NEW ZEALAND BOTANICAL SOCIETY **NEWSER 71** MARCH 2003



New Zealand Botanical Society

President:	Anthony Wright
Secretary/Treasurer:	Doug Rogan
Committee:	Bruce Clarkson, Colin Webb, Carol West
Address:	c/- Canterbury Museum

Rolleston Avenue CHRISTCHURCH 8001

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 June 2003 issue (72) is 25 May 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 muscoides Hook.f.

Compact cushions, 1.5 - 5.0 cm tall, branches erect stemmed and many branched, closely packed together. The leaves are closely imbricating and $1 - 3 \times (0.3)$ 0.6 - 0.8 mm, widening suddenly into a broad sheath (1.5 - 3.0 mm). The flowers are solitary and situated at the apices of the stems. The sepals are (2.5-) 3.5 - 4.5 mm long and the corolla tube 2.0 - 2.5 mm.

Occurs in higher montane to high alpine herbfield and cushion vegetation, southern South Island.

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.

NEW ZEALAND BOTANICAL SOCIETY NEWSLETTER NEWSLETTER

NUMBER 71

MARCH 2003

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NEWS

New Zealand Botanical Society News

From the Secretary

(Late) Call for nominations

Due to an oversight, nominations for President, Secretary/Treasurer, and 3 committee members were not called for in September last year. My apologies for this. To rectify this situation, nominations are now called for the following positions of Officers and Committee of the New Zealand Botanical Society for 2003:

- President
- Secretary/Treasurer
- 3 Committee Members

Nominations for all positions opened 1 September 2002 and now close on 30 April 2003. Nominations shall be made in writing to the Secretary, C/- Canterbury Museum, Rolleston Avenue, Christchurch 8001, and shall be signed by the Proposer, the Seconder, and by the Nominee to indicate their acceptance of nomination. If necessary, ballot papers for a postal election will be circulated in May. The results announced in your June *Newsletter*.

Increase in charges for Royal Society journals

The following is the reply to the letter (reproduced in Newsletter 70) sent by the President of our society, Anthony Wright, on behalf of the many members concerned with the recent increases.

16 December 2002 Mr Anthony Wright MRSNZ President New Zealand Botanical Society C/- Canterbury Museum Rolleston Avenue CHRISTCHURCH 8001 Dear Anthony

Thank you for the recent concerns you have raised in your letter of 9 December regarding the new pricing structure for the science journals published by the Royal Society.

Though sympathetic to the general tenor of your letter, I believe it contains a few misconceptions which may account for the undue level of concern voiced by your members. In no particular order, these are:

- With the increase in subscriptions in 2003 comes additional benefits for all journal users in the form of new online publication, which would be available free to members of subscribing institutions. In addition, improved electronic procedures for submitting and reviewing papers for publication will lead to faster times to publication.
- Subscribers who belong to an affiliated society have never qualified for the Royal Society member discount (if they ever received it, this has been in error). A discount for Royal Society members is retained, and the cost for individuals is still less than the cost price charged to institutions.
- Importantly, we have no desire to prohibit publication for those who are unable to pay page charges because they may be retired, students, or otherwise lack funds for their research. For these people, the charges can be waived upon application to the Publishing Manager. Our new charging regime will not discriminate in favour of only those who can afford it.

Our lack of adequate funding has been an ongoing problem for more than 10 years, during which time our editing resources have been pared to the minimum. We are now simply unable to sustain the immediate publishing programme without an alternative source of revenue. It is in the interests of all New Zealand researchers to support the publication of their regional journal through continued subscriptions and submissions.

Yours sincerely

Stive Thomason

Dr Steve Thompson Chief Executive

Balance sheet for the financial year 01 January – 31 December 2002

INCOME	\$	EXPENDITURE	\$
B/fwd from 2001	3,098.18	Carried forward from 2000	1,261.21
2001 Subscriptions	0.00	Printing Newsletter No. 67	1199.25
2002 Subscriptions	4,510.28	Posting Newsletter No. 67	345.55
2003 Subscriptions	108.00	ECO subscription	125.00
Sponsor a Student Sub Donation	363.00	Printing Newsletter No. 68	1094.63
Back Issue Sales	52.50	Posting Newsletter No. 68	294.28
Donations	2.75	Printing Newsletter No. 69	990.00
Interest	13.42	Posting Newsletter No. 69	333.91
		Bank Fees	49.60
Total Income	8148.13	Total Expenses	5,693.43

Excess income over expenditure of \$2,454.70 presented by current account balance of \$207.99 and cash drawer saver account balance of \$2,246.71 carried forward to 2003.

Note that 2002 payments for printing the December *Newsletter* 70 (\$990.00) and postage and stationery for *Newsletter* 70 (\$323.90) did not come to account until early January 2003 leaving an effective combined carry forward to 2003 of \$1,313.90.

Call for nominations for Allan Mere Award 2003

Nominations meeting the following conditions are invited for the award of the Allan Mere for the year 2003.

- 1. The Award shall be made annually to a person or persons who have made outstanding contributions to botany in New Zealand, either in a professional or amateur capacity.
- 2. The award shall be administered by the New Zealand Botanical Society.
- 3. Nominations for the Award may be made by regional Botanical Societies, or by individuals, to the Secretary of the New Zealand Botanical Society. Nominations shall close on 30th June each year. Nominations shall be signed by a nominator and seconder, and accompanied by two copies of supporting information that must not exceed one A4 page.
- 4. Selection of the successful nominee/nominees shall be made by the Committee of the New Zealand Botanical Society, normally within three months of the closing date for nominations.
- 5. If, in the opinion of the Committee, no suitable nomination is received in any particular year, the Committee may refrain from making an award.
- 6. The Mere shall be formally presented to the recipient on an appropriate occasion by the President of the New Zealand Botanical Society or his/her nominee, but otherwise shall remain in the custody of, and to be displayed by, the Herbarium Keeper of CHR at Landcare Research, Lincoln, together with the book recording awards.
- 7. The recipient shall receive an appropriately inscribed certificate.

Nominations should be forwarded by 30 June 2003 to:

Doug Rogan, Secretary, New Zealand Botanical Society, C/- Canterbury Museum, Rolleston Avenue, Christchurch 8001

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

Regional Botanical Society News

Auckland Botanical Society

December Meeting & Pot Luck Dinner

An exciting event for the society was the launching of the book "Meanings and Origins of Botanical Names of New Zealand Plants" by the late Marie Taylor. This was followed by talks, firstly by Rhys Gardner on the differences between *Coprosma robusta* and *C. macrocarpa*, and then by Mike Wilcox on his recent trip to China. Next came a walk around the propagation area of the Botanic Gardens, mainly to see the plants being grown to revegetate the ARC Regional Parks. Finally a convivial pot luck dinner was enjoyed by all.

Anniversary Weekend Camp

A camp in the Waima Hills, south of the Hokianga Harbour, gave BotSoc members access to the three "Waima" species that have been newly named and described – Olearia crebra, Coprosma waima and Ackama nubicola. Seeing a single flower of Thismia rodwayi crowned an interesting weekend, for which we are indebted to DoC botanist, Lisa Forester.

Wairoa Valley, Hunua Ranges

At first the walk followed forest roads, with clay banks draped with *Lycopodium scariosum*. A lookout platform gave views over the forest and a water reservoir lake. A newly formed track led through mature forest with many large miro and rimu trees, and a couple of kawaka trees.

FORTHCOMING ACTIVITIES

5 March AGM followed by "Four Families" Ewen Cameron, Mike Wilcox, Rhys Gardner & Peter de Lange

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

Nelson Botanical Society

Pelorus Trig, 17 November 2002

After a very wet night 10 members, including Graeme Jane visiting from Tauranga, left Nelson on a fine day with snow down low on the Doubles. Along the Tawa Track we identified two very similar small plants growing together, a *Cardamine* species and *Australina pusilla*. There were large rimu, totara and matai trees in this area. Nearby Graeme identified *Hymenophyllum cupressiforme* growing on rock and we also saw *Blechnum membranaceum*. We spotted *Corybas cheesemanii* in seed with its one leaf hidden under the leaf litter at ground level, *Corybas* "Whiskers" growing under the waterfall but not in flower, and *Corybas trilobus*. *Myosotis forsteri* was coming into flower and we saw many *Thelymitra longifolia* all in bud. The little yellowy-green flowers of *Caladenia chlorostyla* (new name *Petalochilus variegata*) were a great find. Walking up the steep ridge towards the trig we saw large clumps of flowering *Pterostylis banksii*, *P.graminea* and *P. irsoniana* and on the dry clay bank near the top we saw several *Pterostylis foliata* in flower.

Horseshoe Basin, Mt Arthur, 16 January 2003

We moved quickly through beautiful diverse forest up to the low alpine, where a very strong wind ruled the landscape and even distorted the abundant flowers of *Celmisia sessiliflora*. During our descent into the basin, our eyes were caught by the fascinating colours, textures, and shapes of the many herbaceous plants. Also very evident were *Aciphylla ferox* and species of *Chionochloa*.

Wonderful finds in the basin included *Myosotis angustata* in full flower, *Notothlaspi australe, Leucogenes grandiceps,* and the strong-scented *Myosotis macrantha* and *Oreoporanthera alpina.* Big white and pink flower heads of *Epilobium vernicosum* and its close relative *E. glabellum* provided a very special show against grey marble. *Liselotte Seckler*

Anniversary Weekend Camp, Red Hills Hut, Richmond Range.

31 January 2003: Day One of the Red Hills camp was more about walking than botanising, and we managed to travel some kilometres before our first botany break. We stopped to admire a patch of *Libocedrus bidwillii*, as well as learning to identify *Raoulia glabra*, a plant notable because it doesn't really look like a *Raoulia*. The biggest "wow" of the day came from Cathy, who found a magnificent *Thelymitra cyanea* in full flower, less than 10 metres from our campsite. *Melanie Newfield*

1 February, 2003: From the Red Hills hut we climbed over ultramafic tussock land to tarns on the plateau above. We botanised up the old 4WD track finding out such things as the difference between *Hebe vernicosa, H. odora, H. venustula, H. carnulosa* and *H. topiaria.* The growth pattern of *Celmisia* "rhizomatous" was distinctive. The *Myosotis laeta* which we especially wanted to find managed to yield up 1 flower only, in spite of finding several plants. After lunch on the way up a tussock ridge we discovered *Notothlaspi australe* and *Neopaxia racemosa* in flower. Our sights were set on what we thought was a possible limestone "island" in the tussock grass (*Chionochloa defracta*). When we reached the outcrop the rocks, to our surprise, were greywacke and the trees turned out to be very gnarled silver beech, *Nothofagus menziesii*. The rocks supported species not found elsewhere on the Red Hills ultramafics such as *Coprosma pseudocuneata* and *Gingidia montana*. As we moved up and over towards the main plateau and tarns we found *Kellaria sp., Celmisia gracilenta* and *Ranunculus verticillatus*. The many tarns containing islets of plants and millions of tadpoles. Round the tarns grew several moisture-loving plants, *Drosera arcturi, Centrolepis ciliata, Forstera tenella, Aporostylis bifolia, Celmisia alpina, Carex echinata* and *C. gaudichaudiana*.

2 February: We woke to a morning of misty drizzle and poor visibility so we occupied ourselves by botanising the bog near the hut, finding more flowering *Thelymitra cyanea* and another *Thelymitra* with spent flowerheads, the remains of which seemed to indicate that it was *T. hatchii*. We also found hundreds of unnamed *Craspedia* in flower and seed, *Oreostylidium subulatum*, *Lagenifera cuneata*, *Rytidosperma nigricans*, *Plantago raoulii* amongst *Chionochloa rubra* and patches of sphagnum moss. After lunch we began to see patches of blue sky so we set out to explore the beginning of the track to Maitland Hut. Walking through open country, often wet underfoot, we found many of the same species that we had previously encountered but took especial pleasure in more *Myosotis laeta*, *Notothlaspi australe*, *Neopaxia racemosa*, *Drosera spathulata*, *Carex devia*, *Brachyglottis lagopus* (in flower) and *Hebe carnosula*.

3 February: Next morning, being time to pack up and go home, was of course perfect weather, so we had a quick half-day walk up to the ridge south of the hut, looking for limestone outcrops which we did not find. We did, however, find some lovely outliers of beech forest and a few new species such as *Pseudopanax "ternatus", Podocarpus nivalis, P. hallii, Pseudopanax crassifolius, Blechnum procerum, Pimelea suteri, Carex comans, Lagenifera strangulata* and a lovely *Brachyscome* in flower. We also found some interesting grasses, including two *Elymus* species. This area warrants further exploration.

After lunch we drove out, stopping briefly to look at a healthy plant of *Peraxilla colensoi* at the bottom of the hill. A most enjoyable camp. *Cathy Jones*

FUTURE TRIPS				
April 17-21	Easter Camp, Karamea. Leader Cathy Jones 03 546 9499. Camp contact Julie McLintock 03 545 0989			
May 18	Whangamoa River Mouth. Leader Shannel Courtney 03 546 9922			
President: Cathy Jones Treasurer: Gay Mitchell	(03) 546 9499 Flat 2, 5 North Rd, Nelson. Email: cjones@doc.govt.nz (03) 548 3351 13 Albert Rd, Nelson.			

Other Botanic Society Contacts

Botanical Society of Otago

Chairman: Bastow Wilson Email: bestow@otago.ac.nz

Canterbury Botanical Societ	Y
Secretary: Roger Keey Email: <u>wrtc@cape.canterbur</u>	(03) 315 7510 or (03) 358 8513 P O Box 8212, Riccarton, Christchurch. <u>v.ac.nz</u>
Manawatu Botanical Society	
Jill Rapson	Ecology, Institute of Natural Resources, Massey University.
Rotorua Botanical Society President: Willie Shaw Secretary: John Hobbs	07 362 431507 348 662007.348 c/- The Herbarium, Forest Research, Private Bag3020, Rotorua.See also www.wildland.co.nz/botanical.htm
Wakatipu Botanical Group Chairman: Neill Simpson Secretary: Lyn Clendon	(03) 442 2035 (03) 442 3153
Waikato Botanical Society	
President: Bruce Clarksor	i <u>b.clarkson@waikato.ac.nz</u>
Secretary: Karen Denyer	<u>Karen.Denyer@ew.govt.nz</u> c/- Department of Biological Sciences, University of Waikato, Private Bag 3105, Hamilton.
Wanganui Museum Botani	cal_Group
Chairman: Ian Bell Secretary: Robyn Ogle	(06) 343 7686 115 Mt View Road, Wanganui(06) 347 8547 22 Forres Street, Wanganui
Wellington Botanical Society	4
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.

NOTES AND REPORTS

Notes

Botanist's creamy nettle soup

Reading the January 2003 issue of *The Oldie*, my favourite magazine, the above header caught my eye. Elizabeth Luard in her Cookery column wrote:

"The eminent botanist Betty Molesworth Allen, OBE, my friend of 40 years, had a right royal send-off the other day in her adopted homeland, the southernmost tip of sunny Andalusia. She much preferred plants to people, using her small back garden on the outskirts of Algeciras as a sanctuary for orchid species endangered by the motorways and tourist enclaves of the Costa del Sol. In later years, the Spanish government declared her a National Treasure and awarded her a pension – patronage which did nothing to dilute her ferocious campaigns against what she considered the rape of her adopted land.

Our last outing together was a day's wild-gathering for a cookery course I was leading in the area. Although by then well into her eighties, she scaled the cliffs like a mountain goat, directing her pupils' attention to clumps of summer savory, wild fennel, the spiky buds of edible thistles – not forgetting the humble nettle, a plant, she pointed out, most likely to come easily to hand, since it responds enthusiastically to a good watering from the human urinary tract.

Botanist's creamy nettle soup

Choose a nice clean patch of nettles, snip off the top four leaves only, and don't forget to wear gloves. The sting, you'll be happy to know, cooks out. Watercress makes an acceptable substitute for the nettle-tops, should your botanical courage fail you. Serves 4-6.

- 1 pint nettle-tops or watercress or rocket or baby spinach
- 4 shallots or small bunch spring onions, finely chopped
- large knob butter
- 2 large potatoes, peeled and diced
- 1/2 pint double cream
- salt and pepper

Rinse the nettles (or other chosen leaves) and shred half, leaving the rest whole. Cook the onions gently in a nugget of butter until they soften. Add the unshredded nettles and turn them with the onions. Add the diced potatoes and 1½ pints water. Bring to the boil, turn down to simmer, lid loosely and cook for 20 minutes, until the potato is perfectly soft. Process the soup to a puree. Season and return it to the heat with the shredded leaves. Let it bubble for a moment or two. Off the heat, stir in the cream. Don't reheat.

To follow, a generous plate of finely sliced serrano ham, thick slices of country bread crisped in a very little olive oil."

Betty Molesworth was Botanist at Auckland Museum from 1944-47. Andy Thomson wrote about her in his series on Notable New Zealand Women Botanists (NZ Bot Soc Newsletter 67: 21-22, 2002) and Ewen Cameron contributed an obituary to the Auckland Botanical Society Journal 57(2), December 2002.

Northern botanists might have trouble securing a pint of nettle (*Urtica urens*) tops, but I'm very pleased to find a potential use for the next crop of nettle seedlings that appear in a particular bed of my Christchurch garden.

Thanks to The Oldie (subscriptions@theoldie.co.uk) for permission to reproduce this extract.

Anthony Wright, 138 Bishop Street, St Albans, Christchurch 8001

Identifying Festuca coxii

Festuca coxii is widely promoted for garden use as an attractive blue-green ornamental grass. This species originates from the Chatham Islands and many gardeners choose this species because it is a native. However, there is often confusion between this species and other blue-green festucas originating from Europe such as those sold as *Festuca glauca* and *Festuca cinerea*.

The most obvious, yet simple method to distinguish *Festuca coxii* from the introduced European bluegreen fescues is by the presence of long awns on the lemma. In *Festuca coxii* the awns are usually 8-10 mm long while in the European fescues they are less than 3 mm and often absent. In addition the lemmas of *F. coxii* are abundantly prickly to touch, while European plants are usually smooth.

This species is also noticeably less vigorous with fewer seedheads than the European blue-green fescues, with *Festuca coxii* plants seldom producing seedheads until the second or third year.



Closeup of the spikelet of Festuca coxii, showing awns



Panicle of Festuca coxii, top, compared to European species, bottom

For a detailed description see; Edgar E. and Connor H. E., 2000 Flora of New Zealand Volume 5 Grasses, page 102

Alan Stewart, PGG Seeds, PO Box 3100, Christchurch

Research Report

Macaronesian echiums

W.R. Sykes, Research Associate, Landcare Research, Lincoln and A.J. Healy, Riccarton, Christchurch.

Introduction

The genus *Echium* L., Boraginaceae has c. 60 species that are distributed through much of Europe and West Asia, North and South Africa, but with nearly half of them in Macaronesia (Azores to Cape Verde Islands). Probably about 10 species have been introduced to New Zealand and four are naturalised and fully described in Webb et al. (1988). Two of them are herbaceous European species that are not relevant to this paper. The others are Macaronesian shrubby endemics and their diagnostic features are given below. In addition, a fifth species is recorded as producing spontaneous plants in the Christchurch garden of one of us (AJH) by Heenan, de Lange, Cameron, Champion (p.161, 2002), namely *E. wildpretii* Hook.f. This is likewise a Macaronesian endemic.

Echium candicans and E. pininana

The commonest of the Macaronesian echiums in New Zealand is *E. candicans*, still often known by its synonym *E. fastuosum* Jacq., commonly called pride of Madeira from its island of origin. This is a shrub with few to many thick branches and lanceolate to ovate–lanceolate silvery-grey to grey-green leaves up to 20 × 5 cm. The inflorescence is a dense broadly columnar spike 20–40 cm long with branches no more than 8 cm long even at the fruiting stage. The flowers are purple to deep or pale blue, very rarely white, and are subtended by linear-subulate bracts.

Echium pininana Webb & Berth., giant bugloss, is a single-trunked monocarpic shrubby plant that develops a short stout woody trunk 1–2 m long bearing a terminal cluster of deep green, oblong–elliptic leaves, individually up to c. 80 × 10 cm. The inflorescence is very leafy and much more diffuse than *E. candicans*, eventually forming a column 2–3 m high and the whole plant usually 4–5 m high. The flowers are pink in bud and pale blue to mauve at anthesis. They are subtended by lanceolate bracts and are borne on slender inflorescence branches that are up to over 30 cm long by the fruiting stage.

Both *Echium candicans* and *E. pininana* were most probably introduced to New Zealand in the 19th century and the former has long been a feature of coastal gardens, especially in the Wellington area and eastern South Island areas such as Banks Peninsula. In such places the late winter and spring display on coastal cliffs inside and outside the garden fence is often dominated by pride of Madeira

and the also Macaronesian marguerite, *Argyranthemum frutescens*, that usually has white flowers. *Echium pininana* does not seem to have been commonly planted until fairly recently, but is now fairly common, at least on Banks and Otago Peninsulas.

Echium candicans × E. pininana

Within the last 10–15 years plants that are intermediate between *Echium candicans* and *E. pininana* in respect to leaf size and shape, inflorescence length, inflorescence branch length and to some extent flower colour, have become locally common around Lyttelton Harbour on Banks Peninsula. Such plants now form small populations along the roadside and are here regarded as hybrids between *E. candicans* and *E. pininana*. They are apparently not monocarpic like the latter, although they do not live as long as *E. candicans* and die within two or three years after first flowering. The stems of the hybrid plants either remain single or else they develop a few branches before flowering but the plants do not become bushy as in *E. candicans*. The densely flowered inflorescences usually vary from *c.* 70–150 cm long at the fruiting stage and the inflorescence branches are similar in length to those of *E. candicans*. The flower colour is blue to mauve-blue and usually (? always), pink in bud. Thus the corolla colour encompasses the range of that in *E. pininana* and partly covers the range of *E. candicans*. Considerable variation in these characters can be found in a single small population. Finally the hybrid plants tend to be at maximum flowering after that of *E. candicans* and slightly before the late November maximum of *E. pininana*.

We have not found references to hybrids between these two species in New Zealand or overseas literature so there does not appear to be a general hybrid name for such intermediates as briefly described above. However, this year McCully's Garden Centres and other garden centres in New Zealand have been selling plants of a deep blue-flowered *Echium* called 'Cobalt Tower' and the label also states that it is from a cross between *E. fastuosum* (i.e., *E. candicans*) and *E. pininana*. This cultivar is now being raised in large numbers by tissue culture in order to maintain the characters of the clone. The plants are semi-monocarpic but have several branches culminating in flower spikes and the height of the whole plant is about 2.5–3.0 metres. However, the plants can be induced to remain alive and flower again for a year or two by removing inflorescences before the fruits mature. 'Cobalt Tower' was selected from many hybrid seedlings raised by a breeder in Napier (Graham Burton pers. comm.). *Echium candicans* grows particularly well in the hillside gardens in the Napier area.

A very recent TV gardening show extolled the virtue of this recently named cultivar. However, one of us (WRS) saw and collected similar plants to 'Cobalt Tower' in 1977 in a garden at Prebbleton near Christchurch. They were of hybrid plants that arose by chance after *E. pininana* and *E. candicans* were introduced to the same garden. Again, the hybrid progeny clearly showed intermediate characters between the two species.

Echium wildpretii

A third Macaronesian species now cultivated fairly commonly in New Zealand is *Echium wildpretii*, the taginaste rojo of the Canary Islands. Although probably less common than the other two species it is at least as spectacular in flower as they are. *E. wildpretii* is a giant monocarpic herb with a single stem as in *E. pininana*, but this is very short compared to the inflorescence and is no more than *c.* 30 cm long. The linear–lanceolate leaves appear silvery-grey because of their dense white hairy covering. The dense broadly cylindrical inflorescence grows to *c.* 2 m high and is thus proportionately broader and shorter than those of *E. pininana* and the inflorescence branches are up to *c.* 12 cm long at fruiting stage. Also the deep pink to rose flowers in bud and throughout anthesis are another obvious contrast to those of *E. pininana*. *Echium wildpretii* seems to form relatively few viable seeds compared to the enormous number of flowers in each spike and regeneration is not only sparser than in *E. pininana* but is delayed with resulting seedlings not appearing until well after the demise of their parents. Thus spontaneous plants are uncommon despite being recently recorded as adventive (Heenan et al, 2002).

Echium wildpretii originates from around the crater rims of volcanoes in the Canary Islands at altitudes of about 2000 m. Because it comes from a higher altitude than the other two species, *E. wildpretii* is more cold tolerant and thrives in climates that are marginal for them in both South and North Islands of New Zealand, such as on the Canterbury Plains. *E. pininana* comes from the middle-altitude evergreen laurel forest belt on La Palma in the Canary Islands (Bramwell 1974 p.184) and is next in hardiness, whilst *E. candicans*, from Madeira, is the least hardy of the three.

Echium pininana × E. wildpretii

Both of us have grown all three species in the Christchurch area and observed spontaneous regeneration but one of us (AJH) has also noted hybrid plants between *E. pininana* and *E. wildpretii* in his garden. These plants were intermediate in respect to leaf shape, size and indumentum, whilst the inflorescence was shorter and narrower than *E. pininana* but not as dense and stout as *E. wildpretii*. Likewise the flowers were not deep rosy-pink like the latter but more mauve or bluish as in *E. pininana*.

Hybrid plants between *E. pininana* and *E. wildpretii* are known from overseas, e.g., the recent European Dictionary of Gardening (Vol.2, p.140) states that "Recent hybrids between *E. pininana* and *E. wildpretii* have shown remarkable potential for temperate gardens exhibiting cold tolerance to temperatures of at least -10° C." A range of colours from blue and mauve to rose and apricot is stated. The last is surely an exaggeration?

Echiums in the Scilly Islands

Clement and Foster (1994, p.245) state that *E.* × *scilloniensis* hort. a name that has been given to putative hybrids between *E. pininana* and *E. webbii* Coincy (another Macaronesian species) has escaped from cultivation on two islands in the Scillies off the SW tip of England near Penzance. This hybrid is rather similar to the *E. candicans* × *E. pininana* hybrids described here because *E. webbii* is closely related to *E. candicans*. However, *E. webbii* has smaller and blunter leaves and a more open and broader inflorescence and has not been recorded in New Zealand. The Scilly Islands have long been known for its various shrubby and monocarpic echiums that were introduced originally to the famous Tresco Gardens where a great range of Mediterranean climate plants has been established from the first half of the 19th century onwards. It is almost certain that Macaronesian echiums have been taken elsewhere from Tresco, at least elsewhere in the British Isles. There is also a strong New Zealand presence at Tresco, especially with genera such as *Metrosideros, Pittosporum, Hoheria,* and *Phormium*. These and plants from other countries are mentioned in an account of the successful horticultural introductions there by Sykes (1961). It is thus on the Scilly Islands where the first hybrids of Macaronesian echiums seems to have been recorded.

ACKNOWLEDGMENTS

We are grateful to Athol McCully of McCully's Garden Centres and Blair Stuthridge of Arcadia Nursery, Canterbury, for information about the performance of *Echium* 'Cobalt Tower' in Canterbury and to Graham Burton of Tandarra Nursery, Hamilton, for sharing his knowledge of the origin and propagation of this cultivar. Also, we are indebted to Colin Ogle in Wanganui for bringing the presence of *E. handiense* to our attention and then to get samples of it and a hybrid of it sent for confirmation. Finally, thanks to Peter Heenan of Landcare Research at Lincoln for commenting upon the ideas expressed in this paper and to Kenneth Beckett of King's Lynn, Norfolk, England, for his thoughts on Macaronesian echiums in the British Isles.

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UNIVERSITY THESES

University of Otago, Department of Botany Theses for 2002

Bosselman, Gina-Marie: Ectomycorrhizal fungi of Douglas fir. MSc Thesis. 159 p.

Blaikie, Justin: Changes in the morphology and physiology of *Chionochloa rigida* over an altitudinal gradient. MSc Thesis. 97 p.

Goodman, Andrea: Patterns of beetle diversity in a modified tussock grassland, Otago, New Zealand. MSc Thesis. 66 p.

BIOGRAPHY/BIBLIOGRAPHY

Biographical Notes (49) : William Henderson Bryant (1864B1948)

E. J. Godley, Research Associate, Landcare Research, PO Box 69 Lincoln.

Had the Nelson Botanical Society begun—let us say— in 1890, it is a fair bet that the following would have been foundation members:

- 1. The Right Reverend Andrew Burn Suter (1830–95) Bishop of Nelson, and patron of the arts and sciences (1). He is commemorated in the native daphne *Pimelea suteri* Kirk (1894) (but not in the native broom, *Carmichaelia suteri* Colenso (1891) which commemorates Henry Suter (1841–1918) the conchologist)
- 2. Dr Leonard George Boor (1825–1917) surgeon and Medical Superintendent at the Nelson hospital, the mental hospital, the immigration barracks, the old people's home, and the gaol, who gave botany lessons at Suter's Bishopdale Theological College. (The Bishop believed that botany would train the students in analytical reasoning, presumably envisaging exercises in identifying plants using so-called "keys") (2,3)
- 3. Mr Robert Ingpen Kingsley (1846–1912) Secretary-Treasurer of the Anglican Diocese, Nelson, and naturalist, whom I wrote about in the last Newsletter (4)

and two young schoolteachers:

- 4. Mr William Henderson Bryant (1864–1948) headmaster of the Brightwater School and (later) Kingsley's brother-in-law, the subject of the present note
- 5. Mr Frederick Giles Gibbs (1866–1953) then an assistant master at Nelson College, later headmaster, the Nelson Boys' School, who became the leading Nelson botanist of his time (5).

The following would have been candidates for country membership.

- 6. Mr James Dall (1840–1912) then at Collingwood (later at nearby Rockville), the plant and animal collector (6)
- 7. Mr William Lewis Townson (1855–1926) chemist and druggist, Palmerston Street, Westport, from 1888, who (like Dall, Kingsley and Bryant) collected for both Kirk and later Cheeseman (7).

W.H. Bryant, was the 9th child of Lewis and Anne Mary Bryant, who had arrived in Nelson on 15 October 1855 with five children on the barque *Queen Margaret* (8). Their first years, spent in Appleby (teaching) and Waiwhero (farming), have been described by their eldest son (9). Then in 1863 (10), Lewis was appointed teacher at River Terrace, near where Brightwater now stands, and here William was born on 22 January, 1864 (8).

William attended school at River Terrace and then Richmond, where, in 1878, he won a Nelson Education Board 2-year boarding scholarship which took him to Nelson College in 1879 and 1880 (11,12); and by his first year at College, it seems that his life-long interest in ferns had already begun. In his fern collection (see below) there are sheets labelled "*Asplenium triste (laxum*) Westport, 1879" and "*Asplenium bulbiferum* var. *triste* Westport, 1879". Unfortunately a more exact date of collection is not given so we cannot relate these gatherings to school holidays.

In 1882 Bryant was appointed first assistant at Westport Boys' School (11), and his interest in ferns took off. In his collection there are 26 sheets gathered in either 1884 (no month), 1885 (May, June, or no month) and 1886 (no month) from localities such as Westport, near Waimangaroa, near Great Republic Battery, Cape Foulwind, and Cemetery Bush.

Bryant had two kinds of tools to assist him in his fern studies. The first were sets of mounted and named specimens (see below); and the second was G.M. Thomson's excellent book *The Ferns and Fern Allies of New Zealand*, published in 1882. One suspects that Bryant obtained these items while still a novice at Westport, although his annotated copy of the book (held by Dr Gordon Ogilvie of Christchurch) does not bear his name or a date. At the top right-hand corner of the title page he has written in pencil "G.M.T. 99 Eglinton Road, Mornington, Dunedin". I take this to be his way of recording Thomson's address in a retrievable place, just as he has pencilled another *aide-mémoire* at the top of the contents page: "A spore is a highly specialised reproductive cell which is capable of giving rise directly to a new organism".

After Westport Bryant taught at Hope School (between Nelson and Brightwater) until, in 1889, he became headmaster of the new brick Boys' School at Brightwater, which became co-educational a year later (10,11). His obituarist (11) states that he taught at Hope for 4½ years which would mean that he left Westport in mid-1884, and which clashes with the fern records. Anyway, for this period Bryant has specimens from such places as Thomas's Flat, edge of Wairoa River (June, 1886), Mt Arthur Tableland (Xmas, 1886), Spring Grove hills (June, 1887), Rai Valley (Xmas, 1889), Tomlinson's Bush, Brightwater (Nov. 1890), Mt Arthur (31 Dec. 1890), and Chittim Creek, Lee River (June, 1891).

On 1 January 1892, with Robert Kingsley, Bryant ascended Little Ben (884 m) which lies up the Wairoa River south of Brightwater. They returned next day having found a patch of *Blechnum lanceolatum* with peculiar forked fronds. Kingsley described this and wrote: "Mr W.H. Bryant is attempting to propagate the variety from the spores" (*TNZI 25*, 1893). This was the first of the six excursions made by these two friends (sometimes accompanied by others) that are described by Kingsley in the *Transactions of the N.Z. Institute*. The second excursion was to the Takaka district also in early 1892 (*ibid.*) In (4) I have dated it as "Jan? Feb?" but Bryant specimens of *Hymenophyllum* ("Takaka Hills, Feb. 1892) *Gleichenia* and *Schizaea* (both "Rangihaeata Point, Takaka, March, 1892") show that the above should be changed to "Feb–Mar". Their other recorded trips as listed in (4) were: West Wanganui Inlet (Feb. 1894); coast north of Motueka (Feb. and Nov. 1895); dividing range between Wangapeka and Karamea Rivers (Feb. 1897).

Bryant's "love of the Church and nature" was emphasised by his obituarist (11) and this, of course, was shared with Kingsley. Kingsley was the elder by some 18 years and took the lead in their trips together. He was also a member of the Nelson Philosophical Society (Bryant was not) where he read the accounts of their excursion that were later published in the *Transactions of the New Zealand Institute*. It is fair to say that Kingsley made Bryant's name more widely known; but it is also worth noting that Kingsley's first seven papers were about animals and that he did not start publishing about plants until he began writing about field work with Bryant.

By 1892 Kingsley had begun sending specimens to Thomas Kirk, the veteran forester and botanist living in Wellington; and, inevitably, Bryant became a Kirk collector as well. Thus, in a letter dated 6 Jan 1896 he tells Kirk that he has just returned from a holiday at Lake Rotoiti and the Rainbow and encloses "a few things collected there." There are 29 items with notes such as "Buttercup (small) is this the wanted one? (found on shingle slips 5000 ft Rainbow)" (13). The full extent of his contribution cannot yet be gauged because the herbarium at the Museum of New Zealand (WELT) is not yet fully databased and because Kirk's *Students' Flora* of 1899 is incomplete. However, there are 37 Bryant collections currently on database in WELT with all except 3 collected in the following years: 1895 (2); 1896 (12); 1897 (20). The 3 exceptions are 2 undated and 1 gathered in 1887 (13).

in the *Students' Flora* there are at least 15 locality records credited to Bryant. They show, among other things, that Bryant and Kirk made at least one collecting trip together and this is worth discussing in more detail.

In the *Students' Flora* Kirk described *Coprosma obconica*, a new species from "Nelson: Wairoa Gorge, *Bryant* and *Kirk*. Aug." The month refers to the flowering time. He also wrote: "I am greatly indebted to my friend W.H. Bryant, who has kindly forwarded better specimens than those we collected together." In WELT there are 9 sheets of this species collected by Bryant (13). All are from the Wairoa Gorge and were gathered on 6 visits: 21 Oct. 1896 (1); 2 Nov. 1896 (1); 8 Jan. 1897 (3); 10 Feb. 1897 (1); 8 May 1897 (2); 7 Aug. 1897 (1). This can be interpreted as recognition of the obconic fruit in October, a confirmatory look in November, and then periodic visits to get flowers. But when did Bryant and Kirk collect specimens together? Oliver's monograph on *Coprosma* (1935) does not help us because, as he states, "The specimens from Wairoa Gorge on which Kirk founded this species cannot now be found." (although he cited an undated Bryant specimen in the Auckland Museum). Nor is this excursion mentioned in Hamlin's itinerary of Kirk's botanical expeditions (1965), presumably because the specimens were still not available. I suggest that we can eliminate May and August, 1897, and that Bryant probably took Kirk up the Wairoa Gorge on 7 January, 1897; and also suggest that this was Kirk's last major field trip before he died on 18 March 1898 at the age of 70.

The Students' Flora also shows us that Bryant and F.G. Gibbs were making major expeditions together in the 1890s, e.g. "Cotula pyrethrifolia Franklin Mountains '[Fiordland] Gibbs and Bryantl";

and Bryant's youngest son, Mr W.H. Bryant 2nd of Motueka has told me that his father described Gibbs as the best general botanist that he knew.

On 15 August, 1899, Robert Kingsley married Ellen Margaret Bryant, one of William's younger sisters (4); and earlier that year, at St Paul's Anglican Church, Brightwater, on 21 February, William married Theresa Magdalena Max, daughter of a Brightwater farmer. "Daisy" as she was called was 11 years his junior and he had taught her briefly at Brightwater School. From there she went to Nelson Girls' College where she was head prefect in 1893 and where she began University studies as was allowed at the time. (H.H. Allan also did this a decade later at Nelson Boys' College). She graduated BA from Canterbury University College in 1896 (10,14).

Bryant's name had often appeared in Kingsley's publications, and on 11 November 1899, Kingsley sent Bryant's address to Cheeseman, obviously replying to a question. He added that Bryant was Aenthusiastic in collecting for anyone such as the late T. Kirk or yourself@ and Aspends his vacations on the mountains etc."; and on 8 December 1900, he wrote: "Have written Bryant re Raoulia" (14).

There are only 5 collections by Bryant in the Cheeseman herbarium (15) but there are 13 locality citations in his *Manual* (1906). The latter include some of Bryant's favourite local collecting places (and climbs): Mt Starveall (Bryant Ra.), Mt Rintoul (Richmond Ra.) and, of course, the Wairoa Gorge. The citations either refer to "Bryant" or "W.H. Bryant" but in a list of "other recent workers" at the beginning of the *Manual* Cheeseman has D.W. (sic) Bryant. There was no such person at the time, either in the wider family or the Electoral Rolls.

By 1906 Bryant's botanical life had changed markedly. Kingsley explained to Cheeseman in a letter of 31 December that Bryant now had 3 children, and ran a small farm in addition to his teaching. He was a Major in the Volunteers and very active in church affairs. He was a very busy man and could only collect as opportunity offered. Cheeseman sent Bryant "a kind letter" which Bryant acknowledged in a note on 3 April, 1907, the only communication between them that appears to exist. As for ferns he never lost his interest but the emphasis changed from collection to cultivation.

Gordon Ogilvie recalls his grandparents' home as follows: "The Bryant family lived in Brightwater down what is now Bryants Road in a large wooden home by the Wairoa River. In a corner of the front lawn was a cannon recovered from the *Fifeshire*, wrecked at Nelson Haven in 1842. Out the back was Will's large fernery and a 16-hectare farm bordering the river. For recreation there was a tennis court by the house and a swimming hole in the Wairoa. There were plenty of books in the library and one room contained a pipe organ, piano, large stamp collection and a museum full of Maori and early colonial artefacts collected by Will through the years" (10). And it was from here that William carried out his many services to the community and the church: people's warden, vestryman, synodsman, Sunday school teacher, and lay reader at St Pauls, Brightwater; secretary of the Brightwater Horticultural Society, of which he was a founder; officer in the Territorials (16); officer for the Brightwater Rechabite Tent (a teetotal benefit society); and a trustee for the Whakarewa Boys' Home (10,11).

For his long service in the Territorials Bryant was awarded the Victorian Decoration. He retired as Lt. Colonel commanding the 12th Nelson Regt in March, 1917, and was posted to the retired list with the rank of Colonel. Then, in 1922, he retired from teaching after 40 years service with 33 years spent at Brightwater School (11).

In 1928 Bryant was one of a party of four that went south to Castle Hill in Canterbury to collect plants and seeds for the New Zealand (Nelson) Alpine and Rock Garden Society (17). Led by the honorary secretary, Mr A. Wilkinson, they left Nelson on 11 April. "A short stay was made at Kaikoura to ascend Mt. Fyfe, and a collection of plants from that range was procured." The 2 days in Christchurch were spent meeting local members of the society and visiting Professor Macmillan Brown's garden on Cashmere. On 17 April they left for Castle Hill, joined by Mr. H.L. Darton (editor *The City Beautiful*), Mr C. Jones (Christchurch Botanic Gardens), and Mr G. Mazey. They stayed at the only accommodation then available, "a comfortable residence lent by a member of the Rock Garden Society". Wilkinson wrote that "a large collection of alpine and subalpine plants and supplies of seeds for distribution was procured." Unfortunately he took rather too many of the endangered Castle Hill buttercup, *Ranunculus paucifolius* (17). On the other hand "one of the party, Mr W.H. Bryant, being an interested collector of fossils, procured a fine haul, 2600 feet above sea level, at the junction of the Thomas and Broken Rivers" (17).

Four months after the southern tour an excellent article by Bryant entitled "*Ferns of Nelson*" appeared in *The City Beautiful* (19). It was doubtless requested by Darton, a clever editor, who obtained many advertisements from Nelson businesses to accompany it. But it was in 1933 that Bryant's influence on pteridology in Nelson reached its peak. At a meeting on 7 July it was decided to form a Nelson Fern Society, and he was elected the first president. The other officers were: Mr E.B. Martin, vice-president; Mr G.G. Wearing, secretary; and Dr Campbell-Smith, Mr E.S. Gourlay [Cawthron Institute], and Mr W.H. Simpson, a committee (20).

The last specimens that Bryant added to his collection (and among the few that he added after the turn of the century) were: "variety of *Asplenium lucidum*, Jan. 1947" and "*Polypodium billardieri*, a form from Brook St. Council Reserve, Jan. 1947." His last expedition was to Lake Rotoroa from 7 to 9 January 1948, with his son W.H. Bryant 2nd, and less than a week before his death. "He returned with three ferns which gave him great pleasure." (11).

William Bryant died suddenly at home on 14 January 1948, in his 84^{th} year, survived by his wife, 4 sons and 2 daughters (10, 21). His funeral service at St Paul's Church was conducted by the Bishop of Nelson, The Rt. Rev. P.W. Stephenson, and Canon J.W. Bloyce. The Rechabite service was read by Mr H. Hill, and the grave lies just between the main gate of the church and the vestry door (11). Before the sale of his house part of William's ferns were re-established at the Brightwater School where his son Robert was then headmaster (1942–44; 1946–52) and a small brass plaque (c. 32×20 cm) was put with them (8,10,24). The plaque is set in concrete standing c. 40 cm high and states: "These ferns were the collection of the late William Henderson Bryant, headmaster of the school 1889–1922". The plaque stands about 25 m half-right from the main gate of the school in the shade of a small group of trees (titoki, lemonwood, kowhai) presumably planted to shade the ferns. After half a century the only obvious fern is a plant of *Asplenium lucidum* growing directly behind the plaque and partly embracing it by a long frond on each side. It serves to remind us that *Asplenium* was Bryant's favourite genus.

Eponymy

Bryant Road, Brightwater Bryant Range, east of Brightwater

The Bryant fern collection

This collection is under the care of Dr Gordon Ogilvie, Christchurch, one of W.H. Bryant's grandsons, and is in excellent condition. It is in three parts:

- 1. A book of dried fern specimens
- 2. The Helms specimens
- 3. Bryant's main collection
- 1. The fern book has attractive hard dark-green covers (23 × 31 cm) with thin lines of gold decoration across the outer corners and another vertically near the spine. On the cover is the word FERNS in gold. Inside, at the spine end are many paper "slots" into which the ends of specimen sheets can be inserted and (presumably) glued. Not all the slots have been used. The specimens are mounted on paper by running the rachis in and out of a pair of slits and (sometimes) by gluing part of the frond. Because of the shape of the book the sheets lie sideways when the book is opened. There are 64 sheets, of two distinct kinds, but in no definite sequence. (a) 34 smaller sheets (c. 25× 16 cm) with the name (and nothing else) written in ordinary writing (probably Bryant's hand) usually in the bottom left-hand corner. (b) 30 larger sheets (27.5 × 17.5 cm) labelled in a distinctive formal script (almost printed). The name of the fern is at the bottom (rarely the top) and there is a written number in the bottom left-hand corner. The numbers range from 1 to 39 with several gaps (see below). I cannot match this book with any of those described by Goulding (23).
- 2. The 40 Helms specimens are protected by two hard blackish-brown covers (34 × 26.5 cm) which are joined by a cloth spine and can be kept closed by three pairs of tapes. The binding is much inferior to the fern book but the specimens are superior. Each specimen is fastened on to thin card (c. 30 × 25 cm) by a few unobtrusive loops of white cotton neatly tied at the back of the card; and each specimen is usually covered by a flimsy gummed along the top of the card.

The cards are not bound in, and can be taken out separately. The name of the fern is written directly on to the card, usually in the bottom right-hand corner, and below it is written "R. Helms, Greymouth" (sometimes "NZ" is added). Localities or dates are not given. Richard Helms (1842–1914) was a watchmaker and jeweller in Greymouth from c. 1878 to 1888 and collected plants and animals (usually invertebrates) for sale (22). He is not mentioned in (23).

3. Bryant's main fern collection consists of 227 sheets of indigenous species in 20 groups (18 genera plus "tree ferns" and "miscellaneous"). Each group of specimens is held together by a broad, strong, brown-paper "waist band" and the specimens are of three kinds. (a) 181 on card of the same kind as used by Helms and the same general size (e.g. 29.5 × 24.8 cm; 31.5 × 25.5 cm); and with the same kind of mounting and flimsys. The labelling is written directly on to the card in Bryant's hand and usually gives botanical name, locality, and year. This could be called Bryant's collection proper (i.e. collected by him). (b) 32 on paper of the same general size as the Helms or Bryant card (e.g. 31 × 23 cm; 33.5 × 25 cm). The specimens are either held on by small strips of white paper or are glued on directly. The labelling (directly on to the paper) is in the formal script described in 1b above. Usually only the botanical name is given, but occasionally this is amplified, e.g. "Lycopodium cernuum Te Whau, Auckland, T. Kirk" or "Lygodium articulatum Great Omaha, Auckland, T. Kirk".

(c) 14 on smaller paper than 3b (e.g. 29×18 cm). These belong to 1b in the fern book and include some of the missing numbers. They were presumably transferred here to complete the collection. Bryant seems to have aimed (as so many did) for a specimen of each species; and he was clearly given specimens by Kirk (1b, 3b,c).

In addition to the above there are groups labelled "Scotland" and "Foreign".

Acknowledgements

I am very grateful to Dr Gordon Ogilvie (Christchurch) for allowing me to study his grandfather's fern collection; and also very grateful to Dr Patrick Brownsey (Museum of New Zealand) and Mr Ewen Carneron (Auckland War Memorial Museum) for information about Bryant specimens and letters. I am also indebted to Mr W.H. Bryant 2nd (Motueka) for talking to me about his father; and for other valuable assistance I also thank Dr D.G. Drury (Richmond), particularly for taking me to Brightwater, Mr R. Gordon (Richmond), Mrs. L. Ladley (Wakefield), Ms Elizabeth Jensen (Christchurch), and Ms Ruth Lewis and Mrs Wendy Weller (both of Landcare Research, Lincoln).

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LETTERS TO THE EDITOR

Dear Editor,

Your correspondents have objected to the tone and balance of my "seed atlas" review (Gardner 2002). They also commented on my use of a pseudonym (for the record, Peter de Lange is – someone else).

Everyone knows it's a stakeholder's jungle out there – no player can afford to target the parameters of short-term survival. But I used a pseudonym for a less cryptic reason: in pretending to be a newcomer to NZ botany, loaded with keenness and bits of overlooked information (some of it from major journals), I was wanting to advertise the independent reviewer's most important duty, to spill the beans. Floristic fuglemen may be tolerable chaps but their goods are habit-forming; carpfishers and nitpickers are more important to the health of a society, especially an insular one like ours.

I did not feel so healthy myself when I went to Heads' (1990) summary of Thymelaeaceae fruit and seed and saw that I had got it wrong, with the atlas being right in describing the hard structure as a seed not an endocarp. Verbal dyscommunication is to blame (*non simper, O Marce, veritas in vino*), and certainly this sort of error in a review is shameful. If, as McGlone and Breitwieser advise twice, I had ever published a technical book, I might have learnt the need for constant vigilance.

It's harder to take their complaining I ignored a "certain cut-off date" in citing material omitted from the atlas, when that date was December 1999. Some of my notes were more recent (I was just being helpful) but two were from '96 and two from '97. One of the earlier notes, on the *Pomaderris* seed elaiosome (spelt wrongly in the atlas, and not included in its glossary) was novel for NZ: we do have ant-dispersed seeds.

I agree that stereo-pair photography is really only practicable for small specialist journals and wellfunded monographs. My preference was not a "disguised opinion" or criticism but a statement about optimal presentation. Some would be unaccustomed to it (not archaeologists though), but to say that "users are unlikely to benefit" is like saying a picture is really worth only 500 words. Until taxonomicpublication funding is adequate in this country the question is moot, unfortunately.

"We fail to see how naming colours in a Latinate way would assist the reader", say McGlone & Breitwieser. Is it not their obligation to explain why three centuries of taxonomic term-making should be bypassed for terms like "dark henna" and "grey nut brown"? But I was also making the point that the only deficiency in Stearn's "Botanical Latin" is its lack of a colour chart. Not surprisingly then the atlas fails in this too. To reiterate, its colour chart is muddy, peculiarly arranged and unsystematically named. The proposed monocot seed atlas should do much better.

Latin-imitative terms for seed shapes can often be mnemonic, e.g. trulliform (like a trowel), and trolliform (like a troll). But what actually is the hardship in using conventional nomenclature for solid shapes: obovoid not obovate, etc? In fact the atlas does contain some correct usage, perhaps from an early draft, e.g. *Plantago aucklandica* "seed dorsiventrally compressed, more or less *elliptic* and symmetric *in dorsal or ventral view*" [my italics].

My objection to the atlas's description of *Macropiper melchior* seeds is that it is reasonable to think the monographer of a genus might know at least as much about the subject as even the most dedicated broad-spectrum seed-atlas maker. The phrase used in the atlas's small print, "but in the material we have seen the typical number is three" could well be construed as dismissive.

This raises the question of adequate sampling, but since that was not one of Bal's original carps – the atlas's workers clearly spared no effort in obtaining representative material – I will say nothing more, except the obvious, that as the disagreements about *Macropiper melchior* and *Atriplex billardierei* show, future intensive studies will no doubt test a few of the atlas's findings.

I don't understand why McGlone & Breitwieser expect a reviewer to supply "a detailed list of all the errors and omissions". My list, lengthy enough, is not "unsorted" as they claim but arranged alphabetically by genus, and the atlas's full index will allow the reader to find the family, if in fact he or she needs such help, e.g., *Nothofagus* is to be found in Nothofacaceae.

It is a relief to turn back to their second paragraph, which accepts that glowing reviews are not always particularly useful. It is also reassuring to be told that one works in a "key scientific establishment", thought the effect is spoilt a bit by their going on to deny the existence of its Botany Department. This is probably not a Freudian slip, nor folie à deux, but the same kind of thing as my Thymelaeaceae confusion, an CSH issue perhaps. By the way, non-existence is also attributed to Bal's technician (w.r.t. the review's "my technician refused to count them"). This person is of course Bal himself; that is his egalitarian nature.

A last gesture from my department's business arm. I bough my copy with my own money, that is, it was Peter de Lange's but I got hold of it and hogged it and eventually spilt coffee over it. If I hadn't liked it so much I wouldn't have bought it off him and wouldn't have reviewed it. The colour chart and dubious binding are only minor deficiencies. The work is handsome, user-friendly, and incredibly thorough. Colin Webb's fortitude in seeing it to completion was remarkable. Hopefully it will have many purchasers, some of whom will be inspired to test it to its limits.

Rhys "Bal P. Fader" Gardner, Botany Department, Auckland War Memorial Museum.

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SYMPOSIUM

Conserving Native Plants for the 22nd Century

The Canterbury Botanical Society is celebrating its 50th anniversary by holding a symposium entitled **Conserving Native Plants for the 22nd Century.**

It will take place at the University of Canterbury on Saturday 7 June 2003.

The Society has invited speakers who are active in conservation as scientists, managers, or advocates.

They will contribute forward-looking discussions, rather than accounts of research in progress.

While the emphasis is on plant species, communities and habitats of Canterbury and Westland, the topics are relevant to New Zealand as a whole.

The programme will interest Society members, scientists, conservation managers, and others with a concern for native plants.

Offers of poster papers are welcome.

The Society intends to publish the proceedings of the symposium as a special 50th anniversary issue.

To assist the committee with planning, we would appreciate your indication of interest.

Please reply ASAP to:

Peter Wardle Symposium Secretary Canterbury Botanical Society Phone 03 980 9724 P.O. Box 8212 Riccarton, Christchurch <u>wardlep@paradise.net.nz</u>

Please turn to p 18 for reply form

am interested in attending ' Conserving Native Plant s It the University of Canterbury on Saturday 7 June 200	s for the 22nd Century')3.
Please send a registration form and programme:	yes/no
will probably attend the buffet dinner in the evening:	yes/no
lame:	
ostal/e-mail address:	

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ISSN 0112-6865