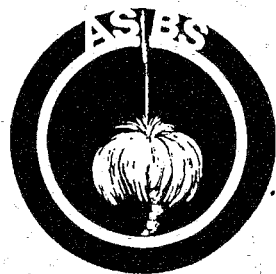


**ASBS**

*Australian  
Systematic  
Botany  
Society*



# **Newsletter**

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# AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED

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## EDITORIAL

This is a large issue with all the business that goes with the Annual General Meeting included. Having finished my first year as editor of the newsletter I would like to take the opportunity to thank all those who contributed during 1998, and to wish all

of you the best for Christmas and the new year. I hope that your pens are sharper than ever next year and that the newsletter continues to be an important link for information within the community of systematic botanists.

## PRESIDENT'S REPORT

*[As delivered at the 16th Annual General Meeting in Sydney]*

It is customary (and appropriate) in the President's Report to the Annual General Meeting to catalogue the achievements of the past year. Certainly there are many noteworthy accomplishments and events that have occurred between the Adelaide and Sydney meetings. Along the way there have been letters (with varying degrees of effectiveness) to politicians and others on your behalf, and various day-to-day administrative matters.

I continue to enjoy my involvement in ASBS. It is frustrating at times to be unable to contribute as much time and energy as I would like, but my fellow councillors have been extremely supportive. As John Clarkson reminds me from time-to-time, we work as a council rather than as individuals. What follows then are the achievements of the council, and sundry notes.

- A financial strategy is now in place to make best use of our finances and assets. It also allows us to budget ahead, and to justify our level of expenditure on various core activities (e.g. student conference assistance, Eichler Research Awards).
- ASBS conferences continue to run effectively and efficiently. Profits from the Adelaide conference will be added to the Hansjörg Eichler Research Fund. The organising committee for Monocots II must be congratulated on their wonderful efforts in bringing this truly international meeting to fruition.
- Donations to the Hansjörg Eichler Research Fund are now tax deductible [final approval was given soon after our Annual General Meeting].

- We have established Life Membership, making the first award to a well known and well loved member, Mrs Marlies Eichler (see later in newsletter).
- The second round of Eichler Research Awards has again drawn strong applications and three grants have been awarded (see later in newsletter).
- The Nancy Burbidge Medal is in development. Its introduction will be delayed a year and the usual Nancy Burbidge Memorial Lecture will be held at the 1999 conference.
- With our kindred societies—Society of Australian Systematic Biologists and Australasian Mycological Society—we lobbied reasonably effectively for funding for systematics in Australia.
- The newsletter has travelled safely and undergone some fine tuning at the hands of Bob Hill. Contributions are always welcomed, particularly 'news' items from the various institutions and home-offices around the country.
- Our website, thanks to Andrew Lyne, has become a wonderful public face for the society, reflecting our activities and professionalism.
- Society fliers for Monocots II and beyond were prepared by John Clarkson.
- We farewelled Chris Puttock who has contributed to council as Secretary and Vice-President, and welcomed Barry Conn back to council as Vice-President.
- It has once again been an absolute delight to work with our current council. John Clarkson, in particular, is setting standards beyond the call of duty. Thanks to everyone on council for their dedication and support over the last year.

*Tim Entwisle*

## ASBS INC BUSINESS

### Life Membership of the Australian Systematic Botany Society

#### Mrs Marlies Eichler

Marlies has been involved in Australian systematic botany since she arrived in Australia with her husband Hansjoerg in 1955. Hansjoerg was appointed as the Keeper of the State Herbarium of South Australia, a position he held until his departure to Canberra in 1973 to head the then CSIRO's Herbarium Australiense. He retired from this position in 1981 but they remained in Canberra while he continued to work in the Herbarium.

Hansjoerg was well respected within the taxonomic community, both in Australia and overseas for his major contribution to his chosen field, a fact well documented by his fellows in a volume of the ASBS Newsletter on the occasion of his retirement. His partner's role is less well known and it is that which is recognised here.

Even though there is little mention of it in the taxonomic literature of the time, Marlies shared all of the trials and tribulations, as well as the satisfactions, of the new life in Australia. Marlies shared in many field trips with Hansjoerg, she worked (mostly voluntarily and on most days) in the State Herbarium in Adelaide (co-authoring at least one paper with Hansjoerg), she visited the overseas herbaria and attended the conferences that Hansjoerg did. Marlies gave great support to Hansjoerg and the herbaria he was based in and was there for many of those time-consuming activities required to make a publication, now made simpler with photocopy machines, fax machines and e-mail. Works such as *Taxonomic Literature and Index Kewensis* in electronic form, Australian Plant Name Index, specimen data-bases, cut & paste facilities, mapping programmes, spell-checkers were all unavailable to prepare papers. For instance, during her time in AD Marlies was involved in the preparation of a cut and paste (with scissors and glue) version of *Index Kewensis* for the herbarium and she did most of Hansjoerg's scientific typing.

It was difficult for her to leave Adelaide to move to Canberra, just as it was to leave Germany and come to Australia, but of course she did it and supported Hansjoerg in all of the problems he faced. She

probably didn't even question that it was her duty to do so, since these were different times. Though the seeds for women's liberation were sown by women of Marlies's generation they had not yet come to fruition. No doubt Marlies today could have had a career in any number of areas given the opportunities now open to women.

Since Hansjoerg's death, Marlies has ensured that his name is remembered by donating very substantially to the Hansjoerg Eichler Research Fund of ASBS. Through that fund, ASBS has been able, from last year, to make a number of small grants to students just beginning their work in taxonomy - a particularly appropriate memorial to someone who went out of his way to encourage students of taxonomy.

There are always many people who toil in the background and whose contribution to the collections and to the outcomes of systematics, in publications and floras, is hidden. Here is a classic case. Life membership of the Australian Systematic Botany Society will give some recognition of Marlies Eichler's long dedication to Australian systematic botany and judging by the number of society members who have suggested this, there is no doubt that she is appropriate as the first recipient of this honour.

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Any member of the Society is able to nominate any other member for Life Membership. To do so you will need to submit to Council (through the Secretary) a nomination together with supporting evidence of the member's contribution to the Australian Systematic Botany Society. It would be preferable if such nominations could be made at least two months before a Council meeting (held in conjunction with the ASBS meeting of that particular year). Life memberships are restricted to 10 at any one time and no more than two life memberships will be conferred in any one year.

## **Minutes of the 20th Annual General Meeting of the Australian Systematic Botany Society**

Held in the ground floor room, Theatre 5, Central Lecture Block, University of New South Wales on Thursday 1st October

Meeting opened at 6.15 p.m.

The President welcomed the c. 40 members in attendance

**Apologies:** None

### **Minutes of 19th Annual General Meeting in Adelaide, 1<sup>st</sup> October 1997**

It was proposed that the minutes of the 19th Annual General Meeting (as published in the *Australian Systematic Botany Society Newsletter* 93: 4-6) be accepted. Proposed: Barry Conn; seconded: David Morrison. Carried.

### **Presidents Report (Tim Entwisle)**

See page 1 of the Newsletter

### **Treasurers Report**

John Clarkson tabled the treasurers report (see below) and moved that it be accepted. Seconded: Bryan Simon. Motion passed unanimously.

Mike Crisp asked whether the FASTS payment for this year should be paid based on the present membership. The treasurer had indicated difficulty in knowing how many FASTS dues to pay when members were still not all paid at the end of September. FASTS membership is based on \$4-50 for each full member.

### **Membership**

#### **Life membership**

The first life membership of the Society in the form of a framed plaque was presented to Mrs Marlies Eichler. The proposal for her Life Membership, which was read out by the President, appears elsewhere in the Newsletter.

#### **New Members**

The following new members were welcomed to the Society:

#### **ORDINARY MEMBERS**

Ms Barbara Austin  
Division of Botany & Zoology

Australian National University  
CANBERRA, ACT 0200

Dr Roberta Cowan  
3 Bass Close  
EAST CANNINGTON WA 6107

Mr Martin Norris  
PO Box 1612 SALE VIC 3850

Dr Rogier de Kok  
Australian National Herbarium  
GPO Box 1600 CANBERRA ACT 2601

Dr Joan Webb  
10/48 Khartoum Road  
NORTH RYDE NSW 2113

Dr Greg Keighery  
Wildlife Research Centre,  
CALM, PO Box 51,  
WANNEROO WA 6946

Michelle Waycott  
TESAG, James Cook University,  
TOWNSVILLE QLD 4811

Joy Everett  
National Herbarium of NSW,  
Royal Botanic Gardens,  
Mrs Macquaries Road,  
SYDNEY NSW 2000

### **STUDENT MEMBERS**

Ms Ryonen Butcher  
19 Roy Street MT LAWLEY WA 6050

Mr Edward Cross  
5 Kalang Road KENTHURST NSW 2156

Mr Mark Gravolin  
2/32 Repton Road  
MALVERN EAST VIC 3145

Ms Nathalie Nagalingum  
3 Stanlake Street RESERVOIR VIC 3073

Mr Dean Nicolle  
156 Pimpala Road  
MORPHETT VALE SA 5162

Miss Achariya Rangsiruji  
The Royal Botanic Gardens  
20A Inverleith Row  
EDINBURGH EH3 5LR,  
SCOTLAND

Ms Bernadette Sandercock  
145 Barkly Street  
EAST BRUNSWICK VIC 3057

Ms Kerri Smith  
Department of Botany  
University of New England  
ARMIDALE NSW 2351

Ms Lyndal Spear  
RMB 8 Hutchinson Place  
BURRA CREEK NSW 2620

Mr Jean-Christophe Pintaud  
Joined during conference

Cross (UNSW). Mrs Marlies Eichler presented the cheques.

A request for guidelines for applications for these scholarships was made from the floor by Peter Jobson. Council is aware that there are still a number of aspects of the application form and guidelines which are not satisfactory and a subcommittee has been appointed to streamline these. Any comments should be sent to Peter Weston as soon as possible since the subcommittee is due to have a report prepared by the end of the year.

Reports from the 1997 grant recipients will appear in the newsletter. Nik Lam's has already appeared and \*Marco Duretto's and Elisa Raulings' are within this issue. Bernard Pfeil was unable to carry out the work he obtained an award for and refunded the money.  
[\*this will be in a later issue – ed.]

### Society Meetings

#### Sydney, 1998

#### *Monocots II (Second International Conference on the Comparative Biology of the Monocotyledons and Third International Symposium on Grass Systematics and Evolution)*

ASBS was a sponsor of this symposium and a cheque was presented earlier in the day to Dr Michael Bennett of the Jodrell Laboratory, Royal Botanic Gardens, Kew who presented the Nancy Burbidge memorial lecture; the title of the lecture was "Genomic organization and systematics in the 21<sup>st</sup> Century".

Cheques for student assistance to attend the conference were presented to Karen Wills and Kerry Clarke, both of University of New England and Achariya Rangsiruji of the Royal Botanic Gardens, Edinburgh.

Karen Wilson reported that the organisers were very happy that they had attracted c. 280 registrants, having budgeted on a minimum of 100. The organisation was a team effort which had worked well and the conference was very successful. The president thanked the organisers for a wonderful job.

#### 1999

Terry Macfarlane reported to the meeting on the next conference to be held in Perth from December 6-10th, 1999. The conference will be a joint venture between ASBS, Society of Australian Systematic Biologists and Invertebrate Biodiversity &

### Newsletter Report

Tabled by the editor Bob Hill and reproduced below.

Note that Bob has indicated his willingness to do the newsletter next year but a new editor will be needed after that time.

Some discussion had taken place within Council concerning Bob's recommendation that the newsletter go electronic. It was felt that while the Web page could be made more use of, the time was not yet appropriate to change to an electronic Newsletter and the printed format was still preferred. General agreement from the floor.

A message was to be conveyed to Bob that his efforts in producing the Newsletter are appreciated.

### Eichler Research Fund

#### Tax Deductibility

The treasurer had already indicated that this was in its final stages, requiring only the Approved Research Fund status from CSIRO. A letter has been received from the Linnean Society of N.S.W. assuring ASBS that in the unlikely event of the devolution of the Society, any funds would be used for taxonomic research.

#### Grant Recipients 1998

The three successful recipients were Jim Mant (CANB), Ryonen Butcher (UWA) and Edward

Conservation. The next Newsletter should have details. In the meantime, for those wanting it a preliminary announcement can be found at <http://www.science.uts.edu.au/sasb/Prelim1999.html>

#### **Hobart 2000**

Bob Hill has indicated his interest in holding a joint meeting with the Botanical Society of Korea later in the year.

#### **Flora Malesiana 2000**

Barry Conn reported that the next Flora Malesiana conference would be held in Australia, possibly in Sydney, although this was not yet decided. The timing would need to match the northern hemisphere summer.

#### **Melbourne 2001**

Mike Crisp and Jim Grimes will be convening an International Legume conference in Melbourne in the last week of June. Mike Crisp reported that very little has been done although venues have been booked. Some arrangements will probably happen at the Legume phylogeny meeting at the International Botanical Congress in 1999.

#### **Flinders/Robert Brown bicentennial 2001**

John Clarkson reported that several groups were thinking of being involved but nothing solid has

been arranged. Amongst others, John Clarkson and David Mabberley were keen to be involved. Karen Wilson indicated a proposal would be put to the Sydney director of the Botanic Gardens. Corporate sponsorship would be available.

There was a comment from the floor that the Southern Connections conference was to be held in New Zealand in 2000.

#### **Other business**

The president announced that a Publicity Poster was to be prepared for advertising the society within Universities etc.

#### **Elections**

The Council remains the same as the following were elected unopposed

President	Tim Entwisle
Vice President	Barry Conn
Treasurer	John Clarkson
Secretary	Robyn Barker
Councillors	Terry Macfarlane & Peter Weston

Meeting closed at 7.15 p.m.

## **Treasurer's Report for the 12 Months ended 31 December 1997**

### **Presented to the Annual General Meeting, Sydney, 1st October 1998**

#### **1 Introduction**

It gives me great pleasure to present my second report on the Society's finances. This year, for the first time, the financial statement for the research fund is presented separately from general funds. This was done in anticipation of a successful outcome to the Society's application for Approved Research Institute Status. In this format it will be easier for the Society to demonstrate that all gifts on which tax exemption is claimed are administered solely for the purpose of research grants. It will also make the performance of the investments more readily apparent to members.

#### **2 Membership**

I am pleased to report that the downward trend in membership numbers which was reported in last year's treasurer's report has been reversed. We closed 1997 with 291 fully paid up members having begun the year with only 201. The increase was largely due to late payers and members who rejoined the Society after having let their membership lapse. 24 new members were also admitted to the Society (10 ordinary members, 13 student members and 1 institutional member). The increase has continued into 1998. Seven persons have been admitted to the Society since January this year (1 ordinary member and 6 student members). The membership currently stands at 306 (Table 1).

	Full	Concessional	Gratis	Total
Ordinary	219	28	1	248
Student	NA	33	Nil	33
Institutional	10	NA	15	25
	229	61	16	306

Table 1. Membership of Australian Systematic Botany Society 1st September 1998.

Late payment of subscriptions remains a problem. By the 1st September 31 members had still to pay their subscription for 1998. This is better than previous years but it is an area where Council is looking to you for support. Following up unfinancial members consumes energies which could be directed towards more productive pursuits.

### 3 General Fund

#### 3.1 Income

Income for the financial year was substantially higher than for 1996. A significant improvement in the income from subscriptions, the refund of the cash advance to the Melbourne conference and, although still negative, a better gross trading figure account for this.

I would draw your attention to the gross loss recorded from trading. This resulted from a further write down in the value of stock in preparation for a sale to held later this year. Council is working to divest the Society of this stock, some of which has been cluttering cupboards and tying up assets for many years.

Income from investments was satisfactory in a climate of depressed interest rates. The financial restructuring outlined in last year's report has resulted in a modest increase compared to 1996. It is hoped to hold income about this level in 1998.

#### 3.2 Expenditure

Expenditure for 1997 was much higher than 1996 and a net loss has been recorded for the year. Members should not be unduly concerned by this. Council normally budgets for a small surplus. Four items warrant explanation.

Conference expenses relate wholly to the 1997 Adelaide conference. The \$1,500 advance has been refunded and the organising committee has foreshadowed the Society's share of the profits will be \$5,000. This is a splendid effort. The organising committee has asked that this be directed to the

Research Fund. The balance of the \$3,150 expenditure (\$1,650) was support to students who presented papers or posters at the conference. Council feels that encouraging students in this way is a valuable use of Society funds and an investment in the future of plant systematics.

The distribution of the profits from the History Book is an extraordinary expense which was not included in the 1997 budget. Under an income sharing agreement which is in place between the Society and three private investors, 66.49% of the net income from sales is payable to the investors. When the 1997 budget was drawn up it was not realised that there had been no distribution of proceeds since March 1992. Had these royalties been paid in the years in which the income was earned we would have finished 1997 with the small surplus anticipated.

Newsletter expenses might appear to have risen when compared to the 1996 statement, however the 1997 figure includes the printing of 5 issues (88-92) and postage for 6 (88-93) compared to printing 3 issues and distributing 4 in 1996. Total costs per issue ranged from \$678 to \$1,548. The later was a bumper issue of 64 pages. The Newsletter is the Society's major recurrent expense. Production costs are being carefully monitored by Council. With the move from Darwin to Hobart, printing costs have been reduced however postage costs have risen. The editor, Bob Hill, is confident of keeping production costs below the annual budgeted figure of \$4,800 and is working to minimise postage costs by bulk mailing issues to members based at institutions. Council would appreciate the support in this area.

The annual subscription to FASTS is calculated at \$4.50 per full fee paying member. FASTS do not levy student members or members paying the concessional rate. Accounts are sent to member societies in mid year. This would be convenient if members were to pay subscriptions early in the year but when payments are not made by the time the account is due we must pay for some members before we receive their subscription.



### 3.3 Current Assets

The Society closed the year in a sound financial position with total assets in the general fund of \$34,673 (\$30,989 in cash, \$1,319 in merchandise and \$2,365 in books). Council is grappling with the challenge of divesting the Society of its non cash assets in a profitable or at least break even manner.

### 4 Research Fund

The Research Fund is now well established thanks in no small way to the wonderful generosity of an anonymous benefactor who made yet another very large donation. Net assets increased from \$47,436 to \$60,362 in the twelve months ended 31st December 1997. The current net value is \$65,806 (1st September 1998) with a further \$4,000 to flow shortly from the Adelaide conference. The recent financial troubles which have befallen economies across the world has had a minor effect on the performance of the investments but the returns are still well ahead of Council's projection and annual offers of grants are now assured.

Council is confident it is close to securing Approved Research Institute Status which will mean that all donations to the Research Fund of \$2 or over will be tax deductible. We have written advice from the Australian Tax Office that we have met all of its requirements and now await formal approval by CSIRO.

### 5 Summary

In summary, the Society remains in a sound financial position. It is pleasing to see the Hansjörg Eichler Research Fund now well established with annual offers of grants assured and Approved Research Institute Status is all but secured\*. Council is now turning its attention to short and medium term budgeting to ensure that our cash assets are actively used to promote the Society's objectives while retaining their real value in the long term. Operating costs are still being met wholly from income from subscriptions although the margin is growing smaller. A rise in subscription fees is not necessary at this stage but a possible rise in 2000 is foreshadowed.

I am still enjoying my role as treasurer and I thank councillors and members for their support throughout the year.

[\*John Clarkson informed me on November 23<sup>rd</sup> that ASBS is now officially an Approved Research Institute and all donations of \$2 or more to the HJ Eichler Research Fund are tax deductible - ed.]

*John Clarkson*  
Honorary Treasurer

## Australian Systematic Botany Society

### Financial Report for year ended 31<sup>st</sup> December 1997

#### GENERAL FUNDS

TRADING STATEMENT		
	31-Dec-96	31-Dec-97
<b>Income</b>		
Merchandise Sales	154	258
History Book Sales	674	515
Arid Australia Books	50	185
Conifer Books	144	192
<b>Total</b>	<b>1,022</b>	<b>1,150</b>
<b>Less Cost of Goods Sold</b>		
Opening Stock - Merchandise	2,658	2,565

Opening Stock - Books	5,949	2,762
Purchases	0	0
<b>Total A</b>	<b>8,607</b>	<b>5,327</b>
Closing Stock - Merchandise	2,565	1,319
Closing Stock - Books	2,762	2,365
<b>Total B</b>	<b>5,327</b>	<b>3,684</b>
<b>A - B</b>	<b>3,280</b>	<b>1,643</b>
<b>Gross Profit (Loss)</b>	<b>(2,258)</b>	<b>(493)</b>

## INCOME AND EXPENDITURE STATEMENT

	31-Dec-96	31-Dec-97	Total Income	6,367	13,853
<b>Income</b>					
Gross Profit (Loss) From Trading(2,258)		(493)			
<b>Interest Received</b>					
<b>General Funds</b>					
- Cheque Account	437	307			
- Term Deposits	768	798			
- Cash Management Trust	NA	336			
- <b>Total</b>	<b>1,205</b>	<b>1,441</b>			
<b>Other Income</b>					
Advertising	150	0			
Conferences <sup>1</sup>	0	1,450			
Donation to Research Fund <sup>2</sup>	185	175			
Postage recovery	28	0			
Subscriptions to ASBS Inc <sup>3</sup>	7,005	11,260			
Sundry Income	52	20			
<b>Total</b>	<b>7,420</b>	<b>12,905</b>			
			<b>Expenses</b>		
			Auditors Remuneration	339	300
			Bank Charges	20	47
			Conference Expenses <sup>4</sup>	1,650	3,150
			Filing Fees	0	60
			General Expenses	37	20
			History Book Profit Distribution <sup>5</sup>	0	5,058
			Meeting Expenses <sup>6</sup>	NA	928
			Newsletter Expenses <sup>7</sup>	3,259	4,697
			Postage & Stationary	0	25
			Subscriptions (FASTS) <sup>8</sup>	0	1,098
			Transfer to Research Fund <sup>9</sup>	262	175
			<b>TOTAL EXPENSES</b>	<b>5,567</b>	<b>15,558</b>
			<b>NET SURPLUS (LOSS)</b>	<b>800</b>	<b>(1,705)</b>

## BALANCE SHEET

	31-Dec-96	31-Dec-97			
<b>Members' Equity</b>			Cash on hand	30	0
Net Surplus (Loss)	800	(1,705)	<b>Total</b>	<b>31,051</b>	<b>30,989</b>
Retained surpluses at beginning of financial year	35,578	36,378	<b>Total Cash</b>	<b>31,051</b>	<b>30,989</b>
<b>Total Members' Equity</b>	<b>36,378</b>	<b>34,673</b>	<b>Inventories</b>		
<b>Current Assets</b>			Merchandise	2,565	1,319
<b>Cash - General Account</b>			Arid Australia Book	175	0
Cheque account	19,621	5,494	History of Systematic Botany	1,807	2,165
Term deposit	10,000	10,000	Conifer Books	780	200
Term deposit	1,400	5,159	<b>Total Inventory</b>	<b>5,327</b>	<b>3,684</b>
Cash Management account	NA	10,336	<b>Total Assets</b>	<b>36,378</b>	<b>34,673</b>

## RESEARCH FUND

### INCOME AND EXPENDITURE STATEMENT

	31-Dec-96	31-Dec-97
<b>Interest Received</b>		
<b>Research Fund</b>		
Passbook account	1,544	435
Australian Bond Fund		
Interest	NA	856
Net increase in value of bonds	NA	753
<b>Growth Fund</b>		
Income Distributions	NA	676
Net increase in value of bonds	NA	2,042
<b>Total</b>	<b>1,544</b>	<b>4,762</b>
<b>Other Income</b>		
Donations to Research Fund	20,262	10,175
<b>Total Income</b>	<b>21,806</b>	<b>14,937</b>
<b>Expenses</b>		
Bank Charges	25	8
Research Grants	NA	2,000

<b>Total Expenses</b>	<b>25</b>	<b>2,008</b>
<b>Net Surplus (Loss)</b>	<b>21,781</b>	<b>12,929</b>

### BALANCE SHEET

	31-Dec-96	31-Dec-97
<b>Member's Equity</b>		
Net Surplus (Loss)	21,781	12,929
Retained surpluses at beginning of financial year	25,655	47,436
<b>Total Members' Equity</b>	<b>47,436</b>	<b>60,365</b>
<b>Current Assets</b>		
<b>Cash - Research Fund</b>		
Passbook Account	47,436	NIL
Cheque Book	NA	1,518
Growth Fund <sup>10</sup>	NA	19,718
Australian Bond Fund <sup>11</sup>	NA	39,129

Total	47,436	60,365
Total Cash	47,436	60,365

Total Assets	47,436	60,365
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## EXPLANATORY INFORMATION

### 1. Conference Income

Refund from the 1996 Commemorative Conference, Melbourne, 1966.

### 2. Donations to Research Fund

10 donors giving amounts ranging from \$5 - \$50. All donations transferred to Research Fund before the end of the financial year.

### 3. Subscriptions

38 members paid one or more years back dues which artificially inflate this figure.

### 4. Conference Expenses

Advance to Adelaide conference	1,500.00
Student support Adelaide conference	1,650.00
<b>Total</b>	<b>3,150.00</b>

### 5. History Book Profit Distribution

Income from sales of the History Book is shared between ASBS (33.51%) and the stakeholders P. Short (28.85%), W. & R. Barker (16.73%) and the Maud Gibson Trust (20.91%). No distribution of profits had been made since March 1992.

### 6. Meeting Expenses

AGM and Council Meeting held in Adelaide

Air fare J.R. Clarkson	628.40
Travel expenses C. Puttock	300.00
<b>Total</b>	<b>928.40</b>

### 7. Newsletter Expenses 1997

Printing 5 issues 88-92  
Postage 6 issues 88-93

### 8. FASTS Subscription

244 declared members @ \$4.50 each. 1995-96 subscription appeared in the 1995 audited statement.

### 9. Transfer to Research Fund

Donations ex members 1996	185.00
50% merchandise sales 1996	77.00
<b>Total</b>	<b>262.00</b>
Donations ex members 1997	175.00

### 10. Growth Fund

15,215.825 units held @ withdrawal value of \$1.295893 per unit.

### 11. Australian Bond Fund

35,375.521 units held @ withdrawal value of \$1.1060851 per unit.

## AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INC

### NOTES TO AND FORMING PART OF THE FINANCIAL REPORT YEAR ENDED 31ST DECEMBER 1997

#### 1. BASIS OF PREPARATION OF THE FINANCIAL STATEMENTS

These financial statements are a special purpose financial report prepared for use by members of the association. The committee have determined that the association is not a reporting entity and therefore there is no requirement to apply Accounting Standards and other mandatory professional reporting requirements (Urgent Issues Group consensus views) in the preparation and presentation of these statements.

The financial statements have been prepared on the basis of historical costs unless otherwise stated and do not take into account changing money values. The accounting policies have been consistently applied unless otherwise stated.

The following is a summary of the material accounting policies adopted by the association.

#### (a) Income Tax

The Association is exempt from income tax under s (23) of the Income Tax assessment Act.

#### (b) Inventories

Inventories consist of books and regalia and are calculated at estimated realisable value.

(c) Investments have been brought to account at market value as at 31 December 1997.

2.(a) General Fund and Research fund operations and investments have been separately maintained and recorded for the year.

### AUDITOR'S REPORT

#### Scope

We have audited the attached financial reports of the Australian Systematic Botany Society Inc., for both the General Fund and the Research Fund for the year ended 31 December 1997. The association is responsible for the preparation and presentation of the financial reports and the information contained therein, and the committee has determined that the accounting policies used are consistent with the financial reporting requirements of the members. We have conducted an independent audit of the financial reports in order to express an opinion to the members of the association on its preparation and presentation. No opinion is expressed as to whether the accounting policies used are appropriate to the needs of the members.

Our audit has been conducted in accordance with the Australian Auditing Standards. Our procedures include examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial report and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion as to whether, in all material respects, the financial

reports are presented fairly in accordance with the cash basis of accounting whereby revenue is recorded when it is received, expenses are recorded when they are paid. Statements of accounting concepts and accounting standards are not applicable to the cash basis of accounting adopted by the association.

The audit opinion expressed in this report has been formed on the above basis.

#### Qualification

As is common for the organisation of this type, it is not practicable for the association to maintain an effective system of internal controls over donations, subscriptions and stock until their initial entry in the accounting records. Accordingly,

our audit in relation to fund raising was limited to the accounts recorded.

#### Audit Opinion

In my opinion, subject to the effect of such adjustments, if any, as might have been determined to be necessary and the limitations discussed in the qualifications not existed, the financial report presents fairly in accordance with the cash basis of accounting, as described above, the payments and receipts of the Australian Systematic Botany Society Inc. for the year ended 31st December 1997 and its cash and bank balances as at that date.

John A. Harvey FCPA  
J.A. Harvey & J.M. Colleton  
Certified Practising Accountants

## Newsletter editor's report

I have only produced two issues of the newsletter so far, and so it is difficult to make many specific comments about it.

The newsletter obviously serves a useful purpose, but it is carried by very few people, and for many members its relevance is probably low. I tried to make some impact by suggesting that we have a regular section on botanical institutions. I have done two of these so far, both by asking people to do it. I have not had any other articles submitted on this topic. This doesn't suggest wide support for this idea and I won't pursue it unless submissions are forthcoming.

I think that the time is right for a review of the newsletter, with emphasis on what is expected from it. It is expensive in its current form and it is obviously difficult to find an editor. I don't think there is any crisis and it can easily go on as it is, but it might not hurt to put a request in a forthcoming issue asking for feedback from members as part of a revamp. In essence I think the newsletter looks good, but the content needs some thought. We should also think about putting the newsletter on the web site for access via a password for members. This could save significantly on printing and postage and also allows for flexibility in having urgent issues out more quickly. A web version coupled with an email

service to alert members of important issues would be useful and must come eventually.

The cost of the newsletter seems relatively stable. The figures below show that printing is significantly cheaper in Hobart than it was in Darwin (see issues 92 and 94, which had the same page numbers). Postage seems to be more expensive, but I suspect more issues are being posted out from Hobart since John Clarkson revamped the membership list. An extrapolation suggests that the newsletter should have an annual cost of \$4,000 - \$5,000 per year from Hobart unless the size increases significantly.

Finally I would like to express my willingness to continue in the role of newsletter editor for one more year, but I would appreciate it if an attempt could be made to find another editor after that. I volunteered on the basis that I would fill in a gap, but I don't see myself as a long term solution. I am committed to editing another newsletter, but I have no assistance here for this task. Ideally the newsletter editor should be in a place where there is a pool of people who can help with jobs like packing and posting, which are really very time consuming.

Bob Hill

Issue	Pages	Printing	Postage	Packing	Total	Number printed
90	44	723.00	146.85	NA	869.85	250
91	40	795.30	156.35	NA	951.65	275
92	40	925.44	188.35	NA	1113.79	320
93	64	1301.40	246.77	NA	1548.17	300
94	40	797.00	287.30	20.80	1105.10	320
95	26	662.00	206.55	21.20	889.75	320

## 1999 Subscriptions

Subscriptions for 1999 are due on 1<sup>st</sup> January. You should find a personalised account included with this Newsletter. Fees remain unchanged from last year. The concessional rate is available to any member who is retired or unemployed. There is no need to provide documentary evidence when claiming this or the student rate. Council trusts your honesty. The rates are:

Institutional members	\$35.00
Ordinary members	\$35.00
Full-time student members	\$15.00
Concessional rate	\$15.00

Cheques should be in Australian dollars and payable to: Australian Systematic Botany Society Inc. They should be posted to the Treasurer at the

address given inside the front cover of the Newsletter.

Council is attempting to hold down the cost of the Newsletter by bulk mailing each issue to institutions for local distribution. This saves a considerable amount in postage. If you are one of the many members who have their Newsletter delivered to your home address would you be prepared to have it readdressed to your work place? If so please amend the postal address on your subscription notice. Your copy will still be personally addressed to you and sealed in the plastic mailing envelope.

*John Clarkson*  
Honorary Treasurer

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## Hansjörg Eichler Research Fund Awards 1998

Six plant systematists applied for this year's Hansjörg Eichler Research Fund awards. Again the competition was tough and all applicants were of a high calibre. Following assessment of the applications by the ASBS Council, a total of \$2750 was made available from the Fund.

The following three people were awarded grants by Mrs Marlies Eichler at the ASBS Annual General Meeting in Sydney:

Ryonen Butcher (University of Western Australia):  
A systematic investigation of *Synaphea* (Proteaceae).

Edward Cross (University of New South Wales):  
The generic limits of *Olearia* (Asteraceae, Asterinae).

Jim Mant (Centre for Plant Biodiversity Research):  
A phylogeny of *Triodia* and related genera (Poaceae: Triodiaceae) based on morphology, leaf anatomy and nrDNA sequence data.

Congratulations to the three successful applicants, and thanks to all who put time and effort into applying for the awards.

*Tim Entwisle*

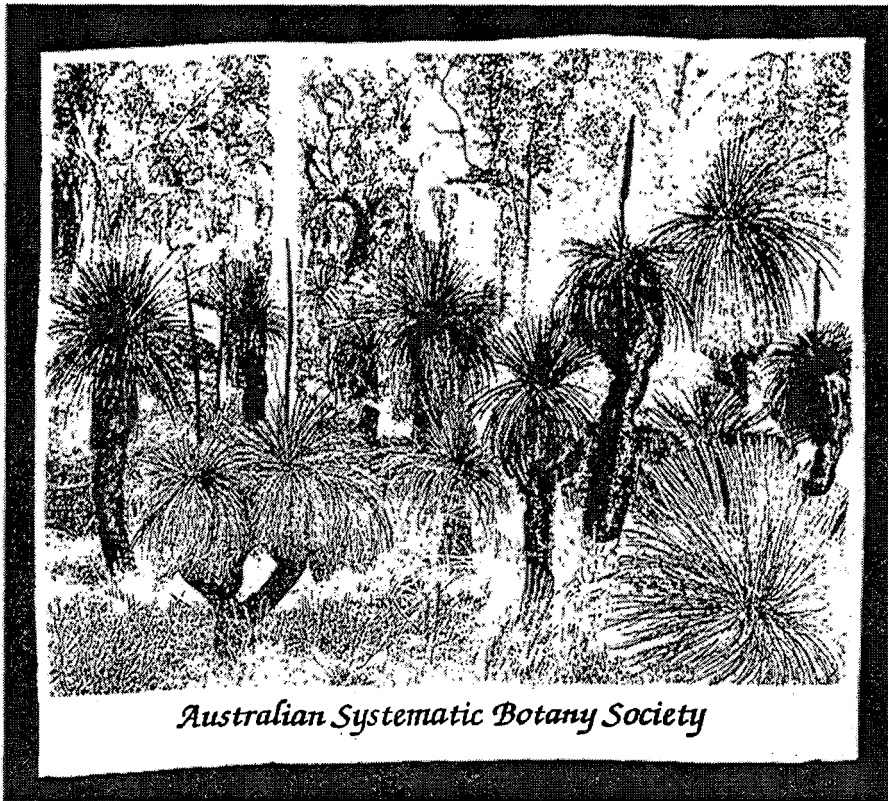
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## Request for material

We are working on taxonomy of *Ehretia* (Boraginaceae). We need fresh material or dried on silicagel from species of this genus for DNA-analyses. Further we need fruits, buds, flowers fixed in FAA or something like that. Thank you for any help.

Marc Gottschling  
Institut fuer Systematische Botanik und Pflanzengeographie  
WG Prof. Dr. H. H. Hilger  
Altensteinstraße 6  
14195 Berlin (Germany)  
caix@zedat.fu-berlin.de

## Super clearance sale!!



### All ASBS stock must go at bargain prices

Sweaters were \$25 now \$10 – available in black only and only in small and medium sizes.

T-shirts were \$15 now \$6 – available in black or white in sizes 36-40 (small to extra large, see logo above)

Mugs were \$8 now \$3 – only 2 remaining

*History of Australian Systematic Botany in Australasia* – was \$30 to members, \$50 to non members, now \$10. This is a great bargain.

All sales on a first come first served basis.

Send orders to:

Jane Mowatt  
ASBS Sales, Flora Section, ABRIS  
GPO Box 636, Canberra, ACT 2601

# ABRS REPORT

## ABRS Report - December 1998

### STAFF

In September Tony Orchard was appointed to the position of Director, ABRS Flora Section, on a fixed term basis, until May 2000, pending the return of Ian Cresswell from secondment to the National Land & Water Resources Audit. Tony can be contacted on (02) 6250 9443, or by email on [tony.orchard@ea.gov.au](mailto:tony.orchard@ea.gov.au) as before.

Helen Thompson's period as Acting Executive Editor ended on 30 November, and from December until May 1999, Patrick McCarthy will be Acting Executive Editor (Flora). Enquiries relating to the writing and/or publication process for the *Flora of Australia*, *Fungi of Australia* and *Algae of Australia* should preferably be addressed to him rather than Tony, although both will be working closely together on production matters. Patrick's direct phone number is (02) 6250 9447, and his email address is [patrick.mccarthy@ea.gov.au](mailto:patrick.mccarthy@ea.gov.au).

Cheryl Grgurinovic's secondment to AQIS has been extended until mid-February 1999, so Don Foreman will remain with ABRS until then, backfilling her position.

### PUBLICATIONS

*Flora of Australia Volume 48, Ferns, Gymnosperms and Allied Groups* was published on 27 October 1998, and has been received very enthusiastically by those who have seen it. At 766 + xxii pages it is by far the largest volume in the *Flora* series so far. It can be ordered from CSIRO Publishing, PO Box 1139, Collingwood Vic. 3066; email: [sales@publish.csiro.au](mailto:sales@publish.csiro.au); fax: (03) 9662 7555. The price is \$94.95 for the hard-cover version, and \$59.95 for the soft cover version.

*Flora of Australia Volume 1, Introduction (2nd edn)* went to the printer on 2 December, and is expected to be available in March 1999. At nearly 700 pages this will be another very large volume. It has been completely rewritten from the first edition, with comprehensive review essays on a range of topics: a history of ABRS and the *Flora* project, an annotated bibliography of major Australian plant taxonomy literature, a history of taxonomic botany in Australia, biographies of several hundred

Australian taxonomic workers, the development of the Australian environment and landform through geological time, palaeobotany, classification, biogeography, present environment, vegetation types and utilisation of the native flora. In addition it has a consolidated illustrated glossary and dichotomous key to Australian flowering plant families. It is likely that it will also contain a CD with a LucID interactive key to families as well. The price is still to be set, but is likely to be about \$70 (hard cover only).

*The Global Taxonomy Initiative: Shortening the Distance Between Discovery and Delivery*, a report on a meeting at the Linnean Society, London, September 10–11, 1998, convened by Diversitas, Environment Australia and the Global Environment Facility's Scientific and Technical Advisory Panel, was published by ABRS on 2 December 1998. The meeting explored ways of progressing the Global Taxonomy Initiative of the Convention on Biological Diversity, and provided suggestions on mechanisms, and concepts of projects that might be undertaken. Copies of the Report are available on request from ABRS.

### REORGANISATION OF ABRS

As a result of the review of ABRS in late 1997/early 1998, and actions flowing from that review, it has been decided to reorganise the internal structure of ABRS.

Under the new structure, all publishing and related activities (paper-based and electronic; Flora, Fauna and other groups) will be brought together in one Section (tentatively called ABRS Biodiversity Publications), while policy, strategic planning, partnership developments, international activities, budget, grants administration and other non-publishing activities will become the responsibility of ABRS Research & Coordination Section (name also still to be finalised). The Biodiversity Publications Section will be headed by Tony Orchard, while Jean Just will be Director of ABRS Research & Coordination Section.

It is intended that the new structure will provide a new focus for ABRS activities, with the adoption of

a "biodiversity" approach instead of the traditional "Flora" and "Fauna" focus. To this end, the separate Flora Editorial and Fauna Editorial Committees will be merged into a single ABRs Editorial Committee, and its duties will be redefined to include policy-related matters as well as the more process-oriented focus that the separate committees have had in the past.

The new organisational structure is expected to be in place by 1 January 1999.

#### EDITING IN PROGRESS

The following volumes are well-advanced in the editing process, and most should go to press during 1999, roughly in the order listed:

*Flora of Australia Volume 17A, Proteaceae 2-Grevillea*  
*Flora of Australia Volume 17B, Proteaceae 3-Hakea, Banksieae*  
*Fungi of Australia Volume 15A, Hyphopodiata Asterinaceae*  
*Flora of Australia Volume 39, Alismatales to Arales*  
*Flora of Australia Volumes 11A & 11B, Acacia 1 & 2*  
*Flora of Australia Volume 43A & B, Poaceae 1 & 2*  
*Flora of Australia Volume 44, Poaceae 3*  
*Flora of Australia Volume 51, Mosses 1*

Work is underway on an additional group of publications, which will go to press in late 1999 or early 2000:

*Flora of Australia Volume 2, Magnoliales to Papaverales*  
*Nature's Investigator: The Diary of Robert Brown in Australia 1801-1805*  
*Fungi of Australia Volume 2B, Catalogue and Bibliography of Australian Macrofungi 2*

ABRS will also be publishing a number of works over the next year or so, in collaboration with other organisations. The following will be the first of these, to be published early in 1999 jointly with the University of Tasmania, Forestry Tasmania and the CRC for Sustainable Production Forestry:

*Flora of Australia Supplementary Series No. 8: Vegetation of Tasmania.*

Tony Orchard  
Director, ABRs Biodiversity Publications Section

## RECOMMENDED ABRs BOTANICAL RESEARCH GRANTS FOR 1999

Note \* = new projects for 1999

### AUSTRALIAN CAPITAL TERRITORY

#### Australian National University

Name: MD Crisp  
Located: Division of Botany and Zoology  
Project Title: Revision of *Gastrolobium* (Fabaceae)  
Amount: \$6,500  
Summary

In Western Australia, legumes are the major part of a biodiversity heritage that is one of the richest in the world. Some of the 60 species of *Gastrolobium* accumulate poisonous fluoroacetate, causing significant losses of stock which graze them. Also, many species are threatened with extinction. This project will enable scientists to identify those species which are toxic, and those which need conservation, and will provide an understanding of the evolution of fluoroacetate toxicity.

Name: JA Elix  
Located: Department of Chemistry  
Project Title: Revision of lichen genus *Buellia* in Australia  
Amount: \$45,000  
Summary  
Lichen are often overlooked, symbiotic organisms of a fungus and an alga or cyanobacteria. They are attracting new attention because of their ecological importance, their sensitivity to atmospheric pollution and their potential medicinal and agrochemical properties. Very few investigations have centred on Australian lichens, particularly the more inconspicuous crustose general (the microlichens). *Buellia*, one such genus, is very



common in Australia and this project investigates the biodiversity of this group.

#### CSIRO, Division of Plant Industry

Name: RJ Bayer \*

Project Title: Systematics of Australian Polygalaceae and Xanthophyllaceae

Amount: \$20,000

##### Summary

This project will re-examine the taxonomy of the families Polygalaceae and Xanthophyllaceae in Australia. Six genera which include up to 66 species will be studied and classified. A DELTA database and interactive key in LucID will be produced, plus two manuscripts that will be published as part of the series *Flora of Australia*. This project will also train a postgraduate student in systematic botany.

Name: LA Craven \*

Project Title: Generic limits of the Australian representatives of Hibisceae (Malvaceae)

Amount: \$12,000

##### Summary

The Hibisceae are the group of plants centred upon the genus *Hibiscus*. Many of the species are cultivated as ornamentals or as food or fibre crops.

This project will develop a classification of all genera of Hibisceae including generic descriptions and identification keys, including phylogeny and biogeography, and produce an account of the group for ABRs' *Flora of Australia*. This project will train a postgraduate student in systematic botany.

Name: JG West

Project Title: Revision and *Flora of Australia*

Treatment of eastern Australian species of

*Pultenaea* (Fabaceae)

Amount: \$46,000

##### Summary

*Pultenaea* is the largest genus of the legume family Fabaceae found in Australia. It is a conspicuous element of the forest understorey in a wide variety of habitats, particularly in temperate regions of southern and eastern Australia. This project aims to further enhance our knowledge of such an important element of our flora by providing clear descriptions, discussions of interrelationships, ecological preferences, geographic distributions and identification tools such as diagnostic features and keys.

## NEW SOUTH WALES

NSW Herbarium, Royal Botanic Gardens,  
Sydney

Name: TJ Entwisle

Project Title: Taxonomic revision of Zygnemataceae (Chlorophyta) in Australia

Amount: \$40,000

##### Summary

The Zygnemataceae is a large family of filamentous green algae, including over 600 species worldwide. They grow in lakes, streams and ponds, sometimes producing weed problems in farm dams. Some species form yellow-green mats on exposed soil in desert, heathland and forests. *Spirogyra*, the largest and most common genus, is used in secondary schools and universities to show the microscopic structure of algal cells. We have only scattered and often unreliable records from Australia. Prior to this study there was no synthesis of this information and no comprehensive collecting from around the country. By 2001, we will have identified and documented all known Australian species, serving the needs of managers of aquatic habitats, phycologists and plant identification services.

Name: PH Weston

Project Title: Taxonomic Revision of *Dillwynia* (Fabaceae: Faboideae: Mirbelieae)

Amount: \$21,000

##### Summary

*Dillwynia* is a genus of pea shrubs that form a conspicuous element in dry eucalypt forests and heaths of southern Australia. Some of the more common species appear to be highly variable and probably really consist of multiple, very similar species that grow together. This project aims to improve our knowledge of the diversity of this genus by using modern DNA fingerprinting and sequencing techniques, in addition to more conventional methods of description and analysis. The data thus gathered will also be analysed to reconstruct the evolutionary history of this genus in Australia. The grant also funds a postgraduate student, and will produce useful identification tools.

**NSW Agriculture, Orange Agricultural Institute**

Name: M Priest \*

Project Title: Australian species of the Genus *Septoria* Sacc.

Amount: \$5,000

**Summary**

This project will produce a fully illustrated monographic treatment of the fungal genus *Septoria* for Australia. This genus contains many species that are economically important in agriculture on both crop and weed species. Most have never been illustrated or compared with type material. This study will also examine and illustrate previously named and new species from native plant hosts, providing baseline data for future research in the genus. Many species have revealed relationships with taxa from South Africa, South America and North America particularly on introduced ornamental and weed hosts.

**University of New England**

Name: JJ Bruhl

Located: Department of Botany

Project Title: Systematic studies in Abildgaardieae (Cyperaceae)

Amount: \$25,000

**Summary**

This study provides taxonomic training for a Ph.D. student through a worldwide study of an ecologically significant plant group. This project involves analysis of morphological, anatomical and ultrastructural data for a group of sedges (family Cyperaceae: tribe Abildgaardieae) in order to contribute a framework of evolutionary relationships, species descriptions and identification keys for the *Flora of Australia*, the fundamental reference on plant biodiversity for land managers, biologists and teachers.

**University of New South Wales**

Name: BJ Rees

Located: School of Biological Sciences

Project Title: A taxonomic study of the genus *Gymnopilus* in Australia

Amount: \$13,000

**Summary**

The genus *Gymnopilus* is one of the most attractive and frequently collected wood rotting mushrooms in Australia. In common with most other large fungi, no names exist for over half of the species. As these fungi are important recycling agents in the environment, we need to know where the different

species are found, and what they have in common with each other and species overseas. *Gymnopilus* may also have potential importance as a bioremedial agent in the paper pulp industry.

**University of Sydney**

Name: MJ Henwood \*

Located: School of Biological Sciences

Project Title: A revision of Australian Apiaceae

Amount: \$52,000

**Summary**

Apiaceae in Australia comprises about 230 species, the majority of which are restricted to the continent. The Australian members of the Apiaceae have not been revised at the national level for over 100 years. This project aims to produce a comprehensive, contemporary revision of the Australian taxa of Apiaceae. Such a revision will lead to a treatment of the family suitable for inclusion in the *Flora of Australia*, and will provide a solid foundation for the management and conservation of Australia's biological resources. Furthermore, it will enhance our understanding of the evolution and diversity of this economically important family at the world level.

Name: DJ Patterson

Located: School of Biological Sciences

Project Title: An uninterpreted catalogue and review of the autotrophic euglenids (protista) of Australian inland waters

Amount: \$20,000

**Summary**

Less than five per cent of Australia's biodiversity is made up of the multicellular plants and vertebrates which are the usual targets for biodiversity issues. Most of the species which occur in Australia are likely to be microbial. The euglenids are a group of predominantly freshwater unicellular algae. They are common and occasionally dominating members of freshwater microbial communities. Their diversity in Australia has had little study, and we do not know the extent to which Australia has its own endemic species. The project will collect together all prior records of autotrophic euglenids in Australia, and create new resources in the form of photographic and electronic images. The data will be compiled electronically, so that an internet-accessible guide to these organisms can be developed.

## QUEENSLAND

### University of Queensland

Name: A Drenth \*

Located: Cooperative Research Center for Tropical Plant Pathology

Project Title: Taxonomic account of the genus *Phytophthora* (Oomycota : Peronosporales) in Australia

Amount: \$7,000

Summary

*Phytophthora* species cause plant diseases damaging over \$200 million of Australian crops annually and irreversible devastation to many of our unique native ecosystems. A comprehensive taxonomic and geographic record is required as a base line for identification of the species involved and their distribution. The project will use DNA technology to complement morphological descriptions, to accurately classify and describe this genus, and compile a comprehensive record for future identification purposes.

Name: JA Phillips

Project Title: Taxonomic studies on the Dictyotales (Phaeophyta)

Amount: \$31,000

Summary

Species of the brown algal order Dictyotales are common components of marine communities in tropical and temperate Australia. Australia is a centre of diversity of the Dictyotales, including all known genera and approximately half of the total number of described species. The project will document the biodiversity, biogeography and the evolutionary relationships of the Australian species, to redefine generic and species concepts, using a comprehensive set of vegetative and reproductive characters and will describe genera and species new to science.

### Unattached, Queensland

Name: AR Bean \*

Project Title: *Flora of Australia* account of *Baeckea* (Myrtaceae) and related genera in eastern and northern Australia

Amount: \$52,000

Summary

This project will provide DELTA generated descriptions and a *Flora of Australia* account for the genera *Baeckea*, *Triplarina*, *Babingtonia*, *Ochrosperma*, and *Astartea* in Australia, excluding

Western Australia. The project will provide the facility for interactive keys, and will increase our understanding of the group, providing data suitable for the management of rare and threatened taxa.

Name: DA Halford \*

Project Title: Taxonomic revision of Australian genera in Euphorbiaceae tribes Ampereae Muell. Arg., Caletieae Muell. Arg., Poranthereae (Muell. Arg.) Gruning, Ricinocarpeae Muell Arg.

Amount: \$52,000

Summary

This project will revise eleven genera of the family Euphorbiaceae. It will assess the taxonomy of the genera which currently include approximately 100 species. Little work has been done on these groups since the last revision approximately 85 years ago. Examination of herbarium material suggests that there are several undescribed taxa and that some generic limits are poorly understood. The project will contribute significantly to the understanding of Australia's biodiversity and needs to be undertaken before an adequate treatment can be prepared for the *Flora of Australia* program.

Name: AM Young

Project Title: Revision of the Hygrophoraceae of South Eastern Australia

Amount: \$32,000

Summary

The south-eastern Australian species of the fungal family Hygrophoraceae is being fully revised using both fresh and herbarium collections. Written and computer based keys and descriptions are being produced. The new data will provide further information on the origins of the Australian species and provide the baseline study for this family. The investigation is urgent as species of the Hygrophoraceae are known to be extremely sensitive to agricultural practices and may already be extinct in some Australian habitats. These taxa may have an important role as bioindicators.

## SOUTH AUSTRALIA

### State Herbarium of South Australia

Name: HR Toelken \*

Project Title: A taxonomic revision of the genus *Hibbertia* in eastern Australia

Amount: \$3,000

#### Summary

The project will undertake a taxonomic revision of the species of *Hibbertia*, a group of Australasian

shrubs, in eastern Australia. The work is based mainly on a study of the morphology of a large number of herbarium specimens. This will allow evaluations at population, species and ultimately infrageneric level. Additional population studies and some field examinations particularly of developmental stages are needed to improve the delineation of the taxa.

## TASMANIA

### Tasmanian Herbarium

Name: G Kantvilas \*

Project Title: The lichen family Lecanactidaceae in Tasmania

Amount: \$10,000

#### Summary

The lichen family Lecanactidaceae in Tasmania comprises poorly known and undescribed species of a potentially high conservation value. They occur in habitats such as old growth forests. These species will be revised and an account of their taxonomy, distribution, ecology and characterisation will be published.

Name: DI Morris, W Curtis and AC Rozefelds

Project Title: A Flora of Tasmania (Dicotyledons)

Amount: \$7,000

#### Summary

This project will update the now outdated *Students' Flora of Tasmania*. This *Flora* will provide identification of plants in Tasmania taking account of changes in nomenclature and will include native and introduced plants, including some new to science.

Name: AC Rozefelds

Project Title: Systematic studies in Australian Cunoniaceae

Amount: \$25,000

#### Summary

The Cunoniaceae are a family of trees and shrubs, including timber species and ornamentals. This

family occurs in Australia, the Pacific area, South America, South Africa and Madagascar. This distribution makes the Cunoniaceae an important family in understanding the evolutionary history of the Southern Hemisphere land masses. To achieve this, it is necessary to understand the relationships between genera in the family, particularly in the Australasian and Pacific regions.

### University of Tasmania

Name: DA Steane and RS Hill \*

Located: Department of Plant Science

Project Title: Unravelling the history of

Casuarinaceae: using molecules and morphology to elucidate evolutionary relationships and construct a natural classification

Amount: \$60,000

#### Summary

Casuarinaceae is an important Gondwanan family comprising four genera. Many Casuarinaceae species are highly drought-tolerant and may be useful as environmental indicators of global climate change. DNA sequence data will be used to examine evolutionary relationships within Casuarinaceae and related families. This data will allow the assessment and improvement of the current classification system, essential for the design of effective conservation strategies. Morphological, paleontological and molecular data will be combined to trace the adaptations adopted by the family during Australia's northward drift over the past 90 million years.

## VICTORIA

### Institute for Horticultural Development

Name: VC Beilharz

Project Title: Cercosporoid Fungi on Australian native plants

Amount: \$25,000

#### Summary

Cercosporoid fungi cause disfiguring leaf spots on a wide range of hosts and can reduce production. Of those affecting native Australian plants, few have been described or named. They tend to be host-specific; most are probably new to science. The aim of this project is to describe, illustrate and provide names for the cercosporoid fungi on native Australian plants. Specimens in Australian herbaria will provide the basic source of information, supplemented with fresh specimens when possible. An understanding of these pathogens is important in horticulture, forestry, conservation and quarantine.

### La Trobe University

Name: NH Scarlett and RF Parsons \*

Located: Department of Botany

Project Title: The development and application of a practicable taxonomy for the genus *Taraxacum* Wigg. (Lactuceae) in Australia

Amount: \$10,000

#### Summary

In southern Australia the dandelions (genus *Taraxacum*) include both rare native species and a large number of introduced weeds. At present only specialists are able to distinguish the different sections of the genus and individual species are largely unknown. On the basis of research in Victoria, this project aims to devise a workable system for identifying these plants, either at the level of sections of the genus, or at the species level. This will aid the conservation of the rare natives and help research into the role of the introduced dandelions as weeds of grasslands and grassy woodlands.

### Royal Botanic Gardens, Melbourne

Name: TW May \*

Project Title: Catalogue and bibliography of Australian microfungi

Amount: \$30,000

#### Summary

The *Catalogue and Bibliography of Australian Microfungi* will be the first comprehensive listing of

Australian microfungi for more than a century. Microfungi are vital parts of all ecosystems and are of great economic importance, especially as animal and plant pathogens (such as rusts and smuts), and also in food production and other industrial applications. The *Catalogue* will provide a sound basis for taxonomic research on microfungi, and be an essential reference for the names and literature of Australian microfungi for scientists and other workers, in areas such as ecology, quarantine, plant and animal pathology, medicine, forestry and biodeterioration.

Name: NG Walsh

Project Title: Revision of *Centipeda* (Asteraceae) in Australia

Amount: \$4,000

#### Summary

*Centipeda* is a widespread genus in Australia, and a common component of wetland communities. At least 3 species are highly significant as Aboriginal medicinal plants. The taxonomy of the genus is currently poorly understood, with several unnamed entities requiring formal description before a comprehensive treatment of the genus can be completed. This work is necessary so that the diversity within the group is fully appreciated and taxa of potential conservation and medicinal significance are accurately identifiable.

### University of Melbourne

Name: GT Kraft and AJK Millar \*

Located: School of Botany

Project Title: The taxonomy of marine brown algae (Phaeophyceae) from tropical and subtropical eastern Australia

Amount: \$18,000

#### Summary

Brown algae constitute the largest and most numerous marine plants in many areas. They tend to dominate rocky shores in colder waters, where they provide food and shelter for many fish and invertebrates and support commercial industries. Tropical and subtropical coasts generally have fewer species, but certain groups are very abundant. The brown algae of temperate Australia are well studied, but little is known of our tropical representatives. We have made collections of brown algae from many localities in northeastern Australia and propose to document them, particularly those from Lord Howe Island, to help

complete the *Flora of Australia* inventory of the country's marine-plant richness and diversity.

Name: PY Ladiges, JW Grimes and F Udovicic \*

Located: School of Botany

Project Title: Phylogeny of *Acacia* subgenus *Phyllodineae* - new characters for the discovery of sectional groups.

Amount: \$15,000

Summary

The project will examine relationships of species-groups within primarily phyllodinous forms of

Australian *Acacia*, using DNA sequence data, with a comparative study of the different developmental patterns and forms of flowering shoots. *Acacia* is the largest genus of flowering plants in Australia and is of ecological and horticultural importance. There is currently no classification based on the phylogeny of the group. A new classification, recognising groups of related species, will have predictive value for a range of users and will contribute to the knowledge of the biodiversity, biogeography, and evolution of Australia.

## WESTERN AUSTRALIA

### University of Western Australia

Name: JA Chappill

Located: Department of Botany

Project Title: Taxonomic revision of *Gompholobium* Smith and *Sphaerolobium* Smith (Leguminosae)

Amount: \$25,000

Summary

There has been no published revision of the native Australian legume genera *Gompholobium* (including *Burtonia*) and *Sphaerolobium* since that of Benthams (1864) who recognised a total of 45 species. Based on recent examination of much more extensive material, there are at least 17 new species to be described. Preliminary examination of herbarium material suggests that many taxa are poorly understood, with heterogeneous elements in the same species folders. A full revision is required examining specific and generic boundaries before a

*Flora of Australia* treatment can be prepared. These two genera are important understory shrubs in forests and woodlands throughout southern Australia.

### Western Australian Herbarium

Name: PG Wilson\*

Project Title: Account of genus *Gnaphalium* s.l. (Gnaphalieae: Asteraceae) in Australia

Amount: \$25,000

Summary

The Australian species of *Gnaphalium* (cudweeds) include both native and introduced species, some of which are difficult to identify. The number of segregate genera remains unclear, and the project will eliminate confusion and provide a sound treatment for the *Flora of Australia*.

## OVERSEAS

### HUNGARY, EUROPE

#### Eszterhazy Teachers College

Name: T Pocs \*

Project Title: Taxonomic revision and phytogeographic evaluation of the genus *Frullania* Raddi (Hepaticae) in Australia and the adjacent islands

Amount: \$5,000

Summary

The genus *Frullania* has the highest number of species (78) among all liverworts in Australia. The percentage of endemism is very high and 68 per cent

of the species do not occur anywhere else on the planet. Our knowledge of Australian representatives is poor compared to their great importance in forested and woody plant communities, where they usually creep on the bark of the trees. Intensive collecting of *Frullania* species is planned throughout Australia to incorporate them in a monographic flora work.

## NEW ZEALAND

### Victoria University of Wellington

Name: AE Bell

Located: School of Biological Sciences

Project Title: Coprophilous Ascomycetes of Australia

Amount: \$3,000

#### Summary

This project will study fungi involved in the breakdown of native animal faeces. The dung of herbivorous animals (eg., koala, wallaby, wombat) provides a rich food source upon which a diverse and little known community of fungi flourish. Such fungi may be a potential source of biocontrol agents for controlling animal parasites, and antibiotics which could potentially be economically significant. But until we know what fungi are present, we have no way of increasing our knowledge of their potential usefulness.

## HONG KONG

### University of Hong Kong

Name: KD Hyde and AJ Whalley\*

Located: Department of Ecology and Biodiversity

Project Title: Xylariaceae of Australia

Amount: \$4,000

#### Summary

This project will involve the collection of Xylariaceae fungi throughout Australia, including the investigation of voucher specimens at herbaria. The project will survey the species present and compare them with the type specimens to assess if their taxonomy is correct. This will be achieved through cladistic analysis of morphological data. Molecular work will be carried out on two genera, *Rosellinia* and *Asterocystis*, to examine their relation to one another more closely, also through the use of cladistic analyses.

Name: KD Hyde

Located: Department of Ecology and Biodiversity

Project Title: Flora treatments of the family

*Phyllachoraceae*

Amount: \$7,700

#### Summary

The *Phyllachoraceae* are a family of plant parasites, producing 'tar spots' on leaves. They are economically important as they may cause loss of agricultural crop production. They also cause unsightly blemishes on nursery plants. This project aims to document these fungi in Australia. With only five per cent of Australia's fungi presently known, this project is a major step towards assessing Australia's ignored fungal diversity. It will also provide basic data for plant pathologists on Australia's 'tar spotting' plant parasites.

## OTHER FUNDING

### Australian Botanical Liaison Officer 1999/2000

Amount: \$45,000

#### Summary

Since the 1930s, an Australian Botanical Liaison Officer has been appointed annually to work at the Royal Botanic Gardens at Kew in the United Kingdom. The role of the Officer is primarily to assist Australian botanists with relevant searches of library and plant specimen holdings at the Kew Herbarium. Applications are invited each year from experienced Australian taxonomic botanists. The appointment is for 12 months, with the Officer's own institution providing a salary and allowances, and the ABRs contributing towards travel and living expenses.

### Supplementation of ABLO 1998/1999

Amount: \$10,000

#### Summary

Major currency fluctuations during 1998 impacted on the value of ABRs' support for the ABLO. This

grant restores the real value of the ABLO award in 1998/1999.

### Herbarium Loans

Amount: \$34,000

#### Summary

Scientists working on production of *Flora of Australia* and *Fungi of Australia* need to borrow collections from all of Australia's major herbaria. These payments offset part of the costs for servicing these loans of plant specimens between institutions. Money is provided to State, Territory and Commonwealth herbaria, and is divided pro rata in proportion to the number of specimens loaned for the above purpose.

### ABRS Postgraduate Scholarships

Amount: \$56,000

#### Summary

The ABRs awards postgraduate scholarships to foster research training in the taxonomy of

Australian flora and fauna. Applications are sought from outstanding students wishing to pursue a career in taxonomy. One Postgraduate Research Scholarship is awarded each year, and has a tenure of up to three years. The ABRS award includes an equivalent stipend to that of the Department of Employment, Education and Training Australian Postgraduate Award (currently \$15,888 but will be increased for 1999) plus a \$2,500 research support

grant. The ABRS has already awarded two scholarships, the most recent being to Mr Rodney Jones from University of Melbourne for 1998. The ABRS Advisory Committee wishes to commit funds towards a new scholarship award for 1999. The amount of \$56,000 which is committed for 1999 thus covers the cost of three scholarships (two continuing and one new).

## ABLO REPORT

### Changes at Kew

Structural changes to the herbarium buildings at Kew continue. Construction and fitting out of the new top floor of Wing D is basically complete and the tea, mounting and staff rooms are now in use. A new seminar room - the Pat Brenan Suite - is also available on this floor, and the Palm Room (previously above the Kew Guild room in Hunter House) has now moved into the area on the bottom of Wing D vacated by the tea room. Both the Chief Scientist and Minister for Agriculture have visited in the last week of November to open and inspect the new facilities.

### New Room

As a result of the re-allocation of staff accommodation the Keeper of the Herbarium has provided a permanent room for the ABLO. It is located on the top floor of the original building, Hunter House (room H21), next to Bernard Verdcourt's corner room, and directly above the Collections Management Unit (previously the GSU). The room faces south and looks out over the western end of Kew Green towards Cambridge Cottage and the Directors House.

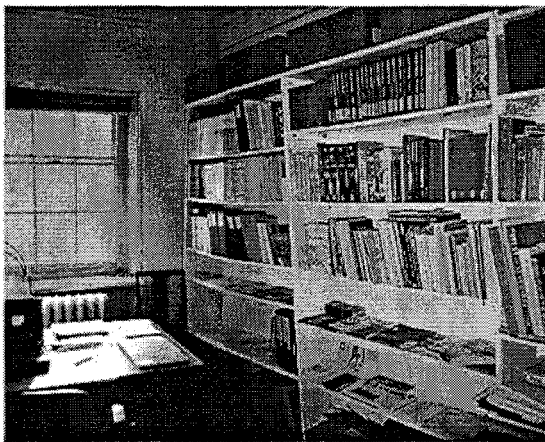
One of the significant outcomes of taking the room was the opportunity to reunite the ABLO library, the majority of which had been in storage in one of the basements. As illustrated, there is ample storage for the existing collection and reasonable space for future expansion. Also expanded is the storage space for ABLO files, as the desk contains two filing drawers to add to the existing two in the ABLO filing cabinet.

Another feature of the new room is the added security. Previously only the ABLO cupboard provided a lockable space for equipment such as the camera and lighting gear. Now the library, microscope, computer and visitor's possessions can also be secured by locking the room (much

appreciated during the recent spate of laptop thefts from various buildings in Kew).

It took some time to move all the ABLO gear from the previous position in the north-east corner of the middle of Wing C up to the new room, and then move and merge the library books and journals from the basement, however, it did provide a good opportunity for a stocktake of the library and equipment. The new room is suitably quiet and of a good size to work in, or entertain one or two visitors.

The allocation of a room for the ABLO clearly signifies Kew's ongoing commitment to and appreciation for the liaison officer position and the role they play in the institution, and this has been affirmed in discussion with the Keeper and other staff members.



### New Website

Also noteworthy is the creation of an ABLO website: [www.anbg.gov.au/abrs/ablo/index.htm](http://www.anbg.gov.au/abrs/ablo/index.htm). Based on documentation from a range of sources and



particularly the work of previous ABLO's Bob Makinson and Don Foreman, the site has been designed to serve as a repository of information about the ABLO position and procedures, as well as a resource for the ABLO incumbent and visitors to Kew herbarium. It is intended to be maintained by ABRS from information provided by the ABLO and other sources as required, and to be complementary to the ASBS, CHAH and ABRS sites.

#### **Meetings**

I attended the TDWG workshop and meeting at Reading University in mid-September which afforded a good opportunity to meet a range of people from various institutions and see some of the latest systematics software and projects, including the first public demonstration of a part-prototype of the International Plant Names Project (IPNI) system.

Dave Simpson, chairman of the Kew Herbarium Computer Users Group invited me to join them during my term as ABLO. This group, which meets every couple of months, oversees the development of the computer applications and standards in the herbarium, in collaboration with staff from the Information Services Division. For example, a set of core specimen data fields has recently been developed by the group for implementation in the proliferating number of project-based herbarium specimen databases.

Also of note is that the CRIS transaction management system for handling all loan and exchange material was put into use here on 16th November. This Sybase system, obtained from the Smithsonian and refined at Kew, aims to streamline the management and reporting of incoming and outgoing specimens, and it is planned to be the basis for a more comprehensive specimen database in future.

For the Computer Users Group I organised a talk by Ian Turnbull, one of the developers of TEXPRESS, which is used at many Australian herbaria. He had been in London to attend TDWG and demonstrate their KE-EMu client-server package to the Natural History Museum.

A new Systematics Journal Club held its first meeting at the Natural History Museum on Monday 2nd November. This group is hosted jointly by Kew, NHM and Reading University Department of Botany and meetings rotate monthly between the three institutions.

On Tuesday 24th November Dr Phillip Kodela (NSW) gave a talk in the Pat Brenan Suite on his

work with the Wingecarribee Swamp and illustrated it with dramatic images of the recent disastrous collapse of its peat beds.

And on Friday 4th December I gave a seminar to Kew staff on the new Western Australian flora information system FloraBase ([www.calm.wa.gov.au/science/florabase.html](http://www.calm.wa.gov.au/science/florabase.html)) to mark its official launch in Perth the previous week.

#### **Herbarium Visits and Visitors**

I have visited BM on several occasions now, mainly to photograph type material or search out library enquiries (of which there seem to have been a fair number). I will be giving a talk there in late January as part of their regular seminar series.

A brief visit to the Royal Botanic Gardens Edinburgh in mid-November was greatly enjoyed, partly because of the crisp but fine weather and some great viewing of the Leonid meteors above the city. In the two day visit I was able to examine Epacridaceae type collections and meet with a number of staff including Kerry Walters and Richard Pankhurst as well as David Chamberlain and Richard Bateman. I plan to return to E for a longer period next May.

Other herbarium visits planned include Trinity College Dublin, Manchester and Cambridge for which I have some queries already. I have no firm plans for trips further afield at this stage.

Visitors to Kew in the last three months have included Jim Croft, Judy West (Canberra); Barbara Briggs, Simon Goodwin, Phillip Kodela and Alistair Hay (NSW); Greg Leach (Darwin); Don Gaff, Monash and Ken Walker (Museum of Victoria); and Syd Shea (WA).

#### **Mueller Book Launch**

Finally, the Mueller Correspondence Project held the British launch of 'Regardfully Yours: Selected Correspondence of Ferdinand von Mueller, Volume 1: 1840 - 1859' on Wednesday 9th December at the Institute of Commonwealth Studies, University of London. Leonie and I willingly boosted the number of Australians present to celebrate its publication. Having recently been looking at some of Mueller's earlier letters to Hooker, written in a small hand in pencil and on aging paper in the Kew archives, this publication will be both extremely valuable and a much more pleasurable read.

*Alex Chapman*  
ABLO

## OBITUARY

### A personal tribute to Emeritus Professor Noel Charles William Beadle

20th December 1914 to 13th October 1998

I was deeply saddened to hear of the recent death of Noel Beadle even though he had been sick for quite some time. Fortunately I had seen him several years ago in the Armidale hospital and was able to spend several hours chatting with him and sharing a cup of tea. Noel Beadle was one of two people who had a profound influence on my early professional life and I will be forever grateful for the opportunities he gave me personally.

Australia has lost someone who has probably had more influence on botany and ecology in this country than anyone else of this time. My first recollection of Prof. Beadle was over 34 years ago when he arrived at the old first year science lecture theatre at the University of New England, slightly out of breath and with his black gown covered with chalk dust to give some first year botany lectures. Everyone called him "Prof." or "NCWB" and it was not until many years after my first encounter with him that I heard a senior staff member address him by his first name or knew what the other initials stood for. Although Noel Beadle was a very private person he did like to remind people when it was his birthday and how old he was.

Prof. Beadle was a big man with a bright smile that lit up his whole face and it was only rarely one saw a look of anger that fortunately never seemed to last for long. Unlike some other lecturers who had wads of notes and prepared overheads here was someone who seemed to use small scraps of paper as his only reference during the 50 minute lecture. I never knew whether or not he actually wrote notes on these bits of paper or whether he even needed to refer to them at all. Maybe they were just to jog his memory as to what class he was talking to at the time. Certainly the Prof. was a man of immense knowledge that was combined with an ability to pass that knowledge on with his own brand of humour.

Noel Beadle was appointed the Foundation Professor of Botany at the newly independent University of New England in late 1954. Prior to this he had been a lecturer and later a senior lecturer at Sydney University. From 1939 to 1946 he worked as a Research Officer and Botanist with the

Soil Conservation Service of New South Wales. The teaching and research of the Department was structured around the basic core of plant morphology, taxonomy and ecology from the start and has remained so to the present day with a few additions such as plant pathology, embryology and plant physiology. It is little wonder that many of Australia's current senior ecologists and botanists have come from this school.

A visit to Noel Beadle's garden was an experience never to be forgotten. He had a wonderful collection of conifers from various parts of the globe. I am not sure how he managed to come by some of them but one day he told me he was expecting some "excess stock" to arrive from the Royal Botanic Gardens, Sydney. You never left his garden empty handed and more often than not it was not just a modest cutting or two but a great lump of soil with some treasure buried in it with instructions on how to grow it.

Prof. was a generous man and many charities have benefited from his generosity. These donations were made without any fuss and rarely came to the attention of those around him. He provided funds for prizes and scholarships for undergraduate and post graduate students alike and often used his own money to publish some of his books when no commercial backing could be found. He seemed to have an affinity with children and was always interested in their development and any new arrivals always received some small gift. Although his own health was declining Prof. looked after his elder sister, Lois, who provided many of the illustrations for the student floras, until her death some years ago.

Generations of students, right up to the present day, will be grateful for Noel Beadle's dedication over a period of 16 years to his preparation of the "Students Flora of North-Eastern New South Wales" which were published by the Department of Botany, University of New England in six volumes the last of which appeared in 1987. Just as well known and equally well used was "The Flora of the Sydney Region" which has been reprinted several

times and remains the most concise summary of the vegetation of that area.

In 1981 Noel Beadle's international reputation was enhanced with the publication of "The Vegetation of Australia" as part of a world series, and was the first comprehensive monograph on the vegetation of the whole continent. It resulted from the meticulous notes taken on his countless trips and student excursions. I was amazed when Prof. gave me a copy of this book in exchange for the use of a single transparency of a stand of *Nyssa* palms but that was the nature of the man.

Noel Beadle received his D.Sc. from the University of Sydney for his work in western New South Wales, and upon his retirement the University of New England awarded him the title of "Professor Emeritus", I suspect people would have gone on calling him Prof. even without this honour. He was awarded the Clarke Medal of the Royal Society of New South Wales in 1982 and the Medal of the

Ecological Society of Australia in 1985 for his contributions to ecology. In 1988 the Soil Conservation Service of New South Wales, upon its fiftieth anniversary, made him a special presentation in recognition of his contribution to the Service and to dryland ecology generally. The University of New England elected him a Fellow of the University in 1993. The most recent tribute this outstanding man came on 20 June 1997 with the opening of the N.C.W. Beadle Herbarium.

Vale Prof. Beadle.

Don Foreman  
ABRS, Canberra.

Note: Obituaries have appeared in the Sydney Morning Herald on 27 October 1998 and in the UNE's Smith Weekly and I am grateful to Associate Professors N. Prakash and R.D.B. Whalley for making the latter available to me.

### Lindsay Dixon Pryor (1915–1998)

A memorial tribute in honour of the late Lindsay Pryor was held on the 9<sup>th</sup> October 1998 at the Australian National Botanic Gardens, Canberra. The Burbidge Memorial Amphitheatre in the eucalypt lawn provided a fitting and beautiful venue for the occasion.

Robert Boden, Stephen Midgley, Doug Paton and Ian Brooker spoke about their associations with Lindsay, his dedication to his profession and the many contributions he made during his working life.

Lindsay trained as a forester in South Australia and the Australian Capital Territory. He was Director of Parks & Gardens in the Australian Capital Territory from 1944 to 1958 and he was primarily responsible for the initial planning and development of the Canberra Botanic Gardens (now Australian National Botanic Gardens). From 1958 to 1976 he became the first Professor of Botany at the Australian National University, A.C.T. He undertook work on the breeding and genetics of *Eucalyptus*, and in 1971 published (with L.A.S. Johnson) *A Classification of the Eucalypts*, which

provided the first complete overview of the genus since Blakely. Under his direction the foundations of an herbarium at the University were laid by Erwin Gauba.

Many of the publications Lindsay authored or co-authored were on display at the Memorial Tribute. These publications reflected the many areas he worked in. Lindsay had colleagues in University Departments, divisions of CSIRO, Forestry groups, the Australian National Botanic Gardens, old "A.C.T. City Parks", the Horticulture School (Institute of Tafe) and many other areas.

The Memorial Tribute was completed with Leslie Lockwood on behalf of the Director, Australian National Botanic Gardens, inviting Lindsay's wife, Nancy, to plant a seedling of *Eucalyptus pryoriana* in his honour in the eucalypt lawn.

The tribute was organised jointly by the Australian Systematic Botany Society and the Friends of the Australian National Botanic Gardens.

## ARTICLES

### Phylogeny, biogeography and pollination ecology in *Stylidium* section *Stylidium*

Hansjorg Eichler Research Grant- Field Work Report

The Australasian family Stylidiaceae is distinguished in having the stamens fused to the style to form a column, of which the apex bears a bilobed terminal stigma and two lateral anthers. In the Triggerplant genus *Stylidium* this column is irritable, and upon stimulation provides one of the fastest and most spectacular movements among plants.

*Stylidium* comprises approximately 200 species of annual and perennial herbs, the majority of which occur in southwestern Australia. Based on herbarium and glasshouse specimens, Mildbraed (1908) undertook a classification of *Stylidium* into subgenera and sections based on vegetative characters such as habit, calyx shape, placentation, leaf shape and anatomy.

Mildbraed's (1908) *Stylidium* section *Stylidium* (= *Lineares*) contains about 26 species distributed from the Hawkesbury and Narrabeen sandstones of NSW (*S. lineare* and *S. productum*), the Grampians (*S. soboliferum*), Kangaroo Island (*S. tepperianum*) and throughout the southwest of western Australia, with a little-known species from Central Australia (*S. inaequipetalum*). Mildbraed (1908) defined this section on morphological and anatomical characters, but descriptions of new taxa and an improved understanding of characters has brought the boundaries of this section into question. My research aims to test the monophyly and elucidate the phylogeny of *Stylidium* section *Stylidium* by undertaking a cladistic analysis of morphological characters. Using the phylogenetic tree as a basis, I intend to map floral characters on the tree to construct a hypothesis of floral evolution, and focus on the *Stylidium* graminifolium complex to study pollination ecology and chromosomal variation in relation to speciation.

The Hansjörg Eichler Award of \$500 enabled me to undertake a field trip from Melbourne to Kangaroo Island to collect flowers in 70% ethanol and fresh specimens for chromosome counts. I collected *Stylidium soboliferum* from the Grampians and *S.*

*tepperianum* from the cliffs of Kangaroo Island. I have been able to score several floral and vegetative characters from these specimens, and compare the morphology to species in the west. The collection of flowers in ethanol has greatly improved the accuracy of my scoring, particularly with respect to throat appendages and labella detail.

I was fortunate enough to collect ephemeral *Stylidium* species throughout Victoria and South Australia: *S. despectum*, *S. beaugleholei*, *S. inundatum*, *S. calcaratum* and *S. perpusillum*. These specimens germinate after rainfall and grow in swampy areas throughout southern Australia. Ephemeral species have not been recently collected from the eastern states, and their preservation in ethanol is vital so that detailed floral characters can be examined. In conjunction with Juliet Wege (University of Western Australia), the morphology and distribution of these species from the east to west of Australia will be examined.

I am very honoured to have been among the first recipients of the Hansjörg Eichler Award, and to have been given the opportunity to collect these important species of *Stylidium*. I wish to express my sincere appreciation to the Australian Systematic Botany Society for awarding me the scholarship and thereby enabling me to improve the quality of my research. I am also grateful to Nicole Middleton for her assistance in collecting plants from precarious cliffs and muddy swamps, and to my supervisor, Pauline Ladiges, for covering my other field trip expenses.

Mildbraed, J. (1908). Stylidiaceae. In Engler, E. (ed), *Das Pflanzenreich* IV, no. 278 (Verlag H.R.Englemann): Weinheim, Germany.

Elisa Raulings, School of Botany, University of Melbourne, Grattan St. Parkville 3052

## Our beginning

In delving through the Newsletter for details of the history of ASBS, I find no account of the meeting that agreed to establish the society. It was held at the National Herbarium of Victoria on the afternoon of Saturday 7 April 1973, attended by some 40–50 people. Major items discussed were whether we needed such a society (strongly supported), its name, and a constitution. An inaugural committee was elected (President Trevor Whiffin, Vice-President Denis Carr, Secretary Don McGillivray, Treasurer Andrew Kanis, other members Des Boyland and Alex George). Many participants stayed over to Sunday, and while most went on an excursion to Lake Mountain the committee met at the Albany Motor Hotel, South

Yarra, from 0900 to 1230. They finalised a draft constitution, formulated the rules, set the initial subscription at \$3.00 and discussed publicity.

The first General Meeting, when the constitution was formally adopted, was held on 17 Aug. 1973 at the Department of Agriculture, Perth (minutes: *Austral. Syst. Bot. Soc. Newsletter* 1: 4–6, 1974). So we are just over 25 years old, and going strong!

*Alex George*

'Four Gables', 18 Barclay Road, Kardinya, Western Australia 6163

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## BOOK REVIEWS

### Catalogue of the Benthic Marine Algae of the Indian Ocean

Paul C. Silva, Philip I. Basson and Richard L. Moe

University of California Publications in Botany vol. 79, xiv + 1259 pp. [errata].  
University of California Press, c/o California Princeton Fulfillment Services, 1445  
Lower Ferry Road, Princeton, NJ 08618; (Publicity) University of California Press,  
Publicity Dept., 2120 Berkeley Way, Berkeley CA 94720 USA US\$130.00 + p+h of  
US\$38.48 (AIRMAIL) [US\$12.04 SURFACE MAIL]

This volume is the culmination of a vast amount of data collecting on the part of the three authors. The volume is dedicated to Professor George Papenfuss who was able to obtain funding for the second author to commence the cataloguing of data referring to the macroalgae of the Indian Ocean. After the death of Prof. Papenfuss, Paul Silva assumed the task of doing the nomenclatural checking. The computer age rapidly overtook the original two authors and as a result Richard Moe took on the task of computerising the records. The final publication is a catalogue which in the printed form occupies over 1200 pages. The authors have collected information recorded for the Indian Ocean on the taxonomy, nomenclature and distribution of five classes of marine benthic algae. These records are from literature that is not just taxonomic in nature and consequently the bibliography itself represents a database of the literature concerning the macroalgal ecology, physiology, mariculture of algae from this vast area of the planet.

One of the first problems encountered by the authors was how to define the Indian Ocean; there are so many definitions of the Indian Ocean the authors needed an invariable workable set of boundaries. In this volume the Indian Ocean has been defined as the area bounded by Africa (East coast to Cape Agulhas), the southern Indian Ocean island of St. Paul, the western coastline of Australia from West Cape Howe in the south to Cape Londonderry in the north, through to Indonesia via Timor and the southern coasts of Java and Sumatra to Singapore, along the southern coast of Malaysia to the coastlines delimiting the Bay of Bengal, around India and the coast bordering the Arabian sea to the east coasts of Africa.

The first six pages of the publication give a brief but valuable account of the history of exploration in the Indian Ocean with respect to the macro-algae. For those who would never have the need to consult the body of the text this is a comprehensive coverage of marine exploration and should not be ignored. The names of many of the early collectors of algae in the Indian Ocean will be familiar to higher plant taxonomists working with angiosperms from the Indian Ocean but the information is especially useful to all marine biologists. This is particularly true for the numerous expeditions that traversed the Ocean during the nineteenth century: during this century the expeditions led by Weber (Siboga), Gardiner (Sealark) and land-based collections of the Stephenson's (in Africa) were important and came before the International Indian Ocean Expedition organised by the UN in the 1950's.

There is a section on the scope and format of the catalogue which sets out the organization of each entry in the body of the text. Since this is a catalogue, the information for each entry is primarily nomenclatural, rather than taxonomic. Comments on taxonomic differences that have occurred in the literature are clearly set out. Sometimes taxonomic decisions have been made with which the reader may not agree, but there is no doubt that all the entries are clear, assuming the reader follows the comments through to other citations in the volume.

The systematic catalogue comprises over 70% of the publication. It commences with the Cyanophyceae (pp. 11-78, followed by 7 pages titled 'Reconciliation with Drouetian classification'). The Rhodophyceae follow (pp. 86-558), then the Phaeophyceae (pp. 559-717, the latter page dedicated to a discussion of *Pilinia* Kuetzing and in which class this genus is

placed). The Xanthophyceae (pp. 718-721) are easily missed when skimming through the book; it is followed by the Chlorophyceae (pp. 722-894). Appendix I (pp. 895-909) deals with records from the literature which pertain to taxa recorded only outside the Indian Ocean, e.g. *Adenocystis utricularis sensu* De Toni & Forti from Western Australia and records which are not able to be reconciled with the taxa in the catalogue, e.g. *Callithamnion corymbosum sensu* Murray from Pakistan (p. 897). As with other publications by Paul Silva (Silva et al. 1987) there is an important appendix (pp. 910-937, Appendix II), entitled 'Taxonomic and Nomenclatural Notes'. It is here that explanations can be found as to why certain decisions were made by the authors. I will not list the taxa covered since they are listed in the abstract (p. xvi). Appendix III (pp. 938-940) is a list of all the nomenclatural new combinations in the catalogue. The Bibliography is extensive and includes publications beyond those cited in the catalogue. It occupies 17% of the published pages and is followed by an index. The errata are surprisingly few for such a huge work.

As a daily user of this publication I have very few criticisms of it. There are the usual apparent inconsistencies, e.g., the entry for *Rhabdonia verticillata* Harvey under which the conflict between a Sonder (1880) record and the distribution as published by Womersley (1994) is to be found in the body text (p. 335); yet a similar entry for *Plocamium costatum* (C. Agardh) J. Hooker &

Harvey is found in Appendix I (p. 906). The inconsistencies are few in number and minor in effect. One of the nice things to have as a user is the placement of long-forgotten names close to where the authors think they should reside taxonomically e.g., *Halymenia chondricola* Sonder var. *elongata* Sonder (p. 366). These entries are always accompanied by a statement 'The following taxon apparently lies within the circumscription of [NAME] but had not yet been transferred or reduced to synonymy:'. As I indicated, I use this volume daily and have done so for months and I can testify to the strong binding. Inadequate binding can be a real problem when such a large number of pages are bound as a single volume. A World Wide Web version of the text is available but for me not nearly as useful as the published version. On the Web, I cannot have the entry for a taxon up on the screen and then turn to the Bibliography and search for data while entering the reference I need into my bibliographic database. I cannot take the Web version with me wherever I work even though I have excellent internet access. For those who wish to use the data in this book on an occasional basis the web version may suffice.

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## BRIZA PUBLICATIONS

Briza Publications is a publishing house in South Africa specialising in botanical books. We recently published a comprehensive book on the Mesembryanthemaceae, one of the largest and most beautiful succulent families. The book is called "Mesembs of the World" and was compiled by nine international authors. It describes all 132 genera in the family (408 pages) and illustrates them with more than 600 excellent colour photographs. It also

includes introductory chapters on cultivation, distribution, ecology etc. The price per copy is \$55 (excluding postage). Anyone interested please contact us for more information about the book and prices on specific quantities and postage. Our email is brizapub@tn.co.za

Frits van Oudtshoorn

## Contemporary Plant Systematics. Second edition.

By Dennis W. Woodland.

Andrew University Press, Berrien Springs, Michigan. 1997. xiv+619 pp. + CD-ROM. ISBN 1-883925-14-2. \$85.

This is the last book in this renewed series of reviews, at least for a while. The previous reviews (*A.S.B.S. Newsletter* 93: 53-57; *A.S.B.S. Newsletter* 95: 18-21) considered some books on biological systematics in general, rather than botanical systematics in the strict sense. They were very different from each other in style and content, and this book differs even more from them.

So, this review basically continues the series started in earlier reviews, assessing the ability of the contemporary crop of botanical textbooks to present systematics as an exciting modern science, rather than as simply being a traditional scholarly exercise. The six books that I have reviewed vary widely in intent, including generalist introductory ones, taxonomy-based ones concentrating on the practice, and more systematics-oriented ones focussing on the principles. As an introductory comment, the book by Dennis Woodland fits into the second category, currently occupied by the books by Samuel B. Jones & Arlene E. Luchsinger (*Plant Systematics*, second edition) and Albert E. Radford (*Fundamentals of Plant Systematics*).

Consequently, this is a "scholarly" book, in that it tries to be a formally correct textbook for "the undergraduate student and serious amateur gardener-botanist who has taken at least a beginning biology course". However, the author is at pains to stress that "the field of systematics is ... not static, but dynamic, moving, ever changing. Developments in plant systematics, therefore, warrant a contemporary synthesis of a progressive and exciting field." Unfortunately, the formal textbook nature of the presentation prevents any of this excitement from reaching the reader.

So, the flavour of the book is academic rather than exciting. There are continual references to the "beginning student", but the book is rather intimidatingly thick for a beginner. It is also organized with all of the boring bits of systematics at the beginning — you would need to be interested in systematics already in order to make it very far into this book. Modern teaching has moved away from boring the students into submission, but this book has not moved very far.

The book is organized into 15 logically-arranged chapters, plus three Appendices and a Glossary. The publication quality is generally good, although there are far too many typographical errors for a good textbook. The Index is mainly concerned with plant names, and only selected topics and people are included.

The stated aims of the book are "to (1) teach basic botanical facts as applied to vascular plants, (2) relate these facts to systematic principles, (3) show how systematic principles are important to contemporary botanical and environmental issues from a global perspective, and to (4) allow the student access to digitized color botanical images." The first two of these aims are probably achieved, while the CD addressing the last aim is less successful. However, it is the failure of the third aim that lets the side down.

For example, there is no phylogeny of plants presented, although there are several classification schemes. If contemporary systematics has contributed anything to modern biology it is the explicit approach to phylogenetic analysis, and the emphasis on the role that phylogeny plays in comparative biology. However, you would never learn about this advance from reading this book. In addition, the role played by molecular systematics is underplayed, with only 5 of the 29 references related to that topic being post-1990. The "global view" is also stressed, but it is a rather token effort — the book is very much about North America, with rest-of-the-world asides. For example, Table 5.2 lists the "Largest herbaria in the world" but Table 5.3 also lists the "Largest herbaria in North America", and the list of Floras in Appendix II is arranged by continent, except for North America which is arranged by country and by state within the U.S.A.

The book starts with a brief exposition on The Significance of Systematics (5 pages). This is basically a set of boring definitions, plus some history. Apparently, systematics has only an academic use; and this view is hardly likely to entice anyone to enter this field as a profession. The next chapter concerns How Plants Get Their Names (12 pages), and it provides a very correctly-



worded review of the topic, ultimately making it sound rather uninteresting. Furthermore, some of the information appears to be inaccurate (e.g. "the nomenclatural type of a genus is the species"), and there is no consideration of contemporary topics, such as the proposed Biocode, registration of names, etc.

The Literature of Systematics (14 pages) is basically a commented bibliography of books, which is quite helpful. However, the frequent use of "et al." for multiple the authors is less useful (and this arrangement continues into Appendix I).

The fourth chapter, How Plants are Identified (5 pages), is brief and not particularly good. For example, computerized polyclaves are mentioned but not discussed; and even the concept of each couplet in a key dividing the taxa in equal-sized groups is not suggested. By contrast, the next chapter, on Collecting, Handling, and Preserving Specimens (17 pages), is very detailed, and I get the impression that Woodland is most at home with this sort of topic. We even learn that a fork is a spade!

The next series of chapters concerns Families of Ferns and Their Associated Plants (Pteridophytes) (28 pages), Families of Pinophyta (Gymnosperms) (20 pages), Terminology of Flowering Plants (Magnoliophyta) (34 pages), Families of Flowering Plants I. Magnoliopsida (Dicots) (201 pages), and Families of Flowering Plants II. Liliopsida (Monocots) (47 pages). These chapters contain descriptions of morphology, a suggested classification scheme, and descriptions of key or representative families (usually one family per page, with the exception of the Asteraceae and Poaceae), along with line drawings provided by Anita Riess. If nothing else, this section will convince you that systematics is about memorizing names. It will also convince you that with this level of detail few people can get it correct. Thus we encounter odd errors like "Sydney [is] a city of over 2.5 million people" (this is strictly true, but only in the sense that it is also a city with more than 1 million people, and more than 100,000 people, ...), as well as a reference to the largest eucalypts occurring in southwestern (as opposed to southeastern) Australia. There are also inconsistencies such as illustrated characters that are not defined in the text (e.g. attenuate and clasping leaf bases). More problematically, the 1988 version of Cronquist's classification is used for the flowering plants, but there are inconsistencies between this classification and the descriptions of the families and orders. The distribution of the asterisks supposedly indicating which families are discussed and illustrated is also

very inaccurate (there are at least 10 errors); and the typographical and other errors don't improve the clarity of this section (e.g. what is *Acacia visco?*).

Chapter 11 concerns the History and Development of Classification (35 pages). It covers the early history quite well, but then the "natural" classifications of the 19th century are treated as being phylogenetic, which they couldn't be because the proponents had no method of reconstructing the phylogeny, and the contemporary classification schemes are all seen as minor variants of each other. The discussions of phenetics and cladistics are abysmal, and I won't say anything about them or I will start foaming at the mouth.

The next chapter, Contemporary Views of the Origin of Vascular Plants (17 pages), is good within its limitations, but it is very conservative. For example, it is based very much on fossils but it never quite gets to the work of Doyle and Hickey. Contemporary ideas based on phylogeny are not discussed at all.

The chapter on Contemporary Methods of Studying Plant Systematics (31 pages) is quite variable, because it was written by a range of people. It covers Anatomy (Nels Lersten), Morphology (Rolf Sattler), Molecules (Loren Riesberg), Palynology (Cliff Crompton), and Cytology & Genetics (Woodland). Most of these parts are about characters, but Sattler's is also about theory and processes (as one would expect from his other published work). The part on molecules is very naive (e.g. morphological classifications can be incorrect but classifications based on one gene are not), and the one on pollen is incomprehensible.

The chapter on Endangered and Threatened Species (15 pages) is quite good, but world problems are apparently seen as being caused by increasing population growth *per se* rather than by the consequent increased use of non-renewable resources (the latter case implicates the westernized countries rather than the third-world countries, because the *per capita* use of resources is greater in those countries).

The Role of Botanical Gardens in Society (31 pages) covers the topic well, but there is no clear rationale for including this chapter in the book. It is also contradictory in places regarding which particular gardens were established at what times. The Royal Botanic Gardens Sydney and the Christchurch Botanic Garden are the only Australasian representatives.

The Epilogue (3 pages) concerns itself with The Relevance of Systematics to Society, and Job Opportunities and Qualifications. These are the most enthusiastic parts of the book, but also the most unconvincing.

Appendix I - Selected References (23 pages) reflects the main text itself — where the topic is covered well in the text then the selection of references is well-balanced and helpful, and where the topic is covered poorly then the references are also poor.

Appendix II - Floras of the World (37 pages) could potentially be quite useful, but if the rest of it is as poor as the Australian section then this is a doubtful proposition. For example, there is a reference to the 1972 edition of the *Flora of the Sydney Region*, the *Students Flora of Tasmania* and the *Flora of Victoria* are incomplete, and the *Flora of Central Australia* and the *Flora of South-eastern Queensland* are missing entirely.

Appendix III - Classification of the Division Magnoliophyta (Flowering Plants) (12 pages) is a summary of the 1988 version of Cronquist's classification. It is quite accurate, but the distribution of the asterisks supposedly indicating which families "are discussed and illustrated in the text" is very inaccurate, even more so than the similar arrangement in the main text (there are at least 31 errors here).

The Glossary is mostly good as far as it goes, but it is very biased in its content. For example, it is mainly concerned with morphology, etc. and there is very little about processes. Thus, we have the bizarre situation where the word "repand" is defined but the word "phylogeny" is not. Furthermore, there are some rather odd definitions, such as: "Cladistics — a modern system of classification in which the only groups formally recognized are those that distinguish the group from other groups (called clades)"; I am still at a loss as to how to translate this into English. Finally, "i.e." is used throughout, whereas "e.g." would be more appropriate.

The accompanying CD is a sensible idea that doesn't come off. It is basically a collection of digitized images of plants (primarily by Mike Clayton, Robert Kowal, Elizabeth Parnis, Kenneth Sytsema, and Woodland, with images from the Royal Botanic Gardens Kew provided by Marilyn Ward) designed to complement the descriptions in the text. However, there has apparently been little care and attention to detail in its preparation. So, there are no printed instructions for the disk, and you have to blunder around about a bit on the disk itself in order to find the "electronic" version of the instructions. Furthermore, the catalogue is almost unusable, and finding a particular image is very much a trial-and-error process. There are almost no images from Australia, and those that do exist are mostly from Western Australia (mainly credited to Dennis Woodland himself). The proof-reading is very poor, and mis-spellings abound. For instance, there are pictures of "Austraian fowers" (an *Acacia*), "*C. liioralis*" (= *Casuarina littoralis*), and "*Leschenaultia superloa*" (= *Lechenaultia biloba*). There are also unexplained abbreviations, such as "*B serrata*" (= *Banksia serrata*); and given the technical correctness of the book, the description of Proteaceae follicles as "*B sp cone*" is a let-down. All in all, the CD contributes little to the book.

So, in the final analysis, this is a fairly dry academic book, which is probably quite acceptable as an introductory textbook for botanists in North America, provided that its limitations are acknowledged. However, you will never entice any students from elsewhere in the world into botanical systematics by showing them this book. The wish expressed in the last sentence of the book has not been fulfilled.

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## *Eucalyptus*

### Murray Bail

255 pp, Text Publishing, Melbourne, 1998. \$29.95

No, this is not a revision of the genus but you are more likely to read it right through than such a taxonomic work. Believe it or not, Murray Bail has written a novel in which gum trees—all of them!—feature as a significant part of the story. Holland, a widower, settles with his young daughter, Ellen, on a property in western New South Wales, where he plants every known eucalypt. As Ellen grows into a beautiful woman, Holland (without consulting her) decides that the man who can name every species will win her hand. After many suitors try and fail, Mr Cave appears and steadily moves through the property, naming each species as he goes. Ellen finds him quite unappealing, but during her own wanderings comes across another man (whose reason for being there is not explained). He tells her many stories of other lands and places, then disappears. When it seems certain that Cave will win the contest, Ellen takes to her bed with a wasting illness that no-one can diagnose. Just as her case seems hopeless, the 'other man' reappears. I leave the ending to you to discover.

Murray Bail has clearly gone to some length to know eucalypts, their distribution, and how they are classified, and has woven many facts and anecdotes, not to mention some intriguing ideas, into his novel. The rediscovery of *E. rameliana* gets a mention. And *Corymbia* is there, too (even if described as a family rather than genus) in the form of *C. aparrarinja*—'Isn't that a marriage of the Mafia and the Aboriginal?' There is a bias against wattles here, described as 'a series of pathetic little bushes.'

Because of memories from childhood of burnt sugar, Holland planted, out of sight of the house, 'a Sugar Gum (*Eucalyptus cladocalyx*), when everybody knows the Sugar Gum is central to understanding eucalypts, at least visually.'

When he had difficulty naming a species, Holland had 'to send specimens of fruit and leaves to a world authority in Sydney, and seek a second opinion in other places. No one expert in eucalypts had all the answers. So pale and hypersensitive were these experts, relegated as they were to the backwaters of irrelevant institutions, they replied by return with a helpful vehemence, supplying far too much detail.' If that is an outside view of a herbarium and its occupants we have some educating to do!

A few more quotes:

'Really, what sort of man could go and name all the trees? . . . The sheer number of names shifting about in English and Latin would occupy vital space in a person, space that could be used for other, more natural things . . .'

'Idly, he looked away from the tree in question, a maddeningly non-descript mallee, obstinately modest, one barely surviving—the shrubby *E. fruticosa*, it's easily confused with *E. foecunda*.' . . . certain eucalypts pass before the eyes in such lavish quantities they undergo a sort of optical *browning*, and actually become invisible with ordinariness, as is the fate of weeds and telegraph poles.'

Each chapter is headed with a species name, e.g. *Marginata*, *Racemosa*, *Baileyana*. Sometimes its association with the content is clear, in other cases obscure. The last chapter is *Confluens*.

This is an eminently readable novel, yet challenging to the mind.

Alex George

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# NEWS FROM FASTS

## Presidents Report to Council, 1998

### 1. Introduction

My first twelve months term has been a busy and exciting time. There have been many issues facing Australian science that we have involved ourselves in, and FASTS has become a respected source of opinion on many issues, and is widely reported. We have also lifted our networking capacity with other groups. This sort of collaboration is essential if we are make useful contributions with the limited resources available. We continue to receive excellent press coverage.

I have been invited to give public lectures on aspects of science policy in Adelaide and Brisbane, and have spoken at meetings of a number of Societies, both current members and prospective ones.

### 2. The 1998 Election and Likely Consequences

FASTS did involve itself in the election. We called a meeting of the NTEU, the academies, the CRC Association and the AVCC and assisted coordination and collaboration in the election. The AVCC and NTEU were able to contribute significantly more resources than FASTS and became active in the campaign. We did develop and disseminate our list of questions which received some media coverage. Vice President Jan Thomas was able to make statements at several fora on science and the election.

It is likely that the forum we held at the national Press Club on University Science: Crisis or Crossroads, helped draw the AVCC into the campaign. We never expected to have a big impact on the election, but it was important to try and keep science on the agenda. In the end we contributed to keeping higher education quite high on the agenda.

However we come out of the election with no clear vision of the sort of Australia the Government seeks. All of the discussion has been about how we will be taxed. It is to be hoped that the new Minister will make a commitment to a "knowledge based" society and will try to develop new policies to stimulate innovation.

### 3. Prime Minister's Science, Engineering and Innovation Council

Documents are available on WEB site - <http://www.dist.gov.au/science/pmseic/pmseic.html>

Membership of PMSEIC is important to FASTS in getting us recognised players in the most important science policy forum in the country, one that is the envy of many other countries. We owe a great debt to Retiring Past President Joe Baker for negotiating our membership of this group with the then Minister Peter McGauran.

#### 3.1 Membership

- Prime Minister and 6 key "Science" Ministers
- Presidents 2 Academies, FASTS, AVCC, BCA, Aust Chamber Commerce & Industry
- Chairs ARC & NHMRC
- CEO CSIRO
- Chief Scientist
- 6 Personal members

#### 3.2 Charter

- Advise on important issues of science
- Examine contribution of science to innovation capacity
- Enhance community awareness
- Examine effective use of science resources
- Examine science infrastructure

#### 3.3 PMSEIC Operations

- Meets in full session twice a year
- Standing Committee, without Ministers, meets more often, chaired by Chief Scientist
- Priorities Working Group (ongoing) Chair John Stocker
- Salinity Working Group (reporting Dec 4<sup>th</sup>) Chair Peter Cullen
- Nexus between science & applications (reporting Dec 4<sup>th</sup>) Chair Tim Besley
- Identify opportunities to build vibrant software industry (completed)

### 3.4 PMSEIC - Priorities Working Group

- Considers topics for investigation and reporting to PMSEIC
- Megascience Working Group
- International opportunities for Australia be involved or host. Presently considering two opportunities:
- Global Biodiversity Information System
- Square Kilometre Array
- Consultancy on R&D statistics

### 3.5 PMSEIC Structural Framework of Science To Develop and Maintain a Science Base Appropriate to Australia's Needs:

- Provide a supply of scientific, research, engineering and innovative skills appropriate for Australia's needs and circumstances;
- Add to basic knowledge, particularly of conditions, issues and problems unique or important to Australia;
- Selectively encourage excellent research and researchers;
- Ensure that Australia has access to, and can benefit from, the international stock of basic scientific and engineering knowledge.

#### To Develop Applicable Knowledge:

- Undertake strategic and applied research in response to Australia's needs and circumstances;
- Ensure that Australia has access to, and can benefit from, the international stock of applicable and strategic research and its outcomes.

#### To Promote Interaction Amongst Providers and Users of Research:

- Commercialise public-sector research;
- Undertake cooperative research across sectoral boundaries;
- Increase the influence of users of public sector research on the funding of, and setting of agendas for, that research.

#### To Stimulate Innovation in Industry:

- Promote the conduct of research, development and innovation in industry;
- Improve access to venture capital to facilitate innovation in small firms;

- Ensure that research, development and innovation contribute to achieving an improved industry structure, and the development of products and services which meet the demands of international market places.

#### To Improve Awareness of Science and Technology:

- Improve science, technology and engineering teaching in schools, and promote the value of innovation;
- Improve scientific, technological and engineering literacy in the community;
- Demonstrate to decision makers in industry the value of science and technology in industrial and economic growth.

### 3.6 Strengths of PMSEIC

- Direct access of scientists to Ministers
- Whole of Government approach- some balance in trade-offs
- Advocates are tested by knowledgeable and sceptical group
- Hopefully educates and enthuses Ministers
- CSIRO and agencies provide excellent support
- Helps set agency agendas

### 4. Networking and Consultations

FASTS is a fascinating organisation. We get major national exposure through the outstanding media relations and management of the Executive Director, Toss Gascoigne. We are sought by the media on most science policy issues.

I have had less success in gaining entry to Ministers than my predecessor, Joe Baker. However I do get to see relevant Ministers regularly, and of course have good formal and informal contacts through PMSEIC. Of particular value is a dinner held the night before each PMSEIC when opportunities for discussions with Ministers abound.

Toss also works hard at gaining access to Ministers, their staff and departmental officials. During the year we have had fruitful discussions with officers of DIST and DEETYA. We are consulted on a range of issues.

What has become apparent to me during my first year is that FASTS has a considerable role as a broker. We are able to bring different groups

together and help form useful alliances. I found it remarkable that we could host a meeting of the AVCC and NTEU on the election and have both agree to share polling and analytical data. Similarly, Toss has played a major role in getting the meeting of State Science agencies to be held in Canberra next week. Toss has been on the planning committee, and I am giving the opening address.

It is apparent we are seen as an honest broker, able to bring players together. We must further develop this capacity.

#### 5. FASTS Policy Development Processes

We do however have some weaknesses that we are addressing, and need to do more on. Our administration and record keeping needs improvement, and the Board has moved to create a position of administrative assistant to help in this area.

I am also concerned about our capacity to develop sophisticated responses to the policy initiatives of others, and to develop innovative policies ourselves. At each Board meeting sector representatives are asked to identify issues of concern to their cluster of members. Frankly, we do not get very useful input from these sessions.

I do not think this is due to apathy. I get a lot of feedback telling us that members like what FASTS does. What we lack is suggestions as to what FASTS should do and ideas on how to do it. We need to explore this issue and find ways of including member societies more in the policy development process.

The Board will consider developing the present Policy Committee that is chaired by Ken Baldwin into more of a standing committee with potential to coopt members as needs be.

#### 6. Membership

FASTS membership continues to grow around a solid core of societies which have been in the organisation for some time. We have attracted new members and continue to seek other societies to join with us to help lobby the cause of science.

#### 7. Thanks

In conclusion it is important that I pay tribute to the contributions of retiring office bearers. Dr Joe Baker steps down as Immediate Past President. He has made an outstanding contribution to FASTS in gaining us respectability and building on the great foundations of Graham Johnston before him. As well as that, Joe has given me great counsel on many matters and his experience and wisdom will be missed by me and by FASTS. Chris Easton has also advised that he will be stepping down from the office of Secretary. Again I must thank Chris for the work he has put into FASTS and his wise counsel over my term as President.

Retiring Board members Geoff Hudson, Jaan Oitmas and Craig Johnston have all contributed through the Board to the ongoing development of FASTS. Graham Johnston continues to give us great service by maintaining the Web site.

### **Presidents Address to Council, 1998**

#### 1. The Challenge of Innovation

I have little doubt that the greatest science policy issue facing Australia relates to the commercialisation and uptake of the fruits of science to provide for a better society.

As I said in my address last year:

"Scientists must "add value" to the society in a clear and demonstrable way. We need to articulate the sort of Australia we seek, and how investment in science and technology can help us get there. I believe Australia needs to seek a high technology future, based on our science. We can choose to be part of the

"knowledge" world, or choose to go down the low wage, low skill path. The low path seems favoured by our present mix of policies. If we seek the other direction we will need to shift resources into more knowledge intensive industries."

#### 1.1 International Competition

Most other countries seem well in front of us in thinking through this problem and taking action. In the last 12 months President Clinton and UK Prime Minister Tony Blair have both written editorials in the prestigious "Science" announcing significant funding increases to science. The French Minister for National Education, Research and Technology has released a blueprint for science education in

France looking to lift international competitiveness and boost funding.

### 1.2 Building alliances for Lobbying

Early in my term there was intense lobbying by the CRCs and their supporters as the CRC program went before the expenditure review committee, and treasury and others sought to liberate the funds for other purposes. The CRCs are no slouches at public communication and committed real resources to this issue. FASTS also was active. All the conventional things were done including media, letters to and meetings with politicians, and seeking support from other interest groups. This was all carried out professionally and well. But the real powers behind the CRC lobbying were the industry partners who expressed very strong support for what they saw as the benefits to industry of the program. They also used their political networks, which are different to those used by the science lobby.

The success of this campaign is now well known. The Government announced its ongoing support for the CRC program about a month before the budget was announced.

There is a lesson in this. Scientists can push for budget support on all manners of grounds from the aesthetics of science to the utilitarian of a cancer cure. Yet industry pull seems to be a more powerful tool in moving Governments. When both are aligned and giving Governments the same message, then the pressure on politicians becomes intense.

### 1.3 Some Challenges of Innovation

There are many aspects to innovation, and many reports have been written. Four fundamental issues are:

- ⊙ Do we have the rights sorts of industries?
- ⊙ Picking winners and losers
- ⊙ How do we stimulate knowledge-based industry?
- ⊙ How do we get effective brokerage of ideas across the present chasm?

#### *The Right Industries*

The low Australian business expenditure has been a concern for some time. Marceau argues that this is due to the mix of Australian industry which causes us to have low investment by Business in R&D. Our agricultural and mining industries do in fact invest in and use S&T for international competitive advantage. But many of our emerging areas of employment are related to services like pizza delivery where the advantages of research are less apparent.

If this is true, then berating existing industry, developing innovation packages or bribing industry with generous tax concessions may not be effective. Unless industry can see clear competitive advantage, in a realistic time frame, it may be sensible for them to be followers.

Jurisdictions undertaking audits of S&T capacity may do well to include an assessment of the capacity of their industry base to benefit from S&T investment.

#### *Picking Winners and Losers*

It is an industry mantra that Governments cannot pick winners, and that this must be left to the private sector. Yet business and competition have not done very well, and have certainly not been prepared to invest in the way their more enlightened colleagues in other countries have been.

If Marceau is correct in her assessment that the existing industries are a key part of the problem, then it is hardly a surprise that they exhort Governments not to pick winners. Their solution is to give generous tax concessions to all.

The reduction of the tax concession for research in Australia led to a marked drop in reported research in the finance industries, with so far only a minor drop in industry research. This might be a function of lag times, or evidence that "bench based" R&D is not so sensitive to the tax deductions. It is also interesting to speculate whether the finance houses have stopped doing their "research" or whether they just can't see much point in reporting it.

What seems clear is that existing or struggling industries do have the ear of governments. If our industry mix is inappropriate for the future we desire, then who lobbies for the new "knowledge-intensive" companies that do not have advocates in Canberra, or the ability to lobby local members?

Governments have been selecting thematic areas of research for a long time. We have invested heavily in agricultural research and the minerals area. The pressures are to move research priority from these areas towards emerging areas, such as information technology, environment, materials, energy, health and so on. Governments lack an effective bargaining arena for such cross-portfolio choices, and established areas have large and powerful bureaucracies as well as industries fighting for them in a way emerging industries do not. While it is clear that governments are not well equipped to "pick winners" at the project level, it is less clear

that standing back and allowing future investment to be driven by past infrastructure is a very smart response.

#### *Stimulating Knowledge-Based Industries*

If we are to build companies that use science to develop products and services that the world needs and will pay a premium for, then we need to look at the financial and taxation environment of these companies. Our science is demonstrably good enough. We are failing at the innovation process and in enabling knowledge based companies to stay Australian and to grow their businesses here. The departure of high technology Memtec for the USA suggests we must ask why we cannot provide a competitive business environment in Australia for such firms.

Perhaps these emerging knowledge intensive companies do not even care much if the Australian policy settings are wrong. They are highly desirable international properties and can move to the country that most favours their development.

The Australian Business Foundation report "The High Road or the Low Road: Alternatives for Australia's Future" suggests that Australia, almost alone amongst developed countries, is failing to shift resources into more knowledge intensive industries. Governments are responsible for this through their direct investment and through the financial and taxation environment they provide for industry.

The report identifies a number of strategies for a Government interested in pursuing the high technology, high knowledge route, one of which is sustained investment in education and research, as well as paying real attention to the innovation process. A number of our competitor countries have chosen these strategies.

#### *How do we get effective brokerage of ideas across the present chasm?*

There is no doubt a major gap in culture exists between the producers of knowledge in our research establishments and the users of knowledge in industry and in Government. There are a few individuals who can bridge the chasm; most players simply do not even understand the language of the other.

Exhorting scientists to learn more about innovation and industry, and imploring Boards to have at least one member who can spell science are useful, but minor steps. The survey you will hear about after lunch highlights some deep seated cultural barriers that need to be acknowledged and confronted.

## 2 Science in the Universities

FASTS held a most successful one day forum on University Science: Crisis or Crossroads. The forum achieved national publicity and helped focus attention on these problems. Jan Thomas took the lead in organising this outstanding event.

The Federal Governments slash and burn approach to Higher Education is reducing our capacity to undertake fundamental research in the Universities, with a marked swing to strategic and tactical research that can be supported by industry. The CRC program is one spectacularly successful program of industry-research linkage which is attracting international attention. Niland (1998) suggests that this decline in basic sciences is a national disaster and should be urgently addressed by Governments.

Surveys of staff show that morale has collapsed. The lack of resources, increasing work loads, lack of recognition and the almost constant re-organisation have taken a toll and individuals are reacting in a variety of predictable ways. It is clear we are failing to renew the academic talent base. It is also clear that many academics close to retiring age can hang in and perhaps disengage.

International comparisons show that even in our larger well funded Universities we are spending only about 70% per student on higher education than is spent by comparable institutions in comparable countries (Niland, 1998). This sort of information does not support the Government's view that the University sector is inefficient and needs to be further squeezed. Diversity would be seen by some as strength, yet Minister Kemp sees it as inefficiency.

Unfortunately the West report chose not to argue for increased Government spending based on such international comparisons, but sought to transfer more of the cost burden to students.

Courses that are expensive, and where student demand, especially from fee-paying students, is soft, are obvious targets. Monash, which has an international reputation in science, has just cut science by 9%. It is not easy to get facts on these issues. Overall the dip in science enrolments is probably not great; the problem is that sharp drops in basic disciplines like chemistry, physics and mathematics are hidden by rises in applied sciences. The Deans of Science are undertaking a project to



improve the basis of application, enrolment and completion statistics.

### 3 Employment of Young Scientists

The FASTS workshop and resulting publication helped focus attention on the plight of postgraduate

students who have bleak career prospects in many fields. There are things we need to do in curriculum to help make these people more employable. We also need to be realistic in the advice we give to such students about likely career prospects. Hopefully FASTS has helped put these items on the agenda.

## Media release from FASTS, 1<sup>st</sup> December 1998

### FASTS on ARC Grants

Australia's peak council for scientists and technologists today (Tuesday) welcomed a slight increase in the proportion of successful applications for research grants from the Australian Research Council, from 19.6 per cent to 20.7 per cent.

Professor Peter Cullen, President of the Federation of Australian Scientific and Technological Societies (FASTS), also welcomed the Government's commitment to the knowledge-based economy.

"Research is the driver of economic growth in Australia, and I am encouraged by the Minister's statement that support of research funding is a priority for Government," he said.

"But Australians need to look at funding going to high-quality research in a new way. It should be regarded as an investment, not a drain on the public purse."

Professor Cullen said that he was concerned that applications for large grants dropped by seven per cent this year. While success rates are up, the size of the average grant has fallen by about \$2000 over last year's.

"The Government needs to lift its investment in Australian science if it is genuinely committed to promoting excellence in research and research training," he said.

Professor Cullen noted a strong increase in the number of applications for SPIRT grants, with new applications up by almost 15 per cent.

"This increase shows a strong commitment by industry, and there is a clear case for extending the funding of this successful cooperative effort between Government and industry."

Professor Cullen said that the scientific community supported the existing methods of selecting which science projects should be funded, even if the process needed a little fine-tuning to make it work better.

"It's very important that we preserve the international standing of our science by using a competitive, peer-reviewed process to select the best and most promising projects."

### FASTS chooses next president

Professor Sue Serjeantson of the Australian National University is to be the next President of Australia's peak council for scientists and technologists.

Professor Serjeantson will take up her position as President of the Federation of Australian Scientific and Technological Societies (FASTS) in November 1999, at the conclusion of the term of the current President, Professor Peter Cullen.

Professor Cullen said he was delighted Professor Serjeantson was able to accept the position.

"I'm finding it a lively and challenging experience, particularly when it comes to representing 50,000 working scientists and technologists to the Prime Minister's Science, Engineering and Innovation Council," he said.

"There is a new momentum building up in Australia to capture the benefit of the work of our scientists and technologists and FASTS is part of the process."

Sue Serjeantson has wide experience in research and policy, and they will be great assets in these discussions."

Professor Serjeantson will be the eighth President, and the second woman to hold the position. A former Director of the Institute of Advanced Studies and Deputy Vice-Chancellor at the ANU, she is currently a Visiting Fellow at the John Curtin School of Medical Research.

She was elected at the Annual Council meeting of FASTS at the National Press Club.

The full Executive of FASTS is:

**President**

Professor Peter Cullen (CRC Freshwater Ecology, Uni of Canberra)

**President-elect**

Professor Sue Serjeantson (ANU, Canberra)

**Vice-presidents**

Ms Jan Thomas (Victoria University of Technology, Melbourne)  
Dr Bob Carter (James Cook University, Townsville)

**Secretary**

Dr John Rice (Flinders University, Adelaide)

**Treasurer**

Professor Snow Barlow (Bureau of Resource Sciences, Canberra)

## **Copy of the letter FASTS' President Peter Cullen sent to the Minister for Education**

Hon David Kemp MP  
Minister for Education, Youth Affairs and Training  
Parliament House CANBERRA ACT  
Fax 6273 4117

Dear Minister

Future of the Australian Research Council

The Council of the Federation of Australian Scientific and Technological Societies (FASTS) expressed deep concern at its Annual Council meeting in Canberra last week about rumoured changes to the ARC.

I urge you to make a statement committing the Government to maintaining its support for basic research, and committing to stay with the widely accepted international model of independent peer review of competitive grants.

FASTS believes that it is critical that Australia moves towards a knowledge-based economy where we can command a price premium in the global markets for our smart ideas, design and management. All of our understanding of innovation makes it clear that a strong basic research system is one prerequisite to success. Other Governments seem to recognise this with major increases to basic research funding being proposed in the USA, UK and Japan.

Until recently, Australia had an excellent basic research system, and we believe it is other elements of the innovation cycle that have failed. The ARC has made a major contribution to this research system and our international standing.

It is the disciplinary experts who know whether work has already been done or not, whether it is worth doing and whether the methods proposed are likely to lead to a successful outcome. The system is fundamental to all of science. The intense competition for ARC funds over the last decade has ensured that only the very best proposals get funded.

The peer reviewing system used internally within universities is often not as effective or transparent as that used across the broader scientific community on a national basis. Often in-house referees are used who may not be at the cutting edge of the field. University administrators are unlikely to know the cutting-edge external reviewers from whom to seek opinions, and the proponent may be tempted to nominate less well-informed reviewers. We doubt that an internal university reviewing process can meet the standards that have been developed by ARC. We believe scarce basic research funds should be focussed only on the most excellent of proposals. Our universities are now in serious financial difficulties, and quality in some areas is slipping. There is great pressure on Vice-Chancellors to divert block funds to administration, research infrastructure, libraries and other areas. We are concerned that with the changes as mooted the

quantum of funds actually available to support research will be reduced.

It is our view that innovative and insightful ideas should be funded regardless of where in the university system the proponent works. As we understand the proposals, block granting systems would create "minimal research" universities. Excellent ideas from staff at such Universities would have a greatly reduced chance of being funded. It would be hard for these institutions to develop a track record to enable them to lift their standing in the proposed periodic discipline based reviews.

I again urge you to put an end to these damaging and ill-considered ideas which are putting at risk the standard and standing of the Australian basic research system.

Yours sincerely

Peter Cullen  
President

24 November 1998

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(incorporated under the Associations Incorporation Act 1991)  
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Centre for Tropical Agriculture  
PO Box 1054  
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Cheques should be made payable to 'Australian Systematic Botany Society Inc.'

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**AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED**  
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Subscriptions for A.S.B.S. membership for 1999 are due on 1 January, 1999. If you have already paid your subscriptions for 1999, please ignore this pro forma notice. The *Australian Systematic Botany Society Newsletter* will not be sent to unfinancial members. Correspondence concerning membership and subscriptions should be sent to the Treasurer at the address below.

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## A.S.B.S. PUBLICATIONS

### **History of Systematic Botany in Australia**

Edited by P.S. Short. A4, case bound, 326pp. A.S.B.S., 1990. \$10; plus \$10 p. & p.

For all those people interested in the 1988 A.S.B.S. symposium in Melbourne, here are the proceedings. It is a very nicely presented volume, containing 36 papers on: the botanical exploration of our region; the role of horticulturists, collectors and artists in the early documentation of the flora; the renowned (Mueller, Cunningham), and those whose contribution is sometimes overlooked (Buchanan, Wilhelmi).

### **Systematic Status of Large Flowering Plant Genera**

A.S.B.S. Newsletter Number 53, edited by Helen Hewson. 1987. \$5 + \$1.10 postage.

This Newsletter issue includes the reports from the February 1986 Boden Conference on the "Systematic Status of Large Flowering Plant Genera". The reports cover: the genus concept; the role of cladistics in generic delimitation; geographic range and the genus concepts; the value of chemical characters, pollination syndromes, and breeding systems as generic determinants; and generic concepts in the Asteraceae, Chenopodiaceae, Epacridaceae, *Cassia*, *Acacia*, and *Eucalyptus*.

### **Evolution of the Flora and Fauna of Arid Australia**

Edited by W.R. Barker & P.J.M. Greenslade. A.S.B.S. & A.N.Z.A.A.S., 1982. \$20 + \$5 postage.

This collection of more than 40 papers will interest all people concerned with Australia's dry inland, or the evolutionary history of its flora and fauna. It is of value to those studying both arid lands and evolution in general. Six sections cover: ecological and historical background; ecological and reproductive adaptations in plants; vertebrate animals; invertebrate animals; individual plant groups; and concluding remarks.

### **Ecology of the Southern Conifers**

Edited by Neal Enright and Robert Hill.

ASBS members: \$60 plus \$12 p&p non-members \$79.95.

Proceedings of a symposium at the ASBS conference in Hobart in 1993. Twenty-eight scholars from across the hemisphere examine the history and ecology of the southern conifers, and emphasise their importance in understanding the evolution and ecological dynamics of southern vegetation.

### **Australian Systematic Botany Society Newsletter**

Back issues of the Newsletter are available from Number 27 (May 1981) onwards, excluding Numbers 29 and 31. Here is the chance to complete your set. Cover prices are \$3.50 (Numbers 27-59, excluding Number 53) and \$5.00 (Number 53, and 60 onwards). Postage \$1.10 per issue.

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Please inform us of any changes or additions.

newsletter 95 (June 1998)

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# AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED

## The Society

The Australian Systematic Botany Society is an incorporated 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. Membership entitles the member to attend general meetings and chapter meetings, and to receive the *Newsletter*. Any person may apply for membership by filling in a "Membership Application" form and forwarding it, with the appropriate subscription, to the treasurer. Subscriptions become due on January 1 each year.

## The Newsletter

The *Newsletter* appears quarterly, 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 published pages in length) will be considered.

Contributions should be sent to the editor at the address given below. They should preferably be submitted as: - an unformatted word-processor file on an MS-DOS or Macintosh diskette (Microsoft Word 6 or an earlier version is preferred), accompanied by a printed copy; as an email message or attachment, accompanied by a fax message reporting the sending of the file; or as two typed copies.

The deadline for contributions is the last day of February, May, August and November.

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## Notes

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CONTENTS

<b>Editorial</b> .....	1
<b>President's Report</b> .....	1
<b>ASBS Inc Business</b>	
Life membership of the Australian Systematic Botany Society .....	2
Minutes of the 20 <sup>th</sup> AGM .....	3
Treasurer's report .....	5
Financial report .....	7
Newsletter editor's report .....	10
1998 subscriptions .....	11
Hansjörg Eichler Research Fund Awards 1998 .....	11
Request for material .....	11
<b>ABRS Report</b> .....	13
<b>ABLO Report</b> .....	22
<b>Obituaries</b>	
A personal tribute to Emeritus Professor Noel Charles William Beadle .....	24
Lindsay Dixon Pryor (1915-1998) .....	25
<b>Articles</b>	
Phylogeny, biogeography and pollination ecology in <i>Stylidium</i> section <i>Stylidium</i> .....	26
Our beginning .....	27
<b>Subscription to CSIRO Journals</b> .....	27
<b>Book Reviews</b>	
Catalogue of the Benthic Marine Algae of the Indian Ocean .....	28
Contemporary Plant Systematics .....	30
<i>Eucalyptus</i> .....	33
<b>News from FASTS</b>	
Presidents report to Council .....	34
Presidents address to Council .....	36
FASTS on ARC grants .....	39
FASTS chooses next President .....	39
Letter to the Minister for Education .....	40