

AUSTRALIAN SYSTEMATIC BOTANY SOCIETY

NEWSLETTER

Newsletter No. 19

June 1979

ASBS Council

- President** Dr. John Jessop, State Herbarium of South Australia,
North Terrace, Adelaide, S.A. 5000
- Vice-President** Professor Roger Carolin, School of Biological Sciences,
University of Sydney, Sydney. N.S.W. 2006
- Secretary** Mrs. Judy West, Dept. of Botany, University of Adelaide,
Adelaide, S.A. 5001
- Treasurer** Mr. Mike Lazarides, Herbarium Australiense, C.S.I.R.O.,
P.O. Box 1600, Canberra City, A.C.T. 2601
- Councillors** Mr. Andrew Mitchell, Alice Springs Herbarium, Division of
Primary Industry, P.O. Box 2134, Alice Springs, N.T. 5750
- Mrs. Karen Wilson, National Herbarium of New South Wales,
Royal Botanic Gardens, Sydney. N.S.W. 2000

This publication, the official newsletter of the Society, is produced four times each year and deadlines for copy are the last day of February, May, August and November.

Please send contributions, preferably typed in duplicate and double-spaced to the Editor, at the address below. Items from any source and of interest to members are acceptable. Items incorporated in the newsletter will be duly acknowledged.

Please note: Next deadline is 31st August, 1979.

Subscriptions for 1979 were due 1st January.
(Members in Australia \$4.00 if paid by 31st March
\$6.00 thereafter
Overseas Members US\$8.00 or equivalent).

Editor: Mr. A.S. George
Western Australian Herbarium
George Street,
South Perth
WESTERN AUSTRALIA. 6151

EDITORIAL

The decision to proceed with a new national flora is historic. An important goal has been achieved in establishing the principle that the flora be produced. The seed sown at ANZAAS many years ago has germinated; it must now be firmly guided to maturity.

Not all will agree with the project; regional floras will continue to appear and there is a real need for them, but the national project should be given solid support. Contributions will flow from botanists throughout Australia and overseas but more than that is essential to ensure that the flora is achieved within a reasonable period - say 20 years. I hope that the appointment of an Executive Editor will be followed by that of full-time flora-writers with the dedication and productivity needed to show that the botanical community has been sincere in its long battle.

Completion of the work in 1999 would be a splendid climax to the first 300 years' study of the Australian flora. William Dampier at Shark Bay in 1699 had only his memory of English plants to guide him in trying to determine strange new forms.

The flora will show that Australian taxonomic botany has at last come of age.

A. S. George
Western Australian Herbarium

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Dr. W. R. Barker (AD) has submitted the following article on the proposed flora of Australia -

REVISIONAL RESEARCH - THE BEST TAXONOMIC BASIS FOR A CONCISE FLORA OF AUSTRALIA

Australian plant taxonomists will, I feel, generally agree that the only course to a balanced, deep and comprehensive knowledge of the taxa in our Australian flora is through revisional research. While Floras are commonly a rearrangement of available data in a more accessible form, they are justifiable depending on the nature of these data and necessity, and I do believe that it is good news that a multivolume concise Flora of Australia (here referred to as CFA) is to be commenced shortly by ABRS. ABRS has given taxonomists the opportunity of commenting on its proposal, and it is imperative that we communicate our views on the taxonomic base of the CFA, for the decision on this will undoubtedly have wide implications on the course of Australian taxonomy for several decades.

A CFA may be based on revisional research or, like our regional and state Floras, it may be based on available, largely published knowledge. Several people are pushing the latter approach, and as I am uncertain of the extent of support for it, I am appealing to botanists to consider the deficiencies in such an approach in relation to the future course of revisional research on Australian plants.

The state of revisional research on Australian plants

Revisional research productivity has arisen steadily to encompass, since 1970, just below 100 species/year in Australia-wide or full revisions (based

on Australian journals only). Even allowing for a few revisions published by overseas journals, this is a dismal figure in the light of Australia's 20,000 vascular plants, of which a significant proportion are unnamed and the majority are arranged in inadequate classificatory systems. Without a further increase in manpower and change of overall personal productivity rate in revisional research, it is hard to see our revisional output going above a coverage of 200 species/year. With involvement in curatorial work, field surveys, other areas of research, etc., we would be lucky to have the equivalent of 30 taxonomists working full-time in taxonomic work ranging from revisional research to Flora-writing. It is vital that heads of herbaria and ABRIS take every means possible to ensure that our productivity in revisional research is increased substantially, both by promoting further positions and by encouraging increased involvement of existing taxonomists in broad revisional research by modifications of existing duties. If Australian taxonomic work were confined largely to revisional research, a CFA based on such data could feasibly be completed inside 30 years at a rate of just over 20 species/full time taxonomist-equivalent/year, a relatively low output.

To summarize my views, I believe that for the most efficient advancement of Australian plant taxonomy a CFA must be based on revisional research. Such a CFA has advantages in being an incentive to Australian plant taxonomists to complete comprehensive and in-depth revisions of large natural groups. A CFA based on available knowledge (i.e. largely published) and with a fixed date of completion would discourage revisional research, and duplicate other programmes, many established, which overall cater more efficiently and effectively for the needs of the public and scientific community.

I shall now outline my reasons for arriving at these views.

Encouragement of revisional research in preference to other taxonomic work.

(a) Incentive

Among the distractions from revisional research which we face is the easy piecemeal "research" which pre-empts a desired revision, and by taking the easy pickings (usually the obvious new species), removes, I think for many of us, much of the stimulus for completing a revision. What is left is often the tedious description of many taxa and the analysis of complex problems, without the synthesis of which existing often doubtful systems of classification will be maintained. Estimates of 20% for the number of undescribed species in our flora do not indicate the frequency of new combinations, status, reductions to synonymy, etc. in revisions which are the first for many years. Providing our revisions are of sufficient breadth and depth they will largely provide good basic classifications for the future. Most subsequent changes will be in additional novelties or the treatment of small complexes. By good initial revisions much duplication of effort in revisional work will I feel be avoided.

A CFA based on available knowledge will encourage even more the publication of piecemeal research, particularly if there are unrealistic time limits imposed on contributions to it by people undertaking revisions. In contrast, by nature of its data base a CFA based on revisional research will encourage revisions.

The cover and depth of revisional treatments will depend very much on the standards set for the data base of the CFA, through which there would be the

opportunity to dictate deep and broad revisional work encompassing the whole Australian flora.

(b) Avoidance of duplication

Further distractions from revisional research can come from unnecessary duplication of effort in Flora writing. Considering the deficiencies in Flora accounts based on available knowledge, the time of taxonomists must be weighed heavily before embarking on new editions or new Flora concepts. A CFA based on available knowledge would duplicate the existing ongoing regional and state Flora programmes (both herbarium and individual productions), which are more suited to the public need and purse. Through this need, these provide an almost entire cover of the southern half of Australia, where the majority of potential Flora users live.

Aspects not duplicated by a CFA based on available knowledge can be treated much more efficiently (particularly in relation to manpower) in separate projects. Thus, taxonomic disparities between the regional and state Floras are diminishing as new editions are produced. The checklist of Australian plants (including geographical distributions) currently being compiled by ABRS and Chapman's Index to Australian Plant Names will further reduce this. The consideration of all available literature would be further enhanced if a rapidly distributed systematically indexed Card Index to Literature pertaining to Plant Taxonomy of the Australian Region were initiated (removing current duplication of effort in private compilations of some herbaria), possibly in conjunction with BIOSIS.

The major gap in our public-oriented Flora cover of Australia is in our north. Whether it is time for a largely inadequate handbook dealing with this, is for those in contact with both public and plants in the region to decide in relation to research priorities. A need for a Flora of Northern Australia based on available knowledge is certainly no justification for embarking on a much more grandiose and time-consuming multivolume Flora covering the whole of Australia.

Increasing our total revisional productivity

In addition to increasing our individual revisional productivity, there is clearly a need for more positions for full-time revisional research. This is the most telling way of increasing our total revisional productivity. Even 4 or 5 positions for full-time revisional research can make a significant impact on our revisional productivity in view of its current low level. It is even more vital that we act on this when there is a growing number of people with Ph.Ds. in plant taxonomy or equivalent experience who cannot find employment in this field.

In such circumstances no "Flora team" (presumably of Australians) can be justified unless it is undertaking revisional research. In the event of a CFA based on revisional research, it is far more efficient and simple to have revisers abridge their own revisions to a set format, the MS then refereed by an Editor. Revisers have at their finger tips the most important points of their revision. A CFA based on available knowledge will reduce the total revisional output, whether it employs a Flora writing team, in which case the positions would be better given over to full-time revisional research, or it relies on the contributions of Australian taxonomists, in the event of which there would be a loss of individual revisional productivity, or a combination of both.

The CFA may also develop its own prestige in the eyes of the Australian public and politicians. In the case of a CFA based on revisional research the rate of publication of its volumes will provide a public mirror of the extent of Government financial support for its data base. Such prestige may provide an apparently necessary additional lever for increased funding of revisional research, which is so vitally needed now. All the efforts of ANZAAS, the Academy of Science and ABRIS have so far brought us only a little way to the sort of productivity we need. On the other hand, a CFA based on available knowledge cannot be used to justify any additional funding for increasing revisional productivity as it can be completed in its set time without it.

In conclusion, it is unfortunate that the press release and circular letter by ABRIS on the CFA project did not especially mention this matter of the taxonomic basis of the Flora, either in detail as a statement of intent or as a subject for discussion. In view of the existence of some responses calling for a short-term (ca. 20 year) CFA based on available knowledge, I feel it is vital that all taxonomists with views on this aspect inform ABRIS of them. It is to be hoped that ABRIS has not changed its previously stated views that a Flora of Australia must have a revisional base, for I believe it must sponsor comprehensive and in-depth revisional research if it is to obtain the hard data on our Australia flora which must be its primary aim in its sponsorship of taxonomic botany.

Bill Barker

State Herbarium of South Australia

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SERIES OF AUSTRALIAN PLANT MONOGRAPHS

A proposal was put to CHAH in 1977 to issue monographs of Australian plant taxa in a uniform series. It was envisaged that the Series would comprise papers already published in recognised journals. Those considered by a Standards Committee to be suitable for inclusion in the Series would be re-issued in a series cover as soon as possible after their original date of publication.

ABRIS was approached to provide funding for the production of the Series. The cost would be modest, involving only the purchase of off-prints from the original publishers and the printing of covers. The Series would be sold to subscribers at cost plus handling charges, and the income from sales used towards later production costs.

The ABRIS Advisory Committee considered the proposal but deferred a decision until the demand for such a Series had been assessed. The proposers considered that demand would probably come from two sources, namely, small institutional libraries not receiving all the major plant taxonomic journals, and individual taxonomists who would like to have all Australian plant monographs gathered together for convenient access.

Would you subscribe to the Series if it were available? If so, please write

a 2-line note to The Director, ABRIS, P.O. Box 449, Woden, A.C.T. 2606, to tell him so.

The ABRIS Advisory Committee has agreed to look at the proposal again at its next meeting, in the light of the interest shown. If you want the Series, write now!

AUSTRALIAN BIOLOGICAL RESOURCES STUDY
PARTICIPATORY PROGRAM : REGISTRATION

I have received the following information from Dr. W. D. L. Ride, Director of the Australian Biological Resources Study:

"The Advisory Committee for the Australian Biological Resources Study has decided to compile a register of persons interested in taking part in its Participatory Program. The register is designed to assist the committee with the determination of priorities and to reduce unnecessary effort in preparing detailed submissions.

The Participatory Program will provide funds for selected studies of the Australian flora and fauna. It is a successor to the ABRS Interim Council grants scheme. Both professional and amateur naturalists are eligible to register."

Many members will have already received and completed registration forms. I have a copy of an "explanatory circular" and extra registration forms if you require them.

Further information is available from the Director, ABRS, Department of Science and the Environment, P.O. Box 449, Woden, A.C.T. 2606.

Judy West - Secretary

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INDEX OF CURRENT TAXONOMIC RESEARCH ON THE AUSTRALIAN FLORA

This A.S.B.S. edition of the index (see Newsletter 18 : 4) has now been completed by Trevor Whiffin and will be distributed from Adelaide to all A.S.B.S. members and herbaria early in June. It is proposed to dispatch the index in batches to the Chapter Conveners for distribution to members. This may mean a delay in some individuals receiving their copy of the ICTRAF, but please be patient.

Judy West - Secretary

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JOYCE W. VICKERY, M.B.E., D.SC.

With much regret we record the death of Joyce Winifred Vickery on 29 May 1979, after a short illness. During her long association with the New South Wales National Herbarium, Dr. Vickery made a great contribution to the knowledge of Australian grasses, and to the improvement of scientific standards in botanical systematics in Australia, and particularly at NSW. Her notable work in nature conservation and her generous help to less experienced botanists are well remembered. An obituary will be published in a future issue of "Telopea".

Barbara Briggs (N.S.W.)

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MEMORIAL TO CONSTANCE EARDLEY

The Botany Department and the Graduates' Union of the University of Adelaide have decided that a working fund should be established as a memorial to Miss Constance Eardley, who was for many years a much-loved colleague. Generations of students have cause to remember with gratitude her kindness and help to them.

The University of Adelaide in approving the scheme has indicated that at least \$2,000 is required to make this a viable proposition. At time of writing contributions totalling \$900 have been offered. All donations of \$2 or more are tax deductible. Cheque should be sent to the Secretary of the Graduates' Union, (or the Botany Department), University of Adelaide, Adelaide, South Australia 5001. A University receipt will be sent and donations will be acknowledged in the Graduates' Union Newsletter and Gazette unless otherwise requested.

J. T. Wiskich

R. C. Heddle

Chairman,
Botany Dept.,
The University of Adelaide

President,
Graduates' Union

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NEW APPOINTMENTS IN SOUTH AUSTRALIA

Australia has gained two established taxonomists by recent appointments in South Australia. Barry J. Conn in March took up a position as Tutor in the Botany Department, University of Adelaide. Half his time will be spent on taxonomic studies in Prostanthera for a Ph.D. He was formerly a botanist at the PNG National Herbarium, Lae and a lecturer at the PNG Forestry College, Bulolo. His main taxonomic work has been on Loganiaceae (including a monograph of Geniostoma) and he has studied a number of smaller families for PNG.

Hellmut R. Tölken took up a Botanist post in the State Herbarium in April. He was formerly on the staff of the National Herbarium, Pretoria, and has spent two years as South African Liaison Officer at Kew. Hellmut's previous major interests include a monograph of South African Crassulaceae and taxonomic studies in Centrospermae of South Africa.

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FIELD TRIP

During September-October Bob Chinnock and Hellmut Tölken will be in Western Australia studying Myoporaceae and making general collections. They are prepared to collect and study any specific groups (within reason) for other people if time permits.

The main areas they are visiting are:

- (i) Leonora-Laverton District
- (ii) Von Treuer Tableland-Lake Carnegie
- (iii) Meekatharra region
- (iv) Pilbara area - Tom Price - Paraburdoo and southwards from Ashburton Downs - Mt. Vernon - Mt. Augustus to Cue.

If there are any specific requests please write to the above at the State Herbarium of South Australia, Botanic Garden, North Terrace, Adelaide, S.A. 5000.

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INCREASE IN SUBSCRIPTIONS IN 1980

Due chiefly to increasing costs in the production of the Society's Newsletter it has become necessary to increase subscriptions from 1980.

At the 5th General Meeting in Sydney on 19.1.1979, a motion was unanimously carried to the effect that the Australian annual rate be increased to \$10, reduced to \$8 if paid by 31 March, and that the Overseas rate be increased to US\$12. As in the past, persons joining after 31 March are required to pay only the reduced "early-payment" rate.

The increase is regrettable but inevitable and considering the current rate of inflation. The last increase was in 1976.

M. Lazarides - Treasurer

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INDEX TO THE ASBS NEWSLETTER NOS. 1 - 20

An index to the first 20 numbers of the Newsletter is going to be prepared and could be cyclostyled if there is sufficient interest. It is intended to index all personal names and organisations, such as herbaria and local Chapters. A nominal charge will probably have to be made to cover paper and postage but this is not likely to be much in excess of 50¢.

Anyone requiring a copy should let me know before number 20 is issued.

John Jessop (AD)

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RECENT PUBLICATIONS

Gentilli, J. (Ed) (1979). Western Landscapes. University of Western Australia Press. \$10.

Chapters of botanical interest:

4. Phytogeographic Regions, by J.S. Beard, including the new map of botanical provinces, districts and sub-districts.
5. Vegetation: Natural Factors and Human Activity, by J. J. Havel.
6. Mapping the Vegetation of the Perth Region, by E. M. Heddley, including sections by G. G. Smith on the maritime and marine vegetation.

Appendix. A note on phytocartography - evolution of maps of the Western Australian plant landscape, by J. Gentilli.

Statham, Pamela (1979) Dictionary of Western Australians 1829-1914. Volume 1 : Early Settlers 1829-1850. University of Western Australia Press. \$14.50.

The first of five volumes listing all persons resident in Western Australia

prior to 1915. Other volumes will cover the periods 1850-1868 (including a separate volume for convicts), 1869-1889 and 1890-1914. The basic data are, where available, dates of birth, death, marriage, arrival and departure, occupation, place of residence. Further biographic data are given for many entries, which vary in length from one line to half a page. This work will be an essential reference for anyone studying the early people of the State.

Askew, K. & Mitchell, A.S. (1978). The Fodder Trees and Shrubs of the Northern Territory. Division of Primary Industry, Northern Territory. \$2.50. A new article based on Chippendale and Jephcott's Topfeed (1963). Twenty four species are described and illustrated together with notes on habitat, ecology, distribution, phenology, forage value, response to grazing, and management. A further 17 species are illustrated but described in less detail.

Sharr, F.A. (1978) Western Australian plant names and their meanings. University of Western Australia Press. \$16.95. Expensive for a soft-cover book, but an extremely useful work for those interested in the derivation of generic and specific names. The work covers all indigenous species published before 1975. Brief notes are included on botanical names and on the chronology of botanical collecting in Western Australia up to 1850.

Hall, Norman (1978) Botanists of the Eucalypts. C.S.I.R.O., Melbourne. Contains short biographies of those whose names have been given to species, or who have collected type material. A well-researched mine of information on many people connected with Australian botany.

Beaglehole, A.C. (1979) 'The Distribution and Conservation of Native Vascular Plants in the Victorian Mallee'. Available from Portland Field Naturalists Club, P.O. Box 470, Portland, Victoria 3305 for \$4 a copy including postage.

This is a publication of 100 pages which includes an up-to-date checklist of the vascular flora of about 1260 species, showing the distribution of each species within the Mallee and including many new records. The conservation status of each species is indicated and detailed distribution data are given for 300 rare species. The 135 native species absent from biological reserves are listed. The location of area is given in which new reserves would significantly increase the number of plant species which are adequately conserved. A detailed, coloured map showing minor grid squares and the location of various types of Public Land is included.

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MICROFICHE OF HERBARIA HOUSED IN AUSTRALIAN COLLECTIONS

Information on where microfiche of herbaria are available is not easy to come by and lists were sought from the major herbaria in Australia. The replies are tabulated below. It is proposed to publish a supplementary list of new purchases and of those herbaria not now included when information comes to hand.

Australian Eucalyptus types (35 mm negs)	FRI
CANDOLLE, Geneva	AD, BRI, HO Uni, NSW, PERTH
DESFONTAINES, Paris	AD, BRI, NSW
FORSSKAL, Copenhagen	AD, BRI
HERMANN, Leiden	BRI
HUMBOLDT, BONPLAND & KUNTH, Paris	AD, BRI
JUSSIEU, Paris	BRI
KOENIG, ?	AD
LAMARCK, Paris	AD, BRI
LINDLEY, Kew (orchids)	AD, NSW
LINDLEY Australian types, Cambridge (Microfilm)	NSW
LINNAEUS, Stockholm	AD, BRI
LINNAEUS, London	AD, BRI
LOUREIRO, Paris	AD, BRI
MICHAUX, Paris	BRI
RAUWOLFF, Leiden	AD
ROUSSEAU & AUBLÉT, Paris	BRI
SMITH, London	BRI
THUNBERG, Uppsala	AD, BRI
TOURNEFORT, Paris	BRI
Type Herb. of 'Museum Botanicum Hauniense', Copenhagen	AD
VAHL, Copenhagen	AD
WALLICH	BRI
WILLDENOW, Berlin	AD, BRI, CANB.

Microfiche copying facilities are available in AD, CANB, and PERTH.

JOHN JESSOP (AD)

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CHAPTER NEWS

A.S.B.S. CHAPTER CONVENERS

BRISBANE	-	Laurie Jessup and Cheryl Scarlett
ROCKHAMPTON	-	Barbara O'Brien
TOWNSVILLE	-	Betsy Jackes
SYDNEY	-	Laurie Haegi and Peter Weston
CANBERRA	-	Michael Crisp
MELBOURNE	-	Mary Todd
ADELAIDE	-	Bill Barker
ALICE SPRINGS	-	John Maconochie
PERTH	-	Steve Hopper
DARWIN	-	Clyde Dunlop
HOBART	-	Tony Orchard

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ADELAIDE

On 28 February, 1979, Brian Morley (Adelaide Botanic Gardens) spoke on "Speciation in Columnea (Gesneriaceae) in the New World tropics", giving a beautifully illustrated insight into contrasting patterns of distribution in different regions, including remarkable endemism in Jamaica, and the occurrence of sympatric interfertile species with synchronous flowering, pollinated by the same humming birds, yet with hybrids absent except in disturbed sites.

On 28 March, Bill Barker (AD) dealt with "The taxonomic treatment of complex species and species complexes", including the nature of polymorphic complexes, the various taxonomic methods of describing them (formal vs. informal classification, the definition and usefulness of subspecies and variety, and the inadequacy of using a single infraspecific category) and finally some practical aspects of revising such complexes.

On 25 April, Wayne Harris (S.A. Department of Mines and Energy) presented the first of two lectures dealing with "Aspects of early Tertiary plant geography" discussing the "Geological and Palynological evidence".

On 25 May, Marilyn Fox (NSW) spoke on her studies in the Myall Lakes area on NSW in "Coastal open forest -- an ecological view".

Coming meetings are:

Wednesday, 30 May - Dave Christophel (ADU): "Aspects of early Tertiary plant geography -- plant macrofossil evidence".

Wednesday, 27 June - Barry Conn (ADU): "Species concept and taxonomic complexity in some genera in the New Guinea flora".

Wednesday, 25 July - Peter Lang (ADU): "Morphological variation in the Dumosae - a complex of mallee eucalypts".

Wednesday, 29 August - Hellmut Tölken (AD) : "South African Crassulaceae - variation without rhyme or reason".

BILL Barker - Convener

BRISBANE

On the 5th April, 1979, Mr. R. Dowling from the Queensland Department of Primary Industries spoke on the 'Factors Affecting the Distribution of Mangroves in Queensland'. This talk was extremely interesting and generated a great deal of discussion. The wealth of knowledge gained by Mr. Dowling during his studies has clarified many of the casual factors involved.

C. A. Scarlett for the committee.

PERTH

A new convening committee was elected for the Perth Chapter at the first meeting in the year (May 15). The incoming committee includes:

Convener: Stephen Hopper (Department of Fisheries and Wildlife)

Members: Allan Burbidge (Botany Department, University of Western Australia)
Anne Coates (King's Park and Botanic Garden)
Nick Lander (Western Australian Herbarium)

All members of the Perth Chapter wish to express their gratitude to the 1978/79 committee (Greg Keighery, Roger Hnatiuk and Bernie Dell) for their efforts over the past year.

The May meeting involved brief talks and discussions on proposed flora projects, including the Flora of Australia, a Flora of the Perth Region, a generic Flora of Western Australia and a Biological Flora of Western Australia.

At the next meeting (July 17), Barbara Rye will discuss aspects of her work on breeding systems in the Myrtaceae.

The new convening committee is investigating proposals to hold a mid-year dinner for A.S.B.S. members, and to run a one day symposium in November involving several contributed talks on the Phytogeography of Western Australian Plants and on Pollination Ecology. Members interested in presenting a paper (20 minutes discourse followed by 10 minutes discussion) on either of these topics are invited to contact the convening committee.

Stephen Hopper - Convener.

SYDNEY

Meetings are held every month and to date we have heard the following speakers:

14th March (Joint meeting with the Linnaean Society of N.S.W.)	Mr. Harold Carter Congresbury, England	Sir Joseph Banks: The evolu- tion of No. 32 Soho Square as a prototype of the specialized research institute.
4th April	Dr. Graham Pyke, Zoology Department University of Sydney	Pollination Biology - The New Testament.
2nd May	Mr. Chris Betteridge Heritage & Conservation Branch New South Wales Planning & Environment Commission	The Heritage Act 1977 with particular reference to conservation of Natural and Man-Made Landscapes.
6th June	Ms Margaret Howard Botany Department Uni. of New South Wales	The Phylogenetic significance of reticulate veined leaves in order Liliales.
The programme to July includes:-		
4th July	Dr. Peter Michael Agronomy Department University of Sydney	The origins and distributions of alien plants in the Australian flora.

The programme for the rest of the year is yet to be announced.

L. Haegi

CHANGES TO THE A.S.B.S. THESIS LIST

ABBREVIATIONS

CANU - University of Canterbury, Christchurch, New Zealand

FL - Flinders University, Adelaide, S.A.

GAUBA - This abbreviation, as pointed out to me by Prof. D. J. Carr, should refer only to the Botany Department, Australian National University. Other departments in the A.N.U. which have produced theses on botanical subjects are Forestry, Biochemistry, Research School of Chemistry, Biogeography, Environmental Biology, Population Biology, Development Biology and Taxonomy Unit. As yet all theses listed are from the Botany Dept. so ANU-GAUBA is an applicable abbreviation. When theses from other departments are listed appropriate abbreviations will be found.

CORRECTIONS TO LIST -

23. BENNETT, E.M. (1969) The genus Hybanthus in Australia including the cytology and anatomy of the Western Australian species. UWA-M
31. BOUSFIELD, L.R. (1970) Chromosome races in Dampiera linearis UWA-P
282. VEAL, A.D. (1975) Pollination and breeding in section 3 of the dioecious genus Lomandra. UWA-B

ADDITIONS TO LIST -

- ARCHER, A.C. (1972) Aspects of the Biology of Rumex acetosella, with special reference to the Yass River Valley. SYD-BA
- AULD, J. (1978) Aspects of the Population Biology of Angophora hispida. SYD-B
- BARLOW, B.A. (1954) Hybridization between Casuarina suberosa and Casuarina distyla, and the probable relationships between these species. SYD-B
- BRADSTOCK, R. (1977) A study of the population dynamics of Banksia ericifolia. SYD-B
- BRIGGS, S.V. (1972) The study of the ecology of Avicennia Marina on the Lane Cove River, N.S.W. SYD-BA
- BURBIDGE, N.T. (1959) The phytogeography of the Australian region UWA-D
- BYRNES, N. (1972) A revision of the Family Combretaceae from within Australia. SYD-M
- CLARKE, C.D. (1967)
- 1) A method for the study of morphological variation within populations, and its relation to the environment.
 - 2) The relationship between water table level and distribution of Banksia species in the Myall Lakes Region. SYD-B

- COATES, D.J. (1974) Chromosome variation and breeding systems in section Squamosae of the genus Stylidium. UWA-B
- CONNELL, P.M. (1963) Studies on the effects of controlled variation of environmental conditions on Riccia spp. SYD-B
- CROOKS, R.D. (1972) A preliminary study of the relationship between the Edaphic Factor and the distribution of 3 Eucalypt species of the Hawkesbury Sandstone. SYD-BA
- DIVER, P.J. (1974) Variations in Populations of Themeda australis in the Sydney area. SYD-B
- DYSON, L.E. (1973) The ecology and morphology of some Leptospermum species SYD-B
- EDGAR, E. (1957) The special characteristics of some New Zealand Cotulas with particular reference to their breeding systems. CANU-M
- EVANS, O.D. (1958) A key to the identification of genera and species in 2 orders of Gymnosperms and 122 families of Angiosperms which occur in the Sydney/Blue Mountains District. SYD-B.Sc. by research.
- FARRELL, P.G. (1972) A taxonomic investigation of an ephemeral Stylidium. UWA-B
- GARNOCK-JONES, P.J. (1975) A systematic study of Parahebe in New Zealand CANU-P
- GIVEN, D.R. (1968) Taxonomic studies in the genus Celmisia. CANU-P
- HARRIS, N.V. (1967) Some factors affecting the distribution of Carthamus lanatus and Cirsium vulgare on a N.S.W. Central Tableland site. SYD-BA
- HOPPER, S.D. (1973) Natural hybridization in Angigozanthos and Caladenia. UWA-B
- JACOBS, S.W.L. (1973) Ecological studies on the Genera Triodia and Plectrachne in Australia. SYD-P
- KLOOT, P.M. (1973) Studies in the ecology of Pheasants Eye (Adonis microcarpus). ADU-A
- LANCASTER, H.P. (1949) Cytotaxonomic studies in the Proteaceae. SYD-B
- LING, P.K. (1969) The occurrence, analysis and evolutionary exploitation of genetic variation in ovule number in Isotoma petraea. UWA-B
- MCDONNELL, S.M. (1970) The taxonomy and life-history of Triglochin procera SYD-B
- McFarlane, T.D. (1975) A study of the generic relationships of Anguillaria and Wurmbea in W.A. UWA-B
- MASLIN, B.R. (1977) Studies in the genus Acacia (Mimosaceae) with special reference to the series Pulchellae. UWA-M

- MEAKINS, J.S. (1976) A comparative physiological Ecology of Blackbutt and Flooded Gum SYD-P
- MOWBRAY, D.L. (1968) Biology of Colonising species with special reference to pattern in colonising species, adaptation and potential adaptabilities of Carthamus lanatus and Cirsium vulgare. SYD-B
- PHILIPSON, M.N. (1977) Cortaderia jubata (Gramineae), and autonomous apomict. CANU-P
- POWELL, B.L. (1973) Chromosome numbers and evolutionary biology in the Chamaelaucieae (Myrtaceae). UWA-B
- RANDELL, B.R. (1969) Biosystematic studies in Australian arid-zone Cassia species. FL-P
- RIDDELL, J. (1973) The taxonomy of the Lepidosperma Species of the Sydney region. SYD-BA
- ROARK, B. (1955) The Autecology of Asphodelus fistulosus. SYD-P
- * SOLLING, K. (1972) Variation in Ajuga australis in N.S.W. SYD-BA
- STONE, G.L. (1972) Biosystematics in the Stylidium brunonianum group. UWA-B
- TINDALE, M.D. (1944) A revision of the Polypodiaceae of N.S.W., together with Keys to the genera and species. SYD-M
- TINETTI, R.F. (1977) The reproductive biology of an electrophoretic studies in Isotoma petraea. UWA-B
- TOWNROW, J. E. S. (1978) Studies in the genus Stipa (Gramineae) in Tasmania. HO-P
- TURNER, J.M. (1976) Investigation of a presumed hybrid swarm between Banksia asplenifolia and Banksia robur. SYD-B
- URWIN, N.F. (1972) An ecological study of the common Hakea species occurring in the Sydney Basin. SYD-BA
- WEBB, C.J. (1975) Breeding systems in Gingidia and related genera of the Umbelliferae. CANU-P
- WESTON, P. (1978) The Evolution and Classification of Boronia. SYD-B

RELEVANT LITERATURE -

Dissertation abstracts international - an abstracting journal for doctoral theses from c. 360 universities (mainly in the United States and Canada), published monthly by Xerox University Microfilms. Many of the dissertations listed are held on microfilm or microfiche by the National Library of Australia (see National Library Information Sheet No. 137 issued 23.6.1978).

Hints on the preparation of an academic thesis - an 11-page booklet by Prof. Eric J. Sharpe (1978), Dept. of Religious Studies, University of Sydney. Available from the Secretary, Dept. of Religious Studies, Griffith Taylor Building, University of Sydney, N.S.W. 2006. Cost: 60 cents plus postage.

K. L. Wilson (N.S.W.)

ANZAAS AND ASBS MEETINGS, ADELAIDE, MAY 1980

Under Bill Barker's leadership, the South Australian Chapter of ASBS is sponsoring an expanded programme for ASBS members at ANZAAS next year, including a symposium on the evolution of the flora and fauna of arid Australia. There is a strong feeling that, while many other sections of botany have separated off, systematic botany remains largely committed to ANZAAS, yet there is scarcely enough systematic botany at most meetings to attract systematists. It was, therefore, decided to try to prepare the best part of a week's meetings in order to cater for the interests of systematists. The idea was initially to hold a two or three day symposium within ANZAAS jointly with other sections or societies interested. The rest of the week would then have been taken up, at least in part, by contributed papers and/or minor symposia. Unfortunately this plan was defeated by ANZAAS rules which forbid symposia of this nature during any afternoons and, especially as some of the other symposia arranged for the mornings are likely to be of interest to our members, we did not feel that this allowed enough time for systematic botany.

The outcome of all this is a decision to hold the symposium before ANZAAS and still to try to provide some systematic botany within ANZAAS during the official week. It is felt that our members sometimes forget the interest in and importance of our work and are, perhaps, not always forceful enough in pushing systematic botany in competition with other aspects of botany considered by some to be more fashionable. With more than 300 ASBS members that doesn't make sense.

THE EVOLUTION OF THE FLORA AND FAUNA OF ARID AUSTRALIA (8 - 9 May)

This symposium is planned to give approximately equal weight to the fauna and flora. Two zoologists, Dr. John Greenslade (invertebrates) and Dr. Peter Baverstock (general) are coordinating the animal side, and the entomological and herpetological societies are being invited to cosponsor it.

A copy of the first circular is included to give you an idea of how it is hoped the Symposium will turn out.

Speakers have been invited to review various background topics and first indications are that a first class line-up of experts will be involved.

ANZAAS (12 - 16 May)

ASBS is also retaining an involvement in the planning of the official ANZAAS week, especially in a session of contributed papers on systematic botany. In addition there are several Section 12 meetings which will be of interest to members. The following sessions are likely to be of particular interest. Unless otherwise stated these are all morning meetings.

12 May (Monday) Section 12 Botany Presidential Address (Prof. R. C. Carolin).

13 May (Tuesday) ASBS sponsored contributed papers session (further time will be made available if necessary).

14 May (Wednesday) Symposia: (1) River Murray/Darling System; (2) Impact of man on inshore flora and fauna.
ASBS A.G.M. and Nancy Burbidge Memorial Lecture (evening).

15 May (Thursday) Symposia: (1) Australian rangelands, their use and conservation; (2) Co-evolution.

16 May (Friday) Symposium: Australian rangelands (cont'd)

In addition there will be an ASBS dinner on an evening yet to be decided.

Field trip arrangements for ANZAAS and possibly ASBS are not yet finalised.

REQUESTS FROM MEMBERS -

1. Members are strongly urged to offer papers on the arid flora for the ASBS symposium. They are requested to write to Bill with particulars. Short papers will be welcomed and none should exceed 40 minutes. If a paper is not considered appropriate for the symposium by a selection panel, it will be very welcome for inclusion in the ANZAAS session(s) of contributed papers.
2. Suggestions of people who should be approached to contribute papers to the symposium are wanted.
3. Members are requested to offer papers for the general session within ANZAAS. Titles + abstracts should be sent to John Jessop.

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"THE EVOLUTION OF THE FLORA AND FAUNA OF ARID AUSTRALIA"

A symposium to be held in Adelaide in May, 1980
Cosponsored by the Australian Systematic Botany Society

The symposium is planned to run over 2-2½ days on May 8-9, with an option of an extra ½ day if necessary. ANZAAS will be held on May 12-16. It is not intended to cut across any symposia to be held within ANZAAS.

The symposium is being divided into two main parts to provide:-

A. Reviews by invited speakers (about 1 day):-

- giving the relevant geological, geomorphological, climatological and ecological background relating to the nature and development of the diversity of habitats into which the biota had radiated;
- providing the palaeontological background
- covering published work relating to various facets of the evolutionary picture, as follows:- genetic systems in plants; environmental adaptations in plants (physiology, chemistry, morphology; water stress, herbivore defence); genetic strategies in animals; adaptations in animals; biogeographic patterns in plants.

B. Contributed papers on previously unpublished work (about 1 day):-

- a series of shorter papers by specialists, together giving a cover (where material is available) of the various aspects of evolution, the systematic groups, and the diversity of habitats available. These papers may cover a small portion of the total evolutionary picture of the group concerned, and will have a duration related

to their relevant content. They will be predominantly, but by no means exclusively based on systematic studies.

- C. In conclusion a review summarising the main evolutionary patterns arising from all the papers will be presented by an invited speaker.

Interested persons are invited to complete the form below, and send it in as soon as possible (deadline July 31st). We are dependent upon your prompt response to determine the appropriate venue and format of the symposium, as well as the possibility of publication of the proceedings. Suggestions of potential contributors are welcome.

"THE EVOLUTION OF THE FLORA AND FAUNA OF ARID AUSTRALIA"

Name:

Address

Attendance: Definite Probable Possible

If you wish to give a contributed paper: Systematic group

Possible title:

Aspects covered:

Please send to: Dr. W. R. Barker
State Herbarium of South Australia,
Botanic Garden,
North Terrace,
Adelaide, S.A. 5000