

NEW ZEALAND BOTANICAL SOCIETY

NEWSLETTER

NUMBER 51

MARCH 1998



NEW ZEALAND BOTANICAL SOCIETY
N E W S L E T T E R
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New Zealand Botanical Society

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Subscriptions

The 1998 ordinary and institutional subs are \$18 (reduced to \$15 if paid by the due date on the subscription invoice). The 1998 student sub, 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 28 February of each year for that calendar year. Existing subscribers are sent an invoice with the December *Newsletter* for the next year's 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 1998 issue (Number 52) is 29 May 1998.

Please forward contributions to: Dr Carol J. West,
c/- Department of Conservation
PO Box 743
Invercargill

Contributions may be provide on an IBM compatible floppy disc (WordPerfect 5.1) or by e-mail to cwest@doc.govt.nz

Cover Illustration

Pteris vittata frond (photocopy) (AK 234690-92)- see article p. 9.

NEWS

New Zealand Botanical Society News

■ Balance sheet for the financial year 01 January - 31 December 1997

<u>INCOME</u>		<u>EXPENDITURE</u>	
B/fwd from 1996	573.22	Printing Newsletter 47	1,023.75
1997 Subscriptions	3,878.00	Posting Newsletter 47	183.20
1997 Student Subs	88.00	Printing Newsletter 48	1,023.75
Subs in advance	104.00	Posting Newsletter 48	184.80
Donations	340.25	Printing Newsletter 49	1,001.25
Back Issue Sales	161.50	Posting Newsletter 49	186.40
Interest Cheque Account	1.38	Stationery	57.22
Interest Investment Account	32.87	ECO Subscription	100.00
		Bank Fees	3.01
Total Income	\$5,179.22	Total Expenses	\$3,763.38

Excess income over expenditure of \$1,415.84 (represented by cheque account balance of \$238.68 and investment account balance of \$1,177.16) carried forward to 1998. Note that 1997 payments for printing *Newsletter* 50 (\$1,001.25), posting *Newsletter* 50 (\$189.60) and stationery (\$78.02) did not come to account until early January 1998 leaving an effective carry forward to 1998 of \$146.97.

Anthony Wright, Treasurer, New Zealand Botanical Society 21 January 1998

Regional Botanical Society News

■ Auckland Botanical Society

Anniversary Weekend Field Trip

Members from Auckland, Waikato, Rotorua and Wellington Botanical Societies, together with some invited Hawkes Bay identities, stayed in the Forest & Bird William Hartree Memorial Lodge near Patoka in the Hawkes Bay. This proved to be a comfortable base for botanising in the Puketitiri district and main Kaweka Range. Botanical excursions were made to Balls Clearing Scenic Reserve, Hutchinson Scenic Reserve, William Hartree Memorial Scenic Reserve, Little Bush, Littles Clearing, Black Birch Range, Mangatutu Hotsprings and the Kaweka Range. Vegetation types visited included tall pure podocarp forest, red beech forest, mountain beech forest, kanuka/manuka tall scrub, red tussockland, and various subalpine and alpine communities. Near Puketitiri were encountered flowering mistletoes, *Alepis flavida* on red beech, and *Tupeia antarctica*, which is common in the district. At this time of the year many Kaweka alpine species were in flower at 1100-1700 m altitude.

February Field Trip

After months of hot, dry weather, the drought broke on the day of this field trip, and the very pretty Omeru Reserve near the shores of the Kaipara Harbour, was not seen to its best advantage. However, the rain was warm and gentle, and the walk to the waterfall was enjoyed, then the small patch of bush was explored, revealing two dainty ferns, *Asplenium gracillimum* and *Doodia mollis*. After lunch a patch of privately owned lowland bush, covenanted with the QEII National Trust, was visited at nearby Makarau. This proved to be a treasure trove of divaricating shrubs, filmy ferns, large kahikatea, matai and rimu, and most interesting of all, a grove of *Dicksonia fibrosa*. While not the most northerly occurrence of this tree fern, it was unusual to see it in such numbers at this latitude.

Forthcoming Activities

Evening meetings (note new venue - Laura Fergusson Trust, 49-51 Omaha Road, Remuera):

4 March - AGM; Invasive Fungi (Dr Peter Johnston)

1 April, 6 May to be arranged.

Field trips:

21 March - The Noises Islands (Ewen Cameron)

18 April - Huapai University Reserve and Ernest Morgan Reserve (Ewen Cameron and Anne Grace)
16 May - Ethnobotany Trip. Cascade Kauri area.

Maureen Young, 36 Alnwick Street, Warkworth

■ Nelson Botanical Society

January Field Trip Report: Hope Range

A party of 26 headed up from the Boulder Creek bridge. The initial steep climb was broken by frequent stops to examine fern covered rocks and unusual plants such as the swarm of *Raukaua anomalus* -*R. simplex* hybrids. After the initial dense shrubs of the lower terrace the track passed through open red beech forest changing to silver beech and mountain beech as the ridge leveled out. Then on the flat part of the ridge the vegetation changed markedly to low sparse mountain beech, pink pine, manuka, and gahnia shrublands which progressively thinned as the main ridge was reached. A special attraction here were the numerous waxy yellow *Lyperanthus antarcticus* flowers and a scattering of alpine plants. On the ridge there were numerous deep blue *Thelymitra cyanea*. Then over the ridge a large area of red tussock wetland provided a host of alpiners, many in flower. Of particular note were the grand *Celmisia monroi* var. *semicordata*, *Hebe tetragona*, *Celmisia* "rhizomatous" and the last flowers of *Euphrasia zelandica*.

Anniversary Weekend Camp Report: Mt Richmond

Saturday was a long trudge up Timms Creek to Mt Richmond. The early part of the track led along the stream-side through mixed red, silver and mountain beech forest containing rimu, matai, miro and kahikatea with a rich diversity of shrubs and ferns. Then, after a welcome wetting of feet (in temperatures in the 30's) we began a steep climb at first through red beech forest with the odd rata and red mistletoe then wet mountain beech forest with montane hook grass species (with ripe fruit). Further close to the tree-line going was difficult in a dense *Chionochloa cheesemanii* understorey. At tree line were soon rewarded *Celmisia macmahonii*, *C. cordatifolia* and masses of edelweiss in full flower amongst the bluffs. Scattered large *Gentiana corymbifera*, *Aciphylla aurea* and epilobiums also added interest to the rock fields and carpet grasslands. Find of the day *Gastrodia* "long column" with their yellow flowers on the otherwise naked and camouflaged stems.

A definition overheard: Wallpaper- common plants you know but never notice until prompted to.

Sunday we headed for Lake Chalice. First stop was the Enchanted Lookout where we foraged, ducking fog-dripping pine trees and dew draped inaka (*Dracophyllum longifolium*). Finds included *Olearia cymbifolia*, *Helichrysum parvifolium* and lots of gentians (*G. tenuifolia*) with purple-veined flowers. At the Lake Chalice car park, the party split with some browsing along the road and summits and the majority heading down to Lake Chalice. For those who spent time along the summits finds included numerous hairy-leaved *Hebe gibbsii* and masses of *H. aff. rigidula* in flower.

Those who headed down to the lake were soon finding orchids in the manuka scrub (*Pterostylis australis* still just in flower and blue *Thelymitra hatchii*) and *Pittosporum*. After a brief tour of the lake shore and plod across the mud to find *Rorippa palustre*, *Elatine gratioloides* and other wetland plants the return uphill trudge gave more time to examine the lower mixed beech forest. Finds of the day *Hebe gibbsii* and *Pittosporum patulum*.

Another definition: Carpet - plants you don't know - and don't see (or don't want to see).

Monday morning we visited Onamalutu. This spectacular dense podocarp stand always provides something new. The first walk soon brought us to a *Streblus heterophyllus* nearly a metre in diameter and a huge *Melicytus lanceolatus*. The odd tawa, here only as saplings, is the last you will find to nearly Kaikoura. Further on torrid debate soon ensued over the identity of the small-leaved *Coprosma rotundifolia*?, quelled when the other hybrid parent (*C. crassifolia*) was finally spotted. The second walk provided mistletoe (*Peraxilla ?tetraptera*) and a confusing array of forms in the ribbonwoods, possibly due to hybridism between local *Hoheria angustifolia*, *H. populnea* and planted *H. sextylosa*. Other "foreigners" seen included a small stand of kauri (GJ).

February Field Trip Report: Ben Nevis

The initial beech forest contained many plants of interest, including *Acaena profundeincisa* which aroused debate about distinguishing it from *A. anserinifolia*. Most orchids were past recognition although *Gastrodia cunninghamii* and *Chiloglottis cornuta* were found right on the track. Flowering specimens of *Schizeilema roughii*, *Helichrysum intermedium* and higher up, *Hebe gibbsii* distracted us from the difficulties of negotiating rocky patches. When we finally left the forest it was time to explore the scree. *Leucogenes leontopodium* *Olearia cymbifolia* and the beautifully scented *Pratia macrodon* put on a wonderful show

over quite large areas. Of the 'real' scree species we found only a few *Notothlaspi australe*, *Parahebe cheesemanii*, *Neopaxia australasica* and *Epilobium melanocaulon*. Those who climbed to the trig reported a small flock of vegetable sheep of uncertain breed and a wonderful view of the Red Hills. (Abridged from report by Cathy Jones)

Forthcoming trips

March 15 - Lodestone

April 19 - Pretty Bridge

May 17- Dunn Mt via Maitai

Graeme Jane, 136 Cleveland Terrace, Nelson

Other News

■ Registration of Plant Names

Article 32.1–2 of the 1994 International Code of Botanical Nomenclature (Tokyo Code) will require new names of plants and fungi to be registered in order to be validly published after 1 January 2000. Although this is subject to ratification by the XVI International Botanical Congress (St Louis, 1999), the International Association for Plant Taxonomy (IAPT) has begun a 2-year trial period of non-mandatory registration from 1 January 1998. The co-ordinating centre is the Secretariat of IAPT, currently at the Botanic Garden and Botanical Museum Berlin-Dahlem, Germany.

The co-ordinating registration centre, and any associated centre operating under its auspices, will register and make available all names of new taxa plus all new combinations or rank transfers that are brought to their attention either by:

- being published in an accredited journal or serial; or
- being submitted for registration by an author, either directly or through a national registration office.

Thus, an author who publishes a new name in an accredited journal need not worry about having to personally register the new name.

A regularly updated list of accredited journals and serials is on the IAPT's website (<http://www.bgbm.fu-berlin.de/iapt/registration/journals.htm>). In addition, the list will be published annually in the journal *Taxon*. *New Zealand Journal of Botany* is accredited, and from Vol. 36 No. 1 (March 1998) all new names and combinations published in *New Zealand Journal of Botany* will be registered.

New Zealand Journal of Botany statistics

The last decade has brought many changes for science in New Zealand, and botany as a broad discipline has had its share of disturbance. Events affecting botany have included restructuring and changes in Botany Division and Ecology Division of DSIR, introduction of the new bidding system for allocation of research funding, establishment of the crown research institutes and the resulting redundancies and relocations, and on-going reviews and restructurings in CRIs, universities, and the Department of Conservation. In spite of all this, botany, botanists, and the journal have survived and appear to have adjusted to new regimes. Some of the journal's statistics reflect the changes of the last 10 years.

In 1988, 67 papers were submitted to *New Zealand Journal of Botany*. The number of submissions per year then gradually declined to a nadir in 1992, the year that CRIs came into being, when only 48 papers were received. Since then, submissions have increased steadily to 70 in 1996 and a record 88 in 1997. Over this period, approximately 10% of papers submitted have been rejected or withdrawn.

Since the introduction of bidding rounds for research funding, an annual pattern of submissions has developed. Peak months for submission of new papers are June and July, at the end of the financial year, when papers need to have been submitted to satisfy funding agency requirements. September and November remain relatively quiet months as academic staff are busy with marking and many people are preparing ForST bids. However, submissions in October have increased to almost double the rate of September or November, presumably to support funding bids. After completion of exam marking and bid preparation, submission rates increase again in December as people clear their desks before the holiday period and summer field work. The recent move by universities from full-year courses to half-year or semester courses has placed an extra marking load on academic staff in May and early June which is reflected by a decrease in submissions in May.

The number of papers published per year over the last decade has varied from 40 in 1992 to 60 in 1996. Fewer than 50 papers were published in each of the years 1990–1994 inclusive. This was the period of lowest submission rates, and coincides with establishment of the Foundation for Research, Science and Technology and CRIs, shifting responsibility for the six former DSIR journals to The Royal Society of New Zealand, budget restraints on the number of pages per issue of *New Zealand Journal of Botany*, and a change of journal editor. That period of uncertainty among the botanical community now appears to have passed, with increased submissions and numbers of papers published.

To the end of 1996, the senior authors of 40–50% of papers published were staff of or associated with CRIs or their equivalent forerunners, 25–35% were from New Zealand universities, 2–10% were others in New Zealand not associated with CRIs or universities, including staff of Museum of New Zealand Te Papa Tongarewa, Auckland Museum, Department of Conservation, and people working privately, and 12–22% were from overseas. There was a shift in these proportions in 1997, with only 6% of papers published having senior authors overseas, and 31% from each of the three New Zealand categories.

Ecology (29% of papers published) and biosystematics and phytogeography (20%) have been the most prominent subject categories over the last decade. Over the last two years, however, there have been marked increases in biosystematics and phytogeography and decreases in ecology relative to the decade averages, perhaps reflecting research priorities and funding allocations. Short communications have been 13% of papers published. Other subject categories have each contributed 10% of papers published. These lower proportions reflect the low numbers of people working in some of these areas in New Zealand or on South Pacific botany. However, these subject areas are no less important to botany than ecology and systematics, and their inclusion in the journal maintains a balance of subject matter.

New Zealand's botanical community has consistently supported *New Zealand Journal of Botany* since its inception, as authors and as referees. Pressures of writing and reviewing funding bids, teaching, administration, and actually doing research can delay refereeing and revision of papers at times, but most people are reasonably prompt most of the time. I thank all those who support the journal, both in New Zealand and overseas, for their time and contributions.

Fran Kell, Editor, *New Zealand Journal of Botany*, P O Box 399, Wellington

NOTES AND REPORTS

Plant Records

■ Two new localities for *Danhatchia australis* (Orchidaceae)

Introduction

Over the last decade there has been renewed interest in the distribution and seasonal abundance of the endemic orchid genus *Danhatchia* (Garay & Christenson 1995), which has led to a review of past and present occurrences (Hatch 1997). This saprophytic orchid has a predominantly northerly distribution, following, to some extent at least, the distributions of taraire (*Bellschmidia tarairi*) and nikau (*Rhopalostylis sapida*) (Fig. 1). Both species support a mycorrhizal association with the puffball fungus *Lycoperdon perlatum*. This fungus is said to be associated with *Danhatchia* (Campbell 1970).

In the Auckland region *Danhatchia* has been collected and reported most frequently from a broad strip of land between the Kaipara Harbour (Hotoe River) and Warkworth (Fig. 1) (Hatch 1997). Diligent searching elsewhere in Northland and South Auckland would likely reveal further populations.

Within the Hauraki Gulf, *Danhatchia* occurs in the northern and southern parts of Great Barrier Island (Wright & Cameron 1985), and in 1994 was discovered at one site on Waiheke Island (Hatch 1994) (Fig. 1). The species has also been reliably reported from Little Barrier Island (T. Hatch pers. comm.).

Further south *Danhatchia* has been collected from several locations on the northern Coromandel Peninsula (Hatch 1997), and in the Western Waikato it was discovered on the lower forested slopes of Mt Pirongia by the late Reg Bell (pers. comm. 1976) who found the orchid while looking for *Thismia rodwayi* (see Bell 1971; R. Bell pers. comm., 1976). Reg Bell took a small flowering piece, which he photographed on the

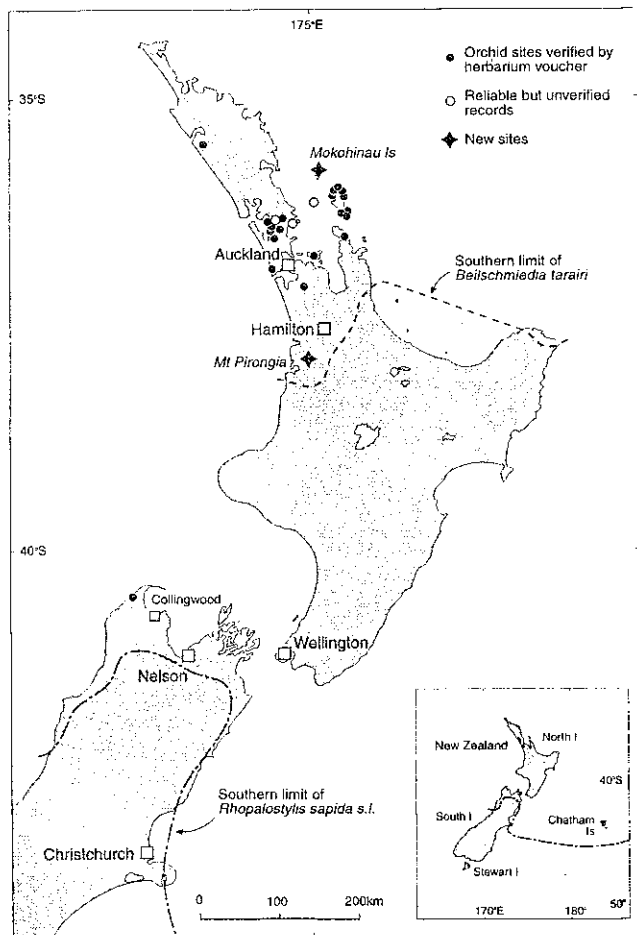


Fig. 1. Distribution of *Danhatchia australis* (Hatch) Garay et Christenson (after Hatch 1997). Closed circles – records verified by herbarium specimens, open circle – unverified records. Closed diamonds – new locations (this paper). Dashed line – southern limit of taraire (*Beilschmiedia tarairi*) (P.J. de Lange unpubl. data), bold dashed and dotted line – approximate southern limit of nikau (*Rhopalostylis sapida* s.l.), inset - distribution of nikau outside mainland New Zealand. (P.J. de Lange unpubl. data).

back lawn of the family house at Pirongia, before planting it in his garden in the hope that it might grow. Unfortunately, he did not preserve the specimen, and the photograph (which one of us (P.dL.) saw in 1978) has now been lost. Thus, like many of Reg Bell's botanical discoveries, exact locality details were never given, and following his death in 1981 the record became another botanical mystery until Mt Pirongia was revisited by one of us (P. dL.) in December 1997.

This article discusses additional occurrences of *Danhatchia*, thereby adding to our existing knowledge of this monotypic orchid's distribution.

Motukino (Fanal) Island

Motukino (Fanal) Island, at 75 ha, is the largest island within the Mokohinau Islands group (Fig.1). The island was repeatedly burned by mutton-birders until the early 1920s, resulting in a dense vegetation of tall flax (*Phormium tenax*) interspersed with low shrubs of mapou (*Myrsine australis*), koromiko (*Hebe* sp. "v" of Eagle 1982; AK 150628), houpara (*Pseudopanax lessonii*) and pohutukawa (*Metrosideros excelsa*). However, three forested areas survived the fires to varying degrees, and these are dominated by houpara, pohutukawa, tawapou (*Pouteria costata*), puriri (*Vitex lucens*), coastal maire (*Nestegis apetala*), and nikau.

In September 1994 the flora and fauna of Motukino Island was examined in detail, as a precursor for planned kiore (*Rattus exulans*) eradication (de Lange *et al.* 1995). One result of this visit was that we confirmed and found further good populations of a number of nationally threatened plants, including the endangered Cook's scurvy grass, *Lepidium oleraceum* (see de Lange & Norton 1996) and *Rorippa divaricata*. It was the presence of these species, which led to a second visit to Motukino Island in December 1997.

During the 1997 visit, a traverse of the *wahi tapu*, Pahuhunui (see Spring-Rice 1980), revealed several patches of *Danhatchia australis* emerging from thick houpara leaf litter (de Lange 3386 & Norton, AK 234325), near the dry ridge top. At this site, taraire is absent, and nikau scarce, except for a few small seedlings 2 m distant from the orchid occurrences, with the canopy a dense pure stand of 4 m tall houpara. The understorey at the site contained scattered spindly mahoe (*Meliccytus ramiflorus*), mapou and pohutukawa, while the sparse ground cover comprised the occasional *Carex spirostris*, and *Dichondra* aff. *repens*.

Four patches of *Danhatchia* were discovered within an area of c.6m². The largest of these was c.30 cm diameter, and was the only one to support open flowers. These were borne on pale mushroom grey to pinkish leafy spikes. The barely open flowers were pale cream suffused with pink, and had a faint musty odour. Careful excavation of the orchid showed that the *Danhatchia* was threaded amongst the roots of houpara (identified by the adventitious sprouting of the roots), which in turn grew within an extremely dry, friable loam, derived from the heavily weathered ignimbrite capping this part of the island.

Mt Pirongia

Mt Pirongia, at 959 m a.s.l., is the highest peak in the Waikato (Fig. 1). The "mountain" is really a heavily eroded basaltic-andesitic complex with several volcanic vents of varying ages, which collectively dominate the skyline of the southern Kapamahunga Range (Briggs 1983, Briggs *et al.* 1989). The main summit of the mountain is part of a long ridge bisecting the central section of the range. Based on herbarium and other ecological evidence it seemed unlikely that *Danhatchia* would grow on the central part of the mountain and past searches have concentrated on the forested valleys draining west from Koponui (the northern most high point of the Pirongia Range), to the Aotea Harbour. In this area there is much nikau and the occasional taraire (cf. Wright 1984). Although it seemed the best place to look for *Danhatchia*, past searches have proved unsuccessful.

On the eastern side of the range there are some smaller pockets of lowland forest containing nikau, but apparently no taraire. The best of these forests occurs along the lower reaches of the Blue Bull and Kaniwhaniwha Streams. There are plenty of nikau within the tall tawa and podocarp forest, and it was here that Reg Bell did a lot of his botanising.

After several hours searching amongst the swampy forest bordering the Blue Bull and Kaniwhaniwha Streams, one of us (PdL) eventually found a small patch of *Danhatchia* in a damp gloomy hollow, amongst a thick leaf litter of fallen nikau fronds (*de Lange* 3402, AK 234356).

Danhatchia may well be found elsewhere in the western Waikato. Obvious places to search would be the local remnants of taraire forest scattered from Port Waikato to Raglan Harbour. These remnants with their dense nikau understories, should contain the orchid.

Discussion

Both *Danhatchia* discoveries are significant. The Motukino Island occurrence is of interest because of its presence within such an isolated island archipelago, and its apparent association with an unusual forest type. Its discovery here hints at the potential of other Hauraki Gulf islands. Certainly the Hen & Chicken Islands supports suitable habitat, so searches there could be worthwhile. The Mt Pirongia population not only provides confirmation of a past, unsubstantiated record but also adds, for the time being at least, a new southerly limit for *Danhatchia* in the North Island.

Occurrences of *Danhatchia* further afield cannot be ruled out. In December 1984, an observant naturalist, Nicholas Bunart, found the species in the Kaihoka Lakes Scenic Reserve, North West Nelson. There the species occurs in coastal forest dominated by nikau, which has developed on old sand dunes. Horsley (1989) gives a brief account of the site and its flora.

Nikau, rather than taraire, is consistently found with *Danhatchia* throughout its range. This raises several questions. What is the relationship between these two taxa? Is the perceived association real or merely an artifact? Does it have any evolutionary or biogeographic significance? Should we now be searching all forest types with nikau present and expect to find *Danhatchia*? While the southernmost mainland nikau on Banks Peninsula might seem climatically unsuitable, coastal nikau forest stands to the north and on the Chatham Islands (Fig. 1) should not be ruled out, even though the Chatham Islands nikau is generally regarded as a separate taxon distinct from its mainland relative.

Acknowledgements

Peter de Lange would like to thank Roger Stevenson (Skyworks Ltd) for Helicopter transport to Motukino and other islands within the Mokohinau Islands Nature Reserve. He also acknowledges David and Brian Norton, Bec Stanley, and Gillian Crowcroft for field assistance. We thank Terry Hatch for his information on *Danhatchia* at Little Barrier, and Whetu McGregor (Ngati Rehua [Ngati Wai Aotea]) for iwi permission to visit Motukino and its *wahi tapu*. Lastly, our gratitude to staff of the Department of Conservation (Auckland and Hamilton) for providing the necessary permits to land and collect plant specimens from the Mokohinau Islands Nature Reserve and Mt Pirongia.

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■ *Pteris vittata* L. - a new naturalised fern

On 18 May 1995 Mrs KJ Bell brought a fern specimen from her garden into the Auckland Museum herbarium for identification. Evidently the fern first appeared as a sporeling in her moss-lined, concrete gully trap, during 1989 or 1990 on her property in Epsom, Auckland. She transferred the sporeling to her garden. The fern was identified by one of us (BSP) as *Pteris vittata* (AK 223419-21). In July 1995 one of us (EKC) went and visited the Epsom property. The cultivated *Pteris* was a short-creeping plant with erect fronds up to 161 cm tall (AK 223494-95) (Fig. - see cover of this *Newsletter*). Some 20 m away, in the neighbouring property, was a smaller plant (c.20 cm tall) growing on a low brick wall and obviously not planted (presumably established from spores blown from Mrs Bell's much larger plant). There appeared to be no other plants of it in the general area. In October of the same year Mrs Bell again came into the herbarium, this time with a specimen of *Pteris vittata* from her sister's garden in Napier (AK 224154), who reported it was a nuisance on a crib wall in her garden where, unaided by her, it had established quickly. Mrs Bell suggested she may have unknowingly transported some spores of the Napier plants to her Epsom property (although the Napier plants were less than 1 m tall). One of us (EKC) returned to Mrs Bell's Epsom property in February 1998 and found that the original tall plant was still present, Mrs Bell has never found any sporelings of it elsewhere in her garden (although there were some unidentified sporelings in the gully trap), and the neighbour's brick wall with the smaller *Pteris vittata* had been demolished along with the fern.

This appears to be the first account of *Pteris vittata* naturalising in New Zealand. The paucity of sporelings from the Epsom plant indicates that, the Auckland entity at least, does not appear to be aggressive. Neither of us have seen the Napier population but it appears that it is aggressive in the open.

We found no literature records of *P. vittata* taller than 120 cm, so the 161 cm plant at Epsom is rather large! The first fertile fronds of young *P. vittata* are c. 15 cm long. There are various common names for it: Chinese brake, rusty brake, paku uban bukit (Malay), and líng kài fèng wēi ch'uèh (Chinese).

Pteris vittata is a very widespread fern and is native to southern Europe, Africa, Asia, most of the Old World tropics, and most of the Pacific, including countries close to New Zealand such as Australia (but not Tasmania), Vanuatu, Norfolk Island, Tonga, Fiji. It is reported naturalised in northern Europe (Britain, France, Hungary), Malta and the Azores (Derrick et al. 1987), southern U.S.A. (Lellinger 1985) and Bahamas, Puerto Rico Virgin Islands, the Lesser Antilles and Trinidad (Proctor 1989).

Pteris vittata has been cultivated in New Zealand for at least 10 years. One of us (BSP) has grown it since 1989 and during that time it has never naturalised. In Kerikeri a young plant withstood at least 1 degree

of frost last winter. Good light seems to be important to its well-being in winter as one of us (BSP) lost a plant that was growing in deep shade to 'hard-crown' disease in winter 1990.

In New Zealand *Pteris cretica* L. is the species most likely to be confused with *P. vittata*, but differs in having the basal pair of pinnae once forked. In dried specimens, the veins on the non-fertile side of the pinnae are raised in *P. cretica* and sunken in *P. vittata*. To date *P. cretica* is the only other *Pteris* sp. to have naturalised in New Zealand (see Webb et al. 1988).

Acknowledgement

We thank Mrs Bell for bringing her new fern into the herbarium to be identified.

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Comment

■ "*Caladenia calliniger*", nude but not illegitimate

In a recent publication on *Caladenia* orchids in New Zealand, Jones, Molloy and Clements (1997) change the name of one of these plants. Their action not only departs from recommended nomenclatural practice but is bolstered by false and tendentious reasoning.

I am referring to their new species name *Caladenia atradenia*, for the taxon formerly known as *Caladenia carnea* var. *minor* f. *calliniger*. The latter name, validly published by Dan Hatch (1963) - more of this in a moment - was based on a manuscript name: "This plant has been known since 1928 when H.B. Matthews collected it from the Glen Eden slopes of the Waitakere Ranges and gave it the MS name of "*Caladenia calliniger*" [sic] . . . Matthews' name is excellent and his description fits that plant perfectly and I feel he should be credited with its discovery" (Hatch 1963: p. 187).

The reason for ignoring the epithet *calliniger*, Jones et al. say, is that when he made the new form Hatch also published a name at species level, *Caladenia calliniger* Matthews in Hatch, for the taxon. This name, they state, is a *nomen nudum*; they incorrectly add that it is an illegitimate name too and that therefore a new name has to be found.

Hatch's publication was done under the heading "*Caladenia carnea* R.Br. var. *minor* (Hook.f) Hatch forma *calliniger* Matth. ex Hatch form. nov." After the preamble (cited above) a Latin diagnosis was given, and a holotype selected. This is all correctly done. It is very clear that Hatch did not publish a species name here. Admittedly, he says that "Matthews' name is excellent" - what he means, of course, is that the epithet is an excellent one. *Caladenia calliniger* remains a *nomen nudum*, that is, it has never been validly published.

All this, though, is beside the point, since *nomina nuda* are not illegitimate! They are simply not capable of being judged legitimate or not, having been selected out at an earlier stage of "the nomenclatural filter" (Jeffrey 1963, see also de Wit 1956). It is perfectly possible to publish them validly, associating them with a diagnosis and a type which may or not be in accord with the original manuscript occurrence of the name. Only then can they be considered for legitimacy.

As is well known, there is no compulsion under the current International Rules of Botanical Nomenclature to use *calliniger* when treating this plant at species level (though, interestingly enough, there will be under the provisions of the unified Biocode now being discussed in the pages of *Taxon*, etc.). However, to use

such an epithet, when there is no obstacle against doing so, is a civilized thing to do, preserving the course of events and the human interest of the topic. This sensible behaviour is encapsulated in the Code's Recommendation 24B. 2: "When an infraspecific taxon is raised to the rank of species ... the final epithet of its name should be retained unless the resulting combination would be contrary to the Code".

It may well be that a new era in New Zealand orchidology is dawning, but one has to wonder if its taxonomy will be as *ad hominem* as its nomenclature.

Acknowledgement

I am grateful to Dr Dan Nicholson for his comments and for pointing out the provision in the proposed Biocode "which gives coordinate status to species and infraspecific names".

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■ Will we drown in information?

"It is estimated that the world is now producing over 6000 scientific articles every day. Production of scientific articles is increasing at approximately 13% per year leading to a doubling of the amount of scientific information every five and a half years. Commentators suggest that the rate of production of scientific articles will increase to 40% per year as information technology advances. At this rate of production, science information will double every 20 months. Keeping informed of recent advances in one's field (and in related fields if one is a "generalist") will be impossible if science information increases at this rate. Many would argue that it is already impossible to keep in touch with all that is being published in their field. The science community will need to develop innovative ways to keep its constituents in touch with recent developments. Scientists will need to be taught how to do this. The literature search of the past may not be enough any more. It may be necessary to web-search and post queries to electronic bulletin boards." - from "Science databases and collection issues: oceans of data, vulnerable collections and terabytes of power" by I. Whitehouse (1998). A scoping study prepared for MoRST, Report 67.

Editor

■ A note on the recent transfer of *Cassinia leptophylla* (Compositae) to *Ozothamnus*

In 1997 we transferred New Zealand *Cassinia* to *Ozothamnus* (Breitwieser & Ward 1997), providing a new combination for the one species, *Cassinia leptophylla*, accepted by Webb (1988) in Flora IV. Since then we have had questions from people who wished to cite species recognised in Flora I (Allan 1961) and were unsure of what to call them. Some have also wondered why we did not provide new combinations for them. This has prompted us to provide this note.

The genus *Cassinia* was erected in 1817 by Robert Brown to contain a group of shrubby Australasian Compositae having flower heads in terminal clusters. At the same time he described the closely related genus *Ozothamnus* which differed from *Cassinia* principally in lacking scales among the florets.

In our research on the systematics of the New Zealand gnaphaloid Compositae (Breitwieser 1993, Breitwieser & Ward 1993, Breitwieser & Sampson 1997a,b), we compared a representative selection of New Zealand and closely related Tasmanian taxa, including *Cassinia* from New Zealand and Tasmania and *Ozothamnus* from Tasmania. Our results indicated that New Zealand *Cassinia* is much closer to Tasmanian *Ozothamnus* than it is to Tasmanian *Cassinia*. For example, the leaf anatomy of New Zealand *Cassinia* is almost identical to that of *Ozothamnus rodwayi* of Tasmania.

Sir Joseph Hooker remarked several times on the resemblance between *Ozothamnus* and New Zealand *Cassinia*. In 1852 he wrote of *C. vauvilliersii* that "it so very closely resembles the *C. cuneifolia* A.Cunn. (in DC. Prodr.), of Mount Wellington, in Tasmania, that were that plant a true *Cassinia* I should possibly have united them, but the latter having no paleae on the receptacle amongst the flowers, it must be referred to *Ozothamnus*". In 1860 he added the following comments to his description of *O. backhousei*: "A very

well marked species, and like no other Australian one, but so similar to the New Zealand *Cassinia Vauvilliersii*, that the presence of paleae on the receptacle of that plant is almost the only character whereby it can be distinguished." In 1864 he reiterated this and remarked of *C. fulvida* Hook.f. that it "should perhaps be referred to *Ozothamnus*". (*Cassinia cuneifolia* and *Ozothamnus backhousei* are now known as *O. rodwayi* Orchard (Wilson et al. 1992).) Wardle (1978) also noted that "...certain species referred to *Helichrysum* [now *Ozothamnus*] would be regarded as *Cassinia* in New Zealand...".

During our field observations in Tasmania, we noted the remarkable similarity in overall appearance of several species of *Ozothamnus* (*O. ericifolius* Hook.f., *O. ledifolius* (A.Cunn. ex DC.) Hook.f. and *O. rodwayi*) to New Zealand *Cassinia*. Features which we have observed to unite these taxa and distinguish them from Tasmanian species of *Cassinia* are: leaves not grooved above the midvein and lacking biseriate trichomes with very broad bases; capitula in smaller, more rounded clusters; individual capitula longer, and constricted slightly below the apex; involucre bracts radiating; achenes longer; apical cells of the pappus hairs broader. It is clear that the closest relatives of New Zealand *Cassinia* lie within *Ozothamnus* as it is currently circumscribed rather than *Cassinia*. Following Webb's (1988) treatment of New Zealand *Cassinia* as a single polymorphic species, we therefore transferred *Cassinia leptophylla* to *Ozothamnus*.

New Zealand taxa later attributed to *Cassinia* make their first appearance in the taxonomic literature in Forster's Prodrum (1786), where *C. leptophylla* is described under the genus *Calea*. Robert Brown in 1817 transferred it to his newly erected genus *Cassinia*, in which he distinguished two sections, the first characterised by a spreading involucre and containing only *C. leptophylla*, the second characterised by a converging involucre and containing all the shrubby Australian species of *Cassinia*. A further four species (*C. amoena* Cheeseman, *C. fulvida* Hook.f., *C. retorta* A.Cunn. ex DC. and *C. vauvilliersii* (Hombr. et Jacq.) Hook.f.) and several varieties, all with spreading involucre, have been described from New Zealand (see Allan 1961). However, Webb (1988) recognised only a single polymorphic New Zealand species, *C. leptophylla*.

We agree with Webb (1988) that a satisfactory treatment of *Ozothamnus leptophyllus* must await a more detailed analysis. Since Allan's treatment of *Cassinia*, it has become clear that the variation patterns within it are complex and not adequately dealt with. Nobody doubts that there are distinct forms, and that these are not merely phenotypic, as shown by their persistence when cultivated under uniform conditions. However, the sheer number of forms, and the unclear boundaries between forms, makes classification difficult. Even if clearcut entities can be distinguished, many possibilities (subspecies, variety, ecotype, etc.) exist between genotype and species.

In short, a comprehensive revision is required. This will be a sizeable project because of the wide distribution, the complexity of the variation, and the quantitative nature of many of the useful characters. It will shortly be undertaken by Ines Schönberger as a PhD project. Ines can be contacted at the Department of Plant and Microbial Sciences, University of Canterbury, Private Bag 4800, Christchurch (email: I.Schoenberger@botn.canterbury.ac.nz).

In the meantime, we realise that there is a problem with the lack of available names in *Ozothamnus* for species accepted under *Cassinia* in Flora I. However, we cannot publish new combinations just in case others want to use them. If we publish new combinations, we are accepting the taxa for which the combinations are published. This is laid down in the International Code of Botanical Nomenclature (Greuter et al. 1994) and there is nothing we can do about it. Those who wish to cite species recognised by Allan (1961) but not by Webb (1988) may find the following recommendations useful. *Cassinia retorta*, *C. leptophylla sensu* Allan, *C. amoena*, *C. vauvilliersii* and *C. fulvida* may be cited as:

Ozothamnus leptophyllus p.p. (*Cassinia retorta*),
Ozothamnus leptophyllus s. str.,
Ozothamnus leptophyllus p.p. (*Cassinia amoena*),
Ozothamnus vauvilliersii (this combination is already published, see Flora I),
Ozothamnus leptophyllus p.p. (*Cassinia fulvida*).

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BIOGRAPHY/BIBLIOGRAPHY

■ Biographical Notes (29) : Harry Carse (1857-1930)

Harry Carse, teacher, dairy farmer, and botanist was the son of William and Rebecca Carse, both of Scottish descent, she a McIntosh (1,2). In his typically generous tribute (2) Professor T.L. Lancaster states that "Carse was born at Leek, a small town in Staffordshire". However, Carse's Death Certificate gives his birthplace as "Macclesfield, England". This lies some 30 km to the north-west of Leek, in Cheshire. I suspect that the former is correct – the detail is convincing and Lancaster had clearly spoken with Carse about his early life. The second locality could have been supplied by a family member relying on memory.

Macclesfield, however, appears in Lancaster's account when he tells us that most of Carse's earlier education was at Musselburgh near Edinburgh, after which he worked in the "Macclesfield Bank" where his father was manager. A possible progression for William Carse is Leek – Musselburgh – Macclesfield.

After some years in banking Harry emigrated to New Zealand, arriving on the "S.S. *Kaikoura*" in 1885 (2). In Auckland, at age 28, he married Margaret Philp, and their family was to grow to 3 girls and 2 boys (1).

Carse's first years in New Zealand were described by Lancaster as follows: "For some time, a stranger in a strange land, he had to take up whatever work was available, but before long he came into contact with R.J. O'Sullivan, Inspector of Schools under the Auckland Education Board, who recognised him as one whose education and personal qualities fitted him for more important work than that in which he was engaged, and he was given the post of assistant teacher at the Newton West School. His next position was that of relieving teacher at Helensville, and later he was sent to Chelsea to open a school newly-established in that district." (2) Then, after teaching at Hunua, he went to Northland and there his botanical interests began to take off.

1. Kaitaia

Carse was appointed to the Kaitaia School in April 1893 (3). Here he became friends with Richard Henry Matthews (1835–1912), a foundation member of the school committee and 22 years his senior. Carse and Matthews found a mutual interest in native plants but neither had an expert knowledge of them. When Cheeseman and Adams passed through Kaitaia at New Year 1896, on their way to the North Cape District,

there is no evidence that they knew of Carse or Matthews. However, on 16 December 1896, Matthews ended their isolation by writing the first of many letters to Cheeseman. He asked for an identification ("I believe it is an orchid") and mentioned that he and Carse had collected "over 80 varieties of ferns within a radius of about 4 miles." A list was enclosed (4,5).

2. Maungatapere

By the beginning of 1898 Carse was teaching at Maungatapere, some 10 km westward of Whangarei; and on 4 March he wrote his first letter to Cheeseman, asking about ferns and other plants. From then until 21 November Carse sent 11 letters to Cheeseman from Maungatapere. They indicate that he had corresponded a little with Thomas Kirk before Kirk's death in 1898, and was corresponding with Donald Petrie, the Chief Inspector of Schools, Auckland Education Board, as well as R.H. and E.W. Matthews of Kaitia. He notes that he had visited Rangitoto in January, and on 9 March announces that he has "only recently decided to take up the introduced plants." Orchids and sedges are often discussed, and he is very pleased with Cheeseman's suggestion that he collect materials for a plant list of Whangarei County. His last letter contains a brief but historically important description of the vegetation of Mt. Maungatapere. Edgar (6) notes that Plate 209 (*Schoenus carsei*) in Cheeseman's "Illustrations of the New Zealand Flora" (1914) was based on Carse's specimens from Maungatapere, collected on 25 January 1899.

3. Mauku

Carse next taught at Mauku, in South Auckland just west of Pukekohe. From here he wrote at least 35 letters to Cheeseman from 7 May 1899 to 14 January 1902. Cheeseman's suggestion of a plant list for Whangarei County had not been lost on Carse and in 1902 he published an account of the flora of the Mauku District (TNZI 34) as well as an account of five-finger as an epiphyte on the local tree-ferns (*ibid*). During this time, Carse kept in close touch with R.H. Matthews as the latter's letters to Cheeseman show. Carse spent his summer holidays in Kaitia during January 1900 and 1901, and went collecting with Matthews. Later, on 5 August 1901, Matthews wrote: "I paid Mr Carse a flying visit when in town during the Duke's visit. He took me to the Bald Hills and Waikato River, a most enjoyable trip." (5). But on 14 January, 1902, Carse told Cheeseman: "I have been up to Kaitia to look at some land as I have finally decided to give up teaching and try dairy farming. I am about to purchase a farm at Fairburn. Until purchase is complete I will stay at Kaitia." (7). And so he did. On 2 February 1902, Matthews and Carse visited the west side of Lake Tanonge, and on 10 February, Lake Ngatu "to see Mr Carse's new plant" [*Trithuria inconspicua*]. Finally, on 31 March 1902, "Mr Carse left us about 2 weeks ago for his farm." (5).

4. Kaiaka (Fairburn)

Carse's farm lay east of Kaitia "on the Fairburn road about 12 miles from here", as Matthews wrote (5); and Fairburn was Carse's address in letters to Cheeseman up to 1907. But in 1908 his address changed to nearby Kaiaka where a new Post Office had been opened (7). Carse's main botanical project at Kaiaka was to compile a list of all the indigenous and naturalised higher plants in Mangonui County. In this he worked closely with R.H. Matthews and told Cheeseman on 6 April 1902 that "Mr Matthews and I have already added 93 plants to your list." (7). On 27 January 1904, Matthews is "expecting Mr Carse in a day or two, he is taking a week's holiday." (5). But Carse remained a full-time dairy farmer for only 4 years. On 10 February 1906, Matthews wrote (5): "Mr Carse is in harness again, appointed teacher to Fairburn School, it suits him as the school is close to his residence and won't interfere with his milking for the creamery."

Also in 1906, Cheeseman (8) acknowledged Carse's contribution to New Zealand botany over some 13 years as follows: "Mr H. Carse, now resident in Mangonui County, has botanized in several portions of the Auckland Provincial District. He has given special attention to the Cyperaceae, adding *Schoenus carsei* and *Lepidosperma filiforme* to the list of those already known to occur in the colony. He was also the first to observe the curious little plant which I have provisionally described under the name of *Trithuria inconspicua*".

On 7 July 1910, Matthews told Cheeseman that "Mr Carse spent his winter holiday with me"; and on 2 February 1911, reported that a large party, including Carse, had camped for 2 weeks in early January at Tauroa [at the southern end of the Ninety Mile Beach, west of Ahipara] (5). But Matthews was ailing, and he died on 25 May 1912 (4). However he had lived to see Carse's "On the Flora of the Mangonui County" published in 1911 (TNZI 43).

This was Carse's most important work. After an historical introduction he describes the vegetation of the forests, moorlands, swamps, lakes and rivers, sea cliffs and beaches, and sand dunes. The lakes in particular are described in more detail, and Carse's special interest in plants of wetlands is nowhere more evident. There are sections on orchids, ferns and their allies, and plants suitable for cultivation. Then

follows a catalogue of 538 species of indigenous flowering plants, ferns, and lycopods found in the southern portion of Mangonui County; and this is followed by a list of 180 species of naturalised plants.

R.H. Matthews' son, Henry Blencowe ("Blen") Matthews (1861–1934) now became Carse's closest friend. He had already helped with the "Flora" and now helped with the additions that Carse made in 1913 and 1916 (*TNZI* 45, 48) as well as Carse's account of the "Ferns and Fern Allies of Mangonui County" (*TNZI* 47, 1915). In January 1916, they ventured south and climbed Mt Te Aroha. Later that year Blen moved to Remuera, Auckland, commuting about once a month to his remaining property in Kaitaia (9). In January 1918 (10), they collected on the Volcanic Plateau, sending Cheeseman a "List of plants noted in the region to the north and east of Ruapehu" (7). They returned there in January 1920 (9). In 1920 Mrs Carse was ill, requiring treatment at the Auckland Hospital, while Carse stayed with his married daughter. They returned home, but on 9 March 1921, Carse wrote the last of over 100 letters to Cheeseman from Kaiaka.

5. Auckland

On 8 May 1921, Carse wrote to Cheeseman from 46 Wellington Street, Auckland to say that "he was looking for a small place in which to settle down". They went to New Lynn, a developing western suburb where, on 18 September 1921, in grassland, Carse made the first collection for New Zealand of *Juncus flavidus* (6). They were still there on 20 February 1922, when Carse wrote to Cheeseman from Lynwood Road. Then they settled at 7 Moata Road, Onehunga, called One Tree Hill by Lancaster (1,2). The young botanists Lucy Moore and Lucy Cranwell "used to tram out to Onehunga to pick his brains" and they noted that "his comprehensive herbarium seemed to occupy half of his very small retirement home" (10). And he kept collecting for as long as he could. In late January 1929, from the banks of streams at Puriri, Thames, he made the first collections for New Zealand of "Montbretia", and *Juncus microcephalus* (6).

In his last years Carse made a second major contribution to New Zealand botany. From 1924 to 1929 he corresponded with Mrs Amy Hodgson of Hawke's Bay, identifying plants for her, and reducing her isolation. He introduced her to G.O.K. Sainsbury, the bryologist at nearby Northern Wairoa, and encouraged her to pursue the study of liverworts, in which she became the New Zealand authority (11).

Carse had seen the deaths of his mentors, Cheeseman in 1923 and Petrie in 1925, and on 25 November 1930, he followed them. He was buried in the Symonds Street Cemetery. His herbarium was left to the Canterbury Museum and in 1970 it was transferred to the Botany Division, DSIR (CHR) (11). Also there are over 1,000 Carse specimens in the Auckland Museum Herbarium (AK). "His achievements in the domain of New Zealand field botany – as Lancaster (2) wrote – will be more greatly appreciated when it is remembered that he was largely self-taught, having acquired his fund of botanical knowledge by wide reading and unceasing study and observation in the field. As regards his personal qualities, those who were fortunate enough to be his friends can have but one opinion. He was a gentleman in the highest connotation of that term, and will be much missed by those who have known his kindly and genial nature and his readiness to help all who came to him in difficulty."

Eponymy

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- 1926 *Ranunculus carsei*. "Hab. - Mounts Tongariro, near the base : H. Carse!" D. Petrie *TNZI* 56: 11.

Acknowledgements

For help with this note I am grateful to Mr Ewen Cameron and the Librarian (Auckland Museum) and Mr A.J. Healy (Christchurch).

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

PUBLICATIONS

■ Book Review

Never Say Doug (when what you really mean is Douglas): a review of “Common Names of Plants in New Zealand” by E.R. Nicol. Manaaki Whenua Press, Lincoln. 1997. 115pp. Special price \$23.95 to NZ Botanical Society members.

This booklet provides common names, where they exist, for higher plants in this country - about six and a half thousand names for native species, naturalised species, and garden plants. It is not really true to claim, as is done in the second paragraph of the introduction, that it has the first extensive listing of common names for these plants - cf. the Flora of New Zealand volumes, Healy's "Standard Common Names", "The Ultimate New Zealand Gardening Book", etc. Clearly though it is a boon to have these names all together. Fern names are included, but not those of mosses, lichens and seaweeds, which seems a pity.

Recently I had to look through the Dunedin School of Medicine database of plant-poisoning incidents in New Zealand. The diversity of the reported (and interpreted) plant names was startling, and obviously, these people, and others working as one removed from the main body of the literature, will make good use of this work.

It is arranged in two parts (not quite equal, for some reason), a Common Name to Scientific Name index (CN) and its inverse (SN). The format owes more to the word-processor than to traditional dictionary-making arts, and one often has to read the entries in both halves to avoid overlooking information. For example, the CN entry for "mahoe" gives only *Melicytus* and *Melicytus ramiflorus*, but looking up *Melicytus* in SN leads to the species under their various common names, including some that do incorporate the word mahoe - porcupine shrub, Chatham Island mahoe, thick-leaved mahoe, etc. And memory lapses, say for the specific name of a well-known plant, have to be coped with in the same way - looking up "holly", for example, does not immediately give *Ilex aquifolium*, which appears in CN only under English holly.

The entries have a modern flavour, horticultural rather than historical, geographical, or vernacular, and one will search in vain for bungi, mickeymick, wiggly-bush, and other such gems from rural New Zealand. Maori names appear only for the better-known native plants. The names of Australian plants, and the names Australians use for exotic plants, get more than their fair share of space, and no attempt has been made to indicate the usage that prevails in New Zealand: elephant ear rather than cunjevoi, monkey apple rather than lilly pilly, poroporo rather than bullbul, raupo rather than broadleaf cumbungi. Names peculiar to New Zealand have been indicated for some native species: black pine for *Pinus nigra* and black pine (NZ) for *Prumnopitys taxifolia*; blueberry for *Vaccinium corymbosum* and blueberry (NZ) for *Dianella nigra*. Simplification has overruled accuracy in quite a number of the "generic" CN entries: chinquapin applies not to all *Castanopsis* spp., akeake correctly applies to only one or two *Olearia* spp., etc. Some of the "common abc" names are not very helpful, representing European or Australian rather than NZ usage, e.g. common beech for *Fagus sylvatica*, common reed for *Phragmites australis*, common rush for *Juncus usitatus*.

As noted, the work does not attempt to legislate on which names should be used. That is of course the prerogative of subsequent authors, and I am suggesting below that a number of names might best be left to hopefully ever-decreasing horticultural circles. This commentary is made not in a carping spirit but in one of "harmless drudgery". Good luck to sexton's bride the second time around, may parsley fern be sought out and carrot fern shunned, and let natural selection rule benignly in this particular *patio ludens*.

Some general comments to begin with. All the common names get an initial capital letter, a bad mistake in my opinion (and apparently the opinion of the Flora NZ IV authors too), since one cannot tell whether an unfamiliar word might be some person's name, or a place name, or some other kind of proper name. For example, the initial capital in "Ben nut" might suggest to some that the word came long ago from Bengal; others, less strong in biogeography, would notice the similarity with many Norfolk Island common names. Neither conjecture though would be true. Plants named after the Hookers provide examples of the opposite pitfall, where lack of the capital letter could lead one badly astray. There is an aesthetic side to the matter too. The war between those who would and would not capitalize - "Burton's Boom", not "Burton's boom" for some African tree, and not only "Scotch Broom" and "Montpellier Broom" but also "White Broom" and "Wild Broom" and even just "Broom", seems to have been fought in the botanical-society literature of Britain some time ago. At least in the pages of *Watsonia*, the Full Capitalizers won, so giving that journal's pages a strenuous, medieval-Germanic look, and, perhaps, nervous breakdowns to its editors by forcing them to choose whether or not to capitalize generic names when using them as common ones.

Spelling errors of scientific names are very few, but the following names should be spelt thus: *Arecastrum romanzoffianum*; *Deyeuxia billardierei*; *Eucalyptus acmenoides* and *E. consideriana*; *Magnolia campbellii*; *Melaleuca quinquenervia*; *Pinus nelsonii*. The common names too are mostly what I can confirm, but in modern usage chesnut has lost out to chestnut; Her Bennet should be herb bennet; ramson's should lose its apostrophe; Banks's cabbage tree is correct, not Bank's, and similarly Stokes's aster and St James's wort; karamu has gained an extra u; *Eryngium giganteum* is Miss Willmott's ghost (note title and spelling); Simon bamboo should be Simon's; Trall's daisy not Taill's daisy (for *Olearia traversii*, presumably in error for *O. xtraillii*); tumeric should be turmeric. The common name for *Coprosma macrocarpa* should be large-fruited coprosma, not large-seeded coprosma, and similarly for *C. microcarpa*.

To indicate hybrids a capital italic X has been placed hard against the specific or generic epithet - *Citrus Xparadisi*, etc., making names that are unpleasant to look at, if not to contemplate as *nomina nuda*. The International Code of Botanical Nomenclature indicates that the correct typography for hybrids has a multiplication sign hard against the epithet, but that if the letter x is used instead then it should be in lower case (Roman, presumably) and separated from the epithet by a space. Also unappealing in SN hybrid names is that the computer has been allowed to sort *XFatschedera* and *XSolidaster* under the letter X, not F and S.

While folk-vernacular entries are by no means fully represented, it was good to see listed here and following bastard grass for *Uncinia*, Dally pine (correctly here with an initial capital letter, unlike the form in Flora NZ IV) for *Psoralea pinnata*, macrocarpa for *Cupressus macrocarpa*, and lawsoniana for *Chamaecyparis lawsoniana*. But only radiata pine is given for *Pinus radiata*, a bit much for what we usually just call radiata, or even just pee rad. (And its older name, insignis pine, is not given either). Douglas fir too is frequently call only by its first name. Cook's scurvy grass is listed (*Lepidium oleraceum* only) but not scurvy grass. I think too it's time to admit that many of us simply speak of pampas rather than pampas grass, and not Kikuyu grass but kikuyu (uncapitalized, an advanced character). I was sorry not to be able to find Poorman Orange (capitals are correct here, as a cultivar name), the old kind of grapefruit much grown in northern New Zealand.

Other entries I am not happy about are, in brief; akeake for *Olearia* spp. other than *O. traversii* doesn't seem worth encouraging; nor does alpine water fern for *Blechnum penna-marina* (alpine hard fern?); angled-fruit rush for *Juncus holoschoenus* and *J. prismatocarpus* similarly; apple of Peru for the tomato is archaic; Bastard's fumitory (see book's introduction) is unfortunate rather than politically incorrect; black mamaku suggests there might be a white one; blady grass (*Imperata cylindrica*) should not have an initial capital; blowballs for *Taraxacum* has only alliteration to recommend it; buttercup bush applies to more *Senna* spp. than just *S. multiglandulosa*; cannabis names form a rather academic list, omitting at least four widely used NZ ones: dak, electric puha, hooch, wacky baccy; creeping cudweed is wrong for *Gnaphalium involucreatum* and *G. limosum*, and only just OK for *G. gymnocephalum*; *Nertera depressa* should never be called fruiting duckweed, nor *Geniostoma* NZ privet; *Corybas* spp. (the unwhiskered ones) are known as helmet orchids, though perhaps not much in this country; Hooker's hypericum for *H. henryi*

seems wrong; hookgrass, much more usual for *Uncinia* than hooked sedge, has been omitted; Ithuriel's spear for *Triteleia laxa* is twee but better than grass nut (or the omitted "triplet lily"); lancewood for *Pandorea pandorana* shows that computers can have a sense of humour - the plant's only common name is Wonga Wonga vine; the lacebark entry omits *Hoheria populnea*; linen flax (NZ) and yellow flax for *Linum monogynum* are not as good as the Maori name; the maidenhair entry has no reference to the common *Adiantum raddianum*, and *A. cunninghamii* is not enhanced by being called common maidenhair; Maori celery and similar seem horribly wrong for *Pimelea lyallii*; matipo and mapou should be restricted to *Myrsine australia*, e.g. use weeping myrsine (not w. matipo) for *M. divaricata*; matsudana willow is widely known as twisted/twisty/tortured willow; Mickey Mouse plant should have two capitals, to avoid infringing a trademark; mountain aniseed for *Pennantia baylisiana* is very obscure; mountain spinach is not *Atriplex hortensis*; mountain totara is best restricted to *Podocarpus nivalis*; nasella tussock in CN leads to *Stipa trichotoma*, but *Nasella trichotoma* in SN leads back only to serrated tussock; the fight against palm lily for *Cordyline australis* as well as for *Yucca gloriosa* must go on; peppermint-rock oxalis should be hyphenated like this; poet's daffodil is correctly poet's narcissus; poor man's cibotium for *Pteris tremula* is revealing, but how about Dobbie's "shaking brake"?; today's usage of puha is for *Sonchus oleraceus*, not just for the uncommon *Sonchus kirkii*; pummelo is *Citrus maxima*, not *Citrus x paradisi*; punk tree for *Melaleuca quinquenervia* may be some NZ usage but cajeput tree is widely used overseas, and lest we forget, in the writings of WWII soldiers stationed in the hot western side of New Caledonia, the tree appears as the ubiquitous niaouli; Sykes's coral tree, *Erythrina x sykesii*, is omitted; teatree should be spelt like this - tea tree two words would refer to *Camellia sinensis*, though this is usually just known as tea; sea grass is all *Zostera* spp., not just *Z. muelleri*; shrubby honeysuckle for *Alseuosmia macrophylla* is doubly misleading, far better just to use the Maori name; toro and toru should be restricted to *Myrsine salicina* and *Toronia toru* respectively; weeping kowhai is superfluous and not especially appropriate for *Sophora microphylla*, the small-leaved kowhai; weeping myrtle should be weeping satinash (Australian common name).

Rhys Gardner, Auckland Museum, Private Bag 92018, Auckland

DESIDERATA

■ Colourful weed transforms coastlines

One of the most colourful weeds ever to invade New Zealand may transform our coastlines. Holly-leaved senecio (*Senecio glastifolius*) has been in New Zealand for several years, but has recently started spreading dramatically. By way of evidence, Peter Johnson, observer supremo of our adventive flora, had not seen it the last time I spoke to him. The Department of Conservation, prompted by Colin Ogle, asked me to assess the impact of holly-leaved senecio on our coastal habitats.

The most noticeable change to coastal habitats will be in colour. Most dry coastal habitats are dullish green to grey green or yellowish green of marram grass. When the invading holly-leaved senecio flowers, it transforms the landscape to purple or mauve. Holly-leaved senecio has a stout woody base and grows to about one and a half metres tall, with heads like purple ragwort. Extensive patches are an amazing sight in October, especially when seen mixed with the yellows of lupin.

Holly-leaved senecio is taller and more woody than all the coastal herbs, including rare plants, with which it grows, frequently growing taller than the familiar lupin. It is also taller than many woody shrubs and vines such as coastal puhuehue and sand coprosmas.

It grows in a wide range of coastal habitats; densely covering sand dunes, gravel, bare hill sides after fire, and rocky slopes. The hill sides south of Pukerua Bay near Wellington have long purple patches stretching from the top of the cliffs to the sea.

I have a pretty good idea of its distribution from Wanganui to Wellington, and around Nelson, but would like to hear more about it from other places listed in the Flora. It is listed as present in Gisborne, and a recent *Listener* article may have been referring to it there too, but I have not seen it. Any observations on its distribution in these other areas would be appreciated.

Dr Peter A. Williams, Landcare Research, Private Bag 6, Nelson. Ph. 03-545 7715, Fax 03-546 8590, e-mail williamsp@landcare.cri.nz

FORTHCOMING CONFERENCES/MEETINGS

■ Next meeting of the New Zealand Threatened Plant Committee delayed

The New Zealand Threatened Plant Committee would like to thank all of those individuals and organisations which made threatened plant submissions by the 28 February 1998 deadline. Unfortunately, due to internal restructuring within the Department of Conservation, funding for the Committee is unlikely to happen within the next six months.

Therefore, the NZTBC regrets that an immediate revision of the New Zealand Threatened Plant Lists is unlikely. As we hope to meet sometime after August 1998 we are extending the threatened plant submission deadline to 30 June 1998. We apologise for any inconvenience this delay may cause.

P.J. de Lange, New Zealand Threatened Plant Committee Convenor, Science Technology and Information Service, Auckland Conservancy, Department of Conservation, Private Bag 68908, Newton, Auckland

■ The 12th New Zealand Fungal Foray

Pureora Forest Park Lodge, Pureora Forest Park, evening of Tuesday 14 April to morning of Sunday 19 April 1998.

The Fungal Foray continues to sample areas of mycological interest around New Zealand. This year we will look at the Pureora Forest that was the scene of such controversy when the Conservation lobby made a stand against the clearfelling of this residue of lowland podocarp forest. As before, we welcome anyone who wishes to understand the impact of fungi in our environment.

Pureora Forest Park Lodge is located in the Pureora Forest Park 55 km NE of Taupo at 38°28'S 175°34'E (about 275 km SSE of Auckland). The Park contains one of the largest stands of lowland podocarp forests remaining in New Zealand consisting of rimu (*Dacrydium cupressinum*), matai (*Prumnopitys taxifolia*), totara (*Podocarpus totara*), miro (*Prumnopitys ferruginea*), tanekaha (*Phyllocladus trichomanoides*) and kamahi (*Weinmannia racemosa*). This forest began to develop 2000 years ago after the previous vegetation was destroyed in the Taupo eruption. The forest also has significant populations of native birds including one of the few remaining habitats of the kokako.

The cost of accommodation will be about \$15 per night, plus the additional cost for food (all meals supplied). Information about student assistance is available from Geoff Ridley.

PLEASE FORWARD THIS MESSAGE TO ANYONE YOU THINK MAY BE INTERESTED.

Geoff Ridley, New Zealand Forest Research Institute, Private Bag 3020, Rotorua, New Zealand, phone +64-7-347 5899, fax +64-7-347 5333, e-mail: ridleyg@fri.cri.nz

Registration for the 12th New Zealand Fungal Foray, Pureora Forest Park, 14-19 April 1998	
Name
Address
Telephone
E-mail
Fax
Number attending
<input type="checkbox"/>	I will be attending the full foray and require accommodation and meals
<input type="checkbox"/>	I will be a day visitor and require meals only
<input type="checkbox"/>	I will be a day visitor and do not require meals
Any special food requirements?	
A deposit (NZ\$40 per person) is required. Please make cheques payable to "Foray Account"	

CORRIGENDA

Corrigenda for Newsletter 50

■ **Tribute to Mavis Davidson, pioneer forester, field ecologist and mountaineer**

Page 17, second paragraph, line 10, the reference should be 21 (not 20).

Editor

STOP PRESS

■ **New New Zealand Botanical Society Newsletter Editor**

As we go to print Dr Carol West has agreed to be the new Editor for the *New Zealand Botanical Society Newsletter* for the rest of this year. Thank you Carol for rescuing me! Please note her address on page 2.

Ewen Cameron, Acting Editor

Acknowledgement: Thanks to Antoinette Nielsen and Doug Rogan who produced the camera-ready copy for the printer.

ISSN 0112-6865