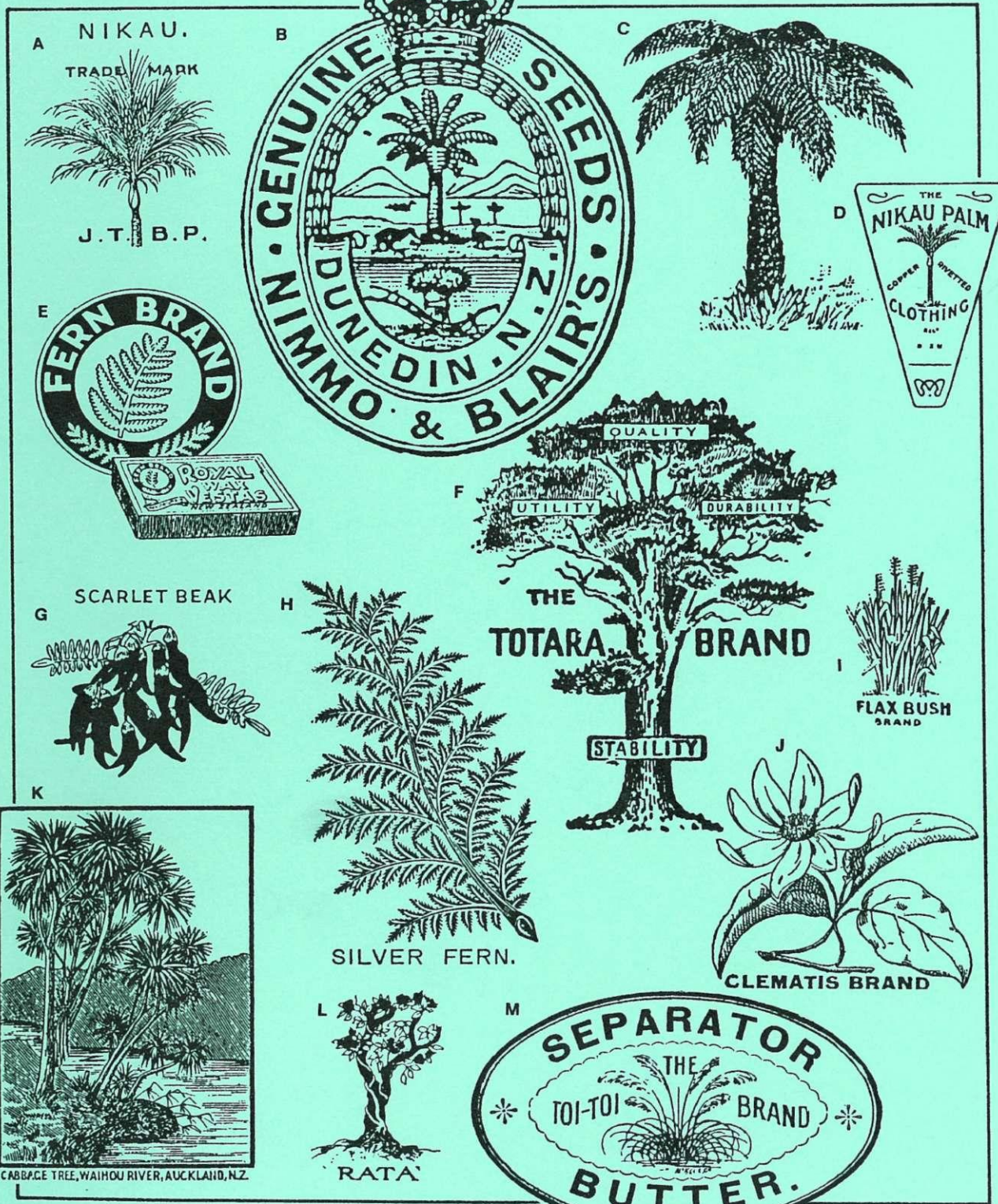


NEW ZEALAND BOTANICAL SOCIETY

NEWSLETTER

NUMBER 18

DECEMBER 1989



NEW ZEALAND BOTANICAL SOCIETY
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Cover illustration

Well Made New Zealand A Century of Trademarks

In 1987, Richard Wolfe catalogued a large body of New Zealand trademarks and symbols, and a selection were published in a book with the above title. In "Symbolic Botany" on page 8, he essays the botanical input toward images of national identity (please turn over for key).

New Zealand Botanical Society

President: Dr Eric Godley
 Secretary/Treasurer: Anthony Wright
 Committee: Sarah Beadel, Colin Webb, Carol West
 Address: New Zealand Botanical Society
 c/- Auckland Institute & Museum
 Private Bag
 Auckland 1

Subscriptions

The 1990 ordinary and institutional subs are \$12. The 1990 student sub, available to full-time students, is \$6.

Back issues of the Newsletter are available at \$2.50 each - from Number 1 (August 1985) to Number 18 (December 1989). 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 previous year, which offers a reduction in subscription 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 March 1990 issue (Number 19) is 23 February 1990. Please forward contributions to:

Dr Wendy Nelson, Editor
 NZ Botanical Society Newsletter
 C/- National Museum
 PO Box 467
 WELLINGTON

Cover illustration

A Nikau preservative (to prevent mould on hams, bacon, fish (etc)). John S. Thomson, Auckland, settler, 1908. B Nimmo and Blair, High St, Dunedin, Produce brokers and commission agents. Advertisement, 1887. C Ointment for rheumatism, scalds, sprains. Charles Stubbs, Christchurch Road, Kumara, 1896. D Nikau Palm copper rivetted clothing: raincoats and mackintosh coats. Advertisement, 1913, for John P. Hooton, Elliott St, Auckland, warehouseman and manufacturers' agent. E Fern Brand wax vestas, New Zealand Wax Vesta Co. Ltd, Dunedin. Advertisement, 1930: "suitable for all weathers" and "assist your own industries first". F Totara Brand cotton piece goods. John Cobbe, Mail Order House, Fielding, 1914. In 1915 Cobbe, now importer, applied to use the same trademark for "pianos of English manufacture". G Scarlet Beak food substances: hams, bacon, lard, honey, tea, etc. The Fielding Bacon Company Ltd, Warwick St, Fielding, 1932. H Silver Fern bicycles and accessories. George Milne, High St, Christchurch, 1908. I Flax Bush Brand rope, twine and lashings. William Ross and Son Ltd, Foxton, rope manufacturers, 1906. J Clematis Brand butter and cheese. Joll Brother's Waitara, produce merchants, 1897. K Cabbage Tree cotton piece goods (calicoes and sheetings). Richard Hobbs, Queen St, Auckland, wholesale and retail draper and clothier, 1893. L Rata mixture and ointment. Hone Pihama Teuru and Tuarua Wairoa, trading as The Rata Medicine Company, of Taumarunui, King Country, 1917. M The Toi-toi Brand butter. William H. Martin, Upper Hutt, farmer, 1899.

NEWS

New Zealand Botanical Society

■ Elections

When nominations for Officers and Committee of the Society for 1990 closed on 20 November 1989, the number of nominations equalled the number of vacancies. Thus a postal ballot was not required and the following are declared elected:

President:	Dr Eric Godley
Secretary/Treasurer:	Anthony Wright
Committee:	Sarah Beadel, Colin Webb, Carol West

Please note that the committee may co-opt further members to achieve better regional representation.

■ 1990 Subscriptions

The 1990 Subscription to the Society has been held at the same level as 1989. An invoice for your 1990 Subscription is enclosed with this issue of the Newsletter. Ordinary and institutional subs are \$12 (reducible to \$10 if paid by 28 February 1990); student subs are \$6 (reducible to \$5 if paid by 28 February 1990).

■ New Newsletter Editor

The committee is pleased to announce the appointment of Dr Wendy Nelson as Newsletter Editor from 1 January 1990.

Wendy gained a B.Sc. (Hons) degree from Victoria University in 1975 and a Ph.D. from the University of British Columbia in 1980. She then worked at the New Zealand Oceanographic Institute, Fisheries Management Division and at Fisheries Research Division in Wellington as a marine algologist concerned with the commercial potential of seaweeds, and the development of research programmes relevant to seaweed fisheries and aquaculture.

In August 1987 Wendy was appointed to the position of Botanist at the National Museum, replacing Miss Nancy Adams who had retired earlier that year. This move enabled her to concentrate on the taxonomy and biology of marine algae. Since then she has undertaken general revisionary studies, and preparation of regional checklists of marine algae (Bay of Islands list published 1987; Chatham Islands and Fiordland lists in preparation), as well as pursuing her major project - a revision of the genus Porphyra.

From 1 January 1990 please forward all editorial content direct to:

Dr Wendy Nelson
NZ Botanical Society Newsletter Editor
c/- Natural History Unit
National Museum
PO Box 467
WELLINGTON

Anthony Wright will continue to arrange printing and circulation of the Newsletter.

Anthony Wright, Secretary/Treasurer, NZ Botanical Society, c/- Auckland Institute & Museum, Private Bag, Auckland 1

Regional Bot Soc news

■ Auckland Botanical Society

Inspired by the success of many of our regional siblings, Auckland Bot Soc held its first pot luck dinner, and ended the year's activities on a high note.

Three field trips and an evening meeting will be held before the next Newsletter appears:

12-17 January 1990. Waipoua Forest, Maunganui Bluff and other areas of botanical interest. Accommodation at the old gumdiggers hotel at Kawerua. For bookings and/or further details, contact Anthony Wright, c/- Auckland Institute & Museum, by 23 December 1989.

Saturday 17 February 1990. Hukatere Reserve, Kaipara. Leader: Nigel Clunie.

Saturday 17 March 1990. McKenzie Fernery and Hamilton City gullies. Leaders: Cathy Jones and Peter de Lange.

Wednesday 7 March 1990. AGM, followed by an introduction to the study of fossil pollens. Speaker: Rewi Newnham.

All welcome to any of these activities. For further information, contact:

Sandra Jones, Secretary, Auckland Botanical Society, 14 Park Rd, Titirangi, Auckland 7 (phone 817-6102 home)

■ Waikato Botanical Society

Newsletter No. 8 was published in September 1989 under the able guidance of our editor, Paul Champion. It reports the completion of our 1988 environmental grant project which involved the preparation of reports on three regionally uncommon private indigenous forest remnants. Two of these remnants are located in the Hamilton Ecological District, Waikato Ecological Region, at Pukemokemoke and Koromatua. The third can be found in the Meremere Ecological District, Waikato Ecological Region, at Glen Murray. For each remnant the geology, soil characteristics and vegetation composition were described, a species list was prepared and recommendations for management of the stands were made. Coloured photos were used to illustrate the vegetation types recognised. Copies of each report have been forwarded to the Ministry for the Environment, landowners and interested groups. Further copies were lodged in the Society's records under the watchful eye of Catherine Beard, our record keeper.

Newsletter No. 8 provides a report by Cathy Jones (our hard-working treasurer) on the society's field trip up Mahaukura Track (off Grey's Road), Pirongia Mountain.

Newsletter No. 9, November 1989, has just been published and contains reports on our combined field trips to Tuahu lakelets by Paul Champion, and the

Rangitoto Island field trip by Prof. Warwick Silvester. It also presents information on our 1989 environmental grant from the Ministry for the Environment for production of a booklet on the plants of the Whangamarino Peat Bog.

The 1990 activities programme of the Waikato Botanical Society has been finalised and appears in full in newsletter No. 9. The programme for the first quarter is as follows:

Tuesday 20 February (pm): Workshops on filmy ferns
 Sunday 25 February: Trip to Wairere Falls, Kaimai Range
 Tuesday 20 March: Evening speaker - Anthony Wright - Vegetation of the Three Kings Islands
 Friday 23 to Sunday 25 March: Trip to Whenuakite, Coromandel

For further information contact:

Murray Boase, Secretary, Waikato Botanical Society, c/- Biological Sciences Department, Waikato University, Private Bag, Hamilton

■ Rotorua Botanical Society

The second annual joint field trip with the Auckland and Waikato Botanical Societies was to the Tuahu lakelets, Kaimai Range in August. We had a great turnout of over 40 people, including several youngsters, and everybody enjoyed the opportunity to see old and new faces and catch up on botanical "gossip".

At our AGM in June our president of the last two years, Willie Shaw, "retired" to the new position of vice-president (to spread the load) and Bruce Clarkson was appointed president. Other positions are:

Treasurer:	Stewart Wallace
Editor:	Mark Smale
Assistant Editor:	John Nicholls
Secretary:	Sarah Beadel

Our 17th newsletter was published in August and contained articles on:

Frost Flats of the Central North Island, Mark Smale
 Plant Life at Rainbow Springs, Beverley Clarkson
 Kaweka Range: Fifth Annual Expedition. Sarah Beadel and Barry Spring-Rice
 Vegetation of the South-Eastern Dometops of Mt Tarawera, Beverley R. and
 Bruce D. Clarkson
 Mangorewa Field Trip, John Nicholls.

Field Trips in early 1990 are:

February 11 - Lake Taupo - south end - aquatic and wetland field trip. (Bring wetsuit and snorkel!). Leader - Clive Howard-Williams, Taupo 85806.
 Annual Trip. Easter 1990 - Marokopa, Western Waikato. Leader - Bruce Clarkson, Rotorua 24622 Home, 475544 Work.
 April 15 - Wetlands at the northern end of Matakana Island, Tauranga Harbour. Leader - Sarah Beadel, Rotorua 24546.

For further information contact:

Sarah Beadel, Okere Rd, RD 4, Rotorua (Phone [073] 24546).

■ Wanganui Museum Botanical Group

During the past quarter we visited a recently fenced-off farm area and were pleased to find many plants of Drymoanthus adversus, several Hoheria angustifolia and quite large patches of Mazus pumilio.

We also paid a very rewarding visit to an area in the back country to the north-west of Wanganui and found about 40 different species of ferns.

Programme to mid-March:

January 10: Wairere Stream, Mt Ruapehu

January 25: Picnic tea to "Marangai" to see if Mazus pumilio is flowering

February 4: Moumahaki Lakes

Tuesday February 6: Talk on Wanganui waterworks

Wednesday February 21: Picnic tea at Bason Botanical Reserve

March 3: Dawson Falls, Mt Egmont/Taranaki

Tuesday March 6: The Story of the Bason Reserve

For further information ring Joan Liddell 57160, or:

Alf King, 180 No. 2 Line, RD 2 Wanganui (phone 27-751)

■ Manawatu Botanical Society

The latest in New Zealand's regional Botanical societies is thriving in the warm humid atmosphere of the Manawatu, supported by a keen group of phytophiles. Membership continues to grow, and enquiries are welcomed at any time. Recent activities have included a talk on the "Perils of Pollen" by Dr Clive Cornford, explaining how allergens causing hayfever are released from pollen generating immune responses in the body. Kath Dickinson journeyed up from Victoria University to talk about her experiences with vegetation surveys in the Northern Territory and the Umbrella region, exposing members to extraordinary floras. A recent excursion to Castlepoint was drenched out by unforecast rain, so the endemic localised Senecio compactus was inspected through a haze, while Bot. Soccers slid (gracefully) down-hill past the few specimens.

The programme for the summer has been finalised:

Thursday December 7, 1989. Alpine workshop to gain familiarity with some common and some rare alpine and subalpine plants of both islands.

Saturday December 9, 1989. Trip to Rangiwahia, in the southern Ngamoko Range to inspect red beech forest and alpine vegetation.

January 1990: Field trips as part of the Science and Natural Heritage conference are open to members.

Thursday February 1, 1990: Dr Dorothy Chappell, visiting Fulbright fellow, will talk about her work on green algae.

Saturday February 24, 1990: Excursion to two small remnants of bush near Norsewood, in the northern Wairarapa.

For more details about activities, or to receive the newsletter (due out February), please contact:

Jill Rapson, Department of Botany and Zoology, Massey University, Palmerston North

■ Wellington Botanical Society

The Society's 50th Jubilee was very successfully celebrated over the weekend of 11-12 November 1989. The publication of a special Jubilee Issue of the Society's Bulletin is a permanent reminder of the occasion. With a delightful Nancy Adams watercolour on the cover, the Bulletin (Number 45) contains:

Guest Editorial: *E W Williams*

The Wellington Botanical Society's Early Years

History of the Wellington Botanical Society: *Agnes Hutson (and others)*
 WBS Foundation Members
 Botanical Society formed (*news item*)
 WBS office-holders (1939-89)
 Extracts from early bulletins: *Barbara Polly, Carol West*
 Bulletin No 1 (complete)
 Extracts from other early bulletins
 Minutes of early WBS meetings
 Combined outings of WBS and Levin Native Flora Club: *Frances Duguid*
 Obituary: Lucy Beatrice Moore: *A L Poole*
 Otari path names commemorate early botanists: *J S Reid*
 Himalayan trek: *Ian Powell*

Recent Botany

Pennantia 'Otari Debut': *R H Mole*
 Well said: a selection of quotations: *A P Druce*
 Mosses of D'Urville Island: *P J Brownsey, J E Beever*
Hebe matthewsii rediscovered: *Tony Druce, Shannel Courtney*
 Rangi's Bush, Pukerua Bay: *Maggy Wassilieff*
Sebaea ovata and its habitat near Wanganui: *Colin Ogle*
 Bracken fern and scrub communities in Otari Reserve, re-observed
 after fifty years: *J S Reid*
 Recent publications: *A P Druce*
 New records of vascular plants from D'Urville Island: *R E Beever,*
 P J Brownsey, R M Bellingham
 A Bot Soc song: *Barbara Mitcalfe*
 Mosses of "Battle Hill Bush", Paremata: *Barbara Polly, Rodney Lewington*
 New editor: *Colin Ogle*
 Errata
 Index to Bulletins 41-45: *J and I Coulter*

Carol West, Secretary, Wellington Botanical Society, c/- 4 Highburry Cres,
 Highburry, Wellington 2

■ Nelson Botanical Society

The proposed programme for the first quarter of 1990n is:

January 27-29 - Cobb Valley (Anniversary Weekend)
 February 18 - Tennyson Inlet
 March 18 - Ben Nevis
 April 15 - Waimaru-Roding Valley.

Further information from:

Graeme Jane, 136 Cleveland Tce, Nelson (phone [054] 69-335 work, [054] 68-610 home)

■ Canterbury Botanical Society

Our November meeting was one of the largest for a long time, with over 100 members and friends attending. "Threatened plants of New Zealand" was launched. Following this David Given (one of the authors) spoke about threatened plants worldwide, and cited some of the "hot spots" for threatened plants.

The Canterbury Botanical Society's major event for the summer will be a camp at Glenorchy from 3-11 January. Tentative trips for this are North Routeburn, Lake Harris, Bosin, Sugar Loaf Pass and Tarn, Greenstone River, Schellite mines, Invincible Gold mine, Kea Basin, Rastusburn Skifield, Earnslaw Burn.

Our regular monthly meetings and field trips will be starting again in February on the first Friday and Saturday of each month. Visitors welcome. Further information from:

Philippa Horn, Plant Science Department, Lincoln College, Canterbury (phone 252-811 work)

■ Botanical Society of Otago

The summer/autumn programme of meetings and field trips wasn't quite finalised as we went to press. If you would like information on BSO activities please contact:

Alison Evans, PO Box 6261, Dunedin (phone [024] 741-987 work, [024] 737-038 home)

NOTES & REPORTS

Current Research

■ Symbolic Botany

The natural resources of New Zealand have now endured two waves of human settlement. The land's original forest cover was soon at risk with the arrival of man, and modest toe-holds in the bush eventually developed into massive clearances. These in turn provided for another type of botanical dependence, our agricultural industries. The botany and economy of New Zealand became inextricably linked, and it is appropriate that the bush has produced some of our most enduring and powerful images of national identity.

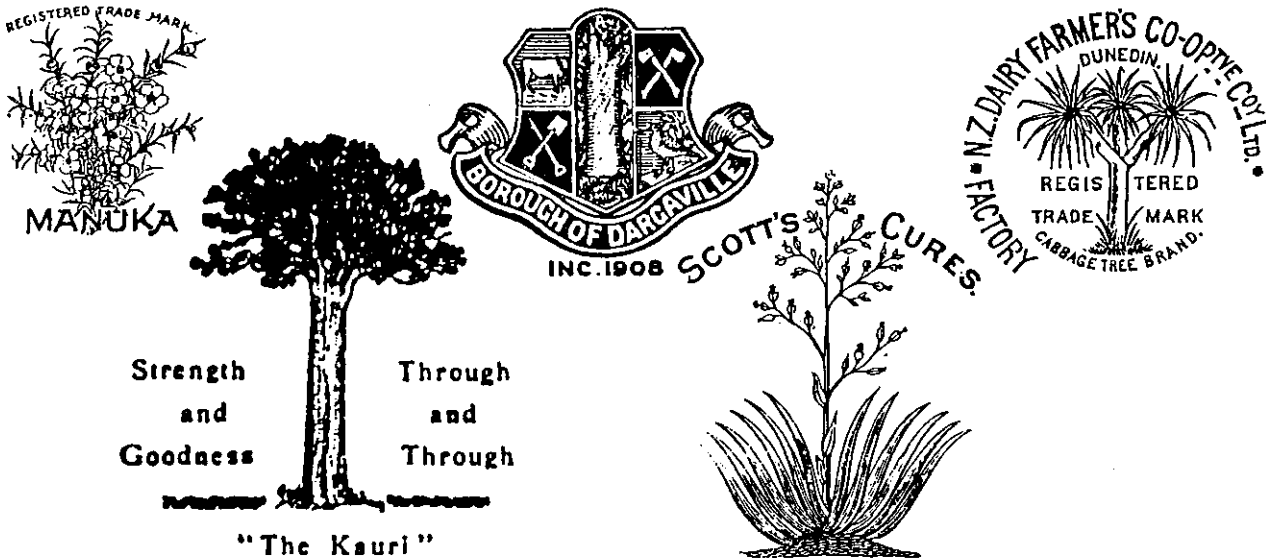
Our rich botanical stock has even inspired an alternative name for the country. First World War soldiers were sometimes the sons of "Fernland", displacing another early favourite, "Maoriland". The fern remains an obvious feature of the bush, and its uncoiling fronds gave Maori art its most distinctive motif. Repackaged as the koru this symbol is now carried worldwide, courtesy of Air New Zealand. An Austrian has offered his own version as an alternative to our national flag. But visual conservatism and lingering memories of "Home" will probably deny Hunderwasser's koru official ensign status. In the meantime the fern continues to symbolise New Zealand manhood. Since 1888 the nation's first fifteen, our rugby representatives, have worn the silver fern into battle. On another front, the New Zealand army has long deployed the fern on its badges, as an antipodean answer to oak and laurel leaves. But it took much longer for popular appeal to reach the ears of officialdom. In 1911 our first Coat of Arms included Zealandia - Britannia's youngest daughter - and a Maori chief, surrounded by symbols of the new dominion. But it was not until a 1956 revision that the above couple could face each other and stand on leaves of fern instead of golden curlicues.

Towering over the fern is the forest giant which made the greatest sacrifice. The straight-grained kauri appealed to early European mariners for its mast

and spar potential, and was later milled mercilessly to furnish New Zealand with its ubiquitous villas. The crest of the Dargaville borough still acknowledges our economic debt to the kauri: the tree is surrounded by crossed axes and the gumdigger's spade and spear.

As a symbol the majestic kauri has never received the sort of exploitation accorded to lesser plants. There has been a plethora of fern and nikau brand names, plus plenty of kowhai, clematis, rata, flax and cabbage trees - on products as diverse as bacon and heel plates for boots. It may be wishful thinking that this comparative lack of kauri trademarks was due to an emerging national conscience. If so this did not deter "Kauri" tobacco in the 1950s. The familiar red tin claimed "Kauri Stands for Quality", but by then most of our kauri stands were gone. North Auckland rugby players continue to look to the giants of Waipoua for inspiration: their union's crest depicts only a large lone kauri.

Nowadays Tane Mahuta and his kind are well outnumbered by an import, *Pinus radiata*. Performing far better here than in its native California it has also acquired a reputation for resilience, taking over the kauri's claim. So much



so that it has been associated with a certain All Black who once played on with a broken limb of his own. Despite his exotic alter ego Colin "Pine Tree" Meads also wore New Zealand's most popular botanical symbol - the silver fern - on no less than 133 occasions.

In our continuing search for identity the fern is the front runner with a number of sporting codes. But as a national symbol it does not enjoy the same clear advantage. Although our rich flora offers several contenders for the official crown, it may well be a small ratite resident of the bush who eventually carries the day.

Richard Wolfe, Curator of Display, Auckland Institute & Museum, Private Bag, Auckland 1

■ Taxonomy of New Zealand Pimelea

After a 30 year hiatus I am reactivating my interest in the taxonomy of the New Zealand members of the genus Pimelea. Several knotty taxonomic problems in the genus appear to be the result of a complex evolutionary history involving long-term introgressive hybridization. Over the years I have observed and collected from field populations in New Zealand and Australia,

carried out various measurements and grown some of the taxa. At present I am gradually working my way through the herbarium collections. It would be premature to try to draw up a key or to say much more than is already outlined by Allan (1961, Flora of New Zealand Vol I) or Burrows (1962, Trans. Roy. Soc. NZ 1: 217-23) about the status of species in the genus. Based on the species listed in those two publications the following appear to be distinct taxa, with few if any taxonomic problems as entities in the New Zealand flora. Some of them may need further treatment when relationships of New Zealand with Australian forms are better known.

(see later notes)

<u>P. arenaria</u> A. Cunn.		2,	3
<u>P. buxifolia</u> Hook. f.	1 (from Thames, Coromandel, or Tararua Ra),	2,	3
<u>P. concinna</u> Allan		2,	3
<u>P. lyallii</u> Hook. f.	1 (from S. Otago),	2,	3
<u>P. pseudo-lyallii</u> Allan		2,	3
<u>P. tomentosa</u> (J.R. et G.Forst.) Druce	1 (from S. N. Is. and S. Is.),	2,	3
<u>P. traversii</u> Hook. f.			

Taxa for which I perceive taxonomic problems of differing magnitude and kind include:

<u>P. aridula</u> Cock.	1 (espec. Marlborough, N. Island),	2,	3
<u>P. crosby-smithiana</u> Petrie	1,	2,	3
<u>P. gnidia</u> (J.R. et G. Forst.) Willd.	1 (espec. S. Fiordland)	2,	3
<u>P. longifolia</u> Sol. ex Wiks.		2,	3
<u>P. oreophila</u> Burrows			
<u>P. poppelwellii</u> Petrie	1,	2,	3
<u>P. prostrata</u> (J.R. et G. Forst.) Willd.	1 (see later notes)	2,	3
<u>P. pulvinaris</u> Burrows			3
<u>P. sericeo-villosa</u> Hook. f.			
<u>P. suteri</u> Kirk	1 (from Dun Mtn or anywhere else)	2,	3

There are also some other taxa, either discussed by Allan only in the form of notes, or not mentioned at all by him.

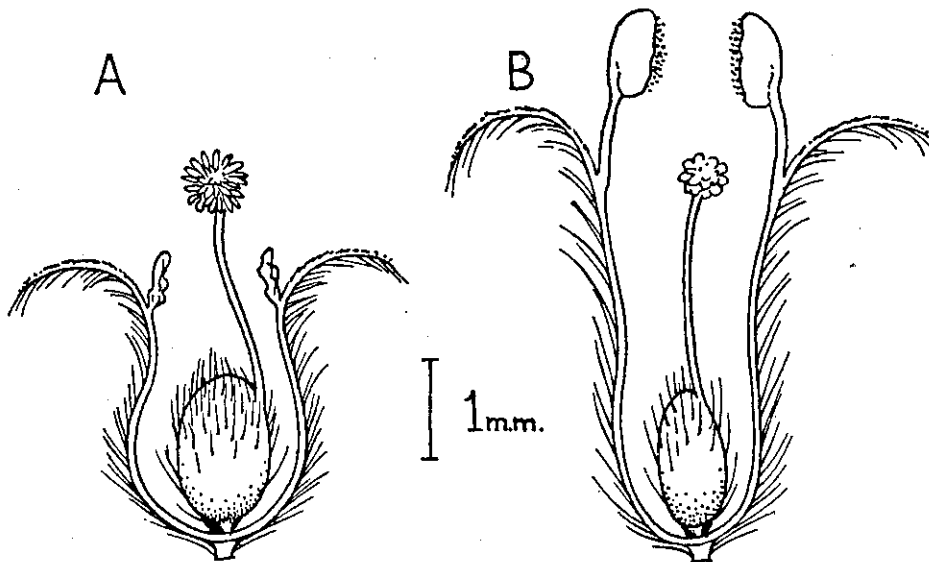


Fig. 1. A, female and B, hermaphrodite flowers of Pimelea oreophila at the time of opening.

I would like to solicit help from members of the Society for information on some of the taxa. In some cases (marked 1 on the lists above), this includes the collection of representative herbarium specimens. The other information that I need requires some close observation of Pimelea populations in the field. The species which I know best are gynodioecious, i.e. the plants are either female with small flowers and aborted anthers, or hermaphrodite, with larger flowers and prominent anthers (Fig. 1). Sometimes a few female flowers appear in hermaphrodite heads, or vice versa. Are all New Zealand species gynodioecious? It would be useful to have field observations, with voucher specimens of flower heads, for any of the species, but especially those marked 2 on the lists above.

Fruit characters including colour may be useful diagnostic tools. Some species (i.e. P. traversii) do not have fleshy fruit. Their fruit ripen in the floral tubes and are shed, with them. In most species fruit are fleshy when ripe. In my experience they are either white (P. prostrata and related forms) or reddish-orange (P. oreophila and related forms). P. tomentosa is said by Allan to sometimes have white or red fruit and on one herbarium sheet the colour is recorded as black. For those species marked 3 on the lists above I would be very pleased to have data about whether or not fruit are fleshy and, if fleshy the colour of the ripe fruit.

In the New Zealand Pimeleas the most difficult taxonomic problems are among those which Allan (1963) groups in P. prostrata. Confusion is compounded by W. Colenso's descriptions of several taxa. Broadly, the complex can be grouped into forms found in: (a) alpine, (b) inland lowland to montane, (c) coastal habitats.

(a) The small form with quadrifariously-arranged leaves from Mts Ruapehu, Tongariro and Ngauruhoe, described as P. microphylla Col., seems to be distinct but needs further study. What does it do in cultivation at low altitudes? It may turn out to be not particularly close to P. prostrata s.s.

(b) P. prostrata in the strict sense appears to apply to populations from grasslands in the Volcanic Plateau and various other inland localities in the North Island including North Auckland. The range of plant habit and leaf sizes is very variable. Somewhat similar, but more uniform forms occur in the South Island, in riverbed gravel and other kinds of habitat.

A puzzling group consists of plants collected around Auckland city early this century by T. F. Cheeseman and other botanists. They were P. prostrata-like, but were upright small bushes 30-50 cm high. Cheeseman (1906) described them as var. erecta. Are such populations still extant?

(c) The coastal forms are extremely variable (although uniform populations can be found in some places). In a common form the plants are appressed, or sprawl down banks or rocks. The leaves are glaucous-green, rather fleshy and quadrifariously-arranged, leaving a symmetrical pattern of leaf scars when they fall. Hairs on the young stems may be rather sparse, or moderately to very dense. Such plants occur on dunes, gravel or rocks on the North Auckland coast and offshore islands, around the coasts of west and east North Island, near Wellington and in Nelson and Buller. Throughout this range are plants which seem intermediate between the fleshy-leaved coastal forms and the thinner-leaved, laxer inland forms.

Other versions are forms with very abundant white hair on the young stems. Some of these are appressed and otherwise like the glaucous-leaved coastal forms. Other populations have decumbent to upright stems and a great range of leaf sizes, shapes and internode lengths is evident. The very hairy-stemmed plants fit the description of P. urvilleana A. Rich. 1832 (collected by D'Urville in Tasman Bay). It seems likely that characters such as the densely hairy stems and variable leaf shapes, plant habit, etc. originate from

introgressive hybridization between P. arenaria and the prostrate coastal forms of P. prostrata-like plants. Application of a species concept is difficult in situations such as these.

I would be very pleased to hear from anyone who may have information relevant to these problems. If anyone has grown Pimeleas from seeds I'd like to know the secret of their success and I'm keen to hear from gardeners who grow any of the P. prostrata group or P. suteri (in the strict sense - I don't subscribe to A. P. Druce's suggestion about extending the meaning of this taxon to take in P. oreophila. I'm not aware of any clear evidence for doing so - P. suteri is uniform and distinctive in its type locality, Dun Mountain).

Colin Burrows, Plant Science, University of Canterbury, Private Bag, Christchurch 1

ANNOUNCEMENTS

■ The identification of plants by Botany Division, DSIR

In September 1986 the general government policy of recovering costs for services was implemented (the "User Pays" policy). From this date Botany Division, DSIR has charged for plant identifications unless the plant specimen was retained in the Herbarium for further scientific use. The net result of this policy has been that the numbers of plant identifications have dropped dramatically and we feel that we are now losing valuable scientific specimens and information as a consequence.

In 1985 we identified 1177 specimens; in 1986 (the charges began in September) this dropped to 619 and in 1987, our first full year of charging, we determined only 204 specimens.

We have been losing valuable specimens and information on possibly new and unusual plants and on plant distributions, and little revenue has been generated.

Now the identification of plants is free.

Only when clients gain commercially from the information provided by the division will a charge for plant identification be made. A charge will also be made for any forensic analysis or forensic plant determination.

Information on how to collect and send the samples to enable the botanists to provide an accurate determination is available from:

Dr Murray J. Parsons, Herbarium Keeper, Botany Division, DSIR, Private Bag, Christchurch

DESIDERATA

■ Pratia

We would like specimens of New Zealand Pratia (excluding P. physaloides), to grow from a wide geographical range for genetic/taxonomic studies, particularly the P. angulata agg. Locality of specimens is required and brief habitat description would be appreciated. Please send material to:

E. K. Cameron or B. G. Murray, Botany Department, University of Auckland,
Private Bag, Auckland 1

■ Linum monogynum seed

I am currently involved in a project studying co-evolutionary relationships between the Australian endemic flax species Linum marginale and its native rust pathogen Melampsora lini. Part of this work has examined the spatial scale at which co-evolution occurs. To date this work has been restricted to studies of host lines and rust isolates gathered throughout eastern Australia.

I would like to compare patterns observed in that area with those occurring in the epidemiologically separate region of New Zealand. To that end I am seeking your assistance in obtaining seed of Linum monogynum.

I need seed from 1 to 3 plants per population from a maximum of 20 different populations (however, seed from even only one population would be very greatly appreciated). The more widely separated the populations the better.

Seed from individual plants should be collected and packaged in paper envelopes separately.

All material should be addressed to:

Mr Lex Govaars,
Plant Introduction Officer,
Division of Plant Industry,
CSIRO,
G.P.O. Box 1600,
Canberra, A.C.T. 2601
AUSTRALIA

and marked "for attention of Dr J. J. Burdon".

Dr Jeremy J. Burdon, Division of Plant Industry, CSIRO, Canberra, Australia.

■ Whence "Cordyline kirkii"?

A letter from Essex, England, requesting information on "Cordyline kirkii" was recently passed on to me. The correspondent had purchased a plant so-named from a local garden centre but had been unable to find out anything about it except that it had been imported from New Zealand. Kew were unable to trace the name but suggested that it could be Sansevieria kirkii (Agavaceae) from tropical East Africa. The request struck a chord with me, as I had purchased a plant of this name from a local branch of Palmer's Garden Centre some four years ago and had likewise been unable to find much out about it. The Palmer's label commented "clump forming cabbage tree ideal for pebble gardens and rockeries. H. 1x1 m". My plant has grown slowly and is little bigger than when purchased. It consists of a short stout stem, about 200 mm tall by 25 mm wide, topped by a tuft of leaves. The basal leaves of the tuft are 480 mm long x 24 mm maximum width, and are slightly serrate. Underground there is a branched rhizome system which has produced a series of small leafy shoots which encircle the large tuft. To date it has not flowered. I suspect the plant is a form of C. australis in which stem growth is very slow perhaps through some hormonal imbalance.

I first learned of "C. kirkii" in 1980 in correspondence with D. K. Scriven of Duncan & Davies Ltd in New Plymouth. He stated that Duncan & Davies first catalogued it in 1976, and that he had searched their records but had not been able to discover where it originated from. Their source plants for vegetative

propagation material were about 0.5 mm high and had never flowered. He commented that F. Jury had purchased a plant from Duncan & Davies about 1955, and that by 1980 this plant was about 2 m tall and had flowered two or three times.

However, a perusal of Moore and Edgar's "The Flora of New Zealand Volume II" (1970), Metcalf's "The Cultivation of New Zealand Trees and Shrubs" (1987), and a variety of other texts failed to turn up any reference to the name "C. kirkii". Can anyone shed more light onto the origins of the plant and the name?

Ross E. Beever, DSIR Plant Protection, Private Bag, Auckland

===== FORTHCOMING MEETINGS/CONFERENCES =====

■ Fifth Fungal Foray - Boyle River Lodge, Lewis Pass

Thursday evening, 10 May to Sunday mid-day, 13 May 1990. Boyle Lodge is in a high rainfall area, and is close to beech forest and manuka/kanuka scrub. Previous visits to the area in April/May have usually resulted in good collections of fungi.

The Lodge has a good-sized living/dining area which will be large enough to allow us to set up microscopes and displays as well as have room to live and eat! There are 50 bunks, but our party will be limited to 30. The accomodation cost is (at present) \$10 per person per night, but this likely to rise in January. Food will be at cost. Transport from Christchurch can be arranged if required. We may need to hire a minibus if we cannot arrange enough private transport. (Cost of a 10 seater minibus at present is \$143 per day + petrol.)

If you are booking flights from Christchurch on 13 May, it would help if you could make your departure from Christchurch airport after 4 p.m. If you are interested or have any other questions please do not hesitate to contact me as soon as possible:

Philippa Horn, Plant Science Department, Lincoln College, Canterbury (phone [03] 252-811 work)

■ Science and Natural Heritage Conference

The second circular for this conference, to be held at Massey University from 20-25 January 1990 is now available. The conference offers an excellent opportunity to discuss and contribute to a wide range of topics on New Zealand's natural heritage, and our future research needs. At the same time participants can attend more specialised sessions under the auspices of several scientific societies. The programme is:

Symposia	The Polynesian peoples
	Quaternary climatic change
	New Zealand soils; the heritage of the land
	Human impacts - past and future
	Scientific conservation - the way ahead
	Ethnobotany
	Biogeography
	Physiology of native plants
	Multiple land and water use

Paleontology
 Molecular biology and systematics
 Environmental ethics
 Funding natural heritage research
 Workshops Computers in education
 Nature photography
 Image analysis
 Taxonomic databases
 Legal issues
 Disaster prediction
 Environmental education
 Evening sessions Antarctic conservation
 Politics of conservation in the South Pacific

The Australasian Society for Phycology and Aquatic Botany, the Herpetology Society, the Tissue Culture Group, and the Systematics Association of New Zealand are holding meetings in conjunction with the conference.

An activities programme has been designed to entertain the families of participants, as Palmerston North is a charming spot to visit over the summer as part of holiday plans. Excursions visit Kapiti Island, and Cape Kidnappers, as well as a number of other locally and nationally important sites.

Registrations are still being processed, so late registrations are acceptable, and special rates are negotiable for those wishing to attend particular sessions. To receive more information, and to obtain the second circular and booking forms, please contact Massey's conference officer:

Ms Debbie Beech, Information Centre, Massey University, Palmerston North, or phone **Jill Rapson** on (063) 69099 ext 8038

The physiology of native plants

New Zealand plant physiologists are meeting in Palmerston North in January 1990 under the umbrella of the Science and Natural Heritage conference for an afternoon session on the physiology of native plants. The programme is:

Prof. P. Bannister	Tolerance of temperature extremes by New Zealand plants.
Drs D. W. Fountain and H. A. Outred	Physiology of seeds of New Zealand plants
Dr T. G. Allan Green	New Zealand Forest lichens: a major resource of ecophysiology.
Dr H. A. Outred	The ecophysiology of some New Zealand algae.
Prof. W. B. Silvester	Mineral nutrition of native conifers or "Why does kauri grow so slowly?"
Prof. R. G. Thomas	Blossom time in New Zealand.

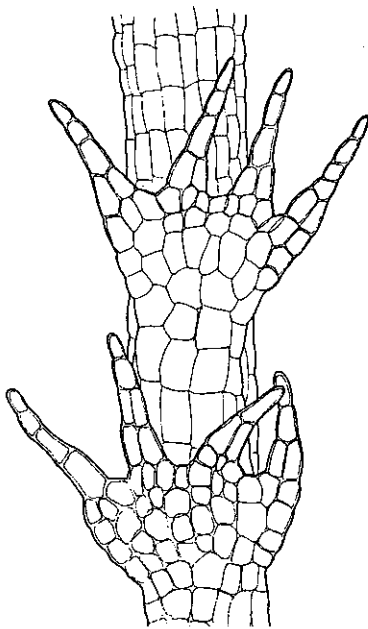
If you wish to attend this symposium, then the cost is \$20. Other sessions of the conference may be attended as well; "earlybird" rates are acceptable, because of the lateness of this notice reaching you. Please feel free to use the Science and Natural Heritage conference booking forms for booking accomodation or trips on the excursion programme. For more information or to obtain booking forms and the second circular, please contact:

David Fountain or **Jill Rapson**, Department of Botany and Zoology, Massey University, Palmerston North

■ 6th John Child Bryophyte Workshop

The 6th John Child memorial bryophyte workshop was held during the last week of October at Te Kauri Park, the field station of the Junior Naturalists of Hamilton. The weather stayed fine, the bryophyte species list for the Te Kauri scenic reserve was more than doubled, and a good time was had by all.

The workshops have attracted a core group of about a dozen over the years, among them professional bryologists who enjoy the luxury of exchanging views on difficult taxa with other fellow specialists whom they only rarely see. Keen amateurs attending the workshops of course benefit from such academic ferment, but first-timers to the workshops arguably gain the most of all - they can learn the bryophyte flora quickly in the friendly, patient, and helpful workshop atmosphere.



Lepidozia concinna

Four days of collecting and identifying yielded some notable finds - a bank of Asterella tenera sporulating, Barbella nitens, Brachythecium albicans found by Patrick Brownsey, Braithwaitea sulcata, Dendroceros validus found by Barbara Polly, Dichelodontium nitidum found by Jean Espie, a large stand of Distichophyllum microcarpum found by Allan Fife, Ditrichum blindioides, Fissidens oblongifolium found by Jessica Beever, Megaceros longispirus and M. flagellaris found by Ella Campbell, sporulating Monoclea forsteri, a bank of Plagiochila found heavily sporulating by John Braggins, a lush patch of Racopilum robustum, a fertile Tetraphidopsis pusilla found by Allan Fife, Trachyloma diversinerve, and Treubia lacunosa. For some, the high point was the "confident" identification of a Bryum. Collecting was eclectic - Rodney Lewington was spotted recklessly leaning out of the lab window to pluck mosses from moist cracks in a nearby concrete water tank.

The workshop didn't fix entirely on bryophytes, though - we all celebrated Barbara Polly's birthday with gusto, and a keen mob took in the Waitomo Caves. A few late-nighters enjoyed a hat-trick of bioluminescence - fungi, glowworms, and freshwater limpets all glowing in the night only a short walk from the field station. Interest in lichens has picked up among the group, too, and was boosted by Allan Green's slide-talk on the surprisingly similar water relations of bryophytes and Pseudocyphellaria lichens (five of the workshop group went on to David Galloway's lichen foray at Cass the following week). Allan argued that our native forests offer a wide variety of habitats from bone-dry to soaking wet and from full sunlight to deep shade. Those habitats are also highly stable because the forests are evergreen. As a result, many of our bryophytes and lichens have evolved successfully into specialists that could never survive in the deciduous forests of the northern hemisphere. Some get their water entirely in the form of vapour, and suffer permanent damage if they're desiccated only 40%. Others thrive in heavy shade, light-saturated in just 1% of full sunlight.

The workshop was organised by Allan Green, while the day-to-day running fell to John Braggins and Jessica Beever. The cuisine-quality tucker was amply catered by Paula Broekhuisen. Although over a third of the nearly 30 attending were from Auckland or Hamilton, six came from Wellington, another six from the South Island, and two flew in from Australia. Next year's workshop will be

sited in Fiordland and Otago, hosted by Ray Tangney of the University of Otago's Botany Department. Then in 1991 the workshop crosses the Tasman Sea to Canberra, and in 1992 the venue is expected to be a North Island location, although there's increasing talk of a trip to Japan.

Bill Malcolm, PO Box 320, Nelson

■ Lichen Workshop at Cass

David Galloway led a workshop on lichens at the Cass field station during the first weekend of November. It was so successful that David is planning a return visit late next year to launch an annual lichen workshop. The venue next year will again be Cass, but in future years it will shift to other sites around the country that have rich or unusual lichen floras. Interest in New Zealand lichens is rising steadily, spurred by the 1985 publication of David's lichen volume of the Flora - this year's workshop cemented that interest by stressing field identification, and future workshops will encourage amateur lichenologists to compile area species lists and set up reference herbaria. A newsletter called Lichen Link will publish updated plans for the workshops as well as lichen species lists and references to useful literature.

The workshop visited Broken River ski basin, Arthur's Pass National Park, and the Hawdon River area. The group found over 130 taxa, several of them rare or not recorded from those areas. Of particular note were lush patches of the bipolar disjunct Solorina crocea, Spilonema dendroides found by Carol West, abundant Arthrorhaphis alpina, Coelocaulon gregarium, Conotremopsis weberiana found by Anthony Wright and Jen Johnston and formerly recorded from only the Nina Valley (Lewis Pass) and Tasmania, and an undescribed Pseudocyphellaria species found by David Galloway - it has a cyanobacterial photobiont, a hairy upper thallus with pseudocyphellae, and a white medulla.

David's patient and tireless efforts at field identification of lichens were much appreciated by all, but he also entertained at meals and in the field with hilarious stories of lichenologists and goings-on in the world of opera. A most enjoyable and memorable occasion.

The workshop's 30 places were fully booked, with half coming from Lincoln or Christchurch, five from Wellington, and two from Australia. Allan Fife and Colin Meurk organised and ran the event with help from Colin Burrows and Peter Wardle, while Yvonne Elder and Susan Noseworthy catered the excellent meals. Next year's workshop will be organised by Philippa Horn, and on present plans will be led by David Galloway, Allan Green (Waikato), and Jack Elix (Canberra).

Bill Malcolm, PO Box 320, Nelson

■ Seventh NZ Herbarium Curators' Meeting

The seventh meeting of New Zealand herbarium curators was held at the School of Biological Sciences, Victoria University, on 27 November 1989. These annual meetings offer the opportunity for the curators to meet and exchange news, to report on the previous year's activity, to voice concerns and to discuss issues which affect the running of herbaria.

At this meeting a charter for a New Zealand Herbarium Network was adopted. This charter formalises the existence of a Council of Herbarium Curators to represent the member herbaria (those currently listed in Index Herbariorum) and that the concept of the "National Herbarium" be that of the aggregate holdings of the member herbaria.

The meeting discussed a full agenda which included such items as: several Network projects, e.g. a proposed manual of herbarium techniques and procedures, and the New Zealand fern atlas project; updates of progress on preparing checklists of New Zealand plants; fumigation of collections; and herbarium computer data bases.

Ray Tangney, Herbarium Curator (OTA), Botany Department, Otago University,
PO Box 56, Dunedin

QUOTE

■ On the Natural History Collections in the Otago Museum

... Irrespective of its share - a great and noble one - in the work of civilization and progress, the study of natural history brings with it, to all who embrace it, its own special gifts for the individual. Nothing is more influential in the formation and maintenance of healthful habits - it affords a relaxation both to body and mind, which never enervates; it is a pastime which leaves no languor behind it. It is much more than all this; it is a training for the mental faculties unsurpassed by any other. It is not alone the reasoning faculties, the memory, the powers of observation, and the capacity for methodical habits, whose development it subserves. It is on the highest part of our being that it takes surest hold. The poetic and conceptive faculties know no nursery like that of nature. The passions and aspirations of the heart of man find nowhere so calm a monitor, so pure and perfect an inspirer. No avenues lead more directly up to what is Highest, both on Earth and in Heaven, than hers. Knowing all this by my own experience, and from the testimony of so many great and good men, I feel the utmost concern that the youth of this country should lack so many of those facilities and incentives to the study of nature, by which in more favoured lands the young are allured to it. This is my apology for bringing before the Institute a paper exclusively devoted to natural history subjects. ...

Extract from a paper read before the Otago Institute by J S Webb, January 11, 1870, and published in T.N.Z.I. 3: 203 (sent in by Phil Garnock-Jones)

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