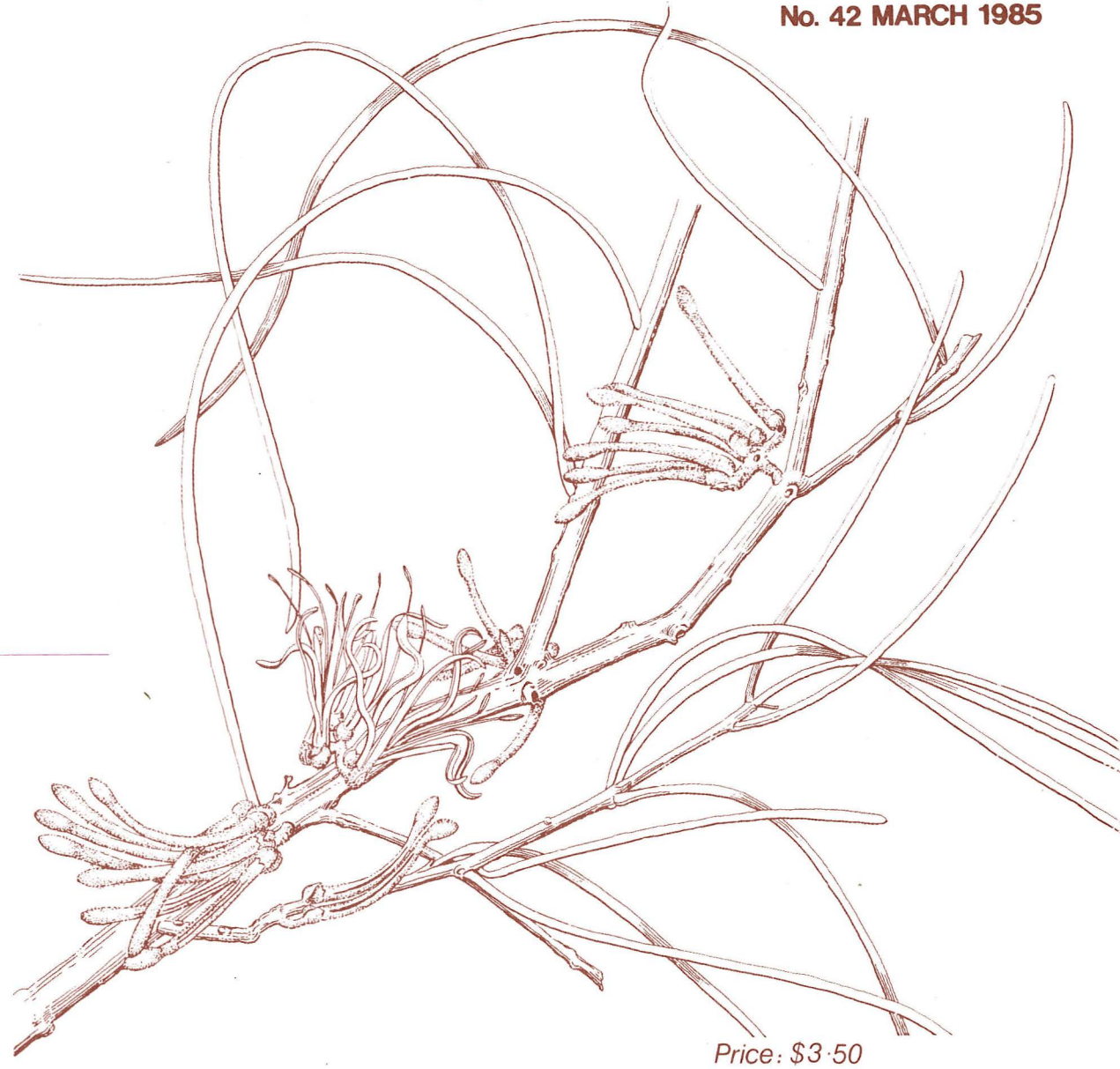
Australian Systematic Botany Society NEWSLETTER

No. 42 MARCH 1985



Amyema linophyllum (Fenzl) Tieghem subsp. *orientale* Barlow

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Affiliated Society : Papua New Guinea Botanical Society

Minutes of 9th General Meeting

The 9th General Meeting of the Society was held at Thredbo, N.S.W. on Tuesday, 12 February, 1985 at 7.30 p.m.

The President, Dr B.A. Barlow welcomed approximately 45 members, and several visitors who were attending the symposium 'Origin and Evolution of the Australasian Alpine Biota'.

1. Minutes of the 8th General Meeting were accepted as published in the *Austral. Syst. Bot. Soc. Newsletter* 35: 9-20 (1983), with the following addition: apologies were also received from L. Haegi.

2. President's Report. The President did not give a detailed report since the Nancy Burbidge Memorial Lecture was delivered following the General Meeting. Bryan Barlow has been elected for another term of office and will give a President's Report at the end of that term.

3. Treasurer's Report. Philip Short presented the following report, which indicates that the Society is in a healthy financial situation.

"Treasurer's Report

The 1983 and 1984 accounts were audited by Mr S.J. Pyke, B. Bus. Std. (Acc.), AASA of 93 Joffre St., Dandenong. He found that the accompanying financial statements and the books of accounts provided to him gave a true and fair view of the state of affairs of the Society as at 31.xii.1983 and 31.xii.1984.

'Flora of Central Australia'

As noted in the previous Treasurer's Report (*Austral. Syst. Bot. Soc. Newsletter* 35: 10) The Botanic Gardens of Adelaide donated $2,500 towards the publication of the Flora. Of this $1,000 has not been spent but is being held to put towards any future production of this work.

To date ASBS has received a total of $836.85 in royalties from sale of the Flora.

'Evolution of the Flora and Fauna of Arid Australia'

ASBS contributed $1,000 to the publication of this work. Our total return is $1,242.86, i.e. a profit of $242.86. We can expect to receive further royalties from this publication.

The success of this publication comes as no surprise and I take the opportunity to thank the editors, Bill Barker and John Greenslade, for their efforts.

Payment of Subscriptions

Number of members (xii.1984)	338
Financial members	255
Unfinancial Members	83

Of the unfinancial members 21 owe 1983 and 1984 subs, 62 owe 1984 subs.

Although reminder notices, re subscriptions due, have been inserted in the current newsletter and will be regularly used in the future their use is questionable. The number of unfinancial members is only 17 fewer than in June 1983 (Reminder notices were used in 1984).

I thank local chapter convenors for their efforts to contact unfinancial members.

The current subscription level should be maintained. (There was no serious opposition to this at the meeting).

Origin and Evolution of Australasian Alpine Biota

Council has decided to contribute up to $3,000 to the costs associated with the production and distribution of the Proceedings of the Alpine Symposium.

The published Proceedings will be available to financial members of ASBS at a reduced rate - probably c. 30% off the normal retail price.

I thank Laurie Adams for handling the financial affairs of the Symposium."

4. Newsletter Editor's Report

"Newsletter Editor's Report

Seven issues of the Newsletter have been produced since the last General Meeting (May 1983).

Printing: There has been no change in the method of publication of the Newsletter. MTD Instant Print in Brisbane are continuing to do an excellent job for a reasonable price. There has been a price increase of about 9% during the last 18 months, i.e. the cost of a 20 page Newsletter (400 copies) is now $440. Also there has been a slight increase in postal charges from 17 cents to 20 cents per Newsletter and in the registration fee from $20 to $30 per year.

Articles: The Newsletter's continued existence is dependent upon the support of the members in contributing book reviews, notes, letters, articles etc. Perhaps every member should consider writing at least one article for the Newsletter before the next General Meeting. Members are reminded that contributions should be typed in duplicate and double-spaced.

Advertisements. A number of paid advertisements (including brochures) have appeared in the Newsletter during the last year. The Society is still to be paid for the inclusion of some advertising fliers.

Editorial Committee. Council has accepted my recommendation that a Newsletter editorial committee be formed. This will comprise the Editor and the two councillors who are at present without portfolio (viz. R. Henderson and M. Crisp). The formation of an editorial committee is necessary as the Editor's task is becoming more time consuming.

This will be my last report as Newsletter Editor. I have indicated to Council that I wish to relinquish the editorship as of the end of this year. I would like to take this opportunity of thanking Dr Bob Johnson and the staff of the Queensland Herbarium for their continuing support in the production of the Newsletter.

Gordon Guymer
Newsletter Editor"

SUMMARY OF THE TREASURER'S REPORT FOR THE FINANCIAL YEAR OF 1983

CREDIT	$
Balance brought forward (31.xii.1982)	2,729.01
Term Deposit Accounts	4,500.00
Bank Interest	518.03
Subscriptions	2,540.85
Royalties from the "Flora of Central Australia" ..	71.75
Return from "Evolution of the Flora and Fauna of Arid Australia"	1,004.77
Donations to the N.T. Burbidge Memorial Lecture ..	31.00
TOTAL INCOME	11,395.41

DEBIT		$
Printing of Newsletters		
Newsletter 33	370.00	
Newsletter 34	350.00	
Newsletter 35	396.00	
Newsletter 36	374.00	1,490.00
Postage and other costs associated with Newsletters		
Postage of Newsletters 34 & 35, address labels, etc.	207.35	
Postal Registration	20.00	
Postage Newsletter 33	97.65	
Postage Newsletter 36	50.42	375.42
General Meeting expenses for N.G. Marchant		51.84
Bank/Government charges		3.55
Transferral to Term Deposit Account		2,000.00
TOTAL EXPENDITURE		3,920.81
Bank Balance (Incl. Term Deposit Accounts)		7,474.60
TOTAL BALANCE		11,395.41

SUMMARY OF THE TREASURER'S REPORT FOR THE FINANCIAL YEAR OF 1983

CREDIT	$
Balance brought forward (31.xii.1983)	2,974.60
Term Deposit Accounts	7,000.00
Bank Interest	614.35
Subscriptions	3,722.04
Royalties from the "Flora of Central Australia"..	765.10
Return from "Evolution of the Flora and Fauna of Arid Australia"	238.09
Payment for Cladistics Symposium from National Botanic Gardens, Canberra	300.00
Payment for ASBS membership list by MacMillan ...	20.00
Advertisement in Newsletter	30.00
TOTAL INCOME	15,664.18

DEBIT		$
Printing of Newsletters		
Newsletter 37	446.00	
Newsletter 38	364.00	
Newsletter 39	540.00	1,848.00
Newsletter 40	498.00	
Postage and other costs associated with Newsletters		
Postage Newsletter 37	58.41	
Postage Newsletter 38	71.05	
Postage Newsletter 39	61.80	
Postage Newsletter 40	62.15	
Postal Registration	20.00	
Labels etc.	55.00	328.41
Postage expenses for T.D. Macfarlane		27.08
Cladistics Symposium, payment to G. Nelson		300.00
Alpine Symposium Expenses		
Deposit for Thredbo facilities	750.00	
Deposit for Ansett Airlines ..	300.00	1,050.00
Bank/Government Charges		6.09
Transferral to Term Deposit Accounts		2,500.00
TOTAL EXPENDITURE		6,059.58
Bank Balance (Incl. Term Deposit Accounts)		9,604.60
TOTAL BALANCE		15,664.18

Karen Wilson moved a vote of thanks for the work done by Gordon as Newsletter Editor.

5. Incorporation of the Society. The Secretary explained briefly the proposal of Council that the Society become an incorporated association in the A.C.T. under the Associations Incorporation Ordinance 1953 (see Austral. Syst. Bot. Soc. Newsletter 41: 16-17 (1984) for rationale and further details).

It was agreed that Council should proceed with incorporation of the Society. The Constitution Committee will examine the Associations Incorporation Ordinance of the A.C.T. and recommend any necessary amendments to the Society's constitution.

6. Subscriptions to Australian Journals of Scientific Research. The Socie has been offered personal subscriptions at concessional prices (about one third of the cover price) to the Australian Journals of Scientific Research The 1985 subscription rates for Australian Journal of Botany and Brunonia a as follows:

	Full	Concession
Aust. J. Bot. (with supplements)	$100	$35
(without supplements)	$ 90	-
Brunonia	$ 36	$12

If enough members of the Society wish to subscribe to any of the journals, then Council will consider making the necessary arrangements to d so. A small number of members felt that they probably would take advantage of the offer. It was decided to put a note in the Newsletter for reaction from other members.

7. Future Meetings.

(i) Tropical Symposium. The President informed the meeting that the Society will cosponsor a symposium on the tropical biota in conjunction wit the Ecological Society of Australia in August 1986. There is some problem with obtaining a suitable venue in Brisbane due to clashes with other conferences; investigations are being made into the possibility of holding the meeting further north, e.g. Townsville, Council is considering suitable topics for symposia/sessions to run concurrently with the more ecologically oriented ones. The first circular should be sent out in June. The meeting confirmed Council's nomination of Rod Henderson and Gordon Guymer as the Society representatives on the organising committee.

(ii) Boden Research Conference. The President explained the concept these conferences. Scientific societies such as ours may apply to the Academy of Science for funding (up to $3,500) to hold a Boden Research Conference. These conferences are in the form of a workshop with about 20-30 people meeting at Thredbo in February each year. They are designed "to enal active research workers in rapidly advancing fields to discuss current advances and problems". Council has decided to apply for one of these conferences to discuss the topic of 'The systematic status of large plant gene The Academy of Science expects the sponsoring Society to contribute financially towards the meeting. Council anticipates that most of the $3,500 fr the Academy would be used in bringing overseas participants to the meeting, and it proposes that the Society allocate c. $1,500 towards assistance for travel of some Australian members. Participants will have to pay their own costs (i.e. accommodation, etc.) during the conference. The President explained that a draft application has already been submitted to the Academy (because of the Academy's timetable for processing applications), but that is in no way binding and the Society is not officially committed to holding a conference.

It is very likely that any overseas participants will visit at least some Australian herbaria and universities while here, and so more members of the Society than just the conference participants will benefit from their visit. The Academy retains the rights of publication of any conference in which it is involved. However, this should not preclude the Society from publishing a fairly detailed account of the conference in the Newsletter.

After some discussion, it was proposed that the Society apply for a Boden Research Conference to discuss the topic as mentioned above (moved Pauline Ladiges, seconded Karen Wilson). The motion was carried. The meeting gave Council the responsibility for drawing up a final application for funding for the conference. This includes deciding on participants, topics and general organisation.

8. 'Flora of Australia' report. Roger Hnatiuk said that there was nothing to add to the reports that have been given in the Newsletters.

9. Academy of Science Flora Subcommittee. Jim Armstrong reported that the subcommittee has not met since well before its membership was changed in 1981, when Bryan Barlow was appointed chairman of the subcommittee. Bryan Barlow reported his intention to hold a meeting soon. As our representative on the subcommittee Jim Armstrong is keen to hear from any Society member who has ideas he/she wishes to be discussed by the subcommittee.

10. Academy of Science - National Committee for the Promotion of Science and Technology. The Secretary explained the contents of a letter received from this committee informing the Society of its formation in response to the general decline in science funding. It is planned to hold a meeting of scientific societies, in which we will be invited to participate, to discuss and to take action to ensure success in raising the esteem of science and in the provision of adequate funding.

11. 'Flora of Central Australia'. The President informed the membership that the book is now out of print. The publishers, Reeds suggest that they print a partly revised or updated edition including the corrections we know of from the first edition, rather than a straight reprint. Council and John Jessop feel that since the Society will probably do a complete revision in the next 2-3 years, it would be better for a reprint only to be done at this stage. In the meantime members can communicate any errors/changes etc. to either John Jessop, who is still co-ordinator of the editorial committee, or to any of the other committee members: Paul Wilson, Clyde Dunlop, Rod Henderson, Roger Carolin, Alex George or Bryan Barlow. it is likely that, due to changes in the circumstances of some members, the composition of the committee will change in the next few months. The meeting agreed with the proposal that John Jessop and Bryan Barlow go ahead with initial organisation towards a new edition of the FCA.

12. Announcement of Incoming council. The Council of the Society for 1985-86 is:

President - Bryan Barlow	Treasurer - Philip Short
Vice-President - Barbara Briggs	Councillors - Mike Crisp
Secretary - Laurie Haegi	- Rod Henderson

Barbara Briggs proposed a vote of thanks to Judy West for the work she has done as Secretary over the past several years; carried warmly by acclamation.

Judy West
Secretary

ORIGIN AND EVOLUTION OF AUSTRALIAN ALPINE BIOTA

The Alpine Biota Symposium was held at the Thredbo Conference Centr back to back with the Australasian Pollination Ecologists Society Meeting.

The symposium was organised to coincide with the General Meeting of ASBS. It is hoped that symposia held in conjunction with the General Meeting (in the future) can come to be multidisciplinary with more societie joining in. This symposium achieved that in so far as APES held their symposium at Kosciusko a couple of days earlier and the content of the Alpine Biota Symposium itself was multidisciplinary.

All States and New Zealand were represented together with Dr Shimiz from Japan and Dr M.G. Noble from U.S.A.

In all 130 people were registered participants. Registration was o Sunday afternoon (10 February). In the evening two informal slide-illustra talks were given - T. Shimizu (Shinshu University) Alpine Flora of Japan an D.R. Given (DSIR Christchurch) Botany of the Antarctic.

Several speakers set the background for the rest of the Symposium. They were C.D. Ollier (Bureau Mineral Resources, Geology & Geophysics, Canberra) - Origin of Alpine Landforms; R.W. Galloway (CSIRO, Canberra) - Australasian snowfields past and present; H.A. Nix (CSIRO, Canberra) - Environmental determinants of biogeography and evolution of the Australasia alpine biota; J.M.B. Smith (Uni. New England, Armidale) - Origins of tropicalpine and alpine floras; A.B. Costlin (ex CSIRO, Canberra) - Genesi of Australian alpine soils.

Disciplines represented included Botanists, Zoologists, Ecologists and Paleontologists.

Phenomena discussed included Biogeography, Taxonomy, Cytogeography, Evolution, Exotic elements, Dispersal and Natural History.

In all a good mix of papers. A number of poster papers were also on display.

On Monday night we had the Symposium Dinner followed by an after dinner illustrated talk on the Kosciusko alpine flora presented by C. Totterdell (CSIRO, Canberra).

On Tuesday night we held the General Meeting followed by the Nancy Burbidge Memorial Lecture - The Australian flora and its effect on the taxonomy of the angiosperms presented by H.E. Connor (exDSIR, Christchurch)

In all the symposium must be counted as a huge success. Perhaps it could have been broken up with a field trip. But many participants and their associates availed themselves of that opportunity either before or after the symposium.

The idea of a multidisciplinary symposium held in the appropriate environment is to be recommended as a worthwhile practice for the future.

Congratulations to Bryan Barlow and the helpers who made it all work.

NB: The papers presented at the Symposium will be published before the end of the year. Meanwhile copies of the abstracts are available from Bryan Barlow.

Helen Hewson

PUBLICATION OF TAXONOMIC RESEARCH IN AUSTRALIA

During 1984 a number of issues arose which concerned the publication of taxonomic research in Australia. These included financial, editorial and ethical matters. At an Advisory Committee Meeting of Australian Journal of Botany, it was suggested that these issues should be discussed by representatives of Australian journals involved in plant taxonomy publication, and as a result a meeting was held at the Australian National Herbarium on Tuesday, 27 November, 1984. Several topics relating to the present situation in Australia were discussed, and the minutes of the meeting are reproduced below. The Heads of the Australian Herbaria are sincerely thanked for making it possible for representatives of their journals to attend.

1. Participants. B.A. Barlow (Convenor); A.S. George & R.J. Hnatiuk (Flora of Australia); B.J. Walby & L.W. Martinelli (CSIRO Editorial and Publications Service); L. Pedley (Austrobaileya); B.G. Briggs (Telopea); H.I. Aston (Muelleria); H.R. Toelken (J. Adel. Bot. Gard.); K.F. Kenneally (Nuytsia); T.G. Hartley, A.E. Orchard & L. Watson (Brunonia); J.G. West (ASBS).

2. Current situation for publication in plant taxonomic journals in Australia. Operations of the various journals are summarized in the table. In discussion, the following observations were made:-

(a) Submission of manuscripts may occur in bursts, with intervening slow periods; this causes problems in maintaining even production (Briggs, Toelken).

(b) Papers by authors external to the institution or state are accepted in most instances, in some cases unofficially. In one instance, page charges are being considered for out-of-state authors.

(c) Manuscripts prepared within the institution are often submitted prematurely in terms of readiness, placing an unfair burden on journal editors (Briggs, Aston, Toelken).

(d) Sizes of individual issues are often managed in order to minimize postal charges (Martinelli, Aston).

(e) Small or medium-sized papers are preferred in some cases, with long papers delayed or published elsewhere (Aston, Toelken). However small papers may sometimes be delayed when accumulating for a "mixed" issue (Briggs).

(f) The exchange value of most journals is very significant, usually representing a major component of library acquisition as well as journal revenue.

(g) A "hidden" factor in total cost of production of house journals is whether they are distributed on subscription or as complimentary material (Kenneally).

(h) Requests for inclusion in Current Contents have been unsuccessful, purportedly on grounds of infrequency of issue (Walby, Briggs).

In summary, it appears that while funding, costing and production time for journals is less than ideal, the present situation is stable and workabl

3. Publication of new taxonomic material in the Flora of Australia. The following report was tabled by A.S. George:

"The Bureau of Flora and Fauna is prepared to publish new material in the Flora of Australia and is now actively encouraging contributors to do so. I this it has the full support of the Flora Editorial Committee.

New taxa, names, combinations, synonyms and lectotypifications may be published in the Flora to meet the full requirements of the International Code of Botanical Nomenclature. Such material is included in an appendix tc the relevant volume. The text is kept to a minimum since all taxa are covered fully in the main body of the Flora. For a new taxon, for example, the format is a Latin diagnosis, type citation, distribution, brief discussi (optional) and derivation of the name. Likewise for a lectotypification or new name the discussion should be brief. Examples are given in the Guide fc Contributors to the Flora of Australia.

Publication in the Flora has the following advantages: (1) there is no rush to publish a precursor paper; (2) there is no uncertainty that such a paper may not appear in time for the Flora; (3) the contributor does not have to seek another outlet; (4) the concise format reduces the time and cost of manuscript preparation; (5) the work reaches a wide audience since the Flora is selling over 2500 copies per volume, a much larger distributior than any taxonomic journal.

Disadvantages could be seen as: (1) long discussions cannot be acceptec owing to space constraints; (2) no reprints are provided."

It was pointed out that revisions vary considerably in content and the amount of detail they contain, and some are not very different from flora treatments (Hnatiuk; see also item 6). The major disadvantage in addition to those listed above is the restricted format, especially with respect to comprehensiveness of descriptions (Kenneally).

4. Ethics of precursor publication. After considerable discussion, most participants agreed that there was no serious ethical problem arising from multiple publication of work as precursor material and then as a flora treatment. In effect, the flora treatment could be compared with the writing of a review in other areas of science, or as abstraction of a work for a different class of user (West, Orchard).

5. Procedure for precursor publication. The meeting was reminded that the Flora of Australia can publish new taxonomic material (George; see item 3). If a precursor publication was planned in relation to a project undertaken specifically for flora production, it may be possible in the precursor publication to include only material not publishable in the Flora of Australia (nomenclatural notes, experimental data, etc.), and submit to a suitable journal (George).

6. Publication of revisions. After considerable discussion, general concensus was reached that the major method of communicating taxonomic and systematic research should be the critical revision (in comprehensive form), irrespective of the existence of a parallel flora project. It was suggested that use of the Flora of Australia for publication of new taxonomic material may decrease the value of revisions and of journals (Aston). Revisions are the resource material for subsequent specialized study of plant taxa. Revisions are often also the criteria on which the ability and performance of individual botanists are judged.

7. Size of papers. After discussion, it was agreed that the need to restrict the size of papers was primarily a function of publication costs and throughput of papers. Whether or not papers were precursors to flora treatments was not necessarily a criterion for size restriction. Taxonomic revisions sometimes contained material which could be regarded as unconsolidated raw data, and which would not be included for publication in other branches of science (Barlow). It was generally agreed that part of the content of a critical revision was material of value to a generalist user, and part contained detail primarily of value to contemporary or future specialists in the same or related taxa. There was general but not unanimous support for the view that the published hard copy of a revision should comprise the former material, and that the latter might well be published as accessory material. This would (a) make papers cheaper to publish overall, (b) make typeset publications shorter and thus more quickly published, and (c) establish new standards for information presentation in taxonomy.

8. Accessory publication. Several participants expressed support for the use of electronic data storage and the production of accessory material as microfiche. This could include, for example, full lists of specimens examined, determination lists arranged by collector, full species descriptions, etc. There was some support for the idea of publication of entire papers in microfiche, with certain parts (especially introduction, methodology, keys, latin diagnoses, synonymy and discussion) also presented as hard copy. Some participants felt that full species descriptions could not be considered as accessory material but must be included in hard copy. It was generally agreed that accessory material should be submitted and refereed along with the main body of a revision, and if not produced in microfiche, it should be lodged in an archive and be permanently available for reproduction. It is not appropriate to leave the responsibility of providing accessory material on request to the author. Access to full character lists, specimens examined, etc., is essential for later follow-up work in numerical taxonomy, etc. (Hartley). Preparation of accessory material from camera-ready typescript or computer printout would produce substantial savings in typesetting and proofreading.

9. Significance of publication in systematics and taxonomy. It was agreed that action should be taken to bring the importance of publication in taxonomy to the attention of the scientific community and its administrators. Taxonomists have minor needs with respect to equipment, but major needs with respect to formal publication, and these should be seen to offset each other (West). The total pages published by a taxonomist in a working lifetime may be no more, and may be cheaper, than those of other active scientists (Martinelli). A starting point for the maintenance of taxonomic journals in Australia might be to raise these issues with the Plant Sciences Committee of the Australian Academy of Science (Walby).

B.A. Barlow

Journal	No. of issues per year	No. of pages per issue (average)	Lead time submission-publication (years)	Backlog of manuscripts	Printer/Publisher	Print run	Cost/year ($)	Cost/page ($)
Aust. J. Bot.	6(1)	N/A	0.5-0.8	small	CSIRO	1400	N/A	N/A
(Suppl. Series)	2	N/A	1	small	CSIRO	up to 1500	N/A	N/A
Austrobaileya	1	90-100	0.5-1.3	small	Qd. Govt. Printer	600(2)	9500	100
Brunonia	2	150	0.4-1.0	variable, currently small	CSIRO	700	20000	67
J. Adel. Bot. Gard.	1 or 2	250 or 125	1 or less(3)	moderate(3)	private	500	8750	35
Muelleria	1	80-140	0.5-1.5(3)	nil(4)	Vict. Govt. printer	1000	7000-8500	65
Nuytsia	2, rarely 3	150	1.4(5)	nil	WA. Govt.(5)	750	28000(6)	93(6)
Telopea	1	100-140	0.6-2.0	small	NSW. Govt. Printer farm-out	1500	14000(7)	116(7)

Notes:
(1) Optimum frequency
(2) No reprints distributed
(3) Long papers may be delayed
(4) Long papers may be published elsewhere
(5) The Journal will in future be produced privately under Govt. Printer supervision; typesetting from discs supplied by authors should reduce lead time by 0.75 years
(6) Based on 2 issues/year at $14000/issue
(7) Costs based on a previously larger print run; earlier costs were much less (about half) before a recent requirement to change to NSW Govt. Printer

Chapter News

SYDNEY CHAPTER

The annual meeting of the Sydney Chapter was held on 4 December. The Chapter's activities in 1984 were discussed with a view to breaking away from the present seminar format, and a number of useful suggestions were made. Roger Carolin (SYD) and Ken Hill (NSW) were elected conveners for 1985 and it is anticipated that they will introduce some variety into the programme.

After the election of new conveners, retiring convener Chris Puttock (UNSW) presented a talk on the subject of "*Randia* (Rubiaceae) in Australia" in which he described the various generic segregates to be recognised as distinct from *Randia* sens. strict. and the phylogeny and distribution of these segregates.

The programme for 1984 was as follows:

February: 'Aspects of environmental planning in Concord' - Phil Stewart (Environmental Officer, Concord Municipal Council)

Concord Municipality includes a long stretch of Sydney Harbour foreshore, much of which is heavily industrialised. Phil told us of aspects of his work, ranging from decreasing the visual impact of industrial complexes, to planning for recreational use of the harbour shore, to conservation of mangrove and saltmarsh communities.

April: 'The Phyllocladaceae - a discussion of family concepts in the Coniferae' - Dr Chris Quinn (University of N.S.W.)

Phyllocladus has traditionally been placed in the Podocarpaceae until Keng suggested that the genus deserved to be in a family of its own. Chris presented a detailed critique of Keng's hypothesis and concluded that his conclusions were unfounded and that *Phyllocladus* was a good, albeit advanced, member of the Podocarpaceae.

May: 'Mangroves and associated macroalgae' - Dr Robert King (University of N.S.W.)

Robert spoke about his research on macroalgae that occur in mangrove communities along the N.S.W. coast which has revealed a number of new records, mainly of tropical species.

June: 'Glossopteridales and the evolution of Angiosperms' - Mary White (Australian Museum)

Mary took us on an evolutionary tour, beginning with *Rhynia* and following through to the many evolutionary lines represented within the Glossopteridales, some of which are said to lead to the Angiosperms.

July: '*Macromitrium* in Australasia - an interesting and complex moss' - Dr Helen Ramsay (University of N.S.W.)

Helen described to us the various aspects of the biology of species of *Macromitrium* that she has been examining, especially their morphology, cytoevolution, biogeography and ecological range.

August: 'Studies in the Anacardiaceae' - Bruce Wannan (University of N.S.W.)

Bruce began with a critical review of the current tribal classification of the family and then gave details of his own research on floral structure and pericarp anatomy that has indicated some re-arrangement of genera.

September: 'Population differentiation in *Pteridium*' - Professor John Thomson (Sydney University)

Prof. Thomson told us of the work he and his collaborators have done on the structure of various populations of bracken in New South Wales; this included analysis of isoenzymes, the occurrence of cyanogenesis, the distribution of differently shaped nectaries, and the relationship of various nati species of *Drosophila* to these populations.

October: 'Chemotaxonomy of the Cupressaceae' - Paul Gadek (University of N.S.W.)

Biflavonoid analysis of a number of species from most genera in this family seemed to indicate some relationships or groupings that were differen from those suggested by previous workers.

November: 'Marsupial evolution and its implications for systematics' - Dr David Briscoe (Macquarie University)

This excursion into non-botanical systematics was fascinating. David told us of the various populations of rock wallabies that occur in Australia and of the research that has analysed the karyotype and the occurrence of various proteins in every population, with conflicting results. It was concluded that the differences observed could be explained as the result of genetic interchange between different populations (each with different karyo types) where their ranges intersect.

Peter G. Wilson
Retiring Convener

CANBERRA CHAPTER

We seem to have been in a state of abeyance for some time due to a number of factors such as Convenor's illness, apathy, the silly season and over-dominance by the Alpine Biota Symposium.

We note an error in our last report which must be corrected. The sixth line of the third paragraph (p. 10) should read "... at Kew. George Chippendale also reported how he was ...".

Largely due to proximity, quite a number of our membership participated in the Alpine Biota Symposium. Following that we were able to have Dr T. Shimizu of Shinshu University give us a talk on the origins of the Alpine Flora in Japan. Dr Shimizu was able to spend a little more time in this talk to explain many of the elements in the Japanese alpine flora in relation to other alpine regions, particularly other regions in the northern hemisphere. Dr Shimizu kindly presented us with a calendar depicting the Nippon Alps. It is now hanging in the Convenor's office.

Helen Hewson

Letters to the Editor

THE UNDESIRABILITY OF SPLITTING EUCALYPTUS

Several notes on this subject were already made in our Newsletter; they were not in favour of the intended splitting rehash of the *Eucalyptus* complex by Dr Johnson. Fortunately Dr Johnson has now succinctly but clearl

exposed the reasons and his reasoning which led to his decision (this Newsletter 39: 25-28).

He says that he feels 'concerned that some botanists, as well as foresters, wish to prejudge the proposed generic classifications among the eucalypts ...'.

Since his expose, however, there is no longer a situation of 'pre-judgement'.

I feel concerned about the arguments he advanced in defending his point of view and especially the reasoning.

Let us admit first that there are, in our discipline, no hard and fast rules for the status of infrageneric, cq. generic entities: it remains a matter of personal inclination, but it should be added that there must still be important circumstantial evidence, for both elevating cq. lowering the rank of the taxa, which lead us towards changes. The latter aspect has induced me to analyse Johnson's arguments.

In the first place, he rather lightheartedly waves away objections to his new classification, as mostly coming from 'some botanists' and from 'foresters and horticulturists', that is from circles in applied botany who he assumes have no say in the matter concerned. But whether there are only 'some' botanists remains to me very questionable. Only a referendum among botanical taxonomists could show how many taxonomists would join his point of view.

He himself stated that there are for the *Eucalyptus* complex, 'two logical possibilities, the first being to incorporate *Angophora* as an infrageneric taxon (subgenus or section) in *Eucalyptus*, the second being to maintain *Angophora* and raise 10 other infrageneric taxa within *Eucalyptus* to generic rank'.

This conclusion is fully warranted scientifically, as the differences between *Angophora* and *Eucalyptus* are comparable, or even less than the differences between other groups within *Eucalyptus*. I can perfectly agree with the ranking of *Angophora* and the *Eucalyptus* groups at one level.

In order to solve this question of rank, Dr Johnson has decided to accept the second option, accepting 11 genera. One of his main arguments for this is the 'phylogenetic approach'.

Phylogenetic approach - Dr Johnson has, as a life-long specialist in *Eucalyptus*, undertaken the colossal task of the revision and re-assessment of species and infrageneric taxa in *Eucalyptus*, including a large number of new taxa and wishes to approach this large work phylogenetically. I can well appreciate this vision, as such speculations yield a more intimate understanding of the structure of a genus, a vision how things possibly evolved.

But surely, should we not ask the question whether for a phylogenetic scheme the ranks of taxa are irrelevant?

Scientific treatment - Dr Johnson's conclusion that: 'if taxonomy is to be based on scientific principles, we have no option but to recognize the distinct genera as indicated above', I cannot share.

I fail to understand the use of the term 'scientific' in this respect. He himself found the inclusion of *Angophora* into *Eucalyptus* 'logical'. I

dispute why it should be unscientific to recognize 11 subgenera in one genus *Eucalyptus*. What does he mean by 'scientific principles'?

I find it distinctly unscientific when he suggests, in favour of inflation of the *Eucalyptus* subgenera to generic rank, to derive an argument from comparing the status of other Myrtaceous genera groups (such as *Callistemon* and other allies of *Melaleuca*) which he suggests are less clearly separate than the 11 Eucalypt genera.

Firstly, there is no objective methodology to 'measure' the taxonomical 'gaps' between genera or other taxa, while furthermore it is objectionable to test good things by bad things which obviously themselves need re-assessment.

Interbreeding - Dr Johnson stated that the Eucalypt groups which he and Pryor distinguished in 1971 as subgenera are 'incapable of interbreeding (with one possible exception)'. This observation is clearly in favour of there being separate taxa with correct delimitation, but it cannot serve as a solid argument to raise the groups of *Eucalyptus* to generic rank. It occurs not uncommonly in other plant genera of some size, that infrageneric taxa represent comparia as defined by Danser.

Practical aspects - To me the practical upsets weigh heavier than to Dr Johnson. This is not mainly the matter of the at least 550 name changes, as I agree that name changes are unavoidable with the progress in plant taxonomy and one gets accustomed to use the new names, although in this case, their number is excessively high, the most formidable ever happening, known to me. Dr Johnson is correct in saying that: 'Younger people learning a new system will not be worried by the existence of an older one', but I disagree completely when he added to this sentence: 'and, we say firmly inferior one'. Because what is essentially the meaning of 'inferior' here, in recognizing 11 subgenera cq. groups in *Eucalyptus* as he and Prior proposed in 1971? Inflation of taxa does not bring more clarity into mutual standing and relations, and that is the essential intention of the new system.

Dr Johnson compares the situation with the grass genus *Andropogon*, for which 'virtually nobody cares that *Andropogon* (sensu Hackel) once covered a whole tribe of grass genera'. Grass genera are indeed, often split to the utmost degree and are merely recognizable by minute 'technical details'. By this they have lost their facies, their recognizability.

The reasoning here, by comparing the situation in other plant groups is of course not permissable. It is something like arguing: the other man is drunk, let us also have our share which, I agree, may be very pleasant occasionally.

God help us if all the subgenera and sections of the very big genera, some even larger than *Eucalyptus*, will be inflated to generic rank, like happened in the grasses, e.g. in *Acacia* and *Cassia*, *Crotalaria* and *Astragalus*, *Rhododendron* and *Vaccinium*, *Syzygium* and *Eugenia*, *Shorea* and *Solanum*, *Dendrobium*, *Eria*, *Malaxis*, and *Dendrochilum*, *Phyllanthus* and *Ilex*, *Schefflera*, *Prunus*, *Diospyros*, etc. etc.

Loss of visual concept - All these genera possess a distinct visual concept, a facies of recognizability, and this I find a most important positive aspect of any genus. Facies or visual concept is a distinct sign of natural groupings and affinity; anybody trained in pre-identification will confirm this. As I said above, this is lost by excessive splitting and inflation, degrading generic differences to look at technical details, such as happened in grasses, in Caryophyllaceae and Cruciferae, and probably several groups of Compositae. By no means do I want to understate the immense

work performed by Dr Johnson in *Eucalyptus*, but in his system the visual concept of the genus, its face is lost.

He touches only lightly on this important aspect in saying 'that the characters by which the 11 genera are recognized are not always easy to see with the naked eye (a simple lens?) - nevertheless, Professor Pryor has remarked that, given an initial clue or two, an old bushie could pick them out. Less discerning folk may not always be able to pick them out without some effort. This is true in many accepted genera'.

I may be permitted to ask: is this 'folk", us, taxonomists? Though no 'bushies', we are certainly prepared to do some effort, but obviously this will have to concern the 'technical details' as referred to above. Clearly the visual concept is lost, and that is a pity, similarly as it is with Johnson's splitting of *Casuarina*, notably his recognition of *Allocasuarina* which differs almost only in technical details from *Casuarina*.

In passing, I have serious doubt about such lighthearted statements that 'many' accepted genera are badly defined and badly recognizable in modern critical Floras of standing.

I sincerely hope that wisdom may prevail among the editorial committee of Flora of Australia to accept one genus *Eucalyptus* with 11 subgenera, as the new system of 11 genera yields no gain and is based on inflation leading to confusion rather than to clarity.

C.G.G.J. van Steenis

SUBSCRIPTIONS TO THE AUSTRALIAN JOURNALS OF SCIENTIFIC RESEARCH

Members of the Society have been offered personal subscriptions to the Australian Journals of Scientific Research at concessional rates. Please see item 6 of the minutes of the 9th General Meeting for prices. If you would like to subscribe personally to any of the journals then please contact the Secretary as soon as possible.

MOSSES AND LIVERWORTS

A five-day bryophyte identification course will be held at Monash University on 20-24 May, 1985. The course will include several local field trips to the Dandenong Ranges, followed by laboratory sessions on keying out both mosses and liverworts. Participants will be encouraged to bring their own specimens. The course is designed for amateur naturalists, lecturing staff and students who already have some knowledge of and interest in bryophytes, but have had difficulties in identification. Those with no previous knowledge will be welcome if space permits, but the total will have to be restricted to 20 people.

For further information about the Course please contact Dr G.A.M. Scott, Course Director, Department of Botany, Monash University - Telephone 541 0811, ext. 3811.

For further information about registration, please contact The Centre for Continuing Education, Monash University - Telephone 541 0811, ext. 3717/8. After hours 541 3718.

WWF - IUCN PLANT ADVISORY GROUP MEETING MISSOURI BOTANICAL GARDEN 17-18 DECEMBER, 1984

Encouragement of better dialogue between botanists and conservationists was one of the major recommendations of the World Wildlife Fund (WWF)/International Union for the Conservation of Nature (IUCN) Plant Advisory Group (PAG) which met at Missouri Botanical Garden 17-18 December, 1984.

The Group was appointed by the Directors General of WWF and IUCN to provide them with guidance on the formulation of long term priorities for plant conservation to ensure that scarce conservation resources are used in the wisest way. The Group is chaired by Dr Peter Raven, Director, Missouri Botanical Gardens and includes people from the United Kingdom, United States of America, Australia, Mexico, Africa, Indonesia and South America.

The Group felt that many professional botanists overlooked the conserva tion significance of their work and the important role they can play in preserving the diversity of the world's plants. There is a tendency for som botanists to avoid conservation issues and yet their studies may provide the essential data on which sound decisions on the use of plant resources can be made.

Another of the sixteen recommendations of the Group urged that more attention be given to completing surveys of plant diversity and distribution in many areas of the world, especially the tropics and sub-tropics. Without this information, the rational use of plant resources cannot be undertaken.

It is interesting to note that in 1982 the Council of Heads of Australian Herbaria urged that this matter be included in the Australian Conservation Strategy. Regretably it did not receive the attention it deserved.

The venue for the meeting, chairman and professional links of members of the Group meant that botanic gardens and their roles in plant conservatior were well discussed. It was agreed Conclusion 14 that 'botanical gardens provide the most important single point of information for the public on plar conservation issues, and they should be strengthened and encouraged to play this critical role more effectively'. It was also concluded that an overall strategy should be developed for botanical gardens so that they are better able to fulfil their missions in research and education. This strategy will involve creation of a worldwide network of botanical gardens, improved training opportunities for botanical staff, and enhanced research into the conservation of threatened and endangered plant species by botanical gardens.

Future meetings of the Plant Advisory Group will no doubt attempt to promote this strategy.

R.W. Boden
Aust. Nat. Bot. Gard.

NEWS AND NOTICES

Australian National Botanic Gardens

The Minister for Territories, Gordon Scholes, opened the new entrance to the Australian National Botanic Gardens on 29 January.

The new entrance includes a series of terraces, mass-planted with Australian native species to provide a spectacular spring display. It is the first stage in a series of major developments at the Gardens, approved by the Government in 1983.

A new entrance sign incorporates the word "Australian" in the name of the Gardens.

Mr Scholes said it was appropriate that the opening was occurring in Australia Week.

"The Australian National Botanic Gardens now has the largest collection of Australian plants in cultivation, attracting visitors, students and research workers from throughout Australia and overseas".

Mr Scholes said the Gardens was rapidly becoming a major visitor attraction in Canberra and had received more than 60 000 visitors during the December-January holiday period.

The new visitor centre, currently under construction and due for completion later this year, would further improve facilities for visitors, Mr Scholes said.

R. Boden

FLORA OF NORTH AMERICA

The Missouri Botanical Garden will be the organizational centre for a proposed project to write a Flora of North America, under the direction of Dr Nancy Morin. The Flora will cover the US, Canada and Greenland and will be published in 12 volumes over 11 years commencing in 1985.

More than 20 US and Canadian institutions have agreed to participate actively in the project. Editorial Centres will be at 15 institutions, and Research Centres will be at an additional five institutions. The Hunt Institute for Botanical Documentation will serve as the Bibliographic Centre to develop a bibliographic data base.

Although the Flora will be synoptical, treatments will be written by specialists and by project staff members based on original observations and critical evaluation of the existing literature.

R.W. Boden

PUBLICATIONS AVAILABLE FROM NSW

The National Herbarium of New South Wales (NSW) has a range of publications available on exchange, and for sale.

Cunninghamia is our journal for ecological research. Back copies of the first two issues are available on request. Volume 1(1) is a mixed issue of nine papers; volume 1(2) is devoted to the vegetation of Lord Howe Island. Volume 1(3), a mixed issue of six papers, will be available later this year.

Telopea is our journal for systemic research. Back copies of all issues except 1(1) are available on request. The latest issue, 2(5), contains four papers on the mosses of New South Wales. Other special interest issues are 2(3), with two papers on the plants of the Kosciusko region; and 1(4) on the vascular plants of the Riverine Plain (with a supplementary list in 2(2)). Volume 2(6), a mixed issue, should be available later this year.

Contributions from the New South Wales National Herbarium was the precursor to Telopea and Cunninghamia and contains a range of papers of botanica interest. Volume 3(1), a list of the vascular plants in the New England Tablelands, is of special interest. The only issues still available are 3(1), 4(3), (4), (6), (7). Very limited numbers are available for 3(5), (6) and 4(1), (2).

Flora Series of Contributions (later known as Flora of New South Wales) is restricted to the systematic treatment of 42 select plant families in NSW. Complete sets of all 42 families treated are available, except for family 48, which is a separate saleable publication (see below). The latest issue, No. 101 Fabaceae part 2, was published in 1984. No further issues will be published.

Sale publications available are:

Rupp, H.M.R., Orchids of New South Wales $15. This is a 1969 facsimile (with supplement) of the 1943 edition, which is also family 48 in the Flora Series.

Armstrong, J.A., Powell, J.M. & Richards, A.J. (1982). Pollination and evolution $15. Papers from the symposium on Pollination Biology, held during the 13th International Botanical Congress (Section 6, 7), August 1981.

Jacobs, S.W.L. & Pickard, J. (1981). Plants of New South Wales $15. A census of the cycads, conifers and angiosperms found in the State.

All enquiries should be directed to the Editor, Royal Botanic Gardens, Mrs Macquaries Road, Sydney 2000, phone 23 8111.

ESA - ASBS SYMPOSIUM

ECOLOGY OF THE AUSTRALIAN WET TROPICS

Brisbane, August 1986

Preliminary Announcement

A joint symposium organised by ASBS and The Ecological Society of Australia (ESA) will be held over 3 days from 25-27 August at the University of Queensland, Brisbane.

Papers in the Symposium will cover aspects of terrestrial and marine biota and its ecology in the Australian wet tropics and subtropics (i.e. those receiving more than about 750 mm of annual rainfall). Topics to be covered are listed below although suggested additions are welcome, and papers outside these topics (but concerning the wet tropics) may be accepted by the organising committee. Papers comparing this biota with that of other regions in Australia and elsewhere will be particularly appropriate.

TOPICS (1 & 2 will be general, and nominated speakers will be invited to deliver these papers).

1. Origin and evolution of wet tropical flora or fauna with particular emphasis on adaptations.
2. Origin and evolution of wet tropical terrestrial or marine ecosystems with particular emphasis on adaptations.
3. Dispersal mechanisms.
4. Diversity.
5. Seasonality.
6. Plant/animal interactions (including pollination).
7. Succession.
8. Population fluctuations and controlling influences.
9. Physiology and nutrition.
10. Management and conservation.
11. Evolution and history of taxa.

A full day session of contributed papers on plant systematics in the Australian wet tropics and subtropics will be held concurrently with ESA's Open Forum.

Submissions for the Symposium and the Plant Systematics session should be somewhat synthetic in nature and should emphasize the general context as well as specific conclusions based on data. It is expected that all papers presented will be published and be subject to refereeing.

Two field trips associated with the Symposium are planned. ASBS is organising a pre-Symposium field trip to north Queensland (Cairns - Atherton Tbld). A post-Symposium field trip to Fraser Island is being organised by ESA.

The first circular will be distributed in the June issue of the Newsletter.

Please address any correspondence to: Mr R. Henderson, ASBS Councillor, Queensland Herbarium, Meiers Road, Indooroopilly, Qld 4068.

BACK ISSUES OF NEWSLETTER

Members of the Society can obtain back issues of the Newsletter free of charge. Numbers 30-42 are in stock and can be ordered through the Newsletter Editor.

The Society

The Australian Systematic Botany Society is an association of over 300 people with professional or amateur interest in Botany. The aim of the Society is to promote the study of plant systematics.

Membership

Membership is open to all those interested in plant systematics and entitles the member to attend general and chapter meetings and to receive the Newsletter. Any person may become a member by forwarding the annual subscription to the Treasurer. Subscriptions become due on the 1st January.

The Newsletter

The Newsletter appears quarterly and keeps members informed of Society events and news, and provides a vehicle for debate and discussion. In addition original articles, notes and letters (not exceeding ten pages in length) will be published. Contributions should be sent to the Editor at the address given below, preferably typed in duplicate and double-spaced. All items incorporated in the Newsletter will be duly acknowledged. Authors are alone responsible for the views expressed. The deadline for contributions is the last day of February, May, August and November.

Notes

(1) The deadline for the next Newsletter is 31st May, 1985.

(2) ASBS Annual Membership is $13 (Aust.) if paid by 31st March, $15 thereafter. Students (full-time) $10. Please remit to the Treasurer.

(3) Advertising space is available for products or services of interest to ASBS members. Current rates are $30 per full page, $15 per half page. Contact the Newsletter Editor for further information.

Mailing List

All address changes should be sent to the Treasurer or the Editor.

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