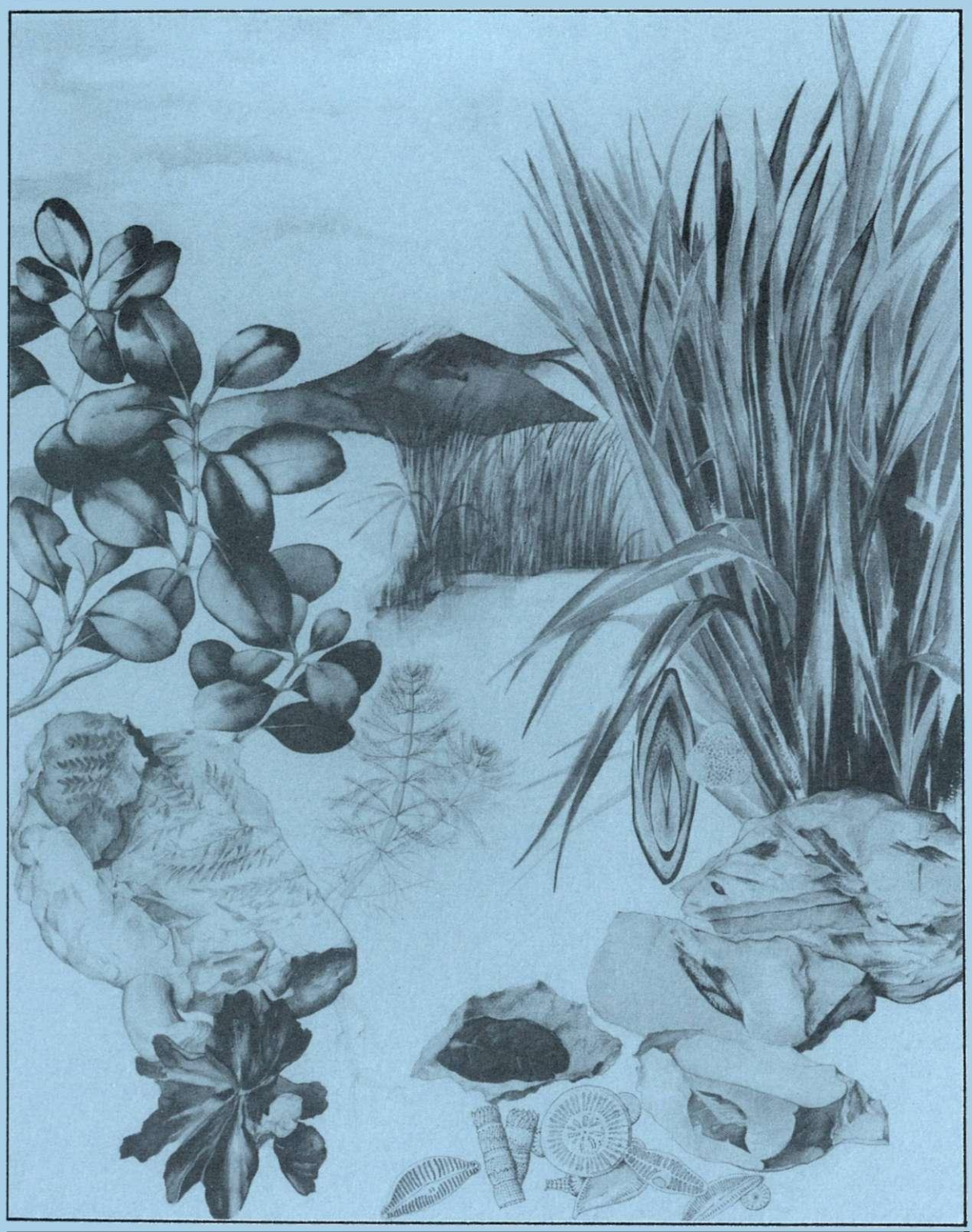
NEW ZEALAND BOTANICAL SOCIETY

NEWSLETTER

NUMBER 9 AUGUST 1987



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■ Where next?

In view of (i) the poor response to the proposal for a New Zealand Botanical Society inaugural conference during the Festival of Botany being planned for Lincoln, Christchurch, in November 1988; (ii) Botany Division's financial constraints and uncertainty about the commitment of Bot Soc to organising the Symposium on origins and relationships of the New Zealand flora; and (iii) the complete lack of offers to assist in organising an inaugural meeting of Bot Soc, I have decided to remove the symposium from the Festival programme.

Botany Division, DSIR, have proposed a meeting with narrower scope, to focus on the Weed Flora and the utility of the Herbarium, and have indicated that this could readily involve the New Zealand Bot Soc if desired, with an inaugural AGM being held one evening during the Botany Division events. The contribution of Bot Soc members to the Weed Flora and Herbarium programmes would be welcomed.

Where does this leave the New Zealand Botanical Society? The Newsletter appears to be well received, and perhaps is all that is required of the Bot Soc at present. However, there is a need to actually form a N.Z. Botanical Society to publish the Newsletter! It is unsatisfactory that it continue as at present where I am personally liable. In any event, I would wish to hand over the Editorship next year or the year after at the latest.

So, an AGM is needed to consider a constitution, elect an officer or two, and to decide whether activities beyond Newsletter publication are desirable/possible/likely etc. The gathering of botanists in Christchurch proposed for November 1988 would seem to be an admirable opportunity for as wide-a-meeting as we are likely to manage under prevailing economic conditions in New Zealand.

Accordingly, I have asked Colin Webb to convene a steering committee including Philippa Horn, David Lloyd, Hugh Wilson and myself (as a corresponding member!) to arrange a time and venue for such a meeting, and to draft a constitution for consideration by members.

Finally, I would like to thank Ewen Cameron for so ably editing the last issue of the Newsletter, seeing it through the press and mailing it out. I'm sure you will all agree that this success signals a term as Editor sometime in the not too distant future!

Anthony Wright

Cover illustration: Photograph of one of Botany Division of DSIR's new full colour posters on sale (see story p. 12).

SUBSCRIPTIONS

The 1987 subscription to the Newsletter is $10.00 for four issues (March, June, September, December). A reduced subscription of $5.00 is available for full-time students or the unemployed. Back issues are available at $2.50 each from Number 1 (August 1985) to Number 8 (June 1987).

New subscriptions are always welcome and should be sent to the New Zealand Botanical Society, C/- Auckland Institute and Museum, Private Bag, Auckland 1.

INVITATION TO CONTRIBUTE

Contributions from all sources are most welcome. A list of possible column headings can be found on p. 2 of Number 1. Feel free to suggest new headings and provide content for them!

DEADLINE FOR NEXT ISSUE

The deadline for the December 1987 issue (Number 10) is 24 November 1987. Please forward contributions to:

Anthony Wright
Editor
NZ Botanical Society Newsletter
C/- Auckland Institute & Museum
Private Bag
Auckland 1
NEW ZEALAND

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NEWS

■ **New Botanist at the National Museum**

Dr Wendy A. Nelson has been appointed to the position of Botanist at the National Museum and took up her new position on 3 August 1987. She replaces Miss Nancy Adams who retired in March.

Wendy gained a B.Sc. (Hons) degree from Victoria University in 1975 and a Ph.D. from the University of British Columbia in 1980. Since then she has worked at N.Z. Oceanographic Institute, Fisheries Management Division and at Fisheries Research Division in Wellington. She is a marine algologist whose recent work has been concerned with the commercial potential of seaweeds, and the development of research programmes relevant to seaweed fisheries and aquaculture. Her move to the National Museum will enable her to concentrate on the taxonomy and biology of marine algae and perhaps work in collaboration with Botany Division, DSIR towards the preparation of an algal flora. Her current research interests include revisions of the genera Gracilaria and Porphyra, and regional checklists of seaweeds for Northland, Bay of Plenty and the Chatham Islands.

P.J. Brownsey, Curator of Botany, National Museum, Private Bag, Wellington

Regional Bot Socs

■ **Auckland Botanical Society**



A one-day symposium entitled "Botany of Auckland" is being organised to celebrate Auckland Bot Soc's 50th Jubilee. It will be held in the University of Auckland Conference Centre on Saturday 3 October 1987.

Speakers will include John Ogden (kauri, a key to Auckland's past), Ross Beever (gumlands), Rhys Gardner (forest remnants of Auckland city), Anthony Wright (offshore island plants), Barbara Segedin (fungi), Jessica Beever (mosses), John Braggins (ferns), Ewen Cameron (conservation). E.D. Hatch will deliver the 1987 Lucy Cranwell Lecture entitled "The Small Green Orchid". Posters and displays will feature botanical artwork and local botanical history.

To ensure you receive the meeting circular and registration form write to or phone:

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

■ **Wanganui Museum Botanical Group**

At the Annual General Meeting held in July the following officers were elected:

Chairman	A.E. King
Secretary	E.J. Liddell
Treasurer	E. Andrews

Committee Y. Cave, H. Clapham, M. Craig, B. Tate, P. Thomson

During the year species lists were made for Jean D'Arcy Reserve (small area only); Farley's Bush, Parapara; Old Peat Road, Tokomaru East. Lists for Junction Road and Te Mere Bush were extended when these areas were re-visited.

Joan Liddell, Hon. Secretary, 15 Moore Ave, Wanganui

■ Wellington Botanical Society

At the Annual General Meeting held Monday 17 August the following were elected:

President	Susan Timmins
Vice-Presidents	Rodney Lewington and Barbara Polly
Secretary	Carol West
Treasurer	Kingsley Brown
Committee	Tom Moss, Patrick Brownsey, Henry James, Bev Abbott, Barry Sneddon
Bulletin Editor	Colin Ogle

The two major summer trips will be to the southern part of North-West Nelson (Owen Range) at New Year, and to Egmont National Park over Anniversary Week-end. Full details will be given in the next Newsletter.

Carol West, Secretary, Wellington Botanical Society, C/- SIPC, DSIR, PO Box 9741, Wellington

■ Canterbury Botanical Society

At the Annual General Meeting held on Friday 5 June, the following officers and committee were elected for 1987-88:

President	Neil O'Brien
Vice-Presidents	Eugene McNeill and Ian Tweedy
Secretary	Valerie Lovis
Treasurer	Edith Shaw
Committee	Daphne Banks, Ross Lake, David Norton, Marion Winter, Raewyn Young. (Co-opted: Philippa Horn)
Editor	Ross Elder

Subscriptions for 1987-88 are now due. Single sub $8.00; family sub. $10.50; Associate/student sub. $5.00. Please send these (including your name and address!) to:

The Treasurer, PO Box 8212, Riccarton, Christchurch

Other Botanical Research Establishments

■ Editor's note

Unfortunately, the 1987 annual meeting of New Zealand Herbarium Curators which was to have been held at Otago University in late August had to be abandoned when the SYSTANZ conference intended for the same date and venue was cancelled. I have asked each of the N.Z. herbaria to provide a brief written report of activities over the past year, and the first three follow.

■ Annual Report of Herbarium (CHR), Botany Division, DSIR

Herbarium Extensions

The extensions are progressing well and it looks as if they will be finished in August, 1987. Staff are looking forward to moving into their new spacious quarters but at the time of writing there is no funding for furniture. At present we are able to order only ten large herbarium cabinets when we would like at least 122 large and 75 small ones. These cabinets will be made as before by Metric Metals Ltd, Christchurch, but this time will be coloured either moss green or burgundy. The Herbarium extensions are scheduled to be opened officially in November 1988.

Friends of the Herbarium

We have had four Friends working voluntarily, regularly thoughout the year helping with many sorting and curating tasks. They have been tremendous at lifting the morale of the staff during these financially difficult times with their cheerfulness and eagerness to help. They have started a fund raising project of printing cards of New Zealand native plants from the colour transparencies in the Margaret Aiken collection in the Botany Division. The Friends will also operate a mail order service for the cards and posters that the Division will produce from time to time.

Checklists

At the request of several botanists the Herbarium is beginning a series of Checklists of the plants of New Zealand. Individual scientific staff will be responsible for the marine algae and the mosses, but the other lists will be generated by the Herbarium staff from the classification used for each of the plant groups in the Herbarium. Only at a later stage will it be necessary for the taxonomists to be involved. This will allow the taxonomists to get on with the completion of the grass Flora and the naturalised dicotyledon Flora volume, which will be launched with a symposium during the opening of the Herbarium extensions in November 1988. The checklists will not be made public for some time.

Computer Up-date

The new field form books seem to be satisfactory as we have heard no criticism. They are correlated closely with the herbarium label mask and the final herbarium labels. All labels are now being produced as a by-product of the CHIRP (Christchurch Herbarium Information storage and Retrieval Project) programme. The users manual of operating CHIRP has been completed after an exhaustive editing effort to try to make it self explanatory, and simple. The early records within the system have been checked by the computer and these are now being corrected. When this is completed we will attempt to retrieve some of the stored data as lists or maps.

Handwriting Project

Examples of the writing of M.C. Gudex (1887-1964) whose herbarium is held at Waikato University (WAIK) have been added to the file. See Mead, A.D. 1972: Michael Gudex and his botanical researches. 19 p. photocopied.

Collecting Permits

The concern expressed at the two previous Herbarium Curators meetings about the loss of duplicates and type specimens when these were not deposited in a recognised institution in New Zealand will now be addressed. This has been delayed until now as the government departments and corporations involved in issuing permits have been busy reorganising themselves. Letters have been sent to the Department of Conservation, New Zealand Forestry Corporation, and the Land Development and Management Corporation.

M.J. Parsons, Herbarium Keeper, Botany Division, DSIR, Private Bag, Christchurch (19 August 1987)

■ **Annual Report 1986-1987 of Auckland Institute & Museum Herbarium (AK)**

The time required for collection management has once again severely curtailed field work and collecting trips. Three weeks were spent in the Kingdom of Tonga in October, and substantial collections made on the islands of 'Eua and Tongatapu. A brief field trip was made to mid-Northland in November to examine the sites of a number of new vascular plant species awaiting description. Despite the low level of specimen collection by staff, herbarium accessions are well up on last year, primarily due to the generosity of a network of collectors we have built up throughout northern New Zealand. Particular thanks are due to R.E. Beever, P.J. de Lange, L.J. Forester, R.O. Gardner, B.W. & G.C. Hayward, I. McFadden, J. Mackinder and M.E. Young who provide high-quality specimens, often from botanically underexplored areas. As a result, significant advances in our knowledge of the distribution and abundance of native and adventive plants are continually being made.

Within the herbarium, work has continued on sorting and re-labelling overfull boxes of specimens. With this task almost completed, the vascular plant collection once more fills all available shelving. A purpose-built fire-proofed cabinet for the storage of type specimens has been purchased and installed. Two walls of the Botany Department office have been covered in library shelving, relieving pressure on the departmental book, journal and offprint collections.

Following a decision of the Auckland Regional Authority Board of Works, the ARA Hunua Forest Headquarters Herbarium has been presented to the Museum. The collection of over 2000 specimens forms a very thorough record of the vegetation and flora of the Hunua Ranges, and includes the personal herbaria of Mr Ian Barton and the late Mr Ross McKenzie. A major private herbarium assembled by the late Mr J.K. Bartlett was also presented to the Museum, together with valuable books and scientific papers relating to the collections. The herbarium of perhaps 20,000 specimens (mainly lichens and mosses) required a substantial amount of curation, and a Lottery Board grant of $20,000 was obtained for this purpose. Marcel Smits was employed as a temporary fulltime technician to undertake the proper labelling of the specimens. This has involved the collating and researching of collection localities, from which a diary and collecting itinerary have also been prepared.

Marcel's dedication to the task has been outstanding, with labels having been typed for over 8000 specimens in the first four months work.

A record number of special interest groups (Forest and Bird, Junior Naturalists, horticultural apprentices, etc) were given guided tours of the Botany Department. These are valuable opportunities to publicise the role of herbaria, and indeed the wider role of the whole "back-of-house" activities of the Museum.

Susan Asplin resigned her position as half-time Botany Technician to take up full-time employment. Jenny Fuller and Alastair Jamieson were employed as student assistants over the summer period. Jenny catalogued a large backlog of geological specimens and Alistair began the packetting of the Bartlett herbarium. Mr Bangerter continued to attend to the adventive plant collections one day per week, and also put in considerable time at home each week cataloguing the Department's large reprint collection. Mrs Dow and Mrs Wright continued to voluntarily mount the majority of specimens added to the herbarium, and Dr Rhys Gardner provided welcome assistance with identifying specimens and incorporating the native collections.

Accessions of numbered herbarium sheets were 4612 (3482, 1985-6). 508 exchange specimens were sent to 5 herbaria (345 to 5) while 247 exchange specimens were received from 5 herbaria (572 from 5). 33 outwards loans were made to 14 herbaria (31 to 13).

A.E. Wright, Curator of Botany, Auckland Institute and Museum, Private Bag, Auckland 1

■ Herbarium of the National Museum of New Zealand (WELT) 1987

The herbarium is currently estimated to hold just under ¼ million specimens made up as follows:-

Flowering plants	150,000
Ferns	16,000
Mosses	26,000
Liverworts	10,000
Lichens	12,000
Algae	18,000
Fossils	1,000
Timber samples	1,000
Total	234,000

About 1,500 new registrations have been added this year, made up primarily of 800 marine algae, 350 flowering plants and 250 mosses.

Curation

An IBM computer has been acquired to provide word-processing and label-generating facilities in the herbarium. New registrations will be entered onto a database using a Revelation software package now being introduced throughout the different departments of the National Museum. A suitable system for use in the herbarium will be devised from a trial run being carried out on the G.O.K. Sainsbury collection of mosses. A grant has been obtained to employ a part-time technician to begin re-packeting and re-labelling this collection of c. 18,000 mosses which is now in a rather fragile state. All information will be entered onto the database.

Staff

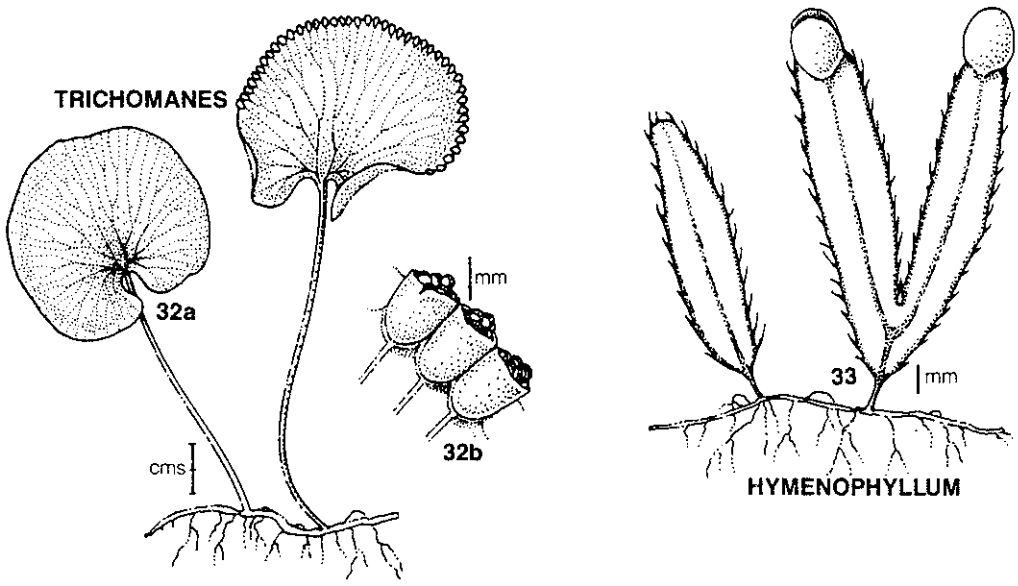
Miss Nancy M. Adams retired in March this year after more than 40 years in the Public Service. She is continuing to work in the herbarium completing her Handbook of the New Zealand seaweeds and her biography of John Buchanan F.L.S.

Dr Wendy A Nelson has been appointed to the vacant position. She has a B.Sc.(Hons.) degree from Victoria University, Wellington and a Ph.D. from the University of British Columbia. She is a marine algologist whose recent work has been on the commercial potential of seaweeds, but who will now be working in collaboration with Botany Division, DSIR towards the preparation of an algal flora for New Zealand. Her current research interests include revisions of the genera Gracilaria and Porphyra, and regional checklists of seaweeds for Northland, Bay of Plenty and the Chatham Islands.

Dr Patrick Brownsey has continued his work on New Zealand and Australian ferns. He has completed a manuscript for an illustrated guide to the ferns and fern allies of New Zealand which will be published next year by Reed Methuen. He has also finished a revision of the Old World species of Hypolepis and is currently working on the families Aspleniaceae and Dennstaedtiaceae for the Flora of Australia.

Several Honorary Research Associates are now using the facilities of the herbarium. These include Mrs R.W. Shepherd, who has just completed a book on the history of the Wellington Botanic Garden which will be published next year, and Mr R. Lewington and Mrs B. Polly, who are working on the moss flora of the Wellington region.

P.J. Brownsey, Curator of Botany, National Museum of New Zealand, Private Bag, Wellington



(see p. 11 'Key to genera of N.Z. ferns')

NOTES AND REPORTS

■ A botanical note from the Cook Islands

The Southern Cooks consist of a number of rather widely separated, mainly volcanic islands. Several have a very worn down central volcanic area surrounded by an extensive development of raised coral or makatea. One is the small, low island of Mitiaro at latitude 20°S and longitude 157°W. It has a small population of a few hundred people who live in a cluster of villages in the middle of the western side. Although at first glance Mitiaro appears similar to its not too distant neighbours Atiu and Mauke, it has several species of higher plants, as well as community types, which are unknown elsewhere.

Very recently I noticed a brief footnote in Allertonia 4 (4): 240 (1986) where T.K. Lowrey records the presence of his rather undistinguished looking little composite *Tetramolopium sylvae* Lowrey on Mitiaro, having just described it from the islands of Maui and Molokai in Hawaii about 4000 km north of Mitiaro. Roughly between Hawaii and Southern Cooks lie the numerous islands of the Line group, Marquesas, Tuamotus and Societies, from where the genus has never been reported. Lowrey (loc. cit.) describes 11 species from Hawaii and these form a group distinct from the other species which are all confined to the mountains of New Guinea. Incidentally, *Tetramolopium* is most closely related to our Australasian *Vittadinia*.

When we discovered *T. sylvae* on Mitiaro in 1982 Ewen Cameron and I thought that it must be an adventive. However, it only grows on the opposite side of the island to the single inhabited area and I was assured by local people that they knew nothing about its origin and did not use it in any way. Apparently it has no Mitiaroan name either. As already indicated, Mitiaro has other botanical surprises. One of the commonest herbs on the coastal makatea is *Haloragis prostrata* var. *coquana*, an endemic subspecies of a species which is otherwise only known from New Caledonia and neighbouring Vanuatu (Efate and Erromanga). Less unexpected but still interesting is the occurence of sandalwood, *Santalum insulare* var.*mitiaro* which also occurs in the Leeward Societies not far to the north-east. This endemic variety, only described in 1981, has long been known to the people of Mitiaro who call it ai, a cognate of ahi, the usual variant by which sandalwoods are known thoughout Polynesia. A distribution pattern which more closely parallels that of *T. sylvae* is that of *Charpentiera australis*. This is a small amaranthaceous tree which grows on Rarotonga and not Mitiaro, and apart from records of this species from Raivavae and Tubuai in the Austral Islands to the south east, the genus is again only known from Hawaii.

However, the most similar distribution pattern may be that of an unnamed *Lepidium* which we collected in the Kaapoto area in the north of Mitiaro. This small, compact, subshrubby crucifer is quite distinct from the rather lax herbacious *L.bidentatum* Montin which grows on Mitiaro and many other islands in the region, and there does not seem to be another species like it in the South Pacific. It has dense clusters of sessile, oblanceolate to almost linear leaves up to *c.* 4 cm long which are entire or almost so. The petals are white and the silicules are more or less emarginate at the apex. These characters suggest an affinity with taxa in Hawaii such as *T. arbuscula* Hillebr.

On Mitiaro *T. sylvae* is a small subshrub forming dense rounded hummocks not exceeding a few cm high. The rosettes of leaves are semi-succulent, 1.3-2.7 x 2-4 mm, +/- oblanceolate, shining and aromatic; the scape is 5-7 cm high, densely glandular-puberulent, and naked except for small subulate bracts; the capitula are solitary, 1-1.5 cm wide, hemisphaeric, with white rays 5-6 mm long and a yellow disc.

T. sylvae grows over an area of several hectares not far from the coast and where the makatea is smoother than usual because the fissures and pits in the raised coral are largely filled with coral sand. Lowrey (loc. cit.) describes *T. sylvae* from coastal volcanic cliffs at 250-350 m a.s.l. in Hawaii but the closely related *T. rockii* Sherff grows on coral sand dunes on Molokai, i.e. a similar habitat to that on Mitiaro for *T. sylvae*. The big imponderable is, how did *T. sylvae* to Mitiaro? I cannot provide an answer to this but can only suggest that a study of migratory patterns of birds in the Central Pacific might be a useful exercise because there are a number which visit the Southern Cooks according to D.T. Holyoak. Also of interest is the fact that in Hawaii most species of *Tetramolopium* are rare (Lowrey loc. cit.).

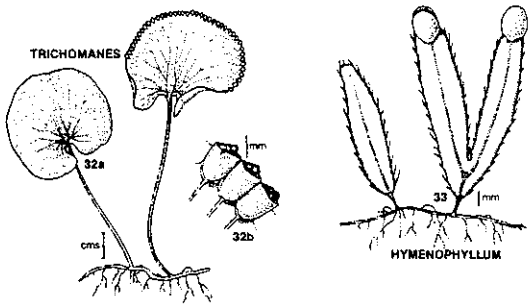
W.R. Sykes, Botany Division, DSIR, Private Bag, Christchurch

ANNOUNCEMENTS

■ **A key to the genera of New Zealand ferns and allied plants**

Text by P.J. Brownsey and illustrations by T.N.H. Galloway. Published by the National Museum of New Zealand with financial assistance from the New Zealand Lottery Board as National Museum of New Zealand Miscellaneous Series No. 15 (1987). ISSN 0110-1447. Includes 17 pages of text and 14 pages of line drawings.

This publication provides an illustrated key for identifying any of the 66 genera of ferns and fern allies occurring in the New Zealand botanical region. Some 92 different species out of a total of 211 species are illustrated. Every genus is represented by at least one line drawing. Technical terms have been kept to a minimum, and all are defined in the illustrated glossary.



This generously illustrated key will be an indispensable companion booklet to all the many publications on New Zealand ferns which have appeared in recent years, and enable users to identify any wild fern to a least genus level.

Price: $5-95 per copy
Discount prices: $5-50 per copy for orders of 10 or more copies
$5-00 per copy for orders of 50 or more copies

All prices include GST and postage. Address orders to:

The Librarian, National Museum, Private Bag, Wellington

■ Eucalyptus key

There are over 100 species of eucalypts known to be growing in New Zealand, and to the untrained eye many of them look alike.

To help sort them out, Chris Ecroyd, curator of the Forest Research Institute herbarium, has developed a card key based on an Australian model, but restricted to the 92 species likely to be found here.

It consists of a series of punched cards, each with a description, diagram or photograph of a particular feature, and a booklet explaining the terms and how to use the system.

The user selects those cards that best describe the bark, buds, flowers, fruit, seeds and leaves of the tree in question, puts them together, and holds them up to the light.

With luck (and care) he should find one little perforation winking at him, and by reading off the master card, he can say with confidence that his samples came from Eucalyptus delegatensis - or whatever.

FRI Bulletin 125, "A key to the identification of 92 species of Eucalyptus found in New Zealand," by Chris E. Ecroyd. Price $25.30, including postage and GST. Available from:

Publications Officer, Forest Research Institute, Private Bag, Rotorua

■ Colour posters of New Zealand plants



Botany Division, DSIR, is offering for sale two full colour posters. One depicts native wetland plants and features Typha orientalis, Phormium tenax, freshwater diatoms, Coprosma lucida, the rare Myriophyllum robustum and a "wood rose" formed by Dactylanthus taylorii. The second depicts plants of New Zealand's hill country and illustrates Chionochloa rigida, Coprosma cf. parviflora, Dracophyllum longifolium, Chiloglottis cornuta, and several lichens and mosses.

The posters were printed from two of a set of five landscape paintings illustrating the range of botanical research undertaken by Botany Division. These paintings were planned by Peter Johnson (Botany Division, DSIR, Dunedin) and painted by Pat Brooke (Botany Division, DSIR, Lincoln). Both posters hava a vertical format and measure 45 x 30 cm. Captions on the reverse identify the plants, plant communities and landscapes illustrated, and list the areas of Botany Division's research which these plants represent. Cheques or money orders for $10.50 per pair should be sent to:

Art and Graphics, Botany Division, DSIR, Private Bag, Christchurch

■ **Position available**

The Charles Darwin Research Station, located in the Galapagos Islands, Ecuador, has an opening for its staff Botanist, to start January 1988.

Details of the job specification and method of application are held by the Editor who will be pleased to forward copies on request. Applications close 30 October 1987 with the Director of the Research Station in Ecuador.

FORTHCOMING MEETINGS/CONFERENCES

■ **Time, change and the vegetation of New Zealand**

In November 1987 Dr Neville Moar retires after 40 years of scientific endeavour as a plant historian and ecologist. To honour his achievements in these fields, Botany Division is hosting a 2½ day symposium on plant history, both ancient and modern.

The main themes of the symposium will be:

* Tertiary and Quaternary vegetation
* Historical vegetation dynamics in relation to disturbance
* Wetland history
* Future of historical research on the vegetation

Over 20 contributors have offered papers on topics ranging from leaf floras of the late Cretaceous to the effects of fires on wetlands. There will be ample provision made in the programme for formal and informal discussion. There are still several slots available for extra papers.

The symposium will be held at Botany Division, DSIR, Canterbury Science and Agriculture Centre, Lincoln, from Tuesday 24 to Thursday 26 November 1987. Limited accommodation will be available at a cost of c. $45/night (meals included) at Lincoln College. Symposium fee will be $20.

Those wishing to attend should write to:

M.S. McGlone, Vegetation History Symposium, Botany Division, DSIR, Private Bag, Christchurch

■ **5th John Child Bryophyte Workshop**

This year's John Child Bryophyte Workshop will take place in Nelson Lakes National Park, 100 km south of Nelson, from Thursday evening 12 November to Tuesday morning 17 November, 1987.

Our forays into bryophyte-rich beech forest, and on upward into the subalpine/alpine zones should yield some interesting mosses and liverworts - both of which groups we will concentrate on this year, in the lab and in informal evening lectures.

Our activities will centre at the 'Red Deer Lodge' on the shore of Lake Rotoiti, where basic laboratory space (of our own making!) and bunkhouse accommodation will be provided. Participants will be asked to share in domestic chores on a roster basis.

As in the past, space and accommodation are limited; therefore priority will be given to those wishing to participate fully in the organised pro-

gramme. For those wishing to bring other family members, accommodation may be available at the Alpine Lodge (1 km east) or in the local camping ground and motor camp at Lake Rotoiti.

We expect to be able to provide transport for participants between Nelson and Lake Rotoiti; shared transport will also be available from Christchurch.

If you wish to receive the second circular please write to:

Ms. Gail Franko, Cawthron Institute, Private Bag, Nelson

■ Australasian Pollination Ecologists Society 1988 Conference: Cass, Canterbury, January 18-20.

APES will meet for the first time in New Zealand next January, to discuss all aspects of pollination biology. All interested botanists and zoologists are welcome. We hope to have a good contingent of our Australian colleagues. Transport can be provided, leaving from the University of Canterbury on Jan 17, visiting the Craigieburn mountains, and arriving in time for dinner. The return trip will be back in Christchurch by noon, Jan 21.

Registration and accommodation (bunks, with your own sleeping bags, and including all meals): $60 (3½ days); Students $40; Transport $30.

A programme and further information will be sent to participants in November. Registration forms (to be returned by October 15) are obtainable from:

David Lloyd, Plant & Microbial Sciences, University of Canterbury, Private Bag, Christchurch

MEETING REVIEW

■ Council of Heads of Australian Herbaria (CHAH), Darwin, 25-26 August 1987

Hot on the heels of four months accumulated leave touring Britain and Europe, I was off to Darwin for the 1987 CHAH meeting and associated field trips and tours. There is no doubt that Darwin's climate was more acceptable than New Zealand winter, and the addition of what seems to be typical CHAH hospitality made the trip most worthwhile and enjoyable.

For the past 7 years, a representative from one of the three main New Zealand herbaria (AK, CHR, WELT) and a representative from the Papua New Guinea National Herbarium (LAE) have been invited to attend the meeting as observers, though in effect the observers participate fully in most of the business considered. Nine representatives from Adelaide (AD), Brisbane (BRI), Canberra (CANB), Darwin (DNA), Hobart (HO), Melbourne (MEL), Sydney (NSW) and Perth (PERTH) attended the 1987 meeting with two observers from Auckland (AK) and Papua New Guinea (LAE).

Agenda items included discussion of further herbarium training workshops in the future; methods for vetting biological control programmes in order to safeguard the native flora; the impending publication of "Current Taxonomic Research on the Australian Flora"; the Australian Botanical Liaison Officer at Kew; and various projects under the auspices of the Bureau of Flora and Fauna, such as the Flora of Australia series, Census of Australian plants, and the Australian Plant Names Index.

The most interesting part of the meeting is the presentation of annual reports from each of the Australian herbaria, and AK, CHR, LAE and WELT. This provides a forum for informal discussion of herbarium practice and methodology, from which much can be learnt. Volunteer staff have commenced work in several herbaria - a concept new to CHAH members when I attended the 1984 meeting in Perth and reported on my own institution's reliance on volunteers for much basic curatorial work. Major extensions to MEL are underway, and BRI is to get a new temporary building (with air conditioning and Compactus shelving) to cope with overcrowding. HO's new building is almost ready for occupation. CANB, PERTH and NSW have all begun computerisation of records using TITAN software, while BRI and DNA operate in-house systems. The Alice Springs Herbarium (NT) is to be moved to Darwin and merged with DNA on new premises at Palmerston, just outside Darwin. AD, BRI and NSW are now using self-adhesive tape for mounting specimens (I have written asking for precise details).

Following the meeting we were flown to Murgenella, a former forestry camp on Aboriginal land in the north of Arnhemland, for 2½ days collecting. It was a wonderful experience to be surrounded by avid plant collectors (and even better to have local botanists on tap who could provide names off pat for 95% of the taxa!).

Regrettably, CHAH was unable to take up the invitation to hold their 1988 meeting in New Zealand at the same time as the 'Festival of Botany' in Christchurch, as several Heads were unlikely to obtain approvals for overseas travel (even though their airfares would in some cases be less to Christchurch than within Australia!). The 1988 meeting will be held in Hobart, and timed such that delegates can travel directly on to Christchurch for the Festival.

Anthony Wright, Auckland Institute and Museum, Private Bag, Auckland 1

■ Exam howlers

Sex is not essential (for fungi) but provides variety.

One advantage of asexual reproduction over sexual reproduction is that it is less tiring.

Solid substances may be separated from a suspension in water by castration.

Place artificial pondwater in the tank by dissolving 2 or 3 tablets of Kleinfelter's artificial pond tablets.

Conjugated protein has a metal joint to it.

A sub-climax is when the final result is not as fulfilling as it should have been.

LETTER TO THE EDITOR

Dear Editor

I have had two comments on my notes in the last newsletter on Banks Peninsula Botany, and I gather from the people responsible that they think I should drop you an additional note - in case they don't get round to it.

The first concerns Hymenanthera crassifolia and H. alpina. I confessed difficulty in believing that they represented more than one species, and even more difficulty in believing that there were two species on Banks Peninsula and Kaitorete Spit. Tony Druce on a recent journey southwards collected both species from the Marlborough coast, showed them to me side by side, and accompanied me to Kaitorete where he then asked me what I would call the Hymenanthera growing at sea level in coastal stony ground there. He did not have to twist my arm to get an answer; the Kaitorete plants obviously matched his H. alpina, and not his H. crassifolia. While I look forward to seeing the situation in the wild in the Cook Strait area, I feel comfortable meanwhile in calling all of the Banks Peninsula population H. alpina from coasts to summits. H. crassifolia appears to be restricted to coastal rocky places on either side of Cook Strait. It does not appear to extend southwards into Canterbury. If it doesn't, this will relieve us a little from attempting to distinguish the two species more clearly than Vol 1 of the Flora achieves, for the Canterbury Botanical Society's publication on the small-leaved shrubs of Canterbury and Westland. Or is this a dereliction of duty?

The second comment was from Brian Molloy, and concerned my observations of Nothofagus at low altitudes on Banks Peninsula, cohabiting with Macropiper, Hedycarya, Myoporum and Passiflora tetrandra. Brian commented that low-altitude Nothofagus forests in coastal southern Marlborough are comparable. Indeed, John Wardle in his book "The New Zealand Beeches" referred to these lowland stands and considered that beech probably also occupied on Banks Peninsula a similar lowland niche to that in the Seaward Kaikoura area, but "logging and burning would have resulted in their early destruction". Well, we now know that a little remains.

Hugh Wilson, 160 Salisbury St, Christchurch 1

Acknowledgement: This Newsletter was typed by Mrs Mary Best

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