches of the Waipu River, and seaweeds were the focus at the beautiful Langs Beach.

April Meeting

Ewen Cameron spoke on some of the many small northern islets that he has visited over the years, using methods of transport that ranged from surfboard to helicopter. The effect of rats on both the flora and fauna was highlighted by comparing those islands that were rat free with islands with rats, and also with the mainland.

April Trip

The Suspension Bridge Track in the Wairoa Valley in the Hunuas was the venue for this trip. The track led through second growth podocarp/kauri/tanekaha forest. In the afternoon a visit to the Hunua Falls revealed an interesting miniature flora growing in the splash zone of the falls, including *Crassula hunua*, *Glossostigma elatinoides*, *Hydrocotyle hydrophila*, *H. microphylla*, *H. tripartita*, and *Callitriche petriei*.

May Meeting

Peter de Lange spoke to the hypothesis "There are more threatened species than ever before". In the last 25 years, since David Given's ground breaking work in establishing a threatened plants list, research has refined ideas on what constitutes threat, and as a result Peter has devised an alternative threat classification system, one tailored to New Zealand conditions. Case studies emphasized the importance of modern biosystematics as a tool toward better conservation management.

May Trip

This trip was a visit to the Mangemangeroa Walkway, Howick, guided by friends of the reserve. The walkway runs along the western boundary of the Mangmangeroa Creek, through regenerating coastal forest and estuarine habitats.

FORTHCOMING ACTIVITIES

7 June	Chris Ferkins – "Gorse on roadsides"
	Rhys Gardner – "Botany of Niue"
17 June	Centennial Park, Campbells Bay, North Shore
5 July	Leon Perrie – "The demize of <i>Polystichum richardii</i> , and hen and chicken ferns galore"
15 July	Rangitoto Island
2 August	Peter Johnston – "Subantarctic Islands – sealions, rata forest and fungi"
19 August	Waitakere Ranges

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■ Waikato Botanical Society

January Field Trip - Waitaanga area

Friday evening saw us watching for bats attracted to the civil aviation beacon light. One bat performed well for us. On day one we botanised in Waitaanga South Forest along a track following the old forestry railroad along the Waitaanga Stream. The first wire bridge, where *Peraxilla colensoi* was still in flower, was the destination for lunch. There were good specimens of *Raukaua anomalous*, *Neomyrtus pedunculata*, *Dracophyllum strictum* and of special significance, a plant of *Gastrodia* "long column" and *Acianthus sinclairi* along the way. Several fungi species were noted including *Russula macrocystidiata*, *Ramaria* sp., *Gauteria novae-zelandiae*, and *Hygrocybe firma*. *Drymoanthus adversus* was spotted on the way out. We then called to another bush block on the corner of Waitaanga Sth Road and SH40 to find *Gaultheria paniculata*.

Day two was spent at the NG Tucker Scenic Reserve where we followed a 4WD ridge-track to a Trig. Notable species included a small grove of *Nestegis montana*, *Elatine gratiolooides*, *Gaultheria oppositifolia*, *Pittosporum kirkii*, *P. cornifolium* and *Genoplesium (Corunastylis) nudum*. Jane Hart

Early March Field Trip - Dave and Ann Lee's Hamilton gully garden

We were impressed with the great collection of interesting and rare native plants the Lees have accumulated and successfully raised; in over 30 years they have transformed a weed ridden gully site into lush lowland forest including young rata, kohekohe and podocarp trees and a great diversity of fern and shrub species. Much of their initial planting material came from the Mamaku Ranges as a result of pine plantation clearance. Highlights included seeing mature *Streblus heterophylla* and *S. banksii* trees, the semi-prostrate *Fuchsia perscandens*, the limestone loving fern *Asplenium trichomanes*, and many small leaved shrubs including *Pittosporum turneri*, *Teucrium parvifolium*, *Melicytus alpinus*, *Aristolelia fruticosa*, *Raukaua anomalous* and many coprosma shrubs. Not to mention king fern (*Marattia salicina*) growing like a weed!

Following our visit to the Lee's gully, we returned to the University for our first working bee at the new threatened plants garden. Species currently being propagated are: *Pimelea tomentosa*, *Calystegia marginata*, *Sicyos australis*, *Streblus banksii*, *Hebe speciosa*, *Myosotis spathulata*, *Lepidium oleraceum*, *Picris burbridgei*, and *Rorippa divaricata*. Liz Grove

March Field Trip - Te Maika-Kawhia

The weekend had two main aims: first to explore the Te Maika area for threatened plants, and also to link in to the local Maori community at Kawhia. Te Maika lies immediately across the harbour from Kawhia (access by ferry) and is primarily in the guardianship of the Maori Queen and her family, with a permanent bach settlement. The main aim of the trip on Saturday was to relocate any of the several threatened or uncommon plants that had been recorded along the beach or coastal cliffs at various times in the past. These included *Euphorbia glauca*, *Austrofestuca littoralis*, *Myoporum debile* and *Brachyglottis remotifolia* (a hybrid between *B. elaeagnifolia* and *B. repanda*).

The wetland behind the baches lining the harbour had both estuarine and freshwater components, reflected by vegetation dominated by sea rush and raupo respectively. This wetland yielded the find of the day – a large population of the threatened fern (gradual decline), *Cyclosorus interruptus* growing amongst the raupo. Other associates included *Isachne globosa*, *Carex virgata*, *Lobelia anceps*, *Eleocharis acuta*, *E. gracilis* and *Baumea arthrophylla*. We were unable to find another threatened swamp fern, *Thelypteris confluens*, which grows in similar raupo-dominated habitat in two nearby wetlands.

The Te Maika wetland was in relatively good condition; however stock access and encroachment of development for housing have caused some modification to the margins. *Spartina* and grey willow (*Salix cinerea*) were also noted. The beach and coastal cliffs on the way to Arataura Point were botanically disappointing as they were highly modified by goats and stock, and no threatened species was relocated in these habitats.

We saw a number of plants which are (or have been) significant to local Maori including: the famous pohutukawa trees of Kawhia, harakeke, raupo, *Apium australe* (used to combat scurvy in the same way Cook's scurvy grass was), *Cortaderia* spp. and rengarenga. Bev Clarkson & Cilla McAllum

The AGM was held on 5 April accompanied with a very impressive talk from Catherine Beard on Alpine Flora of the Austrian Alps and the Dolomites in Southern Tyrol.

Upcoming events:

- 4th June Hakarimata Kauri Grove and Northern lookout
5th July Evening talk and slides by Bruce Clarkson: Botany of some European mountains: Pyrennes (Spain), Gran Sasso (Italy), Vesuvius (Italy) & Mont Blanc (France)
6th August Protected significant trees of Hamilton City & Botanical Society Native Threatened Plant Collection working bee #3
3rd September Tairua and Sailors Grave, Whenuakite, Coromandel.

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■ Wanganui Museum Botanical Group

FUTURE PROGRAMME

Meetings

- 4 July: 'My travels in South America, with some plant perspectives', Cliff Lawrence
1 August: AGM and members' contributions.
5 September: NZ through botanical tourists' eyes, Colin Ogle

Field Trips

- 1 July: Castlecliff garden of Rick Rudd, potter, plantsman and landscaper
22 July: Dennis Hocking's farm, Bulls
2 Sept: Koitiata (Turakina Beach)
30 Sept: Rangitawa Stream, Kakariki

TRIP REPORTS

June Field Trip: McPhersons Bush, Turakina Valley 4 June 2005

See *NZBS Newsetter 80*: 16-7 for full account. However that trip began with an hour at Sutherlands Bush to check for flowering of the uncommon orchid *Bulbophyllum (Adelopetalum) tuberculatum*. We'd found it here in October last year, on several fallen podocarps. Pieces of the orchid were now falling from dead branches as the bark peeled off but we found three flowering spikes – to see this plant in flower in the wild was a new experience for us all.
Colin Ogle and Jim Howard

July Field Trip: Some of Wanganui's Big Trees - a mystery tour.

Ten of us met in Kowhai Park and had a short wander to see a 10 year old *Michelia velutina*, bunya pine (*Araucaria bidwillii*), a Protected Tree of weeping lillypilly (*Waterhousea floribunda*) which sadly had been ravaged by WDC contractors, pagoda tree (*Sophora japonica*), Japanese umbrella pine (*Sciadopitys verticillata*) that is thought to be the largest specimen in NZ, and three very large deciduous gymnosperms - swamp cypress (*Taxodium distichum*), dawn redwood (*Metasequoia glyptostroboides*) and *Ginkgo biloba*. We now went to a private section in nearby Gerse St with a large Chilean wine palm (*Jubaea chilensis*). There are only 6 of these big old ones in NZ. In No 3 Line among various large trees was a eucalypt that Chris Ecroyd later identified for us as apple box, *E. bridgesiana*. At the 'Acacia Park' motel was a large Cape chestnut (*Calodendron capense*, F Rutaceae). On to 'Riverlands' with four beautiful Araucarias, so-called monkey-puzzle (*A. araucana*), bunya pine, hoop pine (*A cunninghamii*), and Norfolk pine (*A heterophylla*), as well as a very large camphor laurel (*Cinnamomum camphora*) and many other fine old trees. Up river at 'Arles' is possibly the most beautiful tree in Wanganui - *Agathis robusta*, Queensland kauri. We re-measured it as 1780 mm dbh; Colin & Robyn measured it in 1999 at 1640 mm dbh. There was a good grove of a black-stemmed bamboo, *Phyllostachys henonis nigra* here too.
Clive Higgie

August Field Trip: Junction Road orchid search

We drove out to the high point of the road beyond Bushy Park overlooking inland Matemateonga hill country. Our enjoyment was somewhat spoiled once we moved down Junction Road to find that the banks where large groups of spider orchids used to flourish had been scraped bare - not for any road alignment - just to clean them up. Only four *Corybas* plants were seen where there used to be thousands. Nearby on Rangatatau East Road, *Ourisia macrophylla* ssp. *robusta* were in flower and in good numbers. We hope the machinery isn't sent there to remove everything green.
Vonnie Cave

October Field Trip: South Taranaki sea coast

Of the many potential coastal sites to visit on this coast, Jim Clarkson of DOC Stratford chose three, which gave us plenty of variety for one day. For most of the group, the coast was a revelation - the views, the topography and, of course, the turf plants that were our main botanical target. At a recently discovered site for *Ranunculus recens* Jim showed us where a small natural population had been supplemented in the winter by plantings of cultivated seedlings. Some of the original plants had flowers and or green fruits, and planted out plants were looking well. 'True' *Myosotis pygmaea* was in flower, but we were too early for flowers on the tight rosettes of a 'carrot' *Oreomyrrhis* 'minutiflora'. Later, after some searching, we saw a patch of 12 or so plants of *Myosotis pygmaea* var. *minutiflora*, a couple in flower - really small flowers even when compared with true *M. pygmaea* var. *pygmaea*. The dense *Zoysia* turfs here seemed impenetrable to other plants, but they contained scattered little tufts of *Crassula manaia*, *Colobanthus muelleri* and the moss-like grass, *Agrostis muscosa*. Our last stop was to see where the giant Chilean rhubarb (*Gunnera tinctoria*) has taken hold along many km of this coast, mainly on cliff ledges and talus slopes. Jim gave us a good account of the *Gunnera* problem and the control programme that is part of his current work. Colin Ogle

September Field Trip: 'Nitschke/Gortons' (Thurston's) Bush, Waituna West, north of Feilding

We had visited this area of privately-owned forest on the Manawatu Plains in 2000, but with 200 ha, mainly in a complex gully system, it warranted a second visit. It was a Recommended Area for Protection (RAP) in the PNAP survey report (1995). This time we visited the eastern end of the forest, which had been fenced recently and protected by a covenant with DOC. Much of this portion was a broad, almost flat interfluvium between deep gullies. Although early September, some forest plants were wilting, including mahoe, mamaku and hangehange. The site is well-drained with titoki, totara, kahikatea and tawa, a few matai and hinau and a sparse understorey dominated by *Coprosma areolata* with a few kawakawa. Old totara stumps indicated past logging. Large remnants of forest are rare on the Manawatu Plains, especially those with some flat terrain, and this one gave us a priceless glimpse into the district's pre-agricultural landscapes. Viv McGlynn & Colin Ogle

February Field Trip: 'Ben Moi' farm, Kawhatau Valley, east of Mangaweka and Utiku

See NZBS *Newletter* 80:5 for an account of our visit a year earlier. We returned with two aims: to try and assess the amount of the nationally very rare grass *Simplicia* where we'd found it last year, then to explore the main river bed, including cliffs and forest remnants. Although there is yet no agreement among grass experts about what species of *Simplicia* we have here, we all soon got our eyes in for it - a fine wispy grass, growing in grazed-out scraps of forest - very difficult to spot unless it had flower heads; we estimated several hundred 'patches'. Later in fenced forest we found some larger patches of *Simplicia* in light wells. After lunch, we descended a very steep slump, through planted pines to the weedy, braided shingle bed of the Kawhatau River. The cliffs had mostly native plants, distributed according to steepness, aspect, dryness, type of substratum and presence of ledges and crevices. On sheer dry cliffs, *Hebe stenophylla* (the long, narrow-leaved form of the Mangaweka district) was quite common. We saw one patch of native aniseed (*Scandia rosifolia*) but out of reach. A low terrace had a patch of tall podocarp/titoki forest that we'd seen from the top of the cliff. With no stock, it was very intact with some large trees, including large diameter totara. Bamboo rice grass (*Microlaena polynoda*) formed large patches and the many ferns included velvet fern (*Lastreopsis velutina*), uncommon in the district. We didn't re-find *Teucrium*, reported here by Bruce Clarkson some years ago. Colin Ogle

March Field Trip: Lake Rotokauwau, SH3 near Whangaehu Valley

This dune lake is probably little known, although the willows that line much of it can be seen from SH3, as can the water at times in winter. It lies where dunes extended inland and met the edge of a marine terrace. Parts of the margins have been fenced for many years while other parts are open to grazing and for stock drinking water. This provides a range of plant habitats. Fluctuating water levels supplied the needs of semi-aquatic turf plants like *Glossostigma elatinoides*, *Callitriche petriei* and some unlikely-looking carrot relations, *Hydrocotyle hydrophila*, *Lilaeopsis* sp. and *Centella uniflora*. The most intact beds of harakeke and tall sedges (*Carex secta*, *Baumea rubiginosa*, *Bolboschoenus fluviatilis*, *Schoenoplectus tabernaemontani*) grew where the edge was fenced. Large cabbage trees (ti kouka) occurred in places and, on an 'island' (when the lake level's up), they were growing with

mahoe and 8 - 10 very large mapou (*Myrsine australis*) trees – no regeneration though, because of grazing. The lake water was very green and we saw no fully aquatic plants. Colin Ogle

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■ Wellington Botanical Society

December field trip: Eastern Tararua Range, Wairarapa

Fourteen participants botanised impressive forest along the Waiohine Valley track from the swingbridge to Clem Creek, listing about 130 species of indigenous vascular plants. Among the features were five podocarp and three beech species, hutu/*Ascarina lucida*, and kiekie/*Freycinetia banksii* in flower, the latter being evidence of possum control work. By staying overnight at Pat McLean's Te Pamu covenant, we were able to spend a second day botanising river-terrace forest owned by Trevor and Jenni Bornholdt, on the True Left of the Waiohine River. There we found the orchid, *Drymoanthus adversus*, epiphytic on titoki, poataniwha, tawa and totara, and outside the fenced area, *Ileostylus micranthus*, growing on *Coprosma propinqua*, "Hoheria Tararua" and northern rata.

December field trip: Hutt City Rata Walk

Eleven participants surveyed the scattered urban rata, their blossoming much reduced from the spectacular show in 2005. Most rata within the city are on private property; and while some are still in decline, others have had buildings demolished to make way for them due to the continuing public interest. Of note were also three new rata plantings on reserve land.

January field trip Gilbert Bush reserve, Newlands

With a species list compiled in 1974 on a previous WBS trip, 23 people set out to determine the changes in this recovering site bounded by a steep-sided gully that runs from near the top of Newlands down to the Hutt Road. We found a number of large *Fuchsia excorticata*, a very large *Griselinia lucida* and *Hebe parviflora*, as well as *Elaeocarpus dentatus* and *Dysoxylum spectabile*. Ferns included *Blechnum fluviatile*, *Poystichum vestitum*, *Adiantum cunninghamii* and *Blechnum chambersii*.

February field trip Paton's Bush, Wairarapa

Eighteen members explored the Paton covenant in the Waihora Stream catchment adjacent to the northwest boundary of the Aorangi forest Park. An overnight stay allowed us to explore the wide range of vegetation types in this small area. These included dryland and wetland forests with rich understories, shrubby terraces and beech forest communities. Although at the time a little more than a trickle, the stream is an important refuge of native fish populations. Further up the Waihora, in another side stream, a large population of northern rata (*Metrosideros robusta*) has been found, augmenting the known population of a handful of trees. The gossamer grass, *Anemanthele lessoniana*, was in flower, and the sedge species, which are many and varied in the area, provided a good opportunity to familiarise people with specific characteristics of each. *Carex raoulii* and *C. unnamed sp.* ("raotest") grow in close proximity, and it was an ideal situation to note the differences between the two species. Among the list of 57 ferns was a small and thriving population of the fern *Doodia mollis* last noted as in serious decline.

February field trip - Down and dirty: weeding the alpine collection of Arnold and Ruth Dench.

February evening meeting featured Project Crimson Executive Director Bridget Abernethy giving an update of the organisation's 15 years achievements, changing focus and future outlook.

March evening meeting Dr Greg Jenks, Environment Bay of Plenty, gave an inspiring address related their experience of reversing coastal erosion and restoring many threatened coastal plant communities. The adoption of a community-led restoration model has led to some success across the region.

Friday 14–Monday 17 April: Easter field trip, Wairarapa.

Friday was spent in two fenced remnants, “Wilderness Bush” and “Karaka Bush” on Waiorongomai Station, owned by Mr C. Matthews. “Wilderness Bush” was remarkable for the age and impressive stature of its trees. The canopy was shared by titoki, ti kouka, kahikatea matai, lowland ribbonwood and karaka. Large *Streblus banksii* were present, many heavily infected with the parasitic “witches broom” (caused by eriophyid mites which cause abnormal tip growth distortion on karaka). Another feature was the abundant epiphytes *Earina mucronata* and *Pyrrosia eleagnifolia* and nests of *CollospERMUM hastatum* with ripening fruit hanging in dense panicles. Gnarled, ancient kohia coiled along the forest floor and groundcover was mostly sparse *Hypolepis ambigua* and *Lastreopsis microsora*.

Feature trees and shrubs found up a tributary of the true left of the Mukamuka Stream on Saturday were *Olearia arborescens*, *Parahebe* sp. in flower and *Brachyglottis greyi* clinging to the steep, eroding slopes between tussocks of *Poa* sp. Sunday’s features included the *Pseudopanax ferox* colony on the true left of Corner Creek and the impressive Hinau Flats QEII Covenant that featured a gigantic rimu and a number of large hollow hinau and mahoe.

April - Two extra trips were made for workbees to weed the Te Marua bush remnant at Kaitoke and the Druce garden, an important garden containing many threatened indigenous plant species established by Tony and Helen Druce.

May field trip East Harbour Regional Park Our party of ten noted the large number of epiphytic kamihi and five-finger on the ferns along Fern Gully Track. A minute orchid was later identified as *Corybas cheesmanii*. Also added to what is an already extensive list, were the sedges *Lepidosperma australe* and *Morelotia affinis*, both uncommon.

May evening meeting John Bishop and Robyn Smith from QEII National Trust updated us on the protection of native remnants on private land both nationally and locally.

PLANNED TRIPS AND MEETINGS FOR THE REMAINDER OF 2006

- | | |
|--------------|---|
| 3 June | Wi Parata Reserve and Nga Manu Sanctuary, Waikanae |
| 19 June | Rilka Tashkova, Post-doctoral Fellow, School of Biological Sciences, VUW will discuss the origin of iridoids; their biological activities and chemosystematic value and present examples from her investigations on <i>Plantago</i> and Northern and Southern representatives of the genus <i>Veronica</i> . |
| 1 July | Jubilee Park / Percy Scenic Reserve |
| 17 July | David Glenny, Landcare Research - An overview of the genus <i>Aciphylla</i> including new evidence on the moa-browsing hypothesis and a discussion of the taxonomic problems within the <i>A. monroi</i> group. |
| 5 August | Queen Elizabeth Park |
| 21 August | AGM – Melanie Dixon, Policy Adviser, GWRC will talk on global wetland issues: their loss, the implications for biodiversity, flood abatement, water quality and carbon sequestration. It will also discuss wetlands and wetland types in the Wellington region. |
| 2 September | Makara Foreshore Reserve |
| 18 September | <u>AP Druce Memorial Lecture</u> : “Exotic plant invasions, the other half of the flora”. The speaker will be Peter A. Williams, Landcare Research, who will present some of the things learned during a working life of studying the ecology of naturalised flora; where it came from, how it spread, the new communities it has formed, how these differ from the native communities, what the native birds think of it, and what the future holds. |
| 7 October | Keith George Memorial Park, Silverstream and possibly Bartons Bush, Trentham. |
- Christmas/New Year’s Field trip** 28 December 2006 – 11 January 2006
1. Rakiura National Park/Stewart Island
 2. Catlins, eastern Otago

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■ Nelson Botanical Society

Nelson Anniversary Weekend Camp -Collingwood 27/1/2006-30/1/2006

Our summer camp was based at Collingwood Motor Camp which was perfect for access to three fascinating botanical areas. Our first foray was along beach and sandhills, rocks & estuaries, as we explored Wharariki Beach to Greenhills Stream. Along the coast, *Celmisia* "Pupu" was found in several sites on accessible rocky islands on the beach. We discussed the differing appearance of tree kanuka (*Kunzea ericoides*) and *Kunzea* "amathicola" ("sand loving"), found growing together. *Hebe elliptica* var. *elliptica* was in flower, as were *Pimelea longifolia* and *P. urvilleana*, with *Samolus repens* and *Selliera radicans* flowering on rocks around the beach. Ferns new to some of us were *Blechnum blechnoides*, *Asplenium appendiculatum* ssp. *maritimum*, *A. oblongifolium* and *A. obtusatum*. Walking back via the estuary and paddocks we spotted two species of flowering turf – *Glossostigma elatinooides* and *Lilaeopsis novae-zelandiae*.

On Sunday we tackled Knuckle Hill, accessed from the west coast. Initially, in the shade on the clay banks at the edge of the road we found *Lycopodiella cernua*, which roots as it goes and *L. lateralis* which spilled down the bank. We also managed to find 5 of the 6 species of *Gahnia* which grow in NZ. Above the bushline most of us toiled in the summer heat to the top of the hill, to be rewarded with fabulous views in all directions. Orchids in flower were *Thelymitra pulchella*, *Winika cunninghamii*, and in a crack in the rocks we found *Ichthyostomum pygmaeum* (*Bulbophyllum*) with match-head size green pseudo bulbs. Back down the hill we discovered the rather rare *Metrosideros parkinsonii*, also *Alseuosmia macrophylla* and *Brachyglottis cockaynei*.

On Monday we climbed Mt Burnett, with its special endemics. Beside the shady track were several *Brachyglottis hectorii*, while further on, out on to the open northern slopes in beating sun, we found the erect Burnett subspecies of *Hebe albicans* in flower, as well as *Gingidia* "Burnett". We saw *Pseudopanax macintyreii* and several small-leaved coprosmas, including the Mt Burnett variety of *C. obconica*, also *Dracophyllum urvilleanum* and *D. filifolium*. Two other Burnett endemics on the track to the summit were *Myrsine argentea* and *Melicytus* "Burnett". Near the south summit we found the elusive *Metrosideros parkinsonii* and in clefts in the karren, *Senecio* "Burnett" was in full flower. The route to the north summit crossed the geological contact between the fertile dolomite-marble rocks and the very infertile coal measures. The change in vegetation was instant – an 84% change in plant species composition to manuka, mountain beech and a host of upland native conifers.

February Field Trip - Raglan Range, Wairau Valley, 19th February 2006

4WD transport saw 28 people, including several visitors, reach the top of the Raglan Range arriving at a meadow dotted with *Gentianella bellidifolia* in full flower. There was plenty to interest the daisy specialists with edelweiss (*Leucogenes neglecta*), *Racoulia subsericea*, *R. glabra*, *Helichrysum parvifolium* in full flower and *R. bryoides*, *R. eximia*, *Celmisia spectabilis*, *C. sessiliflora*, *C. monroi*, *C. incana*, *C. traversi* and *Brachyglottis bellidioides* also present. Stable scree supported *Parahebe cheesemanii*, unstable scree was fluffy with *Epilobium pycnostachium* and bluffs harboured *Pentachondra pumila* in flower and fruit, *Pachycladon fastigiata*, *Pratia macrodon*, *Leptinella pyrethriifolia*, *Hebe cheesemanii* and *Grammitis poepigiana*.

March Field Trip - Trig K off Canaan Road, 19th March 2006

15 members met at the Canaan road turnoff on Takaka hill and drove to the beginning of the track. As we were discussing the *Lepidothamnus intermedius*, Shannel pointed out an unnamed *Neomyrtus* which was growing alongside the track. We noted the black drupes on *Coprosma colensoi*, and opaque drupes on *Coprosma tayloriae*, and had morning tea surrounded by *Quintinia acutifolia*, *Dracophyllum elagantissimum* and *Libocedrus bidwillii*. There were clumps of *Luzuriaga parviflora* with its lantern berries and many juvenile plants of *Raukaua simplex* and *Elaeocarpus hookerianus*. We saw the beautiful tree fern *Cyathea colensoi*, and there were many *Astelia nervosa* "broad".

Easter Camp – Matakītaki Lodge, near Murchison

We started the species list on Friday by walking along the Matakītaki River track noting 88 species, thus adding 54 to the original list we held. The area covered river bank, silver/red/mountain beech forest and frost flat. There were enough *Rubus* spp to test our knowledge, and we spent a lot of time puzzling over small leaved shrubs such as *Coprosma propinqua*, *C. rigida*, *C. crassifolia*, *C. tayloriae*, *C. rugosa*, *C. microcarpa* and *C.x cunninghamii*. We were looking for *Coprosma wallii*, which we found on subsequent days.

On Saturday, the party split into two groups, with one travelling down the east side of the Matakaitaki valley to the start of the Six Mile Walkway. Here we soon entered a mixed beech/podocarp forest where there was a good understorey of numerous coprosmas, many in berry, together with *Elaeocarpus hookerianus*, *Raukaua anomalus*, *Pennantia corymbosa*, *Pseudowintera colorata*, and some good specimens of *Neomyrtus pedunculata*. The walk provided some excellent examples of *Blechnum* ferns, especially *B. colensoi*. The second group headed for Mole Hut and the Jameson Ridge, passing initially through red/silver beech forest and along the bank of the Mole Stream where there were patches of *Coprosma rugosa*, laden with pale blue berries. Growing in the gravel amongst the logs and boulders was *Parahebe decora* in flower. As we gained altitude, we came across a magnificent specimen of *Pittosporum patulum* on the edge of the forest. The vegetation now became more sub-alpine. At the bush edge we found *Olearia nummulariifolia* and among the tussocks were *Pentachondra pumila* and *Coprosma perpusilla*. The descent down Jameson Ridge started through pure silver beech (*Nothofagus menziesii*) with *N. solandri* appearing lower down, then later we reached the red/silver beech forest once more.

With less perfect weather we spent Sunday botanising close to the lodge. In the small but varied piece of bush to the south of the lodge we found *Coprosma wallii* with its distinctive bright orange inner bark on the thicker stems. Red and silver beech and kahikatea formed the canopy over more than a dozen fern species. Fungi fans were delighted with a log full of birds nest fungi (*Crucibulum laeve*) in all stages of growth. After lunch we set off in the opposite direction to look at some marshy land. Our main objective, *Melicytus flexuosus*, was successfully tracked down, with several bushes of it along the length of the boggy area. There were many other small leaved shrubs: *Raukaua anomalus*, *Aristotelia fruticosa*, *Coprosma rigida* and *C. colensoi*, *Gaultheria macrostigma*, *Corokia cotoneaster*, *Olearia virgata* (?? var. *implicata*??), *Androstoma empetrifolia*, as well as *Phyllocladus alpinus* and *Drachophyllum longifolium*, sphagnum moss and various rushes.

Future trips:

July 16	Motueka River west bank covenants. Leader Sally Warren, (03) 546 6637
August 20	Teetotal, St Arnaud. Leader Don Pittham, (03) 545 1985
September 17	Blackwater farm, Murchison. Leader Don Pittham, (03) 545 1985

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■ Canterbury Botanical Society

April Meeting Leicester Kyle: "The Botany of the North Buller Moors"

After winning the junior Bledisloe trophy competition while attending Christchurch Boys High School, Leicester's interest in plants began. After his retirement he decided to move to Buller to further an interest in a botany he has known since his childhood, and has always been fascinated by, ever since his father introduced him to it. Here he has been instrumental in establishing a quite large reserve for the native flora, and working for agencies such as DOC. He also writes about native plants.

April Field Trip

17 of us visited the 8 hectare QE11 covenant of Graham Horne set amongst exotic forestry blocks just below Lake Janet on the slopes of Mt Grey. The property consists predominantly of unmilled beech forest with occasional podocarps (rimu and miro). Although the norwester was blowing boisterously at Lake Janet, on the track down through the central gully there was little wind. The large sedge *Gahnia pauciflora* contrasted with the smaller sedges *Uncinia clavata* and *Uncinia banksii*. It was great to see a number of red beech and kamahi, *Weinmannia racemosa*. Around a seepage area particularly, pokaka was common, with juvenile divaricating and adult forms present. *Leptopteris hymenophylloides* made a handsome sight on the banks as did the filmy ferns *Hymenophyllum bivalve* and *H. scabrum*. Bryony informed us that the moss *Acanthocladium extenuatum* was present – unusual in Canterbury. The track took us down the gully and up a ridge so a range of habitats were seen.

Geoff Henderson

May Meeting Peter Buchanan of Landcare Research gave a talk titled "New Zealand's iconic fungi: from vegetable caterpillar to Bio Blitz novelty". This included mention of *Entoloma hochstetteri* the iconic vibrant blue species on our \$50 note. *Cordyceps robertsii* is a parasitic species commonly known as the vegetable caterpillar. The spores infect species of caterpillars and cicad nymphs, feeding on them and eventually killing them. When conditions are right the fruiting body grows out through the mouth of its host to protrude slightly above ground releasing its spores to start the cycle again. Peter also mentioned weedy species in New Zealand eg: *Amanita muscaria*. He also spoke on the PDD Fungal Herbarium in Auckland where he is based with some 74 000 accessions in its collection. And a species of aquatic microfungi found first at the Auckland Bio Blitz and again later at the Christchurch Bio Blitz named *Zygosporium bioblitzii*.
Ryan Young

May Field Trip - DOC's Motukarara Conservation Nursery

Jorge Santos, Nursery Manager, welcomed us and described the transition of the nursery into an education centre for restoration and species conservation while also being commercially viable. Beds are laid out to demonstrate the floras of all the different habitats of Canterbury, and an area for the plants of the Chatham Islands. Nick Head was there to demonstrate a rocky area devoted to the endangered plants of Canterbury. This collection would test the knowledge of any botanist. Making a particular show of flowers for the time of year was *Myosotis australis* var. *lytteltonensis* from the Port Hills, thought to be worthy of specific rank. In the middle of the stand of lowland forest plants we found, with Nick's help, *Coprosma pedicillata* with a blackish berry, *Coprosma obconica* and *Coprosma rigida*. Jorge described the seed collecting and drying and invited us to examine the propagation and the extensive area of potted stock.. One bay demonstrated the variation in *Pittosporum tenuifolium* from different regions within Canterbury.
Bryony Macmillan

FUTURE EVENTS

July 7 Sue Shele "Maori Uses for Plants"
July 8 Riccarton Bush with John Moore
August 4 Shannel Courtney, Nelson DOC, "Alpine Plants of Nelson"
August 5 Addington Bush
September 1 Peter Heenan "Exciting Changes in Botany"
September 2 French Farm Covenant, Jan Cook and David Brailsford
October 6 Colin Burrows "Seed Germination"
October 7 Ahuriri Summit Bush with Colin Burrows
November 3 Philip Grove " Botany of Ecan Reserves"
SHOW WEEKEND CAMP: at Gunn's Camp, South Canterbury. Thursday 16 November to Sunday 19 November. Leader Gillian Giller
SUMMER CAMP AT ST ARNAUD: This camp will be held from Friday 29 December 2006 to Friday 5 January 2007. Leader Margaret Geerkens

Secretary: Margaret Geerkens (03) 352 7922 PO Box 8212, Christchurch. bert.marg@xtra.co.nz

■ Botanical Society of Otago

Meeting: Nov 2005

Ph D student, Jamie Wood is studying the more recent paleontological history of Central Otago by searching for fossils in the dry soils beneath rock overhangs, the dry soils within caves, and excavating peat bogs. A recent wave of paleoecological investigations into Otago's pre-human vegetation points to extensive scrub and forest dominating below treeline in today's grassy landscapes. Jamie's data sources are wide and varied: moa coprolites (faeces), bird feathers, bones, woody twigs, leaves, dried fruits of trees, fossil pollen from peat bogs, gizzard stones, gizzard contents, and insects. By reworking some of Otago's iconic fossil sites such as Earnsclough Cave, he is providing a landscape picture of plant and animal habitats and relationships.
Geoff Rogers

Meeting: 22 February

Mike Thorsen, DOC, spoke on the flora of Macraes Reserve and potential skink/plant interactions in a changing environment. He has helped identify a surprising 328 native and 72 exotic plant species in the Reserve, which sits in the edge of the Central Otago dry country. Twenty eight nationally

threatened or at risk species hang on in this mosaic of pasture, tussock grassland, shrubby gullies and ephemeral wetlands. Lichen-covered schist tors are one of the last hide-outs of two impressive and nearly extinct skinks, the huge giant skink and the large black and yellow Otago skink. These have hung on through Maori burnings, extinction of large browsing birds, and pakeha farming, with introduction of many predators. These days a predator-proof fence keeps out all ground predators and all browsers except rabbits. But is the resultant increase in tall tussock, kanuka and broadleaf helping the nearly extinct skinks and the rare plants? For the skinks this could change the pattern of plants, berries and insects available to eat, shade the tors and so change the sun available for thermoregulation and change the ease of travel between tors. For the rare and endangered plants shading out could also be a problem, as the ephemeral wetlands in the fenced area are already being invaded by weeds such as the tall sedge, *Carex ovalis*.
Allison Knight

26 Feb, Guilds Hill field trip

It was a hot dry Dunedin day to be climbing an untracked volcanic cone through creeper-encrusted scrub and scratchy fragments of coastal forest. Botanical chat ranged wide: when does a forest become, or cease to become, a coastal forest; how effective are crushed Ngaio (*Myoporum laetum*) leaves at repelling sandflies; could *Muehlenbeckia* vines seal off disturbed bush edges from more invasive weeds, as well as being an important host for the native copper butterfly; why would a mistletoe (*Tupeia antarctica*) grow upon another mistletoe (*Ileostylus micranthus*); why were the lichens most prolific on dead branches and deciduous trees?...All this and more was triggered by what we saw.
Allison Knight

Meeting: 15 March, Jennifer Bannister - Fish, frustules, fungi, flowers and foliage

Twenty million years ago at Middlemarch a myriad of diatoms, freshwater algae, sponges, galaxids and insects make their home in a lake formed by water accumulating in a volcanic crater in schist and surrounded by lowland forest. This was the scene set by Jennifer Bannister when she presented an update of research she and Daphne Lee of the Geology Department have been involved with, which focuses on well preserved Early Miocene sedimentary deposits on private property at Foulden Hills. The range of biota was well illustrated with light microscope, SEM (Scanning Electron Microscope) and UV light images of beautiful examples of diatoms, pollen, fungi and algae. On a larger scale were leaves, fruits and flowers, including *Fouldenia staminosa*, the only fossil flower found in New Zealand with pollen in the stamens.
Mary Anne Miller

18 March field trip to Akatore

We visited a remnant of coastal shrub land that covers the hill slope on one side of the Akatore River. These included marsh ribbonwood/*Plagianthus*, *Korthalsella clavata* – a hemi-parasitic mistletoe, *Melicytus flexuosus* – a relative of mahoe that is divaricating and has almost no leaves with the stems being the main photosynthetic organ, narrow-leaved lacebark, *Hoheria angustifolia*, rare nationally but common around Otago and Southland, and *Olearia fragrantissima* – the branches zigzag between leaves and it is deciduous. We also managed to find a third plant of the rare and threatened *Coprosma obconica*.
Harry Livesey

Meeting: 5 April - AGM & mistletoe talk / DVD

Following the AGM we had a mistletoe feast – an authoritative talk by Emeritus Prof. Peter Bannister and an intriguing video. New Zealand mistletoes can be divided into 3 groups; the green, the beech and the dwarf mistletoes. There are two green species; both occur in Dunedin. *Ileostylus micranthus* has yellow berries in autumn and is abundant on native and introduced trees. *Tupeia antarctica* has white berries and scented pollen, possibly to attract flies. Colourful red or orange flowers distinguish the three bird pollinated beech mistletoes. The dwarf *Korthalsella* mistletoes are so tiny and cryptic that even though they often occur at eye level on shrubs it is easy to miss them. Their flower is little more than a naked ovary, the fruits appear to just drop off and the dispersal mechanism is unknown. The dwarf mistletoes all mimic their hosts extremely well. Thassilo Franke and Brant Backlund are two botanical sleuths who covered a lot of country in their one year Natural History Film Making Course which resulted in "Exhuming Adams" (DVD). Their aim was to discover why the Adams mistletoe became extinct some time after Europeans arrived in New Zealand. A fascinating illustration of the need to preserve the pollinator as well as the plant to maintain biodiversity.
Allison Knight

FUTURE EVENTS

- 14 June Dr David Orlovich, Fungi: New Zealand's hidden diversity
24 June Swampy Spur
16 July, Ross Creek-Woodhaugh Garden Track Network
19 July Aalbert Rebergen, Biodiversity Officer with the Otago Regional Council will talk on "The voluntary protection of native biodiversity in general and botanical values in particular, on farms and other privately owned land in Otago".
5 August Lichen trip to Sutton Salt Lake with David Galloway,
30 August Pascale Michel, Insights of South American flora and fauna
16 September Waipori River Valley
27 September Drs Allison and John Knight, Co-evolution on the Galapagos Islands
11 October Hugh Wilson, 5th Geoff Baylis Lecturer, will present: Banks Peninsula's Botany; the past, the present and the future.

More information available on website: <http://www.botany.otago.ac.nz/bsol/>

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OBITUARY

■ Emeritus Professor David Lloyd (1937-2006)

The University of Canterbury is mourning the death of one of its most pre-eminent academics, Emeritus Professor David Lloyd. Professor Lloyd, who had suffered ill health and multiple disabilities since late 1992, died this morning at the age of 68.

UC Vice-Chancellor, Professor Roy Sharp, says Professor Lloyd was one of the finest researchers the University has seen. "That was reflected in 1992 when David became just the seventh resident New Zealander to be elected a Fellow of the Royal Society of London, one of the world's oldest and most prestigious scientific societies. "You just need to look at the citation that accompanied the announcement of his fellowship. It said his exceptional knowledge of the flora of New Zealand had led him to conclusions that transformed the thinking of plant scientists around the world."

The citation's sentiment is reflected in an upcoming book by Professor Spencer Barrett (University of Toronto) and Dr Lawrence Harder (University of Calgary) who describe Professor Lloyd as a pre-eminent plant evolutionary biologist of the modern era. "The extensive body of concepts that Lloyd developed through keen observation, incisive intellect and realistic theory established him as the founder of the theory of plant reproduction and comprise his enduring legacy," they write. "Lloyd pioneered the concept of plant gender and was the foremost authority of the evolution of plant sexual

systems. "Lloyd's scholarly work laid the foundation for much of today's research on the ecology and evolution of flowers, as well as several other fields of evolutionary biology."

David Lloyd began study at the University of Canterbury in 1955 and graduated in 1959 with a BSc Honours degree, with first class honours in botany. He was the first graduate from any New Zealand university to gain first class honours in a BSc Honours degree. He then studied at Harvard University on a Frank Knox Fellowship and graduated with a PhD in biology in 1964. Three years later he was appointed a lecturer at Canterbury University. In 1971 he was promoted to senior lecturer, going on to become a reader in 1975 and professor of plant science in 1986.

David Lloyd grew up in the small South Taranaki town of Manaia. His brother, Trevor Lloyd, says David was tenacious and determined from an early age. "At secondary school in New Plymouth where he was a boarder David was an outstanding athlete and rugby football player despite having a less than average-sized physique. David played on the wing where he could best use his speed. "In athletics he excelled in the 100 and 220 yard sprints and the long jump. This was just another expression of his determination and tenacity."

David's twin brother Peter, an emeritus professor of economics at Melbourne University, remembers his brother's thirst for knowledge. "As we grew up together, he had a great curiosity about the world around him. He developed a deep interest in the plant world and wanted to add to our knowledge of it, always seeking to develop theories to interpret his observations."

Professor Lloyd is survived by his wife Linda Newstrom-Lloyd and his three adult children - Steven, Nicola and Paul.

From press release (abbreviated) by: Communications and Development, University of Canterbury, 30 May 2006.

EVENTS

Chatham Islands Botanical Tour

15–22 November 2006 (depart/return Wellington)

An opportunity for travellers interested in plants to enjoy an informative week on the remote Chatham Islands. This is the inaugural botanical version of the high standard tours run by Hotel Chatham.

The tour leader is Peter Johnson, Dunedin botanist and plant ecologist; author of books on New Zealand plants, wildflowers, and wetlands; and a regular visitor to the Chathams as a member of the Chatham Islands Conservation Board

Itinerary includes coastal sites, dune country, wetlands, the huge Te Whanga Lagoon, vegetation both windswept and sheltered in forest, heathland, and bog. Many endemic, colourful, and interesting plants. Stimulating discussions balanced with ample free time. Plenty of outdoor exercise plus fine food and admirable accommodation. Package price (per person) \$2655 (share twin), \$2555 (single).

For full brochure or further information contact Peter Johnson, (03) 478 0376. pnjay@actrix.co.nz or Seymour Tours 0800 273 366.

NOTES AND REPORTS

Notes

■ In Preparation for a Revised Flora of New Zealand Vol 1 - Four puzzles in NZ Botany that need attention

(1) As an older, retired botanist more interested in horticulture and ecology than in name-changes, I see *Leptospermum scoparium* (manuka) and *Kunzea ericoides* (kanuka) as closely related species in one genus. Surely a genus, to be useful, must be based on a readily visible and obvious feature, not one requiring a hand lens or microscope or DNA technology. I would appreciate a simple illustrated statement showing the clear generic differences between *Leptospermum* and *Kunzea*, and also showing the range of Australian *Kunzea* species, many of which are choice and rare species of fluffy-flowered small woody shrubs. *K.pulchella* has flowers similar to *Metrosideros* with long red stamens and greatly reduced petals, *K.capitata* has round "bottlebrush" heads of long mauve-pink stamens and greatly reduced petals, and the charming *K. ericalyx* of Mount Buffalo (Victoria) has little starry bright yellow flowers with conspicuous petals. New Zealand kanuka, as we know, varies a good deal in leaf size and aroma in different areas, but is always recognized as distinct from manuka by the tiny capsules which shed their seed as soon as they are ripe, small white flowers and soft fragrant leaves, which make wonderful tea. It forms a large tree. I am relieved to learn that the genus *Kunzea* is being revised both in Australia and New Zealand, and hope that something understandable will result.

(2) *Dodonea viscosa* of Norfolk Island is distinct from that of New Zealand. The leaves of the Norfolk Island form are larger, and the winged seeds are larger and more colourful than in our New Zealand *D. viscosa*. The showy hop-like capsules in the Norfolk form may be deep crimson, rosy red, or green and pink. We saw only green leaves. This Norfolk Island form is described by P.S.Green¹ as *Dodonea viscosa* subspecies *viscosa* in *Flora of Australia* 1994 vol 49, p 244. It was originally described by Jaquin in 1760 in *Enum.syst.Pl. carib.* according to H.H. Allan 1961. The provenance of Jaquin's type specimen seems to be Caribbean, and the Type specimen is in Jamaica, in Herbarium Sloane v. 97. According to Green there are 58 species of *Dodonea*, of which 51 are Australian. He records the species as "an extremely variable species with a world-wide tropical and sub-tropical distribution."

And where does New Zealand's less showy, temperate *Dodonea viscosa* fit in? Its showier form has purple leaves and pink "hops", but the commoner form is green, with pale green hops. This question cannot be answered without study of the 51 species in Australia.

(3) We have at least three distinct species of *Linum* under the name of *Linum monogynum*. The first from Wellington Coast, Pukerua Bay, and Tarakohe (Golden Bay) is a biennial plant with tall (50 – 70 cm) stems and relatively sparse narrow oblong leaves 2-3 cm long, 2-4 mm wide.. The second, a perennial from Wharariki Beach, Northwest Nelson, has short stems 6 – 20cm long, densely covered in narrow-linear leaves up to 1cm long, 2 mm wide. The flowers are similar in both of these, beautiful glossy-white, typical linum shape, 2 -3 cm diam. The third is from Chatham Islands, rounded shrubby in form, less than 1 metre in height and breadth, with finger-thick fleshy pale-tan branching stems, and larger leaves than either of the others. The leaves are 2 - 4 cm long and 7 – 10 mm wide, elliptic-lanceolate. Perhaps it is a short-lived perennial. My specimen died without flowering about 3 years old. I got it from Robin Smith at Percy's Reserve, at 2 years old. I have not seen the flowers.

Is anyone working on the taxonomy of indigenous *Linum* in New Zealand? It would make a good thesis study.

(4) *Brachyglottis compacta* and *B. monroi* are not conspecific, as published by Smith-Dodsworth (1991), even though both have similar-sized leaves with strongly undulate margins.

¹ Peter S. Green worked in the herbarium at Kew, specialising in the floras of Norfolk and Lord Howe Islands, which he visited in 1961, 1972 and 1985. He wrote volume 49 during the three years following his retirement in 1984. He is obviously an able and diligent botanist and volume 49 is a joy to me, beautifully illustrated with both colour photographs and good line drawings.

Brachyglottis compacta is from Castlepoint limestone on the Wairarapa coast. It has dense white woolly tomentum on the backs of the leaves and is derived from *B. greyii* from greywacke rocks on Cook Strait coast and the southern Wairarapa ranges. *B. greyii* has the same tomentum on larger flatter leaves. *B. compacta* is clearly a product of isolation and the crumbly yellow limestone of Castlepoint, where it is endemic.

B. laxiflorus, found on the Pikikiruna range (Takaka Hill) and Mt Owen (between Murchison and Mt Arthur) is a third close relative derived from *B. greyii*. *B. laxiflorus* has flat leaves, with the same woolly white tomentum as its relatives, and appears to be the product of isolation in marble derived from very hard grey-white limestone, whose fossils can be seen in the west face of the Takaka Hill below the road, and also in protective stonework at Pohara Beach. None of these three have any viscosity in the shoot tips.

Brachyglottis monroi is distinct from all the above, and is found in the volcanic-conglomerate mountains of Marlborough and Northwest Nelson, and has cream-satiny indumentum. The young leaves and branches are rather viscid. The leaves are darker green than *B. compacta*. The superficial resemblance of leaf size and shape and undulate margins does not signify close relationship, but rather convergence. I have both species growing in my garden, and I know their provenance. They are also cultivated together at Nga Manu reserve at Waikanae and at Otari Native Plant Museum, Wellington. They are distinct species.

Judith Petterson, 24 Eruini St, Waikanae

■ Reply to Peter J. de Lange's "A comment on *Wahlenbergia littoricola* subsp. *vernica*" (NZ Botanical Society Newsletter 83, p 12)

Who are "the masses"? I wrote my article for the Wellington Botanical Society which is full of keen field botanists and growers of native plants. Most of us study plants in the wild for love and interest, and the research done by many members who are termed "field botanists" is unsurpassed. William Colenso, T.F. Cheeseman, L.C. Cockayne, B.C. Aston, R.M. Laing, Donald Petrie, F.G. Gibbs, H. Carse, George Simpson and Scott-Thompson, Walter Brockie, N.L. Elder, Norman Potts, and Tony Druce were all amateurs, but look what they accomplished and how many people they inspired. I learned Botany and scientific method from Prof H.D. Gordon, Dr H.H. Allan, Dr Lucy Moore, Dr. Ruth Mason, and field identification skills from W.B. Brockie and Tony Druce, in the days when chromosome counts were the ultimate in solving problems. We all spoke the same language in those days.

If younger botanists can re-sort a difficult group like *Wahlenbergia* using DNA, that's great. But I hope Peter de Lange and Ewen Cameron can visit Lord Howe Island and just recognise *W. vernica* there. I have written many times to key people on Lord Howe Island, asking for seeds and specimens of *Wahlenbergia insulae-howei*, but have never received a reply of any kind. Perhaps a professional botanist would earn better results.

There are good tall branching radicate specimens of *W. insulae-howei* looking very like *W. vernica*, in WELT. When I saw them, they were stored in a large leather-bound book of mounted specimens, collected by J.D. McComish (a sea captain) in November 1936; they are now numbered WELT 74105 and 74106. But of course, seeing living specimens is far better than these old dead brown specimens. Peter de Lange has a good eye for live *Wahlenbergia*, and he told me verbally that he had recognised *W. vernica* in Tasmania, as well as in Anson Bay, Norfolk Island. I have not seen his specimens but I trust him. How much I regret I did not go down to Anson Bay while I was there. Please excuse me sticking to my preferred name *W. vernica*. I understand it. It has twisted calyx lobes in the dried specimens.

If I have put in print that it is a New Zealand endemic, then that was a mistake. I cannot find that word "endemic" applied to *W. vernica* in any of my papers. But in searching through my latest paper, The Wellington Botanical Society Bulletin 49, in which I thought had eliminated all mistakes, I have found two. On p.26, the coloured set, they are not clockwise, but from left in both rows. *W. akaroa* is the

biggest flower. *W. violacea* is the deep blue flower. And in the chart on page 21, Country of Origin for *vernicaosa* should be northern North Island, NNI, not NSW.

I am sorry I did not know Peter and Ewen had published further papers, establishing *W. littorcola* subsp.*vernicaosa*. That's a good compromise.

Judith Petterson, 24 Eruini St, Waikanae

Research Report

■ First record of silver beech (*Nothofagus menziesii*) on Maungatautari, central Waikato

Phil Brown, 213 Alexander St, Te Awamutu; Bruce Burns, Landcare Research, Private Bag 3127, Hamilton; Bruce Clarkson, University of Waikato, Private Bag 3105, Hamilton; Jillana Robertson, Maungatautari Ecological Island Trust, P.O. Box 476, Cambridge.

Silver beech (*Nothofagus menziesii*) has long been considered confined to the eastern side of the Waikato region and absent from the isolated volcanic cones of the Waikato (Clayton-Greene 1978; Wardle 1984, Clarkson 2002). However, while exploring the high points of Maungatautari in 2005, one of us (PB) came across a stand of silver beech (Fig. 1) on a rocky ridge (map ref. NZMS 260 T15 371491). On March 31st 2006, we revisited this site to confirm this discovery, to describe the silver beech population, and to search for any additional species not recorded before at Maungatautari that might be associated with the silver beech.



Figure 1: *Nothofagus menziesii* on Maungatautari

The stand occurs on a short (~ 60 m long, 5-10 m wide) exposed ridge surrounded by cliffs on three sides situated on the eastern side of Maungatautari at around 680 m altitude. The stand is on thin soils and is festooned with mosses, lichens and epiphytes, suggesting the ridge is often shrouded in

mist and rain. Abundant goat droppings on the ridge show that it is currently used as a goat camp site (though this should cease in a few months when pest eradication for the Maungatautari Ecological Island project is carried out). Associated with the silver beech was abundant tawari (*Ixerba brexioides*) with less common mingimingi (*Leucopogon fasciculatus*), tawheowheo (*Quintinia serrata*), Hall's totara (*Podocarpus hallii*), kamahi (*Weinmannia racemosa*), broadleaf (*Griselinia littoralis*), and karamu (*Coprosma lucida*). The groundcover, where not eliminated by goat trampling, was dominated by bryophyte mats, *Libertia micrantha*, kidney fern (*Trichomanes reniforme*), bush rice grass (*Microlaena avenacea*), with occasional clumps of *Gahnia pauciflora* and *Sticherus cunninghamii*. The trees carried abundant and diverse epiphyte loads including many bryophytes, *Astelia trinervia*, *A. solandri*, *Collospermum microspermum*, *Hymenophyllum multifidum*, *H. sanguinolentum*, *Huperzia varia*, *Earina autumnalis*, *E. mucronata*, and *Winika cunninghamii*.

None of the species that might be expected with silver beech, such as toatoa (*Phyllocladus toatoa*) or mistletoe (*Peraxilla* spp.), were found nor any of the other montane species listed as missing from Maungatautari, for example, *Dracophyllum traversii* (Clarkson 1980, 2002)

The stand has approximately 100 silver beech trees and about the same number of seedlings. We measured the basal diameter of as many silver beech trees as we could reach (without falling off the cliffs!). The two largest trees are around 86 cm in diameter and are probably several centuries in age, given the extremely slow growth rate probable in this location. A size-class frequency distribution of the stand (Fig. 2) suggests a population that is regenerating continuously (assuming size reflects age), with many small individuals and a few large.

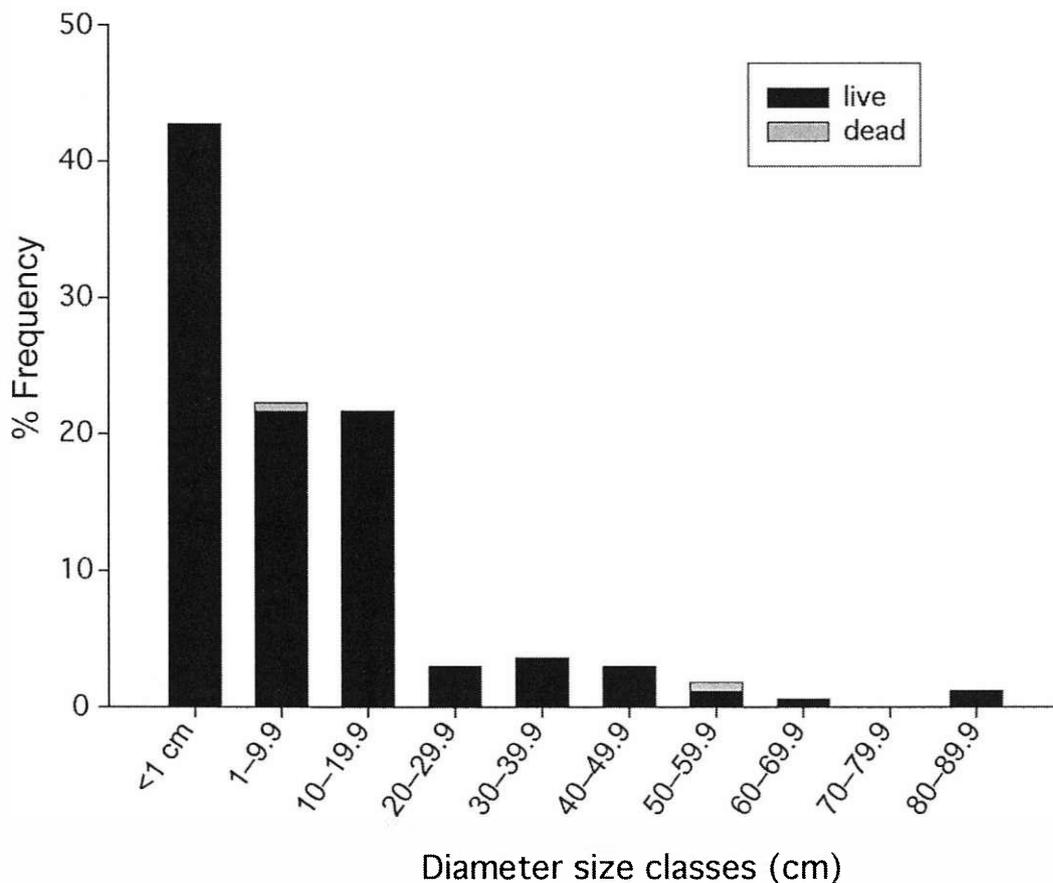


Figure 2: Size class frequency distribution of a *Nothofagus menziesii* stand on Maungatautari.

Silver beech has never before been recorded on Maungatautari and this stand represents the second-most northerly stand of silver beech known. The most northerly is on Mt Te Aroha (Wardle 1984). Silver beech used to be a common species in the Waikato lowlands at the height of the last glaciation (Newnham et al. 1989). Therefore, this stand is either a relict from the last ice-age, having persisted on Maungatautari for the last 12,000 years, or the result of a chance dispersal to this suitable site from other populations such as those near the Mangapapa River on the Mamaku Plateau (approximately 40 km east) or near Mt Te Aroha (approximately 60 km northeast). The poor dispersal ability of beech is well known (Ogden et al. 1996), so the former explanation seems more likely.

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The following reports from Landcare staff have also been posted on the NZ Plant Conservation Network site.

■ **Aciphylla research at the Allan Herbarium, Landcare Research, Lincoln: a progress report, 25 March 2006**

David Glenny, Allan Herbarium, Landcare Research, P O Box 69, Lincoln

Aciphylla (Apiaceae) is a genus with ca. 47 species listed by Allan (1963) but actually has fewer species than this, perhaps ca. 27 species should be recognised. It is found mainly in New Zealand but has two species in Australia. The last taxonomic revision was by Oliver (1956) and is the basis for Allan's flora treatment of the genus.

Reasons for revising the genus

Aciphylla is an example of a recent species radiation, and as with other such radiations, taxonomically difficult mainly because of geographical variation. Oliver's revision is inadequate in one main respect: while Oliver described a number of common species (e.g. *Aciphylla aurea*) the revision failed to take account of geographic variation. Everything was described as a species, whereas in fact a number of widespread species show a lot of variation and are neither sympatric nor separated by any geographical barriers.

John Dawson started to revise the genus in the 1970s, publishing an overview of the genus (Dawson and Lecomte 1978), and a revision of the small pinnate species that include *Aciphylla monroii* (Dawson 1979). John Dawson, now retired and working on other projects, was happy to hand further revision of the genus to me.

The revision now in preparation

My revision of the genus will be based almost entirely on morphology, but used the results of a DNA-based phylogeny presented by Radcliffe et al. (2001).

I started making collections for the revision in 1998. Progress so far has been:

- New, more adequate collections made, as *Aciphylla* was not a well-collected group and specimens were often incomplete.
- Data from these fresh specimens has been compiled for analysis and incorporated into descriptions. At least vegetative descriptions for most species are completed.
- Two keys, to fresh and dried material, are done.
- Nearly all types have been examined and the synonymy done, completion pending resolving species complexes.
- Statistical analysis is done of the *Aciphylla aurea* and *Aciphylla monroi* species complexes.

What remains to be done is analysis of the various species complexes to decide on how best to deal with geographic variation in these. The species complexes that need this kind of analysis are:

- *Aciphylla ferox* – *aurea*;
- *Aciphylla colensoi* – *scott-thomsonii*;
- *Aciphylla hectorii* – *kirkii* – *poppelwellii*;
- *Aciphylla lyallii* – *montana* – *monroi* – *gracilis* – *similis* – *lecomtei*;
- *Aciphylla multisecta* – *divisa* – *polita* – *dissecta*;
- *Aciphylla squarrosa* in the wide sense (including *A. glaucescens*).

Other species don't need this kind of analysis, only adequate keys and descriptions and up to date distribution and habitat information.

My time on this revision will be quite limited for the next 5 years as I'm involved in coauthoring a New Zealand liverwort flora with John Engel of Field Museum, Chicago, which is being done to a very tight schedule. I intend to publish first a revision of the *Aciphylla aurea* group of species and of the *Aciphylla monroi* – *multisecta* group of species, probably as two papers. For these two groups, what remains to do is preparation of figures from the statistical analyses already done, and illustrations showing variation in leaf morphology.

Should you have specimens or require further information I can be contacted at Allan Herbarium, Landcare Research, Lincoln, P.O. Box 69, ph 03 3256700, email: [David Glenny glennyd@landcareresearch.co.nz](mailto:David_Glenny_glennyd@landcareresearch.co.nz).

References

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■ **Craspedia research at the Allan Herbarium, Landcare Research, Lincoln: progress report 21 March 2006**

Ilse Breitwieser, Allan Herbarium, Landcare Research, P O Box 69, Lincoln

Craspedia (Asteraceae: Gnaphalieae) is a genus of 23 species found only in Australia and New Zealand. Its species have confusing and continuous character variation and indistinct boundaries, which makes their relationships difficult to elucidate.

The New Zealand species of *Craspedia* have long been regarded as one of New Zealand's most difficult and important taxonomic group of higher plants. I started to revise the genus in 1996, but soon realised that with my increasing leadership role at Landcare Research, it would be almost impossible to undertake this revision. A revision of *Craspedia* requires full time research of about 6 years. Staff at the Allan Herbarium agreed that I would work on *Craspedia* as a very long term research project.

So, what have we achieved so far?

First of all, I wanted to test whether *Craspedia* in New Zealand is monophyletic. Phylogenetic analyses of ITS, ETS and *psbA-trnH* non-coding spacers showed that New Zealand *Craspedia* is derived from a single dispersal event over the Tasman Sea from south-east Australia (Breitwieser et al. 1999; Ford et al., in prep). Therefore we can exclude conspecificity with Australian species and can delimit the revision of *Craspedia* to the New Zealand species.

We (Kerry Ford, Jo Ward, Rob Smissen, Steve Wagstaff and Ilse Breitwieser) have now almost completed our manuscript that is based on Kerry Ford's MSc thesis on "Origin and Biogeography of New Zealand *Craspedia* (Compositae: Gnaphalieae)".

Rob Smissen, Kerry Ford and I are currently using molecular methods to gain more insight into what is a species in *Craspedia*. We are looking at uniform entities, such as an unnamed *Craspedia* believed endemic to Kaitorete Spit in Canterbury, also at areas where different looking entities occur sympatrically (e.g., three sympatric entities at Mt Arthur, Kahurangi National Park) and finally at areas where there appears to be obvious hybridisation between several entities (e.g., between Island Saddle and No Man's Creek in Marlborough).

For the revision, many helpers and I collected specimens of all of Tony Druce's tag name entities and of the described taxa. We are growing about 300 plants in one of Landcare Research's glasshouses under uniform conditions. I have measured them for a wide range of characters (e.g., corolla colour, pollen colour, anther tube colour, corolla length, floret number of capitulum, floret number of glomerule, glomerule diameter and shape, scape length / width, scape colour, several rosette leaf characters, several characters of leaf hairs, fruit set). Kerry Ford has measured and scored fruits from all of Tony Druce's tag name entities and has undertaken a preliminary analysis. Numerous helpers, particularly Department of Conservation staff and keen amateurs, are sending us specimens. Over the years we have collected many specimens and scored their characters. I have also started measuring leaf characters from other herbarium specimens. All herbarium specimens are databased. A lot of time will still be needed to score herbarium specimens and to analyse data.

So, what are the more short term plans?

- 1) Submit manuscript on origin and biogeography of *Craspedia*.
- 2) Write a manuscript on first results from the genetic research.
- 3) Write a manuscript on the fruit data.

I would like to thank all those who have contributed specimens to the *Craspedia* study. Each specimen is very valuable and will be included in the research. I hope to continue to provide updates on the revision as and when new results arise.

Should you have specimens or require further information we would be interested to know and can be contacted at Allan Herbarium, Landcare Research, Lincoln, P.O. Box 69, ph 03 3256700, email:ilse.breitwieser@landcareresearch.co.nz or Kerry Ford fordk@landcareresearch.co.nz.

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■ Progress report on *Helichrysum lanceolatum* 26 March 2006

Helichrysum lanceolatum (Asteraceae) is an endemic shrubby daisy species widespread in New Zealand. It is often found at disturbed sites such as road cuttings, track margins, and river banks. Allan recognised three varieties in his New Zealand Flora Vol. I treatment, a widespread form with small leaves and unbranched inflorescences, and two large leaved forms with branched inflorescences from Northland and offshore islands, but Webb treated all as a single entity for Flora v. IV. The late Tony (A.P.) Druce thought that plants from Paerutu (Surville Cliffs) were potentially

distinct on account of their trailing habit and he also highlighted a particularly large round leaved form from Hick's Bay as distinctive.

It has been clear for some time that *H. lanceolatum* is misplaced, under current concepts, in the genus *Helichrysum*, but unclear whether the species can be accommodated in an existing New Zealand genus, or should be treated as a new monotypic genus. The species was originally named as *Swammerdamia glomerata* Raoul, but this name is not appropriate, as the type species of *Swammerdamia* is an Australian species long treated as part of *Ozothamnus* and not closely related to *H. lanceolatum*.

We have used molecular data to test whether distinctive populations of *H. lanceolatum* fit expectations of distinct species or subspecies or whether they represent extreme ends of a single, albeit variable, entity. Peter de Lange and Cathy Jones contributed samples to our study and other DOC staff helped with collection permits and liaison with Tangata Whenua, for which we are grateful. AFLP data for 45 samples covering a good part of the North and South Islands are consistent with a broad concept of *H. lanceolatum*, with a major part of genetic variation explainable by increasing genetic isolation between populations as a result of geographic distance (in other words, a cline). This work has been written up and submitted to New Zealand Journal of Botany. We will not be recognising any formal sub-specific taxa.

At the generic level, *H. lanceolatum* is linked by some molecular data to another taxonomically problematic New Zealand endemic, *Ewartia sinclairii*. Before we apply a new genus name to *H. lanceolatum*, we need to further explore the nature of its link to *E. sinclairii* and see if they can be accommodated in a single genus. We hope to have this issue resolved within a year.

Should you require further information we would be interested to know and I can be contacted at Allan Herbarium, Landcare Research, Lincoln, P.O. Box 69, ph 03 3256700, email: Rob.Smissen@landcareresearch.co.nz. Work on *H. lanceolatum* was undertaken with funding as part of a FRST funded postdoctoral fellowship.

BIOGRAPHY/BIBLIOGRAPHY

Biographical Notes (62) : Rev. Richard Davis 1790–1863; John Edward Davis 1815–1877; and Christopher Pearson Davies c. 1812–1861

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

These three men did not contribute greatly to the early botanical exploration of New Zealand although they represent the two professions which played such a prominent part therein. Richard Davis and Christopher Pearson Davies were members of the Church Missionary Society, the first giving hospitality to Charles Darwin and the second sending seaweeds to Kew, while John Edward Davis was a British naval officer who became a valued friend of Joseph Dalton Hooker during Ross's Antarctic voyage of 1839–1843. They are differentiated below in more detail because of their confusable names.

1. Rev. Richard Davis 1790–1863

Richard Davis was born at Piddletrenthide, Dorset, England, on 18 January 1790 and grew up helping his father, a tenant farmer. On 11 February, 1812 he married Mary Crocker and they were to have nine children. Richard became an overseer of the poor and a teacher in a Dorset parish before being selected by the Church Missionary Society for service in New Zealand as a "pious agriculturist". The family of 8 left on 22 November and arrived at the Bay of Islands on 15 August 1824, after spending time with Samuel Marsden at Parramatta, near Sydney. Richard first worked as a gardener at Paihia. Then in 1831, he moved to Waimate North, some 20 km inland, to a site that he had earlier chosen for a mission farm. Here he was both gardener and catechist (1,2).

On 16 December 1833, the Davis's eldest daughter, Mary Ann, married Joseph Matthews, the CMS missionary at Kaitaia; and on 7 July 1835, Richard and Mary Davis became the maternal grandparents of Richard Henry Matthews, our second New Zealand-born botanist [NZBS Newsletter

42:17-19]. The Davis's second daughter, Matilda, married W.G. Puckey, also of the Kaitaia mission station (3).

In 1835 Richard met Charles Darwin (aet. 26) naturalist and geologist on board *HMS Beagle* (Capt. Robert Fitzroy) which visited the Bay of Islands from 21 to 30 December. She was *en route* from Tahiti to Sydney during her voyage around the world (1831–36). But Davis must have been disappointed to be erroneously called “Davies” in Darwin’s excellent account of their meeting (4).

On 23 December 1835, acting on an invitation from the Rev. William Williams, Darwin set out to visit the CMS Station at Waimate North. The British Resident, James Busby, took him part of the way in his boat, and he then continued on foot with two Maori guides “along a well-beaten path, bordered on each side by the tall fern which covers the whole country” (4). “At length [wrote Darwin] we reached Waimate. After having passed over so many miles of uninhabited useless country, the sudden appearance of an English farmhouse and its well-dressed fields, placed there as if by an enchanter’s wand, was exceedingly pleasant. Mr Williams not being at home, I received in Mr Davies’s [sic] house a cordial welcome. After drinking tea with his family party, we took a stroll about the farm.” (4)

Davis showed Darwin the houses of the other two missionaries (William Williams and George Clarke) and the huts of the Maori labourers, as well as crops of barley and wheat in full ear, and fields of potatoes and clover. There were large gardens in which Darwin saw such domesticates as asparagus, kidney beans, cucumbers, rhubarb, apples, pears, figs, peaches, apricots, grapes, olives, gooseberries, currants, hops, gorse for fences, and English oaks; also many kinds of flowers. And there was more to admire at the farmyard with its pigs and poultry, stables, threshing barn with its winnowing machine, a blacksmith’s forge, and a nearby flourmill.

Late in the evening Darwin went to Williams’s house and spent the night there. Next morning (24 December) he rambled about the gardens and farm and then, a little before noon, he was taken by Williams and Davis to see “the famous Kauri pine”. Then, after dining with Williams, he returned to the Bay of Islands on a borrowed horse (4).

On 1 February 1837, Mary Davis died and on 18 September 1838, Richard married Mrs Anne Iselton. He was Secretary of the Northern District of the CMS, became deacon and vicar of Kaikohe on 11 June, 1843, and was ordained priest in July, 1852. After the death of his second wife in April 1854, he married Jane King in September 1855. He died on 28 May 1863 (1,2).

2. John Edward Davis 1815–1877

J.E. Davis joined the Royal Navy in 1828 at age 13 as a second-class volunteer, and during 1828–30 served under Lieut. Robert Fitzroy during the *Beagle*’s first South American survey. This survey was begun in December 1826 by *HMS Adventure* (Cdr Phillip Parker King) and *HMS Beagle* (Cdr Pringle Stokes), but in August 1828 Cdr Stokes committed suicide. He was replaced at Montevideo in October by Fitzroy, who was transferred from *HMS Ganges*, Sir Robert Otway’s flagship on the South American station. Davis could have joined the *Beagle* at the same time (5,6,7,8).

The *Adventure* and the *Beagle* continued their coastal survey until August, 1830, with the *Beagle* working in the Straits of Magellan (when she discovered Skyring and Otway Waters) and on the southern coast of Tierra del Fuego (when the Beagle Channel was discovered). Davis was, of course, too junior to be mentioned in King’s narrative of the survey, but it must have been on these treacherous coasts that he served his apprenticeship as a surveyor (7,8).

Fitzroy went on to command the *Beagle* during its second tour of duty (1831–36) with Charles Darwin aboard. But I know nothing of Davis’s career in the 1830s until he left on Ross’s Antarctic expedition on 30 September, 1839, as Second Master on *HMS Terror* (Cdr F.R.M. Crozier). The two Assistant Surgeons were David Lyall on *HMS Terror* and Joseph Dalton Hooker on *HMS Erebus* (Capt. J.C. Ross), both of whom were responsible for collecting plants. Davis’s duties went beyond those involved in the everyday running of the ship as shown by the following acknowledgments in Sir James Clark Ross’s narrative (9).

1. "The drawings and vignettes contained in these volumes were principally furnished by Mr. Davis." (p. xlvii)
2. "I am also indebted to Mr Davis of the *Terror* by whom the plans and charts contained in these volumes were drawn from my original documents." (p. xlviii)
3. "Mr Tucker and Mr Davis surveyed several of its harbours." (p. 93). [White's Bay, Kerguelen]
4. "Assisted by Mr Tucker and Mr Davis, I obtained the annexed survey of the harbour." (p. 156) [Perseverance Hbr, Campbell I.]

Charles T. Tucker was Master on the *Erebus* and is commemorated in Tucker Cove at Campbell Island.

Joseph Hooker wrote to his aunt, Mary Turner: "There is now but one tolerable artist in the Expedition, Mr Davis of the *Terror*. [Joseph] Dayman, who was the best, is left behind in Van Diemen's Land." (10); and in the preface to his *Flora Antarctica* (1844) wrote: "but the botanist feels it peculiarly imperative on him here to enumerate and return his special thanks [for collecting] to Mr Lyall, Lieutenant Smith [*HMS Erebus*], and Mr Davis." Seaweed collecting is probably referred to in Davis's case, although I can find no locality citations for Davis under seaweeds (or anywhere else) in Hooker's Floras, even in the species dedicated to him (see below).

From 1844 to 1859 Davis assisted in the survey of the west coast of Ireland (5); and in 1862 he became surveyor to the North Atlantic Telegraph Expedition. He then became Naval Assistant to the Hydrographer before retiring as Staff-Captain in 1870. He wrote *Azimuth Tables* with his son, invented an improved sextant, and was a Fellow of the Royal Geographical Society (11).

Eponymy

1845	<i>Delesseria davisii</i> J.D. Hooker & W.H. Harvey. <i>Hooker's London Journal of Botany</i> 4: 252. "Hab. St Martin's Cove, Cape Horn." [The expedition was at St Martin's Cove from September 20 to November 7, 1842 (8). This species was later discovered in New Zealand.]
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3. Christopher Pearson Davies c. 1812–1861

Davies's early life is not known in any detail. Thought to have been born in Cork c. 1812, he trained in medicine, emigrated to the Bay of Islands with his brother (date unknown), and began practice in Kororareka. In 1842 he joined the CMS as a catechist, and on 19 February 1843 he married Mary Ann Williams, moving to the Te Waimate Mission Station in that year. Ordained deacon by Selwyn on 22 September 1844, he was sent to Tauranga in 1845 to assist the Rev. A.N. Brown, and taught in the infant school. In April, 1852 he moved to Opotiki, but withdrew in 1856 due to ill health. After resigning from the CMS in 1859, he practiced medicine in Paihia, where he died on 3 March, 1861 (2).

In the second volume of J.D. Hooker's *Flora Novae-Zelandiae* (Flowerless Plants, 1855) there are records of seaweeds collected by Davies at Tauranga in the following genera: *Callithamnion*, *Champia*, *Codium*, *Ectocarpus*, *Gracilaria*, *Nemastoma*, *Nitophyllum*, and *Polysiphonia*. The record for *Nitophyllum denticulatum* is "Blind Bay, Cook's Strait and East Coast Lyall, Maketu Chapman, Tauranga Davies", but this is wrongly repeated in Hooker's *Handbook of the New Zealand Flora* (1867) as: "Maketu Chapman, Blind Bay Davies, Cook's Strait and East Coast Lyall." Blind (Tasman) Bay, on which Nelson stands, is far outside Davies's territory.

Christopher Pearson Davies thus joins Thomas Chapman (12) and William Colenso as a pioneer collector of seaweeds in the Bay of Plenty.

Eponymy

1855	<i>Nemastoma daviesii</i> . W.H. Harvey in Harvey, W.H. <i>Algae, Flora Novae-Zelandiae</i> 2: 255. "Tauranga Davies, Port Underwood Lyall."
1855	<i>Cladophora daviesii</i> . W.H. Harvey <i>ibid.</i> 263. "Tauranga Colenso."

Acknowledgments

I am very grateful to Dr Murray Parsons (Christchurch) for help with J.E. Davis; also to Ms Tanja Webster (Research Librarian, Landcare Research, Lincoln) for help with references; and to Mrs Wendy Weller (Landcare Research, Lincoln) for her typing.

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PUBLICATIONS

Journals Received

New Zealand Native Orchid Group Journal No. 98 – Feb 06; 43 pp

Edited by Ian St George [ISSN 1170-4543]

Original papers in this issue are: Mark Moorhouse – Observations on the Nelson *Corybas* alliance; Graeme Jane – *Caledennia alata* at Rainbow Mountain – dispelling a myth; Bruce Irwin - Lucy Moore – NZ botanical artist; Graeme Jane – Plant names.

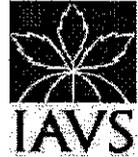
New Zealand Native Orchid Group Journal No. 99 – May 06; 23

Edited by Ian St George [ISSN 1170-4543]



International Association for Vegetation Science

49th Annual Conference, 12-16 February 2007
Massey University, Palmerston North



The IAVS is meeting in New Zealand in 2007. The Association has a roving programme of meetings, but this is the first occasion it has visited New Zealand. So this is a great chance for kiwis to meet and interact with many well-known overseas vegetation scientists and botanists.

The theme of the conference is: "New Zealand: New home; new habitat! new ideas?", which allows participants to explore the contribution of New Zealand to international vegetation science. New Zealand is interesting for so many scientists because of our geographic isolation, our high level of endemism, and our relatively recent history of settlement.

There is a week-long field trip travelling overland from Auckland to Palmerston North before the conference, and a two week South Island field trip after the conference. The format of the conference is two days of papers, a mid-conference day-long excursion, and two more days of papers. Symposia offered to date include:

- New Zealand forest dynamics - doing it our way? (Organiser: Glenn Stewart);
- The most invadable place on Earth? (Organisers: Peter Bellingham and Peter Williams);
- Evolved to be eaten? (Organiser: Alastair Robertson);
- Bioinformatics - Temporal and spatial syntheses of vegetation data (Organiser: Susan Wiser);
- Drivers of global change (Organiser: Martin Sykes);
- PABITRA - The Pacific angle (Organisers: Gunnar Keppel and Dieter Mueller-Dombois);
- Symecology - The role of symbioses in vegetation (Organiser: Helga Bültmann);
- Urban vegetation, or a load of plants? (Organiser: Ken Thompson);
- General sessions.

There are spaces in the programme for one or two symposia on special topics. If anyone wishes to offer a topic which either enhances the themes of the conference or develops an exciting topic, then please contact G.Rapson@massey.ac.nz as soon as possible with your ideas.

A detailed website is available (<http://iavs2007.massey.ac.nz>), with the third circular due out by the end of June. That circular will include a call for Abstracts, and a secure on-line registration form. If you wish to receive notice of this circular, please email R.A.vanEssen@massey.ac.nz

Sponsorship for students

Landcare Research has kindly offered sponsorship for the 49th IAVS, which is being directed to assisting New Zealand students with the costs of attending the conference. Sponsorship will take the form of a grant of \$250 for the first 20 students to enrol in the conference, the sum to be made available at the conference registration desk, with the intention that it be used to fund accommodation. Students wishing to apply for this sponsorship need to register for the conference, and then send a letter to Jill Rapson, briefly (100 words) outlining their application, and containing their supervisor's signature attesting that they are indeed research students.

Invitation to assist

IAVS field trip participants very much enjoy interacting with local botanists and ecologists on their home turf. If you are interested in meeting up with any of the excursions for a day or so, then please contact Jill at G.Rapson@massey.ac.nz and she will keep you updated on plans.

Jill Rapson, Ecology, INR, Massey University, Palmerston North.

