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# AUSTRALIAN SYSTEMATIC BOTANY SOCIETY

# Newsletter No. 3

November, 1974.

### A.S.B.S. COMMITTEE

President:

Dr. Trevor Whiffin, Department of Botany, La Trobe University, Bundoora, Victoria. 3083

Vice President:

Prof. Dennis Carr, Research School of Biological Sciences, Australian National

University, Canberra.

Secretary:

Treasurer:

Mr. Don McGillivray, National Herbarium,

Royal Botanic Gardens, Sydney. 2000 Dr. Andrew Kanis, Herbarium Australiense,

Dr. Andrew Kani: Canberra.

Councillors:

Mr. Des Boyland, Queensland Herbarium, Meiers Road, Indooroopilly, Qld. 4068 Mr. Alex George, Western Australian Herbarium, Department of Agriculture, Jarrah Road, South Perth, W.A. 6151

This newsletter is produced three times a year and deadlines for copy are 20th January, 20th May and 20th September. The editor is pleased to receive any articles or newsworthy items for incorporation in the newsletter.

Des Boyland : Editor (address above).

#### NO. 3 - AND ALL IS WELL.

Thanks to those members who have made the effort to make this newsletter a goer - either by contributing articles or criticism .... The constructive criticism I have received has been most welcomed and very helpful.

But danger signs are starting to flash .... copy for No. 3 is down - and if it had not been for pressure applied to a few members. Newsletter No. 3 would have been very brief ....

Perhaps No. 3 is to close to No. 2?? Maybe I should be out hunting for more articles?? Maybe 3 a year are too many .... maybe?????

More articles are needed, deadlines are not being met
.... We as members must arrest this trend or are the words of
Selwyn Everist (Newsletter No. 1) concerning the Australian
Herbarium News going to be restated about ASBS Newsletter.
".... It flourished for a time then perished in the desert sands
of apathy ...."

So come on members, some articles please so your new editor, who ever it may be, can give the members a worthwhile Newsletter.

Des Boyland Editor.

# COMMITTEE OF HEADS OF AUSTRALIAN HERBARIA.

The second meeting of the Committee of Heads of Australian Herbaria was held in Brisbane on 10th and 11th September. 1974.

Nine delegates attended, including representatives from all States and Commonwealth Territories except Tasmania and Papua New Guinea.

One of the recommendations approved at the meeting was that a report of major decisions would be sent to A.S.B.S. for incorporation in the Newsletter, and this should be published in the near future.

# ASBS GENERAL MEETING

The second General Meeting of the Society will be held in Canberra on the evening of Wednesday 22nd January 1975. Further details of place and time will appear in the ANZAAS Congress Programme.

Members wishing to place items on the agenda must notify the Secretary in writing before 8th January, 1975.

Membership of the Society's new Council will be announced at the meeting. The Treasurer (Dr. Kanis, the next Australian Botanical Liaison Officer), the Secretary (Mr. McGillivray) and Mr. D. Boyland (Councillor) will not be seeking re-election.

### ELECTION OF COUNCIL

If a ballot is necessary the ballot papers and instructions will be enclosed with this issue of the Newsletter.

### AUSTRALIAN BIOLOGICAL RESOURCES STUDY

On page 17 of Newsletter No. 2 it was suggested that the Council's role relating to the maintenance of collections would be subsumed by the Committee of Inquiry on Museums and National Collections (IMNC). This is not so. All submissions to the IMNC which come within the terms of reference of the ABRSIC will be considered by the Council. Through its Chairman, Dr. Waterhouse, it will report to and advise the IMNC (for membership of the IMNC Committee see page 8 of Newsletter No. 2).

Recipients of grants for 1974-75 from ABRSIC were advised in October. A number of the grants provide funds for staff and travel to assist botanists with revisionary monographic studies. The future attitude of the Australian Government (whichever party is in power) will depend to a large degree on the research results produced in response to the support from ABRSIC. These results will also indicate to employing authorities, whether federal or state, the kind of responses that could be expected if they provided additional funds for similar purposes.

#### INNOVATIONS

### Charges for Herbarium Services

The Royal Botanic Gardens and National Herbarium, Melbourne now charge for identification and enquiry services at the rate of \$1.75 per specimen and \$7.00 per hour. News of the development of (and from) this scheme will appear in a later issue.

### PECUNIA NON OLET

(translated freely: Money is not an unworthy subject)

In the previous two Newsletters calls for subscriptions were placed on the initiative of the editor. I am very grateful for this, especially as both calls resulted in a flow of money to the treasury. About two thirds of the membership had paid its dues for 1974 at the time of writing. It is my intention to send individual reminders to those who have not paid by December 31st. I hope that before then more members will send me contributions on their own initiative, thus helping to reduce costs as well as hours of voluntary labour.

To those who have not fully familiarised themselves with our organisation, I should like to point out that the financial year of the Society coincides with the calendar year and consequently subscription fees are due from January 1st. However, anybody joining after November 1st of any year will have his contribution booked against the following year. A number of people, possible not realising this, have paid their 1974 dues twice and in such cases I have taken the liberty of booking the surplus against 1975. I am reluctant to do this for more than one year ahead and members are kindly requested to keep their receipts as records to avoid duplication of payments.

Our subscription fee is still three Australian dollars for those resident in Australia. The fee for overseas members has been maintained at U.S. \$5.00 because, even after our recent devaluation, the U.S. dollar is rated appreciably less than the Australian one. Furthermore we are facing rather high bank charges when cashing overseas cheques or exchanging foreign currency. I should be glad, however, to accept a draft on an Australian bank (preferably the Commonwealth Trading Bank) for an amount not less than Aust. \$3.00, thus saving us the bank charges. I should be grateful for your understanding and cooperation.

A. Kanis, Treasurer, A.S.B.S.

#### REQUEST

H. Baijnah, Jodrell Laboratory, Royal Botanic Gardens, Kew Surrey England has just embarked on a taxonomic study of Bulbine, Bulbinella and Bulbinopsis for a doctorate and would greatly appreciate material for anatomical studies. Both aerial and basal organs, especially leaves pickled in FAA would be ideal. Dried material with field notes and observations will also be most welcome.

#### JULES VERREAUX

Jules Pierre Verreaux (1907-1873), a collector for the Museum d'Histoire Naturelle in Paris, and best known in his time as an ornithologist, made significant collections of plants in Australia, first, in and around Hobart (from December 1842 to April 1844) and later in and around Sydney, where he lived at Surrey Hills from April 1844 to November 1846. During this latter period his servant, Emile, whom he had engaged soon after his arrival in Hobart, collected plants for him around Port Macquarie and Camden Haven and also from the Moreton Bay district and Durundur.

Verreaux kept a diary, with a brief break due to illness from the time he left Toulon in France on 14th August 1842 until 1st March 1847 when he was on the high seas bound for home. This 1000-page diary, along with other manuscripts is preserved at the Muséum National d'Histoire Naturelle. The other manuscripts include brief notes on the plants collected by him in Tasmania (6,524 specimens including duplicates) and longer notes on 705 separate mainland collections comprising thousands of duplicates. The original numbers on his specimens in the General Herbarium of the Laboratoire de Phanérogamie enable one to trace the corresponding notes in his manuscripts.

Verreaux wrote that the love of natural history was born in him. He was encouraged by the memory of his celebrated uncle Pierre-Antoine Delalande (1787-1823), naturaliste and collector associated with the Museum d'Histoire Naturelle. At the age of 21 Verreaux accompanied Delalande to South Africa.

It is great to think that this man with such a romantic background collected and described common weeds of Sydney gardens and roadsides with as much interest as he showed in our attractive native plants. His specimens of Cyperus rotundus, Digitaria sanguinalis, Echinochloa crus-galli, Setaria glauca, Argemone ochroleuca, Oxalis pes-caprae and Erigeron (Conyza) bonariensis are first-class.

P.W. MICHAEL, Faculty of Agriculture, University of Sydney.

# GOING TO WESTERN AUSTRALIA?

Mr. Ken Newbey, Ongerup, Western Australia is willing to show visitors to Western Australia over his Arboretum (about 500 Western Australian species, 0.8 ha) or spend time in the field with them. Prior correspondence appreciated. Ken's current project is a detailed flora and vegetation study covering 3,600 sq miles along the south coast of Western Australia.

#### KNOW THE HERBARIA

### THE WESTERN AUSTRALIAN HERBARIUM

Department of Agriculture, Jarrah Road, South Perth, Western Australia 6151.

The Western Australian Herbarium forms the Botany Branch of the Biological Services Division in the W.A. Department of Agriculture. The Herbarium was established in 1928 and has been built up by the amalgamation and donation of several large collections, as well as by exchange and by extensive collections by the staff. It currently houses over 130,000 sheets, of which about 95 per cent were collected within W.A. There is a small but increasing representation of eastern Australian flora, and small collections of exotic plants.

Besides the flowering plants and ferns, there are small collections of algae and lichens. Separate carpological and spirit collections are being built up, the latter now totalling over 2,000 bottles.

The staff includes eight botanists, two technicians and two assistants. Routine duties including agricultural enquiries which take up much time, the remainder being directed largely towards writing a State flora. (W.A. is the only State which has never had a flora.) This will be compiled on a family-by-family basis. Preparatory papers and other taxonomic work are published in the Herbarium's journal "Nuytsia".

Other projects include vegetation mapping, floristic surveys (especially of reserves), accumulation of data on poison plants and the history of botanical exploration in W.A. An ecologist employed by the National Parks Board of W.A. is based at the Herbarium and is carrying out floristic and ecological surveys of the State's National Parks.

Originally housed in a few cupboards of the old Departmental building in St. Georges Terrace, Perth, the Herbarium was transferred in 1933 to the Observatory Building near Kings Park. In 1959 it moved to the new Departmental complex in South Perth, where the space allotted allowed only 10 years' growth. A new building was designed and built in the late 1960's, and the Herbarium is now housed for the first time in a modern, air-conditioned building designed expressly for it.

The Herbarium grounds of about three acres were once part of a pine plantation. Beds of native flora are being established for both aesthetic and study purposes. A shadehouse has recently been completed.

The staff is as follows:

Officer in Charge and Curator of the Herbarium: Mr. R.D. Royce Senior Botanist: Mr. P.G. Wilson Botanist: Mr. T.E.H. Aplin, Mr. A.S. George, Dr. N.G. Marchant Mr. B.R. Maslin and Mrs. G. Perry.

National Parks Botanist: Dr. A.S. Weston

Technicians: Mr. R.A. Saffrey and Mr. M.E. Trudgen Assistants: Miss D. Buckingham and Mr. K. Allan.

This article was received early this year. There may have been staff changes of which I am unaware and for this I apologize.

Editor.

# REQUESTS

Helen Aston, National Herbarium of Victoria, Birdwood Avenue, South Yarra requests herbarium collections with accompanying spirit material of flowers of Nymphoides. Collections should include fruits and seeds if possible. Seeds could be placed in an envelope on phial to prevent loss.

Don Foreman from Papua New Guinea requests seed of any of the Australian rainforest Proteaceae species, particularly Helicia. Please send to Assistant Director, Division of Botany, P.O. Box 314, LAE P.N.G.

David Frodin is after specimens particularly seeds of Araliaceae from Australia. David is at the Department of Biology, P.O. Box 4820, University, Papua New Guinea.

R.J. Chinnock, State Herbarium of South Australia, Botanic Gardens, Adelaide would like <u>Tmesipteris</u> and <u>Hypolepis</u> collections especially from Queensland.

Bob also has a comprehensive private collection of New Zealand pteridophyta he is prepared to loan for study. Any enquiries regarding New Zealand pteridophytes would be welcomed.

Dr. J.W. Dawson, Botany Department, University of Wellington would be happy to receive material of Melanesian and Polynesian capsular Myrtaceae.

### AN EXTRACT FROM THE QUEENSLAND HERBARIUM ANNUAL REPORT 1974,

#### TAXONOMIC RESEARCH

Fern Studies: A preliminary checklist of the Queensland ferns and fern allies has been completed. However, there are so many name changes pending because of papers about to be published, that publication of the check list will need to be delayed for some time.

Provisional keys for all Queensland species of ferns have been prepared, and accounts of the family Cyatheacea and part of Hymenophyllaceae for the proposed handbook of ferns have been written. Arrangements have been made for a trial printing by the Government Printer of some pages of text and a plate. This and other projects have been held up by typing delays.

Approximately 300 specimens of ferns were identified. Most of them were submitted for routine identification.

The following species, not previously recorded for Queens-land were either received in 1973-74 or were discovered among other herbarium specimens.

(Pyrrosia adnascens: Collected by the 1948 Archbold (Schizaea wagneri : Expedition to Cape York Peninsula but previously unidentified.

Cyathea sangirensis: Collected on Lower Rocky River, near Coen.

Cyclosorus aridus: Collected Kirrama Range near Tully.

Lomariopsis kingii: The first record of the genus from Australia. The material had been misidentified as Plagiogyria articulata.

Acacia: A further paper on the taxonomy of Acacia - "Notes on Acacia, chiefly in Queensland, IV" was published and another, "A revision of extra-Australian species of Acacia subg. Heterophyllum" was submitted to the printer. A completed manuscript of "A revision of Acacia in Queensland" is expected to be completed at the end of 1974.

Solanum: A paper on Solanum nigrum and related species in Australia has reached the proof stage.

Schizachyrium and Cymbopogon: Revisions of these two genera by the late S.T. Blake will be published early in the next financial year.

Polycarpaea: A revision of the genus in Australia was completed and will be written up and published as a contribution from the Queens-land Herbarium.

Dianella: Study of species of Dianella in N.E. Australia proceeded. The collection of living Dianella plants has been maintained and enlarged. A germination test in conjunction with Standards Branch was begun on one large sample of seeds. Collections were made in south-western Queensland.

Combretaceae: The revision of Combretaceae by Mr. N.B. Byrnes (prepared while he was employed in the Northern Territory) has been re-written to conform to the format of the "Contribution from the Queensland Herbarium". Serious typing delays have been encountered with the manuscript also.

Myoporaceae: Editing of the late L.S. Smith's manuscript on Eremophila in Queensland was completed. It is to be published as a "Contribution from the Queensland Herbarium". Further taxonomic studies of Myoporum deserti material have been undertaken in the light of results of chemical work by Professor M. Sutherland, University of Queensland.

Rubiaceae: Investigation of Hedyotis and related genera is proceeding. It is anticipated that several new combinations will be required.

Cytology: Chromosome counts were made on species of Dianella, Myoporum, Solanum, Nitraria and Cordyline. Work on an account of chromosome numbers in samples of Lantana camara from various populations throughout the world proceeded.

Lantana camara: Mrs. D.A. Smith working on a grant from the Science and Industry Endowment Fund, completed a paper on the Lantana camara complex in Australia based on specimens, notes and colour transparencies amassed by the late L.S. Smith and supplemented by study of living specimens in the field and the glasshouse. The paper is ready for publication and assistance is being sought from the Science and Industry Endowment Fund to help finance the printing.

# REQUESTS

Dr. A. Kanis, Herbarium Australiense has started a revision of Amaranthaceae (excluding Ptilotus) for the whole of Australia. Andrew would appreciate material of indigenous species and also introduced species of an unusual kind or locality.

Miss Bronwyn Ashley, Botany Department University of Queensland, Brisbane would appreciate seeds of Cyperaceae for studies currently being undertaken. Bronwyn has material of the most common species and seeds of those species endemic to other regions of Australia would be most suitable.

#### HERBARIUM SHEETS AND METRIC SIZES

A standard size for Herbarium sheets should be considered now that metric sizes for paper are being adopted. It is cheaper and less wasteful of paper if one of the standard sizes can be used. This reduces the need for trimming to a special size with consequent extra expense and the waste of trimmed edges.

A useful little pamphlet put out by the Commonwealth Government Printing Office on International Paper Sizes is most helpful and explains the rationale behind the various sizes used. The 'A' series is the main one and is based on a sheet  $1189 \times 841$  mm which is  $1 \text{ m}^2$  in area. This is successively halved in size to give a series from AO (full sheet) through A1 to A10, the last only  $37 \times 26$  mm in size.

The following table of common sizes used in Herbaria is from Fosberg & Sachet, 1965, Manual for Tropical Herbaria

American	292 <b>x</b>	419 mm
Kew	266 x	419 mm
Current AD	300 x	460 mm
Current ADW	292 x	455 mm
Recommended by Fosberg & Sachet	290 x	420 mm
Metric A3	297 x	420 mm

From this it will be seen that the metric size A3 is close to the sizes already widely used.

I would suggest that Australian Herbaria adopt A3 as the standard size for Herbaria sheets. The appropriate size for a 'flimsy' to fold over this, if used, is A2.

D. Symon, Waite Institute.

#### NEWS ITEMS

# Two new herbaria in Canberra

Herbarium Australiense and the herbarium of the Canberra Botanic Gardens have recently moved into new premises.

### The Australian Cultivar Registration Authority

This authority has been re-constituted with representatives from each of the main Australian botanical gardens, the nurserymen's association and the Society for Growing Australian Plants. A Canberra sub-committee has been appointed to examine applications for registration. Further details fo the Authority's activities will be given in a later issue.

### CHAPTER NEWS

### CANBERRA

Current membership: 40

Programme for 1974: A series of monthly seminars

5th March: Dr. Brian Pratt, A.N.U. Forestry School:

"Distribution and Disease Associations of Phythophthora and Pythium spp. in Australia".

9th April: Max Gray and Colin Totterdill, CSIRO Division

of Plant Industry:

"Alpine Plants of the Kosciusko Area" - primarily a slide show of very high quality

colour slides.

7th May: Mr. Lesley Watson, Taxonomy Unit, A.N.U.

Research School of Biological Sciences:

"Hay Fever and Grass Taxonomy".

11th June: Mr. John Wrigler, Canberra Botanic Gardens:

"Canberra Botanic Gardens, and its Functions".

9th July: Dr. Nigel Wace, Department of Biogeography

and Geomorphology, A.N.U. Research School of

Pacific Studies:

"Car-borne Flora in Canberra".

3rd September: Mr. Frank Ingwersen, Conservation and Agriculture

Branch, Department of Capital Territory, spoke about:

"The Vegetation of Jervis Bay, A.C.T."

22nd September: Mr. Frank Ingwersen will lead an excursion at

Hervis Bay, A.C.T. (A notice re this excursion

is enclosed).

15th October: Mr. E.C. Nelson, Department of Biogeography and

Geomorphology, Research School of Pacific Studies,

Australian National University, will speak on: "Adenanthos Labill (Proteaceae): Aspects of

Taxonomy and Phytogeography"

12th November: Dr. Malcolm Gill, of Division of Plant Industry,

CSIRO, will speak about

"Fire and Flora Management in National Parks"

Estelle M. Canning (Secretary)

#### SYDNEY

The seminar series has continued:-

12th September: Professor R.C. Carolin "Folk Taxonomy"

9th October: Dr. P.W. Michael "Common Weeds - Uncommon

Problems"

13th November: Mr. J. Pickard "Ecological Cybernetics or

Cybernetic(al) Ecology"

The Chapter held a week-end of indoor discussion and outdoor walking at the Warrah Research Station, near Gosford. Professor G.L. Stebbins (University of California) was a guest.

### EXTRACT FROM "THE BELLENDEN-KERR EXPEDITION"

by A. MESTON, leader of the expedition (extracted from the Brisbane "Courier").

".... it is time to mention the overwhelming sense of responsibility thrown on me by undertaking to escort the Colonial Botanist to the summit of Bellenden-Ker, and bring him back right side up with every possible care.

Mr. Bailey was described to me as a man never known to quail in danger's stormy hour if there was the remotest prospect of running against a new plant, falling over a log of unknown timber, or treading on some giant species of previously unclassified mushroom. Too well I knew that he was loaded to the muzzle with a full charge of botanical names before which the bravest man would quail, and sensitive vegetation curl up like a pumpkin leaf in a sharp frost. Having effected an insurance on his life for half-amillion, and made a will bestowing sixteen tons of dead and dried plants on anybody who would cart them home, he boldly announced to his anxious friends that he was now prepared to face the land where the Bulbophyllum Baileyi was one of the champion orchids, where the Ophyoglossum pendulum and Dendrobium hispidum adorned the noblest trees, and the shy Pogonatherum saccharoideum peeped bashfully from the crevices of the granite rocks. Little was known of Mr. Bailey's endurance and dauntless spirit by those who prophesied that he would never reach the top of Bellenden-Ker, that if he did arrive there he would never come back, and in any case would be carried off by a treeclimbing kangaroo, perish dismally of jungle fever, or fall over one of the loftiest precipices and remain for ever tombless and epitaphless, in that lone solitude where mosquitoes cease from troubling and scrub hens are never at rest. These prophets of imaginary disaster will do well to follow the example of the Hibernian prisoner who was unable to say if he was guilty until he had heard the evidence."