ASBS

Australian Systematic Botany Society

Newsletter

No. 93 DECEMBER 1997
Price: $5.00

Registered by Australia Post
Print Post Publication Number. PP 545545 - 0055

ISSN 1034-1218

AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED

Office Bearers

Affiliate Society

Papua New Guinea Botanical Society

ASBS Web site: http://155.187.10.12/asbs/asbs.html

PRESIDENT'S REPORT

[Essentially as delivered at the 15th Annual General Meeting in Adelaide]

Council

You have a very active council working on your behalf. In particular, John Clarkson as treasurer has invested an extraordinary amount of time and effort into our finances. The result is a diverse and secure range of investments as he explains elsewhere.

John has also chased lapsed subscriptions and worked tirelessly on those day-to-day activities that keep the society alive and kicking. I would like also to mention Robyn Barker who has not only worked energetically (with the entire organizing committee) to bring us the Adelaide conference, but has assisted John and I in administering the society through some testing issues. It is a reflection on the quality of the council (and our Public Officer, Andrew Lyne) that all problems have been resolved without so much as a tremor in the society. I'd like to give special thanks too to the Newsletter editors, particularly Philip Short over the last year, for continuing to produce timely and enticing newsletters. I have no doubt Bob Hill will only enhance this tradition.

Chapters

I have been pleased to see some chapters responding to my call for regional activity in the society. Many conveners have assisted John Clarkson in chasing up members whose subscriptions have inadvertently lapsed. I have begun to use conveners as a way of distributing information electronically in between newsletters and meetings. Not all ASBS members are hooked to the net and conveners act as practical points of distribution. It means more work for conveners but it also means a more active and more informed society. The chapters have an important role in the discussion and resolution of issues. If your chapter is not responding to your needs, please contact the convener and if possible offer to help.

Highlights

Other highlights of the year include the selection of the first recipients of the Hansjörg Eichler Research Fund awards; the planning, organising and successful execution of ASBS conferences; and the re-examination of our roles and functions brought about by the establishment of the Society of Australian Systematic Biologists. The various discussions I have had with members about the new society have illustrated to me the strength of ASBS. Whether these members wanted to stand alone or to merge, they all felt that ASBS had a lot to offer its members as well as any fledgling society. The debate has been tough but the focus has always been on the betterment of plant systematics in Australia. Personally I think such debates are healthy and invigorating for the society. No matter what the final outcome, questioning our role and functions can only lead to good. I don't see them as divisive. What I see as divisive are apathy or conspiracy behind closed doors. As I have said all along, I will represent what the council perceives to be the desires of the membership. I will do so responsibly and with due reflection.

Nancy T. Burbidge Medal

Finally, a new initiative of the council. I'm happy to announce the establishment of the Nancy T. Burbidge Medal to honour an ASBS member who makes a long-standing and significant contribution to Australian systematic botany. The Nancy T. Burbidge Memorial Lecture will be delivered in response to being awarded the medal. As has been done previously for the lecture, the local organising committee for the annual conference will a make a recommendation to the ASBS council. The medal need not be awarded every year. The first medal will be presented in 1999.

The future

It is surely a sign of the society's maturity that we now have three ways of recognizing excellence: the Hansjörg Eichler Research Fund for students and newly established botanists; the Nancy T. Burbidge Medal for long-standing and significant contributions to Australian systematic botany; and (when ratified) honorary life membership for outstanding contributions to the society. Looking outwardly, we need to address the issues raised at the Future of Systematics Forum. Some of these will be the responsibility of myself and ASBS (strategic letters, meeting with the minister, collaborating with other societies). Others require each member to do what they can to enhance the profile of systematics. I've pontificated on this topic before, but we all need to take responsibility for 'selling' systematics in our own institutions and to various levels of government. It is important too that we look at small scale and innovative solutions to funding and pursuing systematics research, rather than relying on some 'big solution'. As Hugh Possingham stressed in his opening address to the conference, we must be positive and passionate about systematics, as a society and as individuals.

Tim Entwisle

ASBS INC BUSINESS

1998 SUBSCRIPTIONS

Subscriptions for 1998 are due on 1st January. The rates remain unchanged from last year. A new concessional rate is available to members who are either retired or unemployed. You may have already paid your 1998 subs. Check your mailing label if you are unsure. The rates are:

Institutional	$35.00
Ordinary	$35.00
Full-time students	$15.00
Concessional rate	$15.00

Cheques should be in Australian dollars and payable to: Australian Systematic Botany Society Inc.

HANSJÖRG EICHLER RESEARCH FUND 1997 AWARDS

The six members of the ASBS Council assessed 12 applications for funding through the Hansjörg Eichler Research Fund. The standard of applications was generally very high and four were chosen for support in 1997. The successful applicants were announced at the Annual General Meeting in Adelaide, and each has now received $500.

Congratulations from the Council and members of ASBS to:

Marco Duretto (Royal Botanic Gardens, Melbourne)
Seed testa structure and leaf anatomy of tribes Boronieae and Zanthoxyleae (Rutaceae, subfamily Rutoideae).

Nikolas Lam (University of New South Wales)
Reassessment of *Baeckea s.l.* using molecular data.

Bernard Pfeil (University of Sydney)
The systematic and phylogenetic implications of trichome variation in subgenus monocalyptus.

Elisa Raulings (The University of Melbourne)
Phylogeny, biogeography and pollination ecology in eastern Australian *Stylidium*.

The grants awarded this year reflect the focus of the Fund – assisting research by graduate and post-graduate students, and newly established botanists. If you fall into any of these categories I encourage you to apply for funding in the next round (due to be advertised early next year). The vice-president of ASBS, Chris Puttock, will be responsible for coordinating the 1998 grants.

As announced at the AGM, Mrs Marlies Eichler has made a further donation of $10,000 to the fund, and we once again thank her for her generosity and continuing support of the society.

Tim Entwisle

MINUTES OF THE 19TH ANNUAL GENERAL MEETING OF THE AUSTRALIAN SYSTEMATIC BOTANY SOCIETY

Held in the Bragg Lecture Theatre, University of Adelaide on Wednesday 1st October, 1997.

Meeting opened at 4.55 pm.

The President welcomed the 46 members in attendance.

Apologies
Andrew Drinnan

Minutes of 18th Annual General Meeting in Melbourne, 2 October 1996
It was proposed that the minutes of the 18th Annual General Meeting (as published in the *Australian Systematic Botany Society Newsletter* 89: 3–5) be accepted. Proposed: Karen Wilson, seconded: David Morrison. Carried.

Presidents Report (Tim Entwisle)
See page 1 of this Newsletter.

Treasurer's Report
John Clarkson tabled the treasurer's report (see below) and moved that it be accepted. Seconded: Chris Puttock. Motion Carried

Pauline Ladiges raised the subject of fund raising by the Society for the Eichler Research Fund using as an example the successful auctioning of artwork ($15,000) for a University of Melbourne, School of Botany fund. It was felt that tax deductibility would also encourage people to donate to the fund.

A **concessional rate** was proposed for unemployed and retired members.

Motion: That the society extend the current concessional subscription rate afforded to student members to retired or unemployed members. Members paying this reduced fee will remain entitled to the same rights and privileges as Ordinary Members. Proposed: John Clarkson. Seconded: Bob Hill. Motion Carried.

Discussion ensued concerning the number of persons who might qualify for this. It was pointed out that some of these people might be happy to pay the reduced rate of membership and then be encouraged by the tax deductibility to make up the difference by a donation to the Eichler Research Fund. Karen Wilson commented that the cost of the Newsletter should always be covered by the concessional rate. Membership fees should increase regularly in small increments. It needs to be established whether we pay FASTS for concessional members.

The concessional rate will be at the discretion of the Treasurer.

In order to get tax deductibility the society needs to gain **Approved Research Institute Status.** To do this it needs to establish a research committee, establish a separate research fund account, ensure research findings are freely published, ensure any licences and patents are freely available, and nominate where surplus funds will go on dissolution of the Society. All of these conditions have been met with the exception of the dissolution clause.

Motion: On dissolution or completion of the winding up of the Society any surplus property of the Society shall, subject to any trust affecting the property or part of it, be vested in the Linnean Society of New South Wales. Proposed: John Clarkson. Seconded: Gwen Harden.

Discussion followed as to whether it was possible to ensure that the Eichler award retain its name in the event of dissolution. After much discussion the following motion was put.

Motion: That the ASBS Council enter into discussion with the Linnean Society of New South Wales to ensure that money from the Eichler Research Fund be transferred to an appropriate research fund to be established in the event of the dissolution of ASBS. Proposed: Pauline Ladiges. Seconded: Petrus Heyligers. Motion carried.

Some minor changes to the Constitution are required to satisfy the Australian Taxation Office's requirements for tax deductibility. John Clarkson presented these for comment and will progress the matter.

A motion was put from the floor that there be a vote of appreciation to Marlies Eichler.
Motion: In acknowledging her major contributions to Australian systematic botany and ASBS in the memory of Hansjörg Eichler, this meeting expresses its great appreciation for Marlies Eichler's substantial donations to the ASBS Eichler Research Fund. Proposed: Bill Barker. Seconded: Barbara Briggs. Unanimously carried.

Thanks and applause for John Clarkson for his sterling effort with ASBS funds.

New Members
The following new members were welcomed to the Society:
Institutional: Royal Tasmanian Botanical Gardens; ***Ordinary:*** Gary Wilson and Neil Snow from Queensland, Randall Bayer and Ian Cresswell form Canberra, Nicole Middleton from Melbourne, Bob Harwood from Darwin and Ilse Breitweiser from New Zealand; ***Student:*** Daniel Murphy, Elisa Raulings, Lynlee Smith and Christina Flann from Melbourne, Scott Gilmore and Jim Mant from Canberra, Richard Barnes and Lisa Schimanski from Hobart and Nikolas Lam and Bernard Pfeil from Sydney.

Newsletter Report
Tabled by the editor Philip Short (see below). A vote of thanks was given to the staff of the Darwin Herbarium for the work done in producing the Newsletter over the past three years. Bob Hill will take over as Newsletter editor with the first issue of 1998. He echoed Philip Short's plea for members to contribute to the Newsletter.

Eichler Research Fund
The first Hansjörg Eichler Research Awards were announced. Tim thanked Marlies Eichler for her continuing support of the Research Fund. He noted that Mrs Eichler was unable to attend the meeting but sent her congratulations to all successful candidates. Twelve applications were received and 4 awards of $500 were made: Marco Duretto (MEL), Nikolas Lam (Uni of New South Wales), Bernard Pfeil (Uni of Sydney) and Elisa Raulings (Uni of Melbourne).
Chris Puttock will coordinate the next round of applications and refine the application and selection process.

Society Meetings

Adelaide 1997
Participants in the Adelaide conference were thanked for their attendance. Travel assistance of $150 each was given to the following student members of the Society, all of whom presented a talk or poster: Christina Flann, Elisa Raulings, Lindy Cayzer, Ian Thompson, Dan Murphy, Lisa

Schimanski, Richard Barnes, Rod Jones, Ceri Pearce, Greg Chandler, Simon Gilmore.

Sydney, Monocots II, 1998

Karen Wilson reported that the 3rd and Final circular has been released. Information is also on our web site.

1999

This is the year of the 16th International Botanical Congress in St Louis, Missouri (1st-7th August, with the Nomenclature session to be held in the previous week). A proposal had previously been made that ASBS sponsor a HISCOM related symposium, and members of HISCOM who met in the week before the Adelaide conference were keen to be involved. Negotiations to continue.

Alex George has also proposed a meeting for ASBS at Shark Bay in Western Australia in May or preferably, September. This would mark the tercentenary of Dampier's visit to the Western Australian coast. Alex needs an indication of interest to continue planning this.

Response was sought from those members present whether they would be likely to attend either the Missouri or the proposed Shark Bay meeting. Interest in both meetings was high.

Hobart 2000

Bob Hill indicated his interest in holding a joint meeting with the Botanical Society of Korea later in the year. The meeting supported this proposal.

Melbourne, 2001

Mike Crisp and Jim Grimes will be convening an International Legume conference in Melbourne in the last week of June. The meeting supported this proposal.

Society of Australian Systematic Biologists

The main response from ASBS members to the formation of the new society has been coexistence and cooperation. The president recommended that ASBS continues as it is.

Elections

The Council remains the same as the following were elected unopposed:

President: Tim Entwisle
Vice President: Chris Puttock
Treasurer: John Clarkson
Secretary: Robyn Barker
Councillors: Terry Macfarlane & Peter Weston

Life Membership

Meant to be ratified at the last AGM but overlooked. It requires a change in the constitution. It was proposed that the society introduce a new class of membership, honorary life membership, with recipients retaining all the rights of ordinary members. A number of members expressed concern that there should be a limit on the number of awards. After discussion it was suggested by Laurie Haegi that the category be established in the constitution and the details be decided subsequently.

Motion: This meeting approve the category of Life Membership and pass on to Council the responsibility for implementing it. Proposed: Karen Wilson. Seconded: Mike Crisp. Motion Carried.

Meeting closed at 6.15 p.m.

[More details concerning Approved Research Institute Status and Life Membership are outlined below in documents forwarded by John Clarkson subsequent to the meeting.]

NEWSLETTER REPORT

Although the back-cover of the *Newsletter* indicates that editing is shared jointly by the four us (Greg Leach, Clyde Dunlop, Ian Cowie and Philip Short) all six issues since June 1996 (nos. 87–92) have been primarily or only edited by me. On the other hand, packaging of the newsletter for postage is very much a group effort carried out by all herbarium staff and, although I have kept an eye on the final page layout (done with Page Maker), this aspect is carried out by computer operator, Darryl Heatherley.

The *Newsletter* has been edited by DNA staff since issue 81 (December 1994), and for issue 80 the page layout, printing and mailing was also undertaken at Darwin. Just one more issue, number 93 for this December, will be edited at Darwin. As announced by Tim Entwisle in number 92 (September) Bob Hill has undertaken to edit the newsletter next year.

Printing costs and postage expenses for the production of the *Newsletter* are not readily at hand. The quarterly bill for printing is forwarded directly to the treasurer and we seem to take turns in paying for the postage and being reimbursed by John Clarkson.

The success of the *Newsletter* is dependent on contributions. Regrettably, as with many previous editors, I must express disappointment in the lack of copy received. Were it not for regular contributions from the President, the ABLO, Tony Orchard at ABRS, FASTS and a handful of enthusiastic members such as Alex George and David Symon the *Newsletter* would be all but dead. It is a continual source of frustration that members cannot put aside two or three hours a year to pen an article. I had hoped that the 'Plant Notes' and 'Miscellaneous' sections introduced in the March issue would bring in a flood of notes but this was not to be. This is particularly sad as I believe that these sections have the potential to make the *Newsletter* a far more interesting, useful and even entertaining production.

I would also like to see at least three or four book reviews in each issue. This should be easy, particularly if reviews of major revisions or monographs are included. One book crying out for review is the excellent *Gondwanan Heritage: past, present and future of the West Australian Biota* edited by Steve Hopper and others in Perth. As it is essentially the proceedings of an ASBS sponsored conference held in Perth in September 1993 this book should be reviewed in the *Newsletter.*

Some members may believe that it is the job of the editor (or editors) to solicit articles. I don't believe this should be the case and it never has been the case since the *Newsletter* was edited at Darwin. A vibrant society should always have plenty of members who submit articles without coercion. The only exceptions I make are in regard to book reviews, *e.g.* Mike Crisp was asked to, and readily provided, a review of Ridder-Numan's work on *Spatholobus*.

Monthly reports from FASTS are a regular part of the *Newsletter*. I suspect they are rarely read. However, I take the view that as ASBS is a member society which makes a financial contribution to FASTS we should be aware of the activities of the organisation and be in a position to judge whether it is worth our continued support. I have also tended to include monthly reports in their entirety as to edit out large slabs of text may inadvertently lead to false impressions as to the activities of FASTS.

It will have undoubtedly been noted that the *Newsletter* has sometimes been distributed late. Usually this has been the result of actions beyond my control, including a lack of address labels, delays in printing and receipt of late but worthy copy. The June issue was late this year as I wished to include Hal Cogger's letter on the distribution of funds under the ABRS Participatory Grants Program. I believe this was an important letter worth waiting for. It didn't result in any written responses for the September issue of the *Newsletter* but perhaps it played a part in initiating the Tuesday 30 September forum held to discuss the future directions and funding of systematics in Australia.

To help ensure that the December issue arrives this year I again draw attention to the fact that in the September issue I have asked that all contributors submit copy by November 14.

The decision to stop editing the *Newsletter* at Darwin was very much mine. At times, with lack of copy and late arrival of articles, it has been a frustrating task, and indeed this is the main reason why I will no longer be continuing editing after this year. I do hope that more members will take the time to submit articles for the incoming editor.

I should also note that the task of editing is sometimes rewarding and enjoyable. At the very least it does help one keep in touch or correspond with new members.

Finally, I extend my sincere thanks to members who have contributed to the *Newsletter* during my term as editor. Note that the superfluous 'wish to' has been deleted!

Philip Short
9 September 1997
[As tabled at the meeting]

SOCIETY SEEKS APPROVED RESEARCH INSTITUTE STATUS

It has been Council's desire for some time to secure Approved Research Institute (ARI) status for the Society so that donations to the research fund would become tax deductible. To this effect we have had correspondence and telephone discussions with officers from the Australian Taxation Office (ATO) and, as indicated in the Treasurer's report, it is pleasing to be able to report that we are close to getting there. We have met most of the ATO's conditions but there are a number of issues which must be addressed before our application can proceed further.

1. We must establish a research committee of no less than 5 appropriately qualified persons which will be responsible for administering the research fund. Council has resolved that the incumbent members of Council will constitute this committee.

2. We must ensure that all donations are paid into a separate research fund account which is used exclusively for scientific research purposes.

3. We must ensure that the results of the research funded are freely published in the scientific press.

4. All licenses and Australian patents are to be made available to all interested bodies on the same terms.

5. We must provide for distribution of funds in the event of the Society being wound up.

Our constitution will need to be modified to provide for the first four of these. Council has adopted appropriate wording suggested by ATO and will be asking you soon to approve these four additions to the constitution by postal ballot. The numbers refer to relevant sections of the constitution.

1. *The Council shall appoint a Research Committee consisting of not less than 5 persons, a majority of whom shall be persons who are qualified to advise on matters of systematic botany and whose appointments are approved by the CSIRO or such other person who replaces or is substituted for the CSIRO in the definition of an 'approved research institute' in section 73A of the Income Tax Assessment Act.*

2. *There shall be constituted a fund to be known as 'The Hansjörg Eichler Research Fund' into which all gifts on which tax exemption is claimed must be paid and which shall be administered by and at the discretion of the Research Committee referred to in 11(g).*

3. *The Society will make freely available and wherever possible publish the results of scientific research financed from the research fund referred to in 30(2).*

4. *The Society will make available for general use, on the same terms to all interested bodies, licenses for Australian patents issued as a result of research financed from the research fund referred to in 30(2).*

The final requirement does not require a change to our constitution. As it stands the constitution includes a dissolution clause. However, the necessary resolution nominating an association or fund in which to vest any surplus property in event of dissolution of the Society has never been passed by a General Meeting. Because we are seeking ARI status, the nominated organisation must have been accepted as an Approved Research Institute in terms of section 73A of the Income Tax Assessment Act.

The Linnean Society of New South Wales meets this requirement. Founded in 1874, the Linnean Society promotes 'the cultivation and study of the science of natural history in all its branches throughout Australasia and adjacent regions'. One of its research funds is named in honour of Joyce Vickery, one of Australia's leading botanists who spent most of her working career, before and after retirement, at the National Herbarium of New South Wales. The fund provides financial assistance for research projects in the fields of biological and earth sciences. Studies in systematic botany have featured prominently amongst successful grant applications. Council felt that this was an appropriate fund to receive any surplus in the unlikely event of ASBS winding up and proposed a motion to this effect at the Annual General Meeting where it was ratified by the members present. The council of ASBS will enter into discussions with the council of the Linnean Society to ensure that any funds transferred would be used, as far as possible, to promote research in Australian systematic botany.

If you have any questions at all about this process please contact the treasurer.

HONORARY LIFE MEMBERSHIP

The last Annual General Meeting approved in principal the introduction of a new class of membership, Honorary Life member, to recognise persons who have made some outstanding contribution to the Society. As this will require an alteration to the constitution, the Council was given the responsibility of implementing it.

The term 'Honorary' and the ceiling on numbers are deliberately proposed to draw attention to the fact that Life membership is an honour conferred by the Society and not something which can be bought by payment of several years advance subscriptions as happens in some societies. Life members will be exempt from the payment of annual fees but will retain all rights and privileges enjoyed by Ordinary members.

Council proposes to take the opportunity at this time to tidy up the wording of Part II of the constitution which deals with membership matters. A copy of the current constitution can be found on the Society's web page. The new wording is given below. The only substantial changes are 2(1) which sets out clearly the classes of members and 2(6) which deals with the proposed Honorary Life members. Council welcomes any questions or comments on the proposed changes before you are asked to vote some time early next year. Please direct these to Tim Entwisle or John Clarkson.

PART II - MEMBERSHIP

2. Membership qualifications

(1) The Society shall consist of Institutional, Ordinary, Student and Honorary Life members.

(2) All members shall have the same rights and privileges.

(3) Only financial members are qualified to cast valid votes on any Society matter.

(4) Ordinary Members

A person is qualified to be an Ordinary member if

(a) the person is a person referred to in paragrapl 21(2)(a) or (b) of the Act and has not ceased to be a member of the Society at any time after incorporation of the Society under the Act; or

(b) the person -

(i) has been nominated for membership in accordance with subrule 3(1); and

(ii) has been approved for membership of the Society by the Council of the Society.

(5) Student Members

A person is qualified to be a Student member if -

(a) the person satisfies the requirements of subrule 4(a) or (b); and

(b) the person is a bona fide full-time student of a secondary or tertiary educational institution.

(6) Honorary Life Members

(a) Honorary Life membership may be conferred by the Council on any member who has, in the opinion of the Council, made a significant contribution to the Society; provided that

(i) the number of Honorary Life members shall not at any time exceed ten; and

(ii) such membership will not be conferred on more than two persons in any one year.

(b) Honorary Life members shall be exempt from the payment of annual subscriptions.

Note: The Act referred to in 4(a) is the Associations Incorporation Act 1991.

TREASURER'S REPORT

Presented to the Annual General Meeting, Adelaide, 1 Oct 1997

Introduction

With the Society's financial year running from January to December one of the problems facing the Treasurer in presenting the financial statement to the AGM is that so much time has usually passed since the end of the financial year that the figures may not be relevant to the current financial situation. For this reason, while presenting the audited figures for 1996 as required by the constitution, I will also present progressive figures for this year. I feel this may give you a better indication of how the Society is faring financially. There have also been significant changes to the way our finances are structured and I feel that it is important that these are drawn to your attention.

Membership

The current financial membership stands at 271. This is made up as follows:

Gratis	16
Institutional	9
Ordinary	221
Student	25

We closed the last financial year with 201 fully paid up members. The marked decrease in membership over recent years caused Council some concern and prompted us to look for an explanation for the loss of 225 members between 1992 and 1996. We finished 1996 with less than half the members we had in 1992. This trend was not confined to any state in particular but the loss in Western Australia was well above the national average and well below in Queensland. Clearly this situation could not have been allowed to continue. Council, with the help of local chapter convenors, attempted to contact members who had let their membership lapse in the past three years.

We were relieved to discover that in nearly all cases this had nothing to do with any disenchantment with the Society. Most had simply forgotten to renew their subscriptions and lost contact with the Society when the newsletters stopped arriving. You may recall that the Society has a policy of not sending newsletters to members who remain unfinancial by the time the September issue is distributed. This would seem to have been a false economy when not combined with a reminder note posted to these members before withdrawing newsletters. A new method of collecting subscriptions has been put in place. You will receive a notice that subscriptions are due in the December issue of the newsletter. If you do not pay, the mailing label for your March issue will carry a distinctive coloured marker. If you still have not paid within 4 weeks of the March issue being sent out you will be sent a reminder notice. This, combined with your membership

year being printed on the mailing label should help stem further losses.

The Society has now been operating for 23 years. Many members who have been with us since the early years are now reaching retirement age. In looking to their financial situation some find they must let some subscriptions to societies like ASBS lapse. There were pleas from several members for the Society to consider a discounted rate for retirees.

There is also scope to increase the student membership. Council would appreciate the support of those of you attached to tertiary institutes in encouraging your students to consider membership. As membership is a prerequisite for applicants for grants from the Hansjörg Eichler Research Fund and for travel assistance to attend these conferences there are benefits to be gained by students who join.

Income

Not withstanding one extraordinary donation to the Research Fund, the major source of income remains subscriptions. The income for 1996 ($7,005) was $1,383 below the previous year's total of $8,388 and the lowest since 1991. This is purely a reflection of the decreased membership. I am pleased to report that receipts from subscriptions for 1997 are in excess of $10,000, the first time since 1990 that this figure has been exceeded. I expect this to fall back to somewhere around $8,250 next year because this year, in response to the membership drive, many members paid arrears which inflated the figure. Of course with your support this could be offset by an increase in members. Remember we once had a membership in excess of 400.

Many members continue to make small donations to the research fund as they pay their annual subscription. The Society appreciates this support. Council would especially like to acknowledge the very generous donation of $20,000 from Marlies Eichler in memory of her late husband Hansjörg. This follows her earlier donation of $10,000 in 1994. It is upon donations of this sort that successful research funds are built and I hope the students who successfully apply for support over the years recognise this generous support and derive some inspiration from Hansjörg's contribution to Australian botany.

Bank interest earned from general funds totals $1,205 and $1,544 from the research fund. In the current financial climate of falling interest rates we could have expected less next year but Council has restructured the way we manage our finances which should minimise this effect. I will outline this in more detail later.

There is one final figure here which must be explained. You will notice a gross loss recorded for trading in the audited figures for 1996. This will be a one off negative figure and results from a 58% write down in the value of remaining stocks of History Books. A loss results when the difference between the opening value of stock and the closing value is greater than the gross income from sales. I am assured that this is a standard accounting practice. It does not indicate any problems with stock control.

Expenditure

The newsletter is a major recurring expense. The figure given in the audited statement represents the total cost of printing 3 issues (85–87) and the postage for 4 issues (85–88). Each issue costs just under $900 to print and

distribute, about $4.50 per copy. Printing accounts for roughly 80% of this figure. Four issues of the newsletter account for just over half the annual subscription fee paid by an ordinary member.

The conference expenses all relate to the commemorative conferences held in Melbourne last year and comprise a $1,000 cash advance to assist with conference expenses, $450 student assistance and a $200 honorarium paid to Melbourne University's School of Botany Foundation at the request of Pauline Ladiges who delivered the Nancy Burbidge lecture. $1,450 was returned this year from the conference organising committee. In recent years, cash advances to organisers of ASBS conferences have been returned later from conference income and it has not been necessary to subsidise conferences from general funds. Council accepts that this might not always be the case and does not expect conferences to return a profit. In most cases the manner in which the conference proceedings are published determines the final profit or loss.

With the Society's decision to rejoin the Federation of Australian Scientific and Technological Societies (FASTS) we are now liable for an annual subscription fee which currently stands at $4.50 per member. The payment for 1996 was $1,098. FASTS levies its annual fee on membership numbers declared by its member societies about mid year.

The net result for the year was a profit of $22,581. Remember though that this includes Marlies Eichler's donation. Disregarding this, the balance is the sort of modest annual profit a Society such as ours should be aiming for and indicates that the Society is operating within its financial means.

Current assets

We closed the year with a net assets of $83,814. ($78,487 in cash, $2,565 in merchandise and $2,762 in books). Merchandise comprises mugs, windcheaters, scarfs and t-shirts and the Society currently holds stock of 3 books: *History of Systematic Botany in Australasia, Evolution of the Flora and Fauna of Arid Australia, Ecology of the Southern Conifers*

These assets are valued at estimated realisable value. This represents a departure from the adoption of cost valuation in prior years. The first two books were partly funded by a number of members and a cost sharing arrangement on income from sales exists. Some of these articles have been around for a long time and have been selling very slowly. The Society must attempt to recover its outlay by marketing them more actively. We have these items on sale at this conference. I would encourage you to start this process while you are here.

Financial Restructure

I would like now to spend a little time explaining how the monetary side of the Society's assets have been restructured this year. At the last AGM, a number of members questioned whether money held by the Society could be better invested in order to maximise returns particularly money held in the research fund. As the new treasurer, I took this on as a first priority and sought advice from an investment consultant from the Commonwealth Bank. Council was unanimous in its support for the investment strategy proposed. I assure you that it is conservative and the funds are secure. This had nothing to with the treasurer being a canny Scot. No member of Council was keen to be remembered as party to a decision which led to the financial ruin of the Society.

The aim with general funds was to maximise the

returns while leaving sufficient money available at short call to meet the day to day needs of the Society. 62% of money in the general fund lay in the cheque account. $15,000 of this was transferred to a Cash Management Account. These funds are available on 24 hours call and were attracting an annual interest of 5.10% compared to 3.75% in the cheque account. The $10,000 term deposit was retained and rolled over for an additional 12 month term at 6%. The smaller term deposit was increased from $1,400 to $5,000 and invested for a 7 month term at 5.5%. Rather than simply allowing these term deposits to be automatically rolled over for 12 month terms as they mature, I propose reinvesting them at the best rate available at the time. The balance of funds remain in the cheque account. Surplus funds in this account will be transferred to the cash management account at regular intervals. All of this means more work for the treasurer so I hope that those who follow me into the position understand that it had to be done for the financial well being of the Society.

The research fund posed an additional challenge. Not only did it have to generate sufficient income to allow the Society to offer research grants each year but its real value had to be hedged against inflation. The strategy adopted saw the funds split and invested in slightly different ways tailored to these needs. $17,000 (36%) was invested in the Commonwealth Growth Fund. As the name suggests this fund is designed to maximise capital growth in the medium to long term. Interest is paid half yearly and will be automatically reinvested in the fund.

To secure a sufficient income to allow the Society to offer research grants each year, $28,200 (59%) was deposited in the Commonwealth Fixed Interest Fund. This fund's prime objective is to provide a high level of capital stability and an income stream that is consistent with a medium term investment horizon. Income from this fund is paid quarterly into the passbook account and will be used for the annual grants.

The balance of the funds ($2,544) which include the $2,000 set aside for this year's grants were left in the passbook account that will serve as a clearing account.

Council has been attempting to obtain Approved Research Institute Status for the Society. When this is secured, donations of $2 or more to the Research Fund will be tax deductible. The Australian Taxation Office has indicated that some minor modifications are required to the constitution but when these are made approval is virtually assured. The good news is that approval can be back dated to the date when the Society was incorporated and tax deductions claimed retrospectively.

Summary

In summary, I am pleased to report that the Society is in a sound financial situation. We appear to have turned around the membership decline and I am confident we can increase membership particularly student members. For this reason I can see no need at this stage to recommend an increase in the annual subscription fee. Tax deductibility for donations to the research fund appears to be assured and it is rewarding to see the first grants made from the research fund. I am enjoying my role as treasurer.

John Clarkson
Treasurer

AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INC.
FINANCIAL REPORT FOR YEAR ENDING 31ST DECEMBER 1996

TRADING STATEMENT

	December 1995	December 1996	Current Year
INCOME			
Merchandise Sales	87	154	30
History Book Sales	210	674	270
Alpine Australia Books	17	0	Sold Out
Arid Australia Books	41	50	0
Conifer Books	192	144	72
Total	547	**1,022**	372
LESS COST OF GOODS SOLD			
Opening Stock - Merchandise	2,715	2,658	2,565
Opening Stock - Books	5,160	5,949	2,762
Purchases	1,079	0	0
Total A	**8,954**	**8,607**	**5,327**
Closing Stock - Merchandise	2,658	2,565	
Closing Stock - Books	5,949	2,762	
Total B	**8,607**	**5,327**	
A - B	**347**	**3,258**	
GROSS PROFIT (LOSS)	**199**	**(2,258)**	

GROSS PROFIT = Total Income from Sales - (Opening Value + Purchases - Closing Value)

INCOME AND EXPENDITURE STATEMENT

	December 1995	December 1996	Current Year
INCOME			
GROSS PROFIT (LOSS)	199	**(2,258)**	
OTHER INCOME			
Advertising	200	**150**	0
Donation to research fund	145	**20,185**	170

cont.	December 1995	December 1996	Current Year
Interest received			
General Funds			
- Cheque account	311	437	307
- Term deposits	774	768	334
- Cash Management Trust	NA	NA	172
- **Total**	**1,085**	**1,205**	**813**
Research fund			
- Passbook account	771	1,544	434
- Fixed Interest Fund	NA	NA	401
- Growth Fund	NA	NA	253
- **Total**	**771**	**1,544**	**1,088**
Conference registration	3,954	**0**	1,450
Postage recovery	0	**28**	0
Subscriptions to ASBS Inc	8,388	**7,005**	10,030
Balance Kuranda Conference a/c	5,386	**0**	NA
Subscription to CSIRO Journals	2,185	**0**	NA
Sundry Income	0	**53**	0
TOTAL INCOME	**22,313**	**27,912**	**13,209**
EXPENSES			
Arid Book Profit Distribution	7	**0**	0
Auditors Remuneration	300	**339**	300
Bank Charges	41	**45**	22
Conference Expenses	3,596	**1,650**	2,128
Filing Fees	35	**0**	60
General Expenses	0	**37**	23
Newsletter Expenses	4,671	**3,259**	2,540
Postage & Stationary	91	**0**	28
Subscriptions	4,210	**0**	1,098
TOTAL EXPENSES	**12,950**	**5,330**	**6,199**
NET SURPLUS (LOSS)	**9,363**	**22,581**	**7,010**

BALANCE SHEET

	December 1995	December 1996	Current Year
MEMBER'S EQUITY			
Net Surplus (Loss)	9,363	22,581	
Retained surpluses at beginning of financial year	51,870	61,233	83,814
Member's Equity	**61,233**	**83,814**	**##**
CURRENT ASSETS			
Cash - General Account			
- Cheque account	15,541	19,621	6,599
- Term deposit	10,000	10,000	10,000
- Term deposit	1,400	1,400	5,000
- Cash Management account	NA	NA	15,172
- Cash on hand	30	30	0
Total	**26,971**	**31,051**	**36,771**
Cash - Research Fund			
- Passbook Account	25,655	47,436	3,186
- Growth Fund[1]	NA	NA	19,220
- Fixed Interest Fund[2]	NA	NA	28,919
Total	**25,655**	**47,436**	51,325
TOTAL CASH	**52,626**	**78,487**	**88,096**
Inventories			
- Merchandise	2,658	2,565	
- Arid Australia Book	175	175	
- History of Systematic Botany	4,874	1,807	
- Conifer Books	900	780	
TOTAL INVENTORY	**8,607**	**5,327**	
NET ASSETS	**61,233**	**83,814**	

1. 14,895.488 units held @ withdrawal value of $1.290308 per unit. Bought at $1.156264 per unit.
2. 26,266.105 units held @ withdrawal value of $1.100997 per unit. Bought at $1.073627 per unit.

AUDITOR'S REPORT

Scope

We have audited the attached financial report of the Australian Systematic Botany Society Inc., for the year ended 31st December 1996. The association is responsible for the preparation and presentation of the financial report and the information contained therein, and the committee has determined that the accounting policies used are consistent with the financial reporting requirements of the association's constitution and are appropriate to meet the needs of the members. We have conducted an independent audit of the financial report 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 report is 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 1996 and its cash and bank balances as at that date.

Maxwell R. Pegler
M.R. Pegler & Co.

CONFERENCES

SYSTEMATICS. ADVANCING KNOWLEDGE AND CONSERVATION OF AUSTRALIA'S BIODIVERSITY

The meeting was held during the week of 28 September to 3 October, one of the three 'common weeks' in the Australian University calendar: weeks when all the Australian universities have holidays, and during which most of the meetings happen. It was hosted by the State Herbarium of South Australia and the biology departments of the University of Adelaide. Adelaide is a superb conference venue. The University of Adelaide is in the centre of the city, between the Botanical Garden and the CBD, and there are numerous hotels within 10 minutes walk. More importantly, it is 5 minutes walk to Rundle Street, with its numerous outdoor cafes serving excellent food and superb café lattés. That, associated with the good South Australian chardonnays and pinot noirs, leads to much informal communication. The conference covered a wide area, maybe a result of the diverse interests within the Australian biological systematics community.

The first day was devoted to a symposium on software in systematics. The Australians have taken a lead in data-basing their collections, and establishing protocols for allowing data exchange among the various institutions. But now the attention is shifting towards developing descriptive data-bases, largely along the model developed by Watson and Dallwitz. There are already in existence extensive descriptive data bases, and the more recent developments concern software tools to make these data available in a user-friendly fashion, and to link them to images. There is a major drive towards electronic 'books' and at least identification systems, and I think that this may well become popular during the next decade. The talks in this session was associated with demonstrations and further talks in the Ngapartji Cooperative Multimedia Centre in Rundle Street (a sort of email cafe, you can sit on the pavement, surfing the web, drinking beer or sipping a latté).

The second day was centered around conservation and systematics. Most papers ducked the issues, talked about systematics, and commented on the occasional rare species in their groups. The major exceptions were Dan Faith and Peter Cranston. Faith worked further on teasing out the implications and problems with his concepts of phylogenetic diversity. We are looking for a way of comparing and amalgamating measures of phylogenetic, environmental and extinction diversity. Cranston used a series of case studies to indicate the extent to which higher taxa can be used as surrogates for species in assessments of biodiversity. At the other extreme, he reviewed the numerous cases of cryptic species, and their importance. It is evident from these two papers that the traditional emphasis on 'species' is not justified. However, this important implication did not seem to strike home in the audience, and most of the other papers in the session assumed the value of species (as do the giant herbarium data-bases on which so much effort is now being spent!).

Wednesday was biogeography day. We had an excellent review of the Cretaceous to present

changes in the South Australian environments from Neville Alley. Bob Hill delivered a curious paper attempting to interpret how the climatic changes might have affected plants – the climatic changes included disturbance, changes in atmospheric CO_2, soil nutrients and photoperiods. The paper by Pauline Ladiges was excellent, a search for pattern in the complex relationships among the different centres of endemism in the Australian biota. There is an exciting dynamism in the search for methods that will be most sensitive to the historical signal in phylogenetic and biogeographical data, and which will not introduce any artifactual signal. There were several other good papers on this day, some dealing with macrofossils (no microfossil papers!), others with the patterns of disjunctions.

Ecology and systematics were covered on Thursday. It was difficult to detect a theme in the day's proceedings, and I think that this may be due to the absence of a set of central questions in this subject. I started the day with an invited paper on the analyses of adaptations in the Cape Flora, in which I attempted to contrast the homoplasy and homology methods, and to highlight the absence of a rigorous testing protocol. Other papers dealt with using pollinators to define species limits, the affects of different mating strategies in carpenter bees and the evolution of marine angiosperm reproductive features.

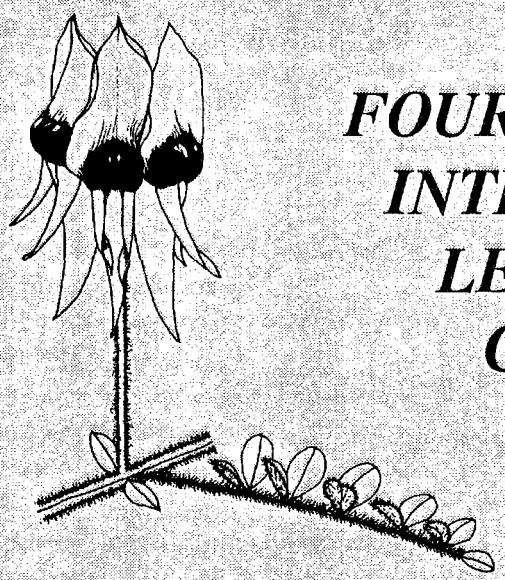
Friday was the day for molecular systematics, and here were a series of excellent papers: from dealing with the logic of various types of analysis of the data, to applied studies within species, to large-scale patterns within the Podocarpaceae or the Asteraceae. Many of the papers also had some cute biological interpretations.

It was a very impressive meeting, for diverse reasons:

1. It was fantastic to have systematists from a broad range of backgrounds, all at the same meeting;
2. The range of subjects covered (software, biogeography, conservation, evolution, molecular phylogenetics, taxonomy) included most of systematics;
3. The environment, with the proximity of the lectures, accommodation, excellent coffee places and superb wine, was very conducive to spending time together and talking;
4. The long lecture slots meant that there was usually enough time to discuss a subject properly.

If this meeting is setting the standard for future meetings of the new Society of Australian Systematic Biologists, then they will surely be worthwhile attending!

Peter Linder
Bolus Herbarium,
University of Cape Town
[Received 14 October]



FOURTH INTERNATIONAL LEGUME CONFERENCE

The Fourth International Legume Conference is to be held at Melbourne University, Australia in 2001 and is provisionally timed for the last week of June.

The organisers, Jim Grimes (RBG Melbourne) and Mike Crisp (Australian National Univiversity, Canberra) wish to solicit ideas for symposia. Currently they are proposing the following topics; Biogeography, Systematics, Development, Genetics and Phytochemistry.

Each symposium will comprise a combination of invited and contributed papers. Poster papers will be accepted. Suggestions for the content and format are encouraged and should be sent to:

Dr J. Grimes
Royal Botanic Gardens Melbourne
Birdwood Avenue
South Yarra
Victoria 3141
AUSTRALIA
jgrimes@rbgmelb.org.au

Dr M. Crisp
Division of Botany and Zoology
Australian National University
ACT 0200
AUSTRALIA
Mike.Crisp@anu.edu.au
http://online.anu.edu.au/BoZo/crisp.html

ARTICLES

ALFRED J. EWART AND 'THE FLORA OF THE NORTHERN TERRITORY'

P. S. Short
Northern Territory Herbarium
P.O. Box 496,
Palmerston, N. T. 0831

In December 1917 *The Flora of the Northern Territory* was published under the authorship of A. J. Ewart and O. B. Davies. The title page also acknowledges the facts that appendices were by J. H. Maiden, A. A. Hamilton and Edwin Cheel and that illustrations were provided by Ethel McLennan, Isabel Cookson, Ellinor Archer and M. Flockton. A brief summation as to why the *Flora* was written and information on the contributors was provided by Ewart in the preface, written in September 1917.

During the last few years a growing interest has been taken in that large area, the Northern Territory of Australia; and questions are continually being raised as to its value for agricultural and pastoral purposes. Some interest may be felt then in the study of the flora of this land, not only as increasing in some degree the study of Systematic Botany, but also as giving some indication as to the fertility of the soil, the moisture conditions, and the fodder or other values of the natural vegetation.
The Commonwealth Government, since taking over the Northern Territory, have carried out a policy of energetically investigating the natural resources of this tract of country.
In addition to the Expedition by Gilruth and Spencer, the Barclay Expedition traversed a large part of the Territory, and Mr. Hill[1]*, the collector attached to the party, made large collections of plants.*
Dr. A. Morrison[2] *was appointed to assist in the work of investigating these collections, and the flora of the Territory generally, and in September, 1913, with Professor Ewart, he published a paper:- "Contributions to the Flora of Australia, No. 21. The Flora of the Northern Territory (Leguminosae)."*
Unfortunately he subsequently became seriously ill, and died towards the end of 1913.
Miss Davies was appointed successor to Dr. Morrison, and began work in February, 1914, continuing to the end of 1916.
Mr. Maiden[3] *undertook the investigation of the Eucalypts and Acacias collected by the Barclay Expedition, and has made a general examination of these genera as represented in the Northern Territory. Mr. Cheel*[4] *has contributed an account of the Myrtaceae, exclusive of Eucalyptus, and Mr. Hamilton*[5] *one of the Cyperaceae. For the sake of uniformity, a general account of these groups is given in the text, and the special accounts by the authors in question are given as appendices at the end of the work. The manuscripts of the Acacias and Eucalyptus, owing to Mr. Maiden's illness, were received too late for the insertion of the additional species in the Keys, and some records of additional species in other groups were also found too late for complete insertion. They are, however, quoted at the end of each genus. For several years the National Herbarium [of Victoria] has kept records of additions to the Flora of the Northern Territory. In Mueller's Census, and for some time*

subsequently, the records were given merely as from N. Australia, which might or might not include the Northern Territory. General records from N. Australia are given separately at the end of each genus. Aid in the identification of a second smaller collection of plants by Hill was given by Mr. J. R. Tovey,[6] of the National Herbarium [of Victoria]. The descriptions and figures for various new species have been made by Miss E. McLennan, B.Sc.,[7] Miss. I. Cookson, B.Sc.,[8] and Miss E. Archer, B.Sc.[9] The large map was prepared by Captain Rossiter. Messrs. Tovey and Audas[10] have assisted in the correction of the proofs.

One particular point of interest is that Ewart stated that the descriptions were not compiled by him. It must be assumed that he was responsible for the initial recognition and the placement of taxa in their respective genus or family but left the more tedious chore of describing taxa to either Davies, or to the various assistants listed. Presumably he pointed out salient features that had to be incorporated in descriptions.

Despite his not compiling the descriptions, Ewart, for the four genera described as new in the *Flora*, is given as the sole author of the name:

Carpentia Ewart in Ewart & Davies, *Flora of the Northern Territory* 227, pl. XX (1917). [= *Cressa* L.]

Rossittia Ewart in Ewart & Davies, *Flora of the Northern Territory* 157, pl. XV (1917). [= *Hibbertia* Andrews].

Setosa Ewart in Ewart & Davies, *Flora of the Northern Territory* 33 (1917). [= *Chamaeraphis* R. Br.]

Spathia Ewart in Ewart & Davies, *Flora of the Northern Territory* 26, pl. I (1917).

For names given to the 26 species and ten infraspecific taxa described in the main text he is always listed as first or as sole author of the name.

The Flora of the Northern Territory received a poor and anonymous review in *The Journal of Botany, British and Foreign*, a journal edited by James Britten and to whom the review should perhaps be credited (Anonymous 1919). The following points were made:

1. Taxa from the Kimberley and not from the Northern Territory are included - this being attributed to Bentham's use of the term 'North Australia' in the *Flora australiensis*.

2. The authors had not had access to the early collections and London 'herbaria contain a large number of records either not known to or noticed by Bentham ... Especially is this the case with Robert Brown's and Allan Cunningham's collections [and] ... access to the types of those collectors would have obviated mistakes into which the compilers could scarcely have fallen had they been more fortunately circumstanced with regard to the old material in question'.

3. The Vienna Laws were not adopted, *e.g.* 'the descriptions throughout are in English only, and are thus, by the Laws, not entitled to recognition'. Cheel's contribution, 'whether regarded from a literary or a botanical stand-point, seems to us equally remarkable'. Much of the criticism seems well-founded.

4. Layout of the book 'is very unsatisfactory: we have seldom seen a volume in which the

arrangement and typography offer so much ground for unfavourable criticism ... the resources of typography have not been utilized'. The 27 plates 'leave a good deal to be desired as to execution'.

The Flora of the Northern Territory, although perhaps with hindsight extremely premature, could have been a most useful work on which future taxonomists could have built. Indeed, Ewart and his colleagues probably should be commended for attempting the work. Regrettably the points made in the anonymous review are generally correct. There really are some remarkable blunders. Of these, two are in regard to the establishment of the monotypic genera *Carpentia* and *Rossittia*. The name *Carpentia* was erected to accommodate a supposed new species, *C. floribunda*, belonging to the Convolvulaceae. The species has proved to be *Cressa cretica*, the Linnaean name for a widespread species and, amazingly, listed in the *Flora* immediately above the description of *Carpentia*. The description of *Rossittia* was a worse blunder. This name was applied to a supposed new species belonging to the Rutaceae. Wilson (1970) has since noted that *R. scabra* is synonymous with *Hibbertia lepidota*, a member of the Dilleniaceae and also separately listed in the *Flora*. At an earlier date the genus *Reesia* was also described by Ewart and placed in the Amaranthaceae, a position maintained in the *Flora* (in which it is only included in the addenda despite apparent publication in 1913). The single species is synonymous with *Polycarpaea longiflora* (Caryophyllacea), a species again already listed in the main text of the *Flora*.

Other unjustifiable errors seem to occur in respect to the erection of the names *Hakea intermedia* Ewart & O. B. Davies and *Scaevola paniculata* Ewart & O. B. Davies. Both are later homonyms, *i.e. Hakea intermedia* Hook. and *Scaevola paniculata* Vriese, which were listed in volumes I & II of *Index Kewensis*, a publication which should have been checked by the authors. However, I hasten to add that I am not conversant with the *Code* of the time.

It must be said that in *The Flora of the Northern Territory* an ability to distinguish good taxa seems to have generally eluded Ewart and his co-authors. Of the 34 specific and infraspecific new taxa described and named in the main text 16 are no longer recognised at any level. Only one of the four genera described is maintained today and only one of two new combinations made in the *Flora* is accepted.

The contributions in the Appendices of *The Flora of the Northern Territory* also require comment. Hamilton's contribution on the Cyperaceae (Appendix I), essentially a listing of species and collections gathered by Hill, Allen and 'Spencer and others' seems generally sound. Cheel's account (Appendix II) of the Myrtaceae, excluding *Eucalyptus*, is somewhat variable. His recognition of the specific status of *Tristania grandiflora* is accepted although the species has since been transferred to the genus *Lophostemon*. On the other hand, the treatment of *Melaleuca*, especially of *Melaleuca leucadendron* (L.) L. *s. lat.* is in keeping with much of this volume in that it has not found favour with later taxonomists (Blake 1968), not to mention the anonymous reviewer(s). In fairness to Cheel this was a particularly difficult complex to attempt to resolve and he was considerably handicapped by not having field knowledge of the plants. Maiden's account of *Eucalyptus* seems reasonably sound for the time, albeit that his *Eucalyptus spenceriana* is now placed in synonymy under *E. tectifica* F.

Muell. His account in Appendix IV of the genus *Acacia* is undoubtedly the best part of the entire *Flora*. Maiden gave an historical account of the discovery and scientific description of the species in the Northern Territory and provided an account of the recent collections, particularly of those gathered by Hill. He described seven new taxa in the work and, although there have been two changes in rank, all are still recognised.

Maiden, as well as contributing to the Appendices, also described, with Ernst Betche,[11] the species *Polycarpaea holtzei* in the main text of the *Flora*.

The quality of Ewart's work in *The Flora of the Northern Territory* was clearly poor, and taking into consideration papers in which taxa from the Northern Territory were described both before and after publication of the *Flora* (Ewart & Morrison 1913; Ewart & Rees 1912, 1913; Ewart & Kerr[12] 1926; Ewart, Kerr & Derrick 1926; Ewart & Petrie 1926) it must again be concluded that Ewart's taxonomic work was mediocre. Including data from the *Flora* and all of the aforementioned papers it is evident that Ewart, either alone or as a co-author, recognised 52 species or infraspecific taxa and of these only 26 are recognised today. Of nine genera described only two are now recognised, and to the list of major blunders must be added the genus *Scorpia*, which was described by Ewart & Petrie in 1926 as being a member of the Leguminosae. *Scorpia simplicifolia* is apparently synonymous with *Corchorus sidioides*, a member of the Tiliaceae. Ewart & Petrie (1926) also described the genus *Wycliffea*, placing it in the Caryophyllaceae and assigning two new species to the genus. Ewart & Jarrett[13] (1927, p.157) subsequently recorded that both species were 'merely highly cleistogamous forms of *Glinus spergula*', now recognised as *G. oppositifolius* and referred to the family Molluginaceae.

Just why Ewart's work, both assorted papers on the N.T. flora as well as *Flora of the Northern Territory*, is presumably a reflection of his non-taxonomic background in botany.

English born, Alfred James Ewart (1872-1937) was a graduate of Liverpool and Leipzig Universities and was later associated with what is now Birmingham University, and the Department of Botany, Oxford. Before coming to Australia he was a demonstrator in botany and also gave special lectures in plant physiology. In 1905 Ewart was appointed to the Chair of Botany at the University of Melbourne. Along with that appointment he also held the position of Government Botanist of Victoria. Until the end of 1920, when the positions were separated, Ewart apparently worked at the National Herbarium of Victoria in the mornings and spent the afternoons at the university. Ewart's professorial reign at the university continued until 1937, when he died in office. During his career he published in excess of 150 publications, about one third of which were concerned with the Australian flora (Hall 1978, Clarke 1990). Publications included *Ewart's Elementary Botany*, *On the Physics and Physiology of Protoplasmic Streaming in Plants*, *The Weeds, Poison Plants and Naturalized Aliens of Victoria*, and in collaboration, *The Flora of Victoria* and *The Flora of the Northern Territory*.

It seems likely that Ewart, in working in many fields of botany, *i.e.* weeds, plant physiology and taxonomic botany, was casting his botanical net too widely to do a competent job, even when he had call on a considerable band

of assistants, including seven Melbourne-based assistants or colleagues who helped with *The Flora of the Northern Territory*. His early training was not, at least at postgraduate level, in taxonomic botany and this undoubtedly explains some of the remarkable taxonomic decisions he made. It may also be that Ewart was perhaps somewhat driven to make a name for himself. He seems to have delighted in having his name attached to new taxa and it would explain the offer to G. F. Hill of extra money for new taxa collected during his trip to north-west Australia.[1]

To lay full responsibility for the problems with *The Flora of the Northern Territory* at Ewart's door may be harsh in view of the fact that he had a co-author, Olive Davies. However, it must be remembered that in regard to the new taxa Ewart was always cited as first author and it was made clear in the introduction to the *Flora* that Davies was employed to replace Morrison who had been 'appointed to *assist* [my emphasis] in the work of investigating' the various collections gathered by Hill and Gilruth & Spencer 'and the flora of the Territory generally'. Davies and others seem undoubtedly to have been responsible for the bulk of the descriptive work but Ewart must take responsibility for the taxonomic decisions.

Acknowledgements

I thank Robyn Barker, Ian Cowie and Clyde Dunlop for their help with this article.

Notes

1. Gerald Freer Hill (1880-1954) was one of the last eminent Australian naturalists. His major research work was a taxonomic study of termites but correspondence with the National Museum of Victoria in 1903 suggests that his earliest interest in natural history was orientated towards mammals. In 1909–1910 he went to north-west Australia where he collected bird skins and eggs for H. L. White and also collected plants for the National Herbarium of Victoria. It is evident from letters housed at MEL that the plant collections gathered on this trip were purchased from Hill at the rate of five shillings per dozen plant species. Ewart informed Hill prior to the expedition that 'For any specimens that proved to be new undescribed species we would pay a bonus of 5/- & for new varieties 1/-' (Short 1990). Following the north-west trip Hill was appointed in 1911 to an expedition under Henry Vere Barclay. The acquisition by MEL of the specimens collected by Hill during the Barclay Expedition was a major justification for the compilation of *The Flora of the Northern Territory*.

2. Alexander Morrison (1849-1913), a Scottish physician and botanist who emigrated to Australia in 1877. Appointed as assistant botanist to Ewart in 1912. For details of his life see Lamond & Bennell (1990).

3. Joseph Henry Maiden (1859-1925), Director of Sydney Botanic Gardens 1896-1924 (Gilbert 1986).

4. Edwin Cheel (1872-1951), gardener at Centennial Park, Sydney before transferring to Royal Botanic Gardens, Sydney in 1901 and appointed as Senior Botanical Assistant in 1913 and in 1914 appointed Curator of the Herbarium (Gilbert 1986).

5. Arthur Andrew Hamilton (1855-1929), in 1911 appointed as Botanical Assistant, Royal Botanic Gardens, Sydney (Gilbert 1986).

6. James Richard Tovey (1873-1922), botanist at the National Herbarium of Victoria.

7. Ethel Irene McLennan (1891-1983), born in

Williamstown, Victoria and graduated University of Melbourne 1914 and appointed as demonstrator-lecturer in 1915. Awarded D.Sc. in 1921 and became Associate Professor in the Botany School in 1931. Lectured in mycology and plant pathology until her retirement in 1955 (Clarke 1990, Pascoe 1990).

8. Isabel Clifton Cookson (1893-1973), a pioneer of palaeobotany and palynology in Australia.

9. Mary Ellinor Lucy Archer.

10. James Wales Clarendon Audas (1872-1959), botanist at National Herbarium of Victoria.

11. Ernst Betche (1851-1913), born in Germany, joined the Royal Botanic Gardens, Sydney in 1891 as a botanical collector. He was subsequently appointed as a botanical assistant (1896) and then as chief botanical assistant (1908). With Charles Moore he co-authored *Handbook of the Flora of New South Wales* (1893) and with J. H. Maiden *Census of New South Wales Plants* (1916) (Hall 1978, Gilbert 1986).

12. Lesley Ruth Kerr (1900-1927), born at Bacchus Marsh, Victoria attended the University of Melbourne and after graduation remained at the Botany School where she worked under Ewart, publishing papers on the lignotubers of eucalypts and on symbiosis of *Loranthus* and *Eucalyptus* (Hall 1978).

13. Phyllis Heather Jarrett, listed in Ewart & Jarrett (1928) as being the Caroline Kaye Scholar in Botany, University of Melbourne.

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A METHOD FOR WET PRESERVATION OF PLANT SPECIMENS

J.R. Clarkson
Queensland Herbarium (Mareeba Office)
PO Box 1054
Mareeba, Qld 4880

A method for wet preserving specimens prior to pressing and drying known as the Schweinfurth method was described by van Steenis in the first volume of *Flora Malesiana* (Ser 1 Vol 1 LIXLXI). The procedure involving the use of galvanised iron tins and bamboo lattices may appear cumbersome and quaint today but it can be readily adapted to modern materials. It is a useful when collecting large numbers of specimens in remote locations where the use of driers is impractical or where the movement of plant specimens could prove a quarantine risk (see elsewhere in this newsletter).

The procedure involves interleaving specimens between sheets of newspaper. These are then bundled together and placed in a large heavy duty plastic bag. If the bundles are large it is often helpful to tie them with string before placing them in the bag. Seventy percent ethanol is then poured into the bag in sufficient quantity to thoroughly soak the papers but not enough to leave free liquid. Methylated spirits is sometimes easier to obtain and can be used in place of ethanol. Van Steenis suggested that the alcohol could be wholly or partly replaced by

formalin but this is not recommended given the health risks now known to be associated with this substance. For other reasons neither is the use of your best malt whisky. Remember to use a soft lead pencil to label specimens and not a biro. While squeezing as much air out as possible, fold the bag shut then seal with masking tape ensuring that there can be no evaporation. The bags can now be stored almost indefinitely before further processing. When time permits and plant driers are available remove the specimens from the bag and press in the normal way. This task is best done in a fume cupboard or in a well ventilated area. When removed from the wet papers the specimens will still be pliable and can be arranged in the press to display desired features. At this stage flowers and/or fruits can also be removed for preservation in spirit.

The method has several advantages:

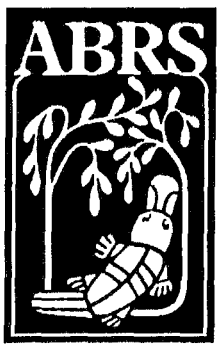
- There is no need to carry heavy or bulky field driers nor supplies of bottled gas.
- Specimens take up less space so large numbers can be carried in a back pack.
- There is no need to set aside time to change papers or to check specimens for mould during the drying process.
- The leaf drop associated with genera such as *Rhizophora* and *Ficus* does not occur.
- Insects and plant pathogens are killed so specimens do not pose a quarantine risk.

There are some disadvantages:

- Most plants will change colour and specimens handled in this way are usually less showy than heat dried specimens.
- Seeds are killed so specimens cannot later provide a source of viable seed.

The method has been used for many years with great success by staff of the Queensland Herbarium, Mareeba and the CSIRO Tropical Forest Research Institute, Atherton. On at least two occasions botanists from these institutions have been forced to walk out of remote camp sites leaving specimens behind when helicopter rendezvous were cancelled because of inclement weather. Specimens prepared in the normal manner would have been abandoned but using this method the specimens were collected at a later date and processed without loss.

ABRS REPORT



Australian Biological Resources Study

STAFF

Mr Ian Cresswell has now been appointed permanently to the position of Director, Flora within ABRS. He comes to ABRS with a diverse botanical background. He has been working with the Department of Environment in Canberra since 1991, firstly with ERIN, before moving to the Reserves System Section of ANCA. His main research interest is in landscape ecology, and in particular vegetation mapping: with Richard Thackway he coordinated the development of the IBRA and IMCRA biogeographic regionalisation systems for Australia.

EDITING IN PROGRESS

The following volumes are almost ready to go to press, each being delayed by non-receipt of one or two contributions:
Flora of Australia Volume 1 Introduction (2nd edn)
Flora of Australia Volume 17 Proteaceae 2
Flora of Australia Volume 48 Ferns, Gymnosperms and their Allies

As a result another volume has been brought forward in the editing process, and is expected to go to press in late November/early December, with publication in early 1998:
Flora of Australia Volume 12 Mimosaceae (excl. Acacia*), Caesalpiniaceae*

The following volumes are well-advanced in the editing process, and should appear during 1998 (roughly in the order listed):
Flora of Australia Volume 39 Alismatales to Arales
Flora of Australia Volume 43 Poaceae 1
Flora of Australia Volume 44 Poaceae 2
Flora of Australia Volume 51 Mosses 1

In addition editing of the following volumes has started and they should also be published during 1998 or early 1999:
Nature's Investigator: The Diary of Robert Brown in Australia 1801–1805
Flora of Australia Volumes 11A & 11B, Acacia 1 & 2.
Fungi of Australia Volume 2B Catalogue and Bibliography of Australian Macrofungi 2

THE ABRS GRANTS PROCESS

Appended to this report is a summary of ABRS Participatory Program Grants approved in this year's round, for payment in calendar 1998. Only those Grants for 'Flora' are listed here, *i.e.* those for vascular and non-vascular plants, algae, fungi and lichens. The full list, including those for 'Fauna', will be published in *Biologue* in January/February 1998.

This year the total amount available for 'Flora'

grants was $643,797, compared with $585,035 in the previous year.

In discussions with various people over the last few months it has become apparent that many do not understand how ABRS is structured, and how the Grants Program, in particular, operates. What follows is a brief overview of ABRS which may help to make the process clearer. A fuller description is being prepared for the ABRS World Wide Web site (http://www.anbg.gov.au/abrs/index.html).

ABRS consists of 2 Sections and a Grants Unit.

ABRS Flora Section is responsible for compilation and publication of *Flora of Australia*, *Fungi of Australia*, the *Flora of Australia Supplementary Series*, and (shortly) the *Algae of Australia* series. There is a Flora Editorial Committee which meets once a year, usually in about September/October, to advise ABRS Flora and the Executive Director, ABRS (Ms Alison Russell French) on matters connected with the above series

ABRS Fauna Section is responsible for compilation and publication of the *Zoological Catalogue of Australia* and *Fauna of Australia* series, and has also produced in recent years the *Platypus* software package and the *Catalogue of Vertebrate Species* database. There is a Fauna Editorial Committee which meets once a year in a similar manner to the Flora Editorial Committee.

The Grants Unit is responsible for administering the Participatory Grants program, issuing the necessary forms, advertising the Research Objectives each year, and organising payments.

Overall advice on ABRS is provided to the Minister for the Environment by the ABRS Advisory Committee, which usually meets twice a year, once in about August to consider Grant applications for the coming year, and again in about November, to discuss general policy matters, and to approve recommendations for the next round of Grants, for advertisement the following February.

How do particular groups get on to the Preferred Objectives? Advertisements calling for applications target two more or less distinct kinds of applications.

The first are called National Objectives, and these are generic topics which arise from Government policy statements identifying areas of taxonomic research that the government of the day wants to see progressed. In the past they have included such topics as rare and endangered taxa, tropical rainforest taxa, and aquatic taxa. It should be noted that applications on these topics are open-ended to a large extent in terms of the taxa eligible for study, but the projects must be taxonomic in character.

The second group of applications called for are those which support the publications program. One of the primary objectives in establishing the Grants program originally was to ensure that research could be encouraged, in a timely manner, in those groups which were to be written up in the main ABRS series. Thus suggestions for Research Objectives to support the publication initiatives arise initially from within the Flora Section and Fauna Section. In the case of 'Flora' projects they come from the Executive Editor, Flora (me), as a result of consideration of the likely progress of individual volumes of the *Flora of Australia*, *Algae of Australia* and *Fungi of Australia* over

the next 5–6 years, and through discussions with a wide range of likely contributors on such matters as the depth and reliability of current knowledge, and the level of support that might be needed to rectify problems in poorly known taxa. This is done in the knowledge that the Grants program will probably never be large enough to fund revisions of all groups prior to writing of the *Flora of Australia* and other series, and compromises will be necessary. These initial suggestions for preferred taxa are taken to the Flora Editorial Committee each year, where they are discussed and frequently modified on the basis of the knowledge and judgement of the committee members. The Editorial Committee sends a recommended list of topics to the ABRS Advisory Committee, who review them again, and sometimes modify them, before they are accepted for publication.

Applications are called for by formal advertisement in February each year, with applications closing on 10 April. All applications received are sent for review to at least two referees, chosen for their knowledge of the subject matter, and all applications are additionally reviewed by members of the Advisory Committee. As a result of the refereeing process, and taking into account advertised Research Objectives and the amount of funding available, the ABRS Advisory Committee recommends a list of grantees and amounts to the Minister for the Environment. It should be stressed that the Advisory Committee acts as an autonomous body in recommending grants, and that ABRS staff are not part of the selection process (other than in supplying advice on request).

Recommendations are finally reviewed by the Minister's office. Letters of offer are distributed as soon as Ministerial approval is received, in this year's case, in early November. 'Flora' Grants offered in recent years have usually contained a condition that the grantee will prepare an account of their group for *Flora of Australia* or other appropriate series.

There are a couple of points that should be made for those who wish to have input to the process outlined above:

1. Topics listed on the Research Objectives for publications in previous years, but not funded, remain 'live' and can compete with current Research Objectives on an equal footing. Sometimes these older subjects are readvertised to provide additional incentive to potential applicants, but this is not necessary for applications to be made. Successful grantees are listed in the *ASBS Newsletter* in December or March each year, and in *Biologue* in about February, so topics which were not funded can be identified. Alternatively, this information can be obtained through discussion with me, or with the Director, Flora.

2. Input to the 'Flora' planning process (for Grants or any other matter) is welcome from any of our stakeholders. Input can be made through three main channels: directly via ABRS staff (particularly through the Director, Flora and the Executive Editor), through the members of the Flora Editorial Committee or through the members of the ABRS Advisory Committee. The committee members, in particular, are intended to be a conduit for opinions and suggestions. The names of the current committee members are listed below, and are updated each year in *Biologue*.

Flora Editorial Committee

Dr Michael Crisp (Chair), Division of Botany &

Zoology, Australian National University, Canberra
Mrs Robyn Barker, c/o State Herbarium of South Australia, Adelaide
Dr John Huisman, Murdoch University, Perth
Dr Gintaras Kantvilas, Tasmanian Herbarium, Hobart
Mr Ian Pascoe, Institute of Horticultural Development, Melbourne
Dr Jim Ross, National Herbarium of Victoria, Melbourne
Mrs Karen Wilson, National Herbarium of New South Wales, Sydney
Mr Ian Cresswell, Director, Flora, ABRS (*ex officio*)
Dr Tony Orchard, Executive Editor, Flora, ABRS (Secretary)

ABRS Advisory Committee
Dr Hal Cogger (Chair), Retired, formerly Australian Museum, Sydney
Dr Gordon Guymer, Queensland Herbarium, Brisbane
Prof. Pauline Ladiges, School of Botany, University of Melbourne, Melbourne
Prof. David Patterson, School of Biological Sciences, University of Sydney, Sydney
Dr Carden Wallace, Museum of Tropical Queensland, Townsville
Dr Judy West, Centre for Plant Biodiversity Research, CSIRO, Canberra
Dr Max Whitten, c/o Food & Agriculture Organisation, The Phillipines
Ms Alison Russell French, Executive Director, ABRS (*ex officio*)
Ms Liz Visher, ABRS Grants Unit (Secretary)

Tony Orchard
Executive Editor, ABRS Flora

ABRS RESEARCH PROJECTS FOR 1998 ('FLORA' ONLY)

* = new projects for 1998

Australian Capital Territory

Australian National University

Michael D. Crisp*
Division of Botany & Zoology
Flora of Australia treatment of Pittosporaceae
$19,000

Michael D. Crisp*
Division of Botany & Zoology
Revision of *Gastrolobium* (Fabaceae)
$6,250

Professor Jack Elix*
School of Chemistry
A Revision of Lichen genus *Buellia* in Australia
$50,000

CSIRO, Division of Plant Industry, Centre for Plant Biodiversity Research

Judith G. West
Revision and *Flora of Australia* Treatment of eastern Australian species of *Pultenaea* (Fabaceae)
$30,000

Unattached

Christopher F. Puttock*

Revision of *Helichrysum* s.l. (remaining taxa and *Chrysocephalum*)
$28,000

New South Wales

NSW Herbarium, Royal Botanic Gardens, Sydney

Peter H. Weston
Taxonomic Revision of *Dillwynia* (Fabaceae: Faboideae: Mirbelieae)
$25,200

University of New England (Department of Botany)

Jeremy J. Bruhl
Systematic Studies in Abildgaardieae (Cyperaceae)
$14,020

University of New South Wales

Bettye J. Rees*
School of Biological Sciences
A Taxonomic Study of the Genus *Gymnopilus* in Australia
$16,000

University of Sydney (School of Biological Sciences)

Professor David J. Patterson*
An Uninterpreted Catalogue and Review of the Autotrophic Euglenids (Protista) of Australian Inland Waters
$25,000

Victoria

Royal Botanic Gardens, Melbourne

Timothy J. Entwisle*
Taxonomic Revision of Zygnemataceae (Chlorophyta) in Australia
$31,000

Institute for Horticultural Development

Vyrna C. Beilharz
Cercosporoid Fungi on Australian Native Plants
$27,120

University of Melbourne (School of Botany)

Gerald T. Kraft
Generic Monographs of Australian Siphonous Green Algae
$17,650

Queensland

Department of Environment, Queensland Herbarium

Gordon Guymer
Revision of 11 Genera of Myrtoideae (Myrtaceae)
$45,420

University of Queensland

Julie A. Phillips
Taxonomic Studies on the Dictyotales (Phaeophyta)
$35,000

Unattached

Anthony M. Young*
Revision of the Hygrophoraceae of Eastern Australia
$30,200

South Australia

Unattached

Robyn M. Barker*
Acanthaceae for *Flora of Australia*
$12,000

Western Australia

University of Western Australia (Department of Botany)

Jennifer A. Chappill*
Department of Botany
Taxonomic Revision of *Gompholobium* Smith and *Sphaerolobium* Smith (Leguminosae)
$17,300

Western Australian Herbarium

Paul G. Wilson*
Some Genera in the Angianthinae Inuleae - Asteraceae
$24,600

Unattached

Kristina L. Lemson*
Flora of Australia Treatments of *Andersonia, Sprengelia, Cosmelia* and *Sphenotoma* (Epacridaceae)
$31,000

Tasmania

Tasmanian Herbarium

Dennis I. Morris/ Winifred Curtis
A Flora of Tasmania (Dicotyledons)
$5,600

Andrew C. Rozefelds*
Systematic Studies in Australian Cunoniaceae
$23,800

New Zealand

Landcare Research, New Zealand

Peter R. Johnston
Rhytismatales of Australia Part 1
$11,000

Victoria University of Wellington (School of Biological Sciences)

Ann E. Bell*
Coprophilous Ascomycetes of Australia
$3,000

Hong Kong

University of Hong Kong (Department of Ecology and Biodiversity)

Kevin D. Hyde
Flora Accounts of the Family Phyllachoraceae
$17,637

Miscellaneous contracts and payments

ABRS contributions towards costs of 1998/99 ABLO: $35,000.

Support of *Flora of Australia*-related loans from major Australian herbaria: $30,000.

Completion of database of marine macro-algal names by John Huisman & Roberta Cowan: $20,000.

Completion of version 1.0 of interactive key to Australian Vascular Plant Families by Laurie Adams & Kevin Thiele: $13,000

INTERNATIONAL ASSOCIATION FOR PLANT TAXONOMY

[The following notice is to be published in Taxon and was forwarded by Karen Wilson who has attached some comments. Eds.]

THE INTERNATIONAL ASSOCIATION FOR PLANT TAXONOMY (IAPT) ANNOUNCES: REGISTRATION OF PLANT NAMES

Test and Trial Phase (1998-1999)

Subject to ratification by the XVI International Botanical Congress (St Louis, 1999) of a rule already included in the *International code of botanical nomenclature* (Art. 32.1-2 of the Tokyo Code), new names of plants and fungi will have to be registered in order to be validly published after the 1st of January 2000. To demonstrate feasibility of a registration system, the International Association for Plant Taxonomy (IAPT) undertakes a trial of registration, on a non-mandatory basis, for a two-years period starting 1 January 1998. The co-ordinating centre will be the Secretariat of IAPT, currently at the Botanic Garden and Botanical Museum Berlin-Dahlem, Germany. Co-ordination with present indexing centres for major groups of plants is being sought, in view of their possible active involvement at the implementation stage. The International Mycological Institute in Egham, U. K., has already accepted to act as associate registration centre for the whole of fungi, including fossil fungi.

Registration procedure

The co-ordinating registration centre (IAPT Secretariat), and any associated centre operating under its auspices, will register and make available all names of new taxa, all new combinations or rank transfers that are brought to their attention in one of the following ways:

- by being published in an accredited journal or serial;
- by being submitted for registration (normally by the author or one of the authors), either directly or through a national registration office; or
- (for the non-mandatory trial phase only) as a result of scanning of other published information by the registration centres' own staff.

Registration by way of publication in accredited journals or serials

For a journal or serial to be accredited, its publishers must commit themselves, by a signed agreement with the IAPT, to

- point out any nomenclatural novelties in each individual issue of their journal or serial, either by including a separate index of novelties or in another suitable, previously agreed way;
- submit each individual issue, as soon as published and by the most rapid way, to a pre-defined registration office or centre.

Accredited journals and serials will be entitled, and even encouraged, to mention that accreditation on their cover, title page or in their impressum.

A permanently updated list of accredited journals and serials is being placed on the World Wide Web (http://www.bgbm.fu-berlin.de/iapt/registration/journals.htm). This list will be published annually in the journal *Taxon*.

Registration by way of submission to registration offices

Authors of botanical nomenclatural novelties that do not appear in an accredited journal or serial (but *e.g.* in a monograph, pamphlet, or non-accredited periodical publication) are strongly encouraged to submit their names for registration – and will be required to do so once registration becomes mandatory – in the following way:

- all names to be registered are to be listed on an appropriate registration form, using a separate form for each separate publication;
- the form (in triplicate) must be submitted together with two copies of the publication itself, either to a national registration office (see below) or, optionally, directly to the appropriate registration centre. Reprints of articles from books or non-accredited periodicals are acceptable, provided their source is stated accurately and in full;
- one dated copy of each form will be sent back to the submitting author in acknowledgement of effected registration.

Registration forms can be obtained free of charge (a) by sending a request to any registration office or centre, by letter, fax or e-mail, or (b), preferably, by printing and copying the form as available on the World Wide Web (http://www.bgbm.fu-berlin.de/iapt/registration/regform.htm).

Registration offices are presently being arranged for in as many different countries as possible. They will serve (a) as mailboxes and forwarding agencies for registration submissions and (b) as national repositories for printed matter in which new names published locally appear.

A permanently updated address list of all functioning national registration offices is being placed on the World Wide Web (http://www.bgbm.fu-berlin.de/iapt/registration/offices.htm). This list will also be published annually in the journal *Taxon*.

Registration date

The date of registration, as here defined, will be the date of receipt of the registration submission at any national registration office or appropriate registration centre. For accredited journals or serials (and, for the duration of the trial phase, for publications scanned at the registration centres), it will be the date of receipt of the publication at the location of the registration centre (or national office, if so agreed).

For the duration of the trial phase, *i.e.* as long as registration is non-mandatory, the date of a name will, just as before, be the date of effective publication of the printed matter in which it is validated, irrespective of the date of registration. Nevertheless, the registration date will be recorded, for the following reasons:

- to make clear that the name was published on or before that date, in cases when the date of effective publication is not specified in the printed matter;
- to assess the time difference between the (effective or stated) date of the printed matter and that of registration, since it is envisaged that the date of registration be accepted as the date of names published on or after 1 January 2000.

It is therefore in the interest of every author to submit nomenclatural novelties for registration without any delay, and by the most rapid means available.

Access to registration data

Information on registered names will be made

publicly available as soon as feasible, (a) by placing them on the World Wide Web without delay in a searchable database (http://www.bgbm.fu-berlin.de/iapt/registration/regdata.htm), (b) by publishing non-cumulative lists biannually, and (c), hopefully, by issuing cumulative updates on a CD-ROM-type, fully searchable data medium at similar intervals.

Liv Borgen, Oslo; ***Werner Greuter***, Berlin; ***David L. Hawksworth***, Egham; ***John McNeill***, Toronto; ***Dan H. Nicolson***, Washington; Officers of the IAPT, c/o Botanbischer Garten & Botanisches Museum Berlin-Dahlem, Koenigin-Luise-Str. 6-8, D-14191 Berlin, Germany.

Registration as a positive step

Registration of nomenclatural novelties seems to me a natural way to go, heading into the 21st Century. It will enable us to find quickly what new names have been published, and to be sure that we have not missed any new name hidden in the paper mountain of botanical literature that comes out each year around the globe. This is particularly important for one-off publications (floras, field guides, etc.), which are notorious for 'hiding' new names.

Some people seem to think that registration implies censorship, but this is wrong. As in the current *Index kewensis* all names will be listed, and without comment as to status, and as soon as received at one of the registration centres. My only caution to those looking at the mechanisms for making registration effective is that they should ensure there is a large network of registration centres or offices spread evenly around the world. This is necessary to make it easy to submit novelties for registration, given the apparently worsening state of mail services in all areas.

Karen L. Wilson
Royal Botanic Gardens,
Mrs Macquaries Road,
Sydney, N.S.W. 2000, Australia

NEWS FROM FASTS

SEPTEMBER CIRCULAR

1. New Minister

The modification of John Moore's ministerial responsibilities to directly include science, technology and industry offers some interesting possibilities for the science and technology community. It gives science and technology a direct voice in Cabinet discussions, a position FASTS has long advocated and specifically recommended to Mr Howard in 1996.

Our view is that S&T are pivotal to a number of the biggest portfolios, such as Education, Environment, Primary Industry, and Telecommunications; and that only a strong direct advocate in the Cabinet room will enable Australia to gain full benefit from the work of its scientists and technologists.

The arrangement should also strengthen the connection between science and technology, and industry. This has been the weak link in Australia – we have many clever ideas, but the role of industry in developing them and bringing them to the benefit of the community has been significantly below standards reached by comparable nations.

The portfolio has been renamed, from Industry Science and Tourism, to Industry Science and Technology. This seems a much more logical arrangement by any measure.

The downside is that we have lost an enthusiastic and accessible Minister in Peter McGauran, at a crucial time for science and technology and for its interface with industry. His departure threatened to set back the process of developing new and better policies in science, technology and industry, and consideration of several major reports, including the Mortimer Report, the Stocker Review, and the Goldsworthy Report. Minister McGauran had also been a strong supporter of the Marine Science and Technology Plan, and it will be important to maintain the momentum of this initiative.

By selecting Minister Moore to fill the gap, the Government has found a neat solution to the changeover problem as well as boosting the presence of science and technology in major Cabinet discussions. It remains now to be seen how responsive the Minister is to the policies and ideas formulated by grassroots scientists and technologists. We hope to be able to address him directly on issues of interest to members at the FASTS' Council meeting in November, as well as meeting with him before that date.

2. CRC Inquiry

DIST has invited FASTS to make a submission to the inquiry being conducted jointly by DIST and the Department of Finance. The review will make recommendations on ways the CRCs and the CRC Program can be refocussed to become stronger commercial entities, by attracting private sector financing and reducing the call on public sector funding. Submissions have to be lodged by 31 October, and the review is scheduled to be delivered to Government by 30 December. Peter Cullen is a logical leader to draft the FASTS' submission.

We would welcome ideas from Member Societies. Please send them to the FASTS office: fasts@anu.edu.au.

This fits the Budget timetable, and it seems that the future of the CRC Program will be dertermined in the Budget to be brought down on May 12 next year. This means that decisions will be made in November-December this year.

3. FASTS meets David Mortimer

While I was in Italy, President-elect Peter Cullen and Past-President Graham Johnston met David Mortimer to discuss FASTS concerns about his report "Going for Growth". FASTS' support for trying to increase growth in the Australian economy, and simplifying and focusing assistance to Business was reiterated; as were our concerns about his recommendations on the CRC Program, the R&D Corporations, and external earnings targets for CSIRO, AIMS, ANSTO, and Universities.

4. FASTS' Policy under revision

A revised version of our 20 page Policy Document is set to be released early in the new year, in time to influence Budget deliberations.

The current document was launched shortly after the current Government came to power, and many things have changed in that period. It is time to revise our priorities and look at new opportunities and new areas of concern.

Some things have not changed – the need to fund infrastructure in universities, and the impending shortage of qualified teachers of mathematics and science. Other issues have emerged or gained greater emphasis, such as the difficulties young scientists have in establishing a career in research, the very real threats to the CRC program, and the need to work out the next generation of programs to support industrial R&D.

All Member Societies have been invited to suggest changes (direct to Ken Baldwin, at the ANU: Kenneth.Baldwin@anu.edu.au); and will be given an opportunity to discuss the draft policy at Council on November 20.

Members will have several opportunities to comment: when the new draft is posted on the FASTS' web before Council, and after Council when the modified draft will be available for comment.

5. PMSEC

The next PMSEC meeting has the tentative title of "Science, engineering and technology for employment". Obviously it will focus on the capacity of S&T to generate jobs.

FASTS suggestions have been incorporated in the program for the day, and I have also been invited to comment on the main document to be presented to the Prime Minister and his colleagues for discussion.

This meeting unfortunately will be closed to the public, so we will not be issuing our usual invitation to FASTS' Members to nominate people to attend.

Peter Cullen will by then have taken over as President, and will represent FASTS at the meeting.

6. Inquiry into Institutes of Technical and Further Education

FASTS has been invited to make a submission to the House of Representatives Standing Committee on Employment, Education and Training on the appropriate roles of institutes of

technical and further education and the extent to which these roles should overlap with universities. Jan Thomas is drafting our submission (JanThomas@VUT.edu.au), and any contributions would need to be sent to her almost immediately.

7. ANZAAS

The news that ANZAAS was moving to close down its operations was extremely disappointing but not altogether unexpected. Their problems were well documented, but perhaps it is still possible to build a new coalition which involves other groups as well as ANZAAS to carry on their work of promoting science and communication among scientists.

The objectives of FASTS include promoting the public understanding of science, and enhancing and facilitating communication in the scientific community. I believe that any proposals for a successor to the ANZAAS Congresses can only succeed if they are solidly supported by the broad science community. While FASTS has yet to take a formal position on the matter, we will be part of any such discussions.

8. ANZAAS Medallist

Congratulations to former President of FASTS Graham Johnston, on being awarded the ANZAAS Medal for 1997 for his contributions to science, in particular to the development of science policy. He is a member of ANZAAS, and has just set up a web site to promote informed discussion on its future. The site already contains press reports from Robyn Williams, Leigh Dayton and Graeme Leech, plus the ANZAAS accounts, a report of the AGM, and the ANZAAS constitution.

The URL of the site is: http://www.usyd.edu.au/su/pharmacology/anzaas

9. Additional Health Research Funds

Board Member David Tracey attended a meeting of the Australian Society for Medical Research (a FASTS' Member) at which the ASMR plans to lobby Government for increased medical research funds were unveiled. The ASMR has employed Protocol Management Group to manage their campaign to increase the health and medical research budget, and calculated they had 143 days to influence the next Budget round.

This is of course a pre-election Budget, when Governments tend to be most receptive. The FASTS' campaign will be built around the revised policy document, and the "Ten Top Policies" as identified by Council and the Board.

10. A rock for each of us

This reminds us all to be conscious of the opportunity in the next two to three months to influence politicians on relevant budget issues. Please let me have your ideas on priority budget ideas prior to or at the Council Meeting on November 20.

Joe Baker
17 October 1997

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MEDIA COVERAGE FOR CONFERENCES

So you want media coverage for your Conference? Funding a bit low? Public interest flagging? Student numbers in your discipline dropping off? Rumblings from funding sources about 'relevance' and 'technology transfer'?

There's a growing realisation among scientists and technologists that a bit of well-timed publicity can be a good thing, for all sorts of reasons. But conferences present a special challenge. For a start, they tend to be big and confusing events, with far too many people and far too much information. The challenge is compounded by the fact that the scientists giving papers are all away from their labs and their field sites, and thus away from a myriad of exciting picture opportunities.

It can be done! All it takes is time, imagination, an understanding of what appeals to the media, and (unless the conference is in do-it-yourself mode) a judicious injection of funds. So here are ten easy, sure-fire ways to guarantee media coverage for your conference!

1. Go through the program, pick out the most interesting and controversial speakers (about five?), and the most interesting and relevant papers. Then write a simple summary of their research and its effects. This should not be longer than half a dozen one or two sentence paragraphs, and should be written strictly in lay terms - no unexplained technicalities, no jargon.

Include contact points for your chosen speakers, and the times they will be available to speak to the media. Include the phone number of a person who can provide more detailed information. Put at an interesting headline at the top, have lots of white space on the page to make it easy to read, embargo the story so it can not be published before the nominated date.

You have now identified 'the talent' for your conference (that's a media term. Could be good talent, could be bad talent).

2. Fax the pages off to journalists who cover this sort of story, a couple of weeks in advance so they can include it in their timetables. You will need to follow the media to identify the appropriate journalists - they could be the science, technology, environment, medical, aviation or financial correspondents, depending on the subject of the conference.

CSIRO has a good list of science and technology journalists, and is willing to make this available.

3. Follow up the fax with a phone call. Did the journalist receive the fax? Does the story interest them? Would they like more information? Offer to re-send the fax if the journalist did not see it - and keep it brief. Journalists are often frantically busy.

Trying to 'bait the hook' by drawing a journalist's attention to one among a blizzard of media releases is VERY EFFECTIVE and well repays the time taken in doing it. In the process the conference organisers gain an insight into what the media thinks are the best stories.

4. Make sure the talent is available! They need to be at the phone numbers you gave to the media, at the times you said they would be available. Think of equipping them with a pager or a mobile phone, so you can locate them easily during the Conference.

5. Media needs pictures, but conferences are visully dull. See if you can organise interviews in an interesting location nearby, such as a laboratory or a research site. Or make available some typical and exciting equipment at the Conference site. This will help TV cameramen and newspaper photographers make a better story.

Or you could provide TV stations with broadcast-quality footage shot on Betacam tape, pictures which are typical and illustrative of the science under discussion. Five minutes is plenty. For television, if there are no pictures, there is no story.

6. Organise the Conference timetable so that the media 'talent' gets to speak earlier in the day – 10 am to 1 pm is ideal, 4.30 pm is deadly. This gives the media enough time to cover the story, so it can appear in that night's TV news or the next day's papers.

7. Prepare a media room. It should be equipped with phones, phone sockets and power points for laptops and modems, free coffee, individual working spaces, and copies of abstracts and papers from the Conference. Make it close to the main Conference room, and provide quiet spaces nearby for interviews.

8. Consider bringing the scientist to the journalist! Run media conferences each day, ideally at the same time, in the same place. Make available one (or more) scientists to speak to the media and answer their questions; and if they present two different sides of the same question, all the better. Media like controversy. Around lunchtime is ideal.

9. Consider giving the 'talent' media training, to learn the ways of the journalist, sharpen up their interview technique, and find out what it is about their story that interests journalists. A month before the Conference takes place is good.

10. These are the basic nine steps to media success. They can all be carried out by gifted amateurs with a feel for the media, but are best done by an experienced jouralist/ communicator. If the Conference budget stretches to it, consider hiring in an expert to do all this for you. A good one will know the ropes, know the journalists, have the time to do all the legwork, and have the networks to ensure that your conference publicity is widely disseminated. Media people can also spot the good stories in your Conference program. That can be hard for scientists – what interests you as a professional will often fail to excite the media.

Don't wait until the last minute – get your expert(s) involved at least a month before the event so they can plan the coverage. Ideally you should involve a media person from the very first stages of planning – their ideas can help shape the conference.

Good communicator/journalists will charge about $600 per day for their help, others will charge less. Like all things in life, you get what you pay for.

Australian Science Communicators (ph/fax 02 6248 5846, ASC@asap.unimelb.edu.au) has a free booklet listing 50 communicators with skills in these areas.

And if all the above looks too hard, just remember that we live in the age of poll-driven governments. They interpret 'leadership' as putting into effect what the community wants, and gather this information by extensive

polling and listening to the John Laws' program.

If S&T does not have public support, then in the long run it will not enjoy the financial backing of the Government.

Toss Gascoigne

OBITUARY

EMERITUS PROFESSOR BRIAN JOHN GRIEVE, 1907–1997

Professor Brian Grieve, affectionately known to most as 'Prof', passed away on Friday, 5th September, 1997. He will be remembered for many things, but particularly for his outstanding contribution to the knowledge and documentation of the Western Australian flora through the monumental series of illustrated handbooks entitled *How to Know Western Australian Wildflower*'. He is survived by two daughters and a son, and ten grandchildren.

Brian John Grieve was born in rural Victoria and received his early education at Williamstown High School where his father was Headmaster. He showed no particular interest in plants until he enrolled at the University of Melbourne, supported by a Teachers College Scholarship but graduated with First Class Honours in Botany in 1929 and gained an MSc there in 1930. Awarded a prestigious 1851 Exhibition Research Scholarship in 1930 for his research on bacterial and viral infections leading to crown gall disease in plants, he then moved to England to undertake further research at the Botany Department, Imperial College of Science and Technology, University of London. Following completion of the PhD Degree and Diploma of Imperial College in 1931, Dr Grieve returned to Australia as Assistant Lecturer in Botany within the University of Melbourne. By the time of his departure for Perth in 1947, his appointment was at the level of Senior Lecturer. This period at Melbourne included a year (1938/39) of further mycological study at the Botany Department, University of Cambridge, with Professor Brooks.

As with so many of his contemporaries, World War II interrupted academic life. Brian served as Lt Cdr (S) RANR from the outbreak of hostilities until March 1940, when he was manpowered back to the university to carry out research related to fungal contamination of field-glasses under field conditions in New Guinea. Later research during this period was into the application of potential drug plants.

In 1947 the young Dr Grieve was appointed Head of the Department of Botany in this university. His first task as head of the fledgling department (in addition to himself the staff comprised only one lecturer and two graduate assistants with a student enrolment of almost 200) was to prepare a '5-year development plan', the principal aims being to develop the

department's teaching curriculum, research quality and general facilities. His efforts were recognised in 1957 with his appointment as the Foundation Professor of Botany.

The move to Western Australia was accompanied by a major change in research interests from mycological physiology to pioneering research into the ecophysiology of native sclerophyll plants. In 1956, while on study leave, he worked on the water relations of plants with Professor Fritz Went using the, then, newly established phytotron facilities at the California Institute of Technology, Los Angeles and followed this with additional studies in Europe under the auspices of a Scandinavian Fellowship awarded through the Australian National University. The research conducted throughout the late 1950's and 1960's has provided the foundation for much of the contemporary research being undertaken in applied areas such as the rehabilitation of bauxite mine-sites within the Darling Range of Western Australia.

He was a conscientious and exemplary Head of Department. Kind and gracious, he led by example of diligence and application. He cared well for all his students and staff and generated the best opportunities possible. Under him, the Botany Department grew in stature and reputation. He planned the Department's move from the inadequate buildings now preserved as the cricket pavilion on James Oval to the present three story building opened in 1969.

Although primarily a plant physiologist by training and inclination, a major part of Professor Grieve's working career, and especially since retirement, was to complete a project commenced prior to World War II by a Cottesloe general practitioner, Dr W. E. Blackall. Dr Blackall's aim had been to provide amateur botanists with a ready means of correctly identifying native flowering plants. Following Dr Blackall's death in 1941, the incomplete manuscripts were given by the Blackall family to the University on the understanding that they would be completed and published. This task was given by the Senate to Professor Grieve who, single-handedly, brought to the work, not only the taxonomic and scholarly skills of the professional botanist but incredible dedication and perseverance extending over a period of almost 50 years. With the exception of periods of Study Leave much of this work was additional to the time required for teaching and administrative duties, and his own ecophysiological research interest. It was only since retirement that he had more uninterrupted time available.

The publication, *How to Know Western Australian Wildflowers*, is unique in that it combines illustrations of some 5000 plant species and varieties (native and introduced) found within southwest Western Australia with a comprehensive key to their identification, and in a form that may be used by professional and amateur botanists alike. Although the four parts of the first edition have appeared over the period 1954-1975, the extensive increase in taxonomic knowledge of the local flora necessitated embarking in 1976 upon a second edition, two parts of which have still to be completed. Part I of the first edition was the first publication of UWA press and the series remains its best seller. A measure of the importance of *How to Know Western Australian Wildflowers* is that, until the publication of the *Perth Regional Flora* by a team of botanists from the Western Australian Herbarium in 1987, the only other significant taxonomic treatment of Western

Australian plants had been Bentham's *Flora australiensis* published over 100 years ago and which dealt with all the then known Australian flora. Although local in its application, the significance of the Western Australian flora is such that the volumes of *How to Know Western Australian Wildflowers* have been reviewed in overseas journals. It is a measure of Brian's diligence and perseverance that a wholly up to date revision of Part II of this monumental work was sent to the UWA Press for publication just a few months before his 90th birthday in August this year. This volume will appear in the New Year and has been eagerly awaited by the botanical community.

In a second important contribution to the botanical heritage of this state, Brian undertook to complete and correct a translation of Friedrich Diels' 1906 classic phytogeographical work on the Western Australian vegetation, *Die Pflanzenwelt von West Australien*, begun by Professor W. Dakin in 1914 but left incomplete in 1920. This translation is now complete and will be prepared for publication in a form which will be more readily available to all those with an interest in early interpretations of the form, structure and distribution of the unique Western Australian flora.

Throughout his career Brian's contributions to botanical research have been widely and regularly acknowledged. He was elected a fellow of the Linnean Society of London in 1939; awarded the Syme Prize and gold medal in 1943; elected President of Section M (Botany) for ANZAAS (1951); twice elected President of the Royal society of Western Australia (1953 and 1970/71); awarded a Fulbright and Rockefeller Grant and a Scandinavian Fellowship in 1956; election as a Fellow of the Institute of Biology, London (1966); admitted to Honorary Membership of the Royal Society of Western Australia (1975); awarded the Medal of the Royal Society of Western Australia (1979) the citation for which reads in part, 'Professor Grieve has initiated and brought to international recognition fundamental work on plant-water relationships, especially under natural conditions in Western Australia'; and in 1988 received the Australian Plants Award from the Association of Societies for Growing Australian Plants.

Within the University community Brian Grieve's contributions included a period as Dean of the Faculty of Science (1954/55) and member of the Faculty of Medicine. He served at various times on the Scholarships Committee, the PhD Committee, Landscaping Committee, Library Committee and the Biological Sciences Subcommittee of the Research Grants Committee. His long-time commitment to this University's teaching and training functions is highlighted by his continued attendances at Graduation Ceremonies since retiring in 1972.

In the wider community he played a significant part in the early discussions (1956-59) that led, ultimately, to the establishment in 1959 of the Botanic Gardens in King's Park and to his appointment as a member of the King's Park Board, a position he held until 1978. He also served for many years on the CSIRO State Committee advising on plants biological matters and the Nuffield Foundation Advisory Committee for the selection of candidates for Nuffield Fellowships.

Brian Grieve the man, and his work, have generated much affection, esteem and appreciation throughout the community. He will live in the hearts of all who met him, and in the hands of all who have more than a passing

interest in our truly exquisite flora.

Professor Craig Atkins
Head, Department of Botany
September 1997

[Received from Betty Forbes, Admin Secretary, Department of Botany on 7 October. Also published in the UWA Leader.]

PLANT NOTES

RUSSIAN TYPE SPECIMENS OF KANGAROO APPLES (*SOLANUM* SECT. *ARCHAESOLANUM*)

A considerable amount of agronomic work on Kangaroo Apples (*Solanum* sect. *Archaesolanum*) was done at the Russian Institute of Medicinal and Aromatic Plants at Vilar on the outskirts of Moscow in the late 1960's. The breeding and selecting of plants for high yields of solasodine was done there while the crops were grown in Kazakstan.

Dr E. I. Korneva named *S. aviculare* var. *acutifolium*, var. *grandiflorum*, var. *grandifolium*, var. *hybridum*, var. *patulum* and later *S. vescum* forma *megacarpum*. As no types were cited at the time of publication these names are invalid. My recent visit to the Institute at Vilar brought the response, several times, that they were grown from seed from Australia, as if we would have material here. No specimens were forthcoming at Vilar and the names remain invalid.

Earlier when the work first started, Gerasimenko published *S. linearifolium*, *S. brisbanense*, *S. baylisii*, *S. vescum* var. *kibalcziczii* and var. *davidii*. No type was nominated for *S. linearifolium* and a holotype was designated by me in *J. Adelaide Bot. Gard.* 4 (1981) 81. On visiting LE it was found that specimens do exist in LE for these names. Photographs of only moderate quality were taken and will be available.

In the small bundle of Australian *Solanum* backlog produced for me to see in LE were collections by F. Mueller, R. Brown and Sieber which almost certainly contained some isotypes but I had neither time nor literature to check them with confidence.

David Symon

PLANT QUARANTINE

MOVEMENT OF BOTANICAL SPECIMENS IN NORTH QUEENSLAND QUARANTINE AREAS

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Introduction

The Animal and Plant Health Service (APHS) within the Queensland Department of Primary Industries (DPI) is responsible for preparedness and response to incursions of exotic pests and diseases into Queensland. Currently, APHS is managing two incursions in north Queensland – spiraling whitefly [*Aleurodicus dispersus*] (Homoptera: Aleyrodidae) (SW) and papaya fruit fly [*Bactrocera papayae*] (Diptera: Tephritidae) (PFF). Part of the management plans is the declaration of Quarantine Areas for both pests under the provisions of the *Plant Protection Act 1989*. Under this Act, the movement of plant materials and fruit out of the Quarantine Area is prohibited without the approval of a DPI Inspector.

While the DPI is responsible for administering the Act, it has a policy of, wherever possible, minimising disruption to commerce and the community as a result of restrictions imposed under the powers of this Act. These instructions on how to prepare botanical specimens to avoid pest risk were developed in consultation with John Clarkson of the Queensland Herbarium, Mareeba, who drew to our attention the extent of botanical collecting in North Queensland and the need to alert botanists to the restrictions on movement of plant material as a result of the declaration of these Quarantine Areas.

Quarantine restrictions

Spiraling whitefly (SW)

A Quarantine Area for SW was recently declared in Cape York Peninsula and Torres Strait, encompassing all of Queensland north of Latitude 13° 45′S. DPI is developing plans for a roadblock near Coen, but in the interim the existing PFF roadblock at Laura will check all vehicles for plant material which may carry SW.

To reduce the risk of further spread of SW, the movement of plants, plant materials and fruit out of the SW Quarantine Area is prohibited without the approval of a DPI Inspector. Such approval is available at roadblocks. The movement of infested plants within the Quarantine Area is also prohibited.

Papaya fruit fly (PFF)

As part of the eradication program against PFF, a Pest Quarantine Area was declared in 1995, bounded by Longitude 144° 15′E and Latitude 19° 00′S. Roadblocks have been established to control movement of fruit being carried both commercially and by the travelling public. Roadblocks are currently located at Laura, Mount Garnet, Millaa Millaa, Babinda and Rollingstone.

The movement of fruit out of the PFF Pest Quarantine Area is prohibited without the approval of a DPI Inspector. The movement of

fruit between certain parts of the Pest Quarantine Area is also prohibited, as some regions are now free of PFF and DPI wishes to prevent reinfestation of these regions.

Preparation of botanical specimens for scientific study to avoid pest risk

Spiraling whitefly (SW)

i. SW has a broad host range and any foliage or fruit showing signs of infestation should not be collected as specimens.

ii. Specimens should be disinfested by careful brushing or washing in water before pressing and drying;

iii. Alternatively, preserve specimens in alcohol, formalin, or other suitable preservative.

Papaya fruit fly (PFF)

i. Wherever possible, avoid collection of fruit samples;

ii. If fruit specimens are required, preferably preserve in alcohol, formalin, or other suitable preservative;

iii. If this is not possible, allow the fruit to completely dry out before movement;

iv. If seeds are required, strip the flesh from the fruit and retain only the seeds.

Declaration of botanical specimens for scientific study at roadblocks

The following points should be observed:

i. Always carry formal identification to verify your name and institution;

ii. Identify yourself to roadblock staff and explain the purpose of your trip;

iii. Explain the nature of the specimens you are carrying;

iv. Present all material for examination, preserved as indicated above.

NOTE: All plant material must be prepared according to the above guidelines, and declared at roadblocks. Failure to observe these conditions may result in confiscation of your material.

Before entering the SW Quarantine Area by road, advise the roadblock staff (Laura or Coen) of the purpose of your trip, how you intend to preserve specimens, and the approximate time of return through the roadblock. This will facilitate the inspection process on your return.

Further information

Please contact Mr Russell Gilmore, DPI, Cairns on (070) 523 283.

[John Clarkson outlines an approved method of wet preservation of specimens elsewhere in the Newsletter.]

BOOK REVIEWS

Pre-European Vegetation of Adelaide : a Survey from the Gawler River to Hallett Cove. Darrell N. Kraehenbuehl. *Publisher* Nature Conservation Society of South Australia Inc., Adelaide. *Published* 1996. Hardback, vii & 317 pp. ISBN 0 949751 24 3. $50 from the publisher.

The River Torrens as I first saw it in the winter of 1837 was very pretty and picturesque, high and steep banks on either side, closely covered with beautiful shrubs of all sorts; splendid gum trees also were growing on the banks, and in the streams, overhanging the water which was narrow and deep, small fish were plentiful, and that strange creature the platypus was occasionally seen on its banks. But some stupid people cut away the shrubs and trees that still held the banks together. Consequently the soft alluvial soil fell away and the river became broad and shallow and very ugly. After this the winter floods carried away the banks that remained, making it a most unsightly spot for many years, and entailing an enormous expense to restore it to anything like beauty, though it will never be as picturesque as nature made it. [Helen Mantegani 1902]

Soon after I first became interested in plants, around the age of 14, I learned to cherish relics of native flora. Here and there one could find small treasures. A white goodenia on a road bank that somehow escaped the grader; a round-leaved acacia in a nature strip that hadn't been converted to lawn – yet; or a patch of danthonia in a sea of annual brome and salvation jane on a sheep-grazed hillside. In most places, I could only guess what the original vegetation looked like – almost all of it had long since been removed and replaced by a mediterranean exotica: olives, aleppo pines, fennel, artichokes, wild oats and a riot of weedy annuals. This obsession with relics seems to have been the common experience of botanists growing up in South Australia – unless they were born during the 19th century. It seems that the colonists, who first began to arrive in 1836, were zealous in their intent to convert the alien landscape into an intensely cultured 'English' countryside. Inadvertently they recreated the Mediterranean, because it was the introductions from that region that succeeded. As a student I was required to read Meinig's (1962) excellent account of how the colonists' naive attempts to transform the semi-arid landscape was at first facilitated and then defeated by the El Nino cycle. The devastation of that landscape is still painfully evident today. Sadly, it is only in the late 20th century that the mistakes of the previous 150 years are beginning to be rectified.

Darrell Kraehenbuehl is a little older than me, and therefore lucky because he has seen more of the original flora of Adelaide than I. (The last major period of its destruction was during my childhood.) This book is clearly a labour of love – his life's work. He began seriously exploring the remnants of original vegetation around Adelaide soon after the second world war – nearly 50 years ago. Since then he has meticulously documented every little bit that remained over a 500 km^2 wedge-shaped belt that comprises greater Adelaide. This area is bounded by the Gawler River in the north, St Vincent Gulf in the west and the escarpment of the Mt Lofty Range in the east and south. All these relics are documented by specimens lodged in the South

Australian herbarium. The study is a masterpiece of rigour and detail; there can be few as thorough from anywhere in the world. Even significant individual plants have been recorded. This work has a strong historical element too – many of the remnants documented by Kraehenbuehl have vanished even in his lifetime.

The meticulous detail with which Kraehenbuehl has reconstructed the original vegetation of Adelaide from these fragments is astonishing. One just has to stand on the hills escarpment and survey the urban sprawl to appreciate this feat. It seems that even the bits of open space that are not covered by tar and concrete are given over to manicured lawns and exotic gardens. Yet hidden in this vast suburbia are odd trees, shrubs and even stands in cemeteries, wild corners of council parks and along the few creek lines that have escaped 'beautification'. From this vantage-point, only a few majestic river-red gums give any hint of the primitive vegetation. All these remnants are recorded in the book.

These field observations are backed by painstaking research in libraries, herbaria and archives. Some of the most reliable data come from the collections and diaries of early naturalists and professional botanists, such as James Backhouse and Ferdinand von Mueller. The latter first settled in the Adelaide hills before moving to Melbourne. However, much of the vegetation was destroyed even before Mueller started collecting there in 1847, scarcely 10 years after settlement. Kraehenbuehl has been just as thorough in researching historical records. He has extracted early descriptions of flora from ordinary colonists' diaries and books, and unearthed old photos which give background glimpses of original trees. The field naturalists society, who were very active in the late 19th century, provided much valuable documentation.

Early accounts (extensively quoted in the book) evoke a stunningly beautiful landscape. Many lament its too rapid destruction. The region was a meeting point of very different vegetation associations, brought together by dramatic gradients in climate and soil where hills, plain and sea intersected. The central plain including the site of the city was mostly open and park-like with groups of trees dominated by blue gum (*E. leucoxylon*, grey box (*E. microcarpa*) and, especially along the streams, river-red gums (*E. camaldulensis*). To me – and to these writers – this is the most beautiful of trees. The writers enthuse about the abundant wildflowers and bird-life. Most interesting are the description of the kangaroo grass (*Themeda triandra*) that dominated the ground-layer. It was so abundant that it was mown for hay, and grew taller than the men who were cutting it down. This grass is perennial, and would have been active in summer, presenting a totally different landscape from the annual grasses that have replaced it. Today it has all but vanished, except in a few tiny reserves.

The environs of the 'River' Torrens, which flows through the centre of the city, were by all accounts, magnificent. But within just a few years writers were lamenting its degradation by tree-felling and floods brought on by clearance of its catchment. Today it is a silted-up billabong surrounded by manicured lawns and exotic flower beds which mock its original beauty.

The plains were set off by the back-drop of the hills, well-watered and densely clothed with 'stringybark' forest (*Eucalyptus obliqua* and *E. baxteri*; not covered by the book). The

ominously named 'black forest' was a belt of grey box in the south-east, just below and spreading onto the hills escarpment. People avoided this sombre woodland, or cleared it quickly, and it is very poorly documented. Two suburbs (Black Forest and Blackwood) are named after it. Interestingly, there were patches of mallee, one immediately west of the city, now the site of the main city cemetery, which is now more famous for murders and vandalism than its curious relictual flora. In one photo, graceful quondongs overhang broken headstones. Several sites around the city had outliers of this more arid flora of the interior. The seasonal streams running down from the hills did not empty directly into the sea, but fed a string of small lakes surrounded by melaleucas, *Typha*, *Phragmites*, and of course river red gums. The colonists deprecated these as the 'reedbeds'. It must have been a superb wetland, teeming with wildlife, but sadly was rapidly destroyed by semi-feral pigs and cattle, then filled in and 'developed'. However, it was hardly documented at all before its destruction. The Westlakes development of the 1970s and 80s took the last remnant. Between the coastal dunes and reedbeds were old red sand dunes, clothed with an interesting scrub of *Callitris*, *Casuarina*, *Banksia*, heathy shrubs and herbaceous perennials. These have mostly given way to golf courses. White sands at the base of the Adelaide hills carried a rich heathland of a different composition, abundant in orchids – now almost completely gone. Finally there were the coastal floras – shrublands on cliffs and dunes, and mangroves along the Port River.

The book opens with a concise historical account of the destruction of the original flora. It makes depressing reading. Most of it went before it could be documented properly. This leads on to a description of the environmental setting of Adelaide, and then a history of botanical exploration. This contains some extensive quotations from the diaries of early naturalists, such as Backhouse. Then follows the main part of the book: a chapter on each main vegetation type, citing early descriptions, reconstructing its composition and distribution as far as possible, describing extant remnants in detail, listing species, and making recommendations for conservation. These are copiously illustrated, mostly with photographs by the author, many showing sites that no longer exist. Each of these chapters ends with a comprehensive species list giving locations and conservation status (these differ in detail and content). The chapter on the reedbeds contains an account of an old controversy on whether the celebrated 'old gum tree' near Glenelg is really the original site at which the colony was proclaimed. The final chapter makes recommendations for replanting the original flora according to location. At the end of the book are several appendices listing vegetation types, significant trees and stands, threatened and extinct species and all species occurring in the region.

I have some minor quibbles. The main one is a lack of rigorous editing. The structure of the book is rather loose, confusing in places and repetitive. For instance there are long lists of species in the general text that make dull reading and duplicate the appendices (which are excellent). An omission is the near absence of any discussion of the abundant and diverse weedy flora that has largely replaced the natives. Very conveniently, the end-papers contain a reconstructed vegetation map of the region, but this sometimes conflicts with the descriptions in the text. For instance, several quoted descriptions evoke the dominance of kangaroo grass on the plain, but this does not

appear as a mapped unit. It seems to correspond with '*Stipa* and *Danthonia* grassland'.

As you can probably tell, I really enjoyed reading this book. Perhaps this is because it concerns something special to me – the flora on which I cut my teeth. But I think it has a more general appeal and significance. First as a superb piece of historical research, accurate to the smallest detail. Second as a creative and vivid reconstruction of a lost jewel of our natural heritage. Third and most importantly, as a rare example of the kind of information that Landcare groups need to do their job effectively. Are there any Darrell Kraehenbuehls out there in the rest of Australia? I sincerely hope so.

Mike Crisp
Botany & Zoology
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Reference

Meinig, D. W. (1962). *On the Margins of the Good Earth: the South Australian Wheat Frontier, 1869-1884.* (Rigby Limited: Adelaide.)

Principles and Techniques of Contemporary Taxonomy. Donald L. J. Quicke. Blackie Academic & Professional [Chapman & Hall], London. 1993. xii+311 pp. ISBN 0-7514-0029-3. $67.75.

It has been some time since the last of my book reviews appeared in this *Newsletter*; nearly three years, in fact. This hiatus has not been because I have not been reading, but because I have been reading and writing other things instead. However, I have recently returned to perusing systematics-type books on the long train-trip to and from my work, and it seemed appropriate to celebrate the upcoming anniversary of my last review by starting to produce a new one. Actually, I also have two more systematics books sitting on my bedroom floor waiting to be read, and so I expect that you will be subjected to another couple of reviews before too long.

As you may recall, in 1992 I started a series of reviews aimed at assessing the ability of the then-current 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 reviewed varied widely in intent, including generalist introductory ones (*A.S.B.S. Newsletter* 70: 30-33), taxonomy-based ones concentrating on the practice (*A.S.B.S. Newsletter* 71: 32-36), and more systematics-oriented ones focussing on the principles (*A.S.B.S. Newsletter* 72: 24-27, 74: 21-27). These books all have their own strengths and weaknesses, but none of them seemed to be just right for modern university classes. So, I have now returned to the fray, to look at a few of the more-recent contenders.

In this case, I have broadened the field to include a book on biological systematics in general, as opposed to botanical systematics alone. This approach to the subject has the potential to emphasize the broad nature of systematic principles, because botanists, zoologists, mycologists, phycologists, parasitologists, bacteriologists, virologists, etc all have common goals, methodologies and difficulties. However, it also has the potential to down-play those parts of systematics that may be particularly relevant to botanists but which seem to be less important to other types of taxonomists. We shall see.

The book by Donald Quicke is aimed at university biology undergraduates who have

already had an introductory biology subject. The stated aim of the book is "to stem [the] trend" in which "university biology courses have been progressively marginalizing taxonomy in favour of more 'trendy' areas". It thus discusses the principles rather than the practice of systematics, by which I mean that it covers the theoretical foundations of systematics rather than containing descriptions of particular taxonomic schemes. It is organized into 13 logically-arranged chapters, plus a lengthy (26 pages) Glossary. The publication quality is generally good, although there are quite a few typographical errors (including erratic plurals and tenses, and missing references), and there are some very long unpunctuated sentences because commas seem to have been eschewed. Unfortunately, there are not that many line figures or tables to break up the text, presumably because of cost. The Index is rather brief, and the Bibliography is not meant to be extensive, although it is up-to-date.

Overall, the book provides a pretty good balance between "Principles" (*e.g.* classification, phylogeny reconstruction) and "Techniques" (*e.g.* identification, data collection). However, the word "Contemporary" in the title means that there is no historical component to the presentations. Systematics is presented as just this-is-the-way-it-is, with little regard for alternative approaches, and with almost no explanation of the intellectual debates that have occurred and are continuing to occur. The book will thus appeal to those students who want nothing more from their degree than "the answer", but it may seem a bit dry to the more advanced students who want their science to be intellectually stimulating.

This is not to say that the author is unaware of the development of taxonomic ideas; and, indeed, the brief Preface expounds enthusiastically on this topic, describing taxonomy as "an ever-changing, controversial and exciting field of biology". Unfortunately, the enthusiasm is largely confined to this Preface, with a bit more in the first chapter. However, I particularly liked the description of taxonomy as "a complex mixture of biology, philosophy and mathematics" (although most of my own students assiduously try to avoid the latter two topics).

The book starts, not unexpectedly, with a brief Introduction (10 pages). This describes the "compass of taxonomy and systematics", in which the author admits that the book is actually about systematics (broadly defined) rather than taxonomy (more narrowly defined). It also implies rather strongly that phylogenetics is the main part of systematics; and this is a theme that runs throughout the rest of the book, with all non-phylogenetic evolutionary topics (*e.g.* biogeography, evolutionary processes, coevolution) being relegated to a single chapter. The brief historical background is also rather weak, with some very naive introductions to phenetics and cladistics (for example, parsimony is treated as producing the best hypothesis in cladistics, rather than as being a methodological criterion for choosing the working hypothesis that will be subjected to further test).

Chapter 2 is the longest chapter (41 pages), being a competent introduction to Characters, Taxa and Species. Characters and character-states are introduced well, with particular attention to decisions about primitive versus advanced (although functional outgroup analysis is ignored), and those classes of characters that require special consideration. However, we are also introduced to the usual cliches about how many thousands of

"independent" characters molecular data are going to provide us with (if evolution has occurred, and molecular sequences represent functional biological molecules, then the gene sequences cannot be any more independent than are morphological characters). It is also at this stage that the biggest bias in the book becomes apparent: Donald Quicke is an entomologist, and thus insect examples dominate most of the discussions (both with regard to the theory chosen for discussion and the actual examples used), followed by vertebrates (sections 2.3.5-2.3.8 are entirely animal-related, for example). Plants are not ignored, but they definitely run a poor third.

Monophyletic and non-monophyletic groups are also discussed, along with various concepts of species. Unfortunately, the example in Figure 2.10 has the paraphyletic and polyphyletic groups being identical, in spite of the clear distinction made in the text; and the problem of the ancestral species being paraphyletic when a new daughter species is recognized is treated as a special case for one class of species, rather than being true for all species (as originally discussed by Willi Hennig).

Chapter 3 concerns Phylogenetic Reconstruction: Cladistics and Related Methods (33 pages). This is a somewhat inconsistent chapter, with many of the descriptions being very simplistic, and therefore potentially misleading to the uninitiated. Furthermore, cladistics is treated as being more-or-less synonymous with character-based parsimony. Thus, compatibility methods occupy a large place in the chapter, but distance-related tree-building methods are relegated to an aside (with neighbor-joining, the most popular of these methods, being completely ignored), and the actual distance calculations not being discussed at all. This is at variance with the emphasis elsewhere in the book, because molecular methods are treated extensively elsewhere and in practice distance-related methods are commonly used for the analysis of molecular data. The popular use of distance methods in molecular studies stems from the fact that it is possible to "correct" the distances for various biases that are known to exist (such as multiple substitutions, transition : transversion ratios, GC content), and this improves the consistency of the phylogeny estimation; such corrections are not straightforward for the character-based parsimony methods. However, parsimony is still the predominant method for analyses of morphological and anatomical data.

The thorny topic of the relationship between phylogeny and classification is also addressed, with the author coming out in favour of recognizing paraphyletic groups, such as the Reptilia, when it is convenient but completely rejecting polyphyletic groups. However, this is a difficult position to justify, given that it is very hard to clearly define a practical distinction between these two concepts (the usual theoretical distinction concerns whether the most recent common ancestor of the taxa is included in the group or not, which is rather a difficult decision to make in practice if only contemporary taxa are being studied).

Chapter 4 is an effective introduction to Phenetic Methods in Taxonomy (13 pages), although it is a bit weak on why such methods are useful, considering mainly their use in automated identification. The most obvious other use of phenetics is in looking at relationships that are not necessarily strictly hierarchical, such as intra-specific variation where gene flow means that the relationships are likely to be a network (rather than a dichotomous tree).

Chapter 5, covering Keys and Identification (17 pages), is justifiably the most practically-oriented part of the book, but as a result it does give little insight into the theoretical background of the various techniques discussed. Unfortunately, the example of an indented key in section 5.2.1 is not actually indented (it is the Dallwitz version of an indented key), which may confuse the newcomer.

Chapter 6 includes a generally good overview of Nomenclature and Classification (21 pages). Nevertheless, it is also rather erratic, possibly because of a need to cover such a broad range of organisms and thus rules of nomenclature (we are also incorrectly told that the Codes "result from the occasional Congresses" when there hasn't been a Zoological Congress for decades), but also because this chapter is intellectually isolated from all of the previous ones. In particular, there is no discussion of the fact that recent evidence suggests that the protists, fungi and algae as traditionally defined are polyphyletic, and so may create all sorts of inconsistencies when the Codes of Nomenclature are applied (or ignored, as is often the case for protists). There is also a tendency to use words without explaining their meaning; and the use of the expression "specific name" instead of "specific epithet" may not help novices. The author is also apparently unaware that there is (and has been for nearly a decade) an "authoritative list of authors and their abbreviations" for botanical nomenclature. The chapter ends with some suggestions for deciding priorities as to what new species should be described first, but these are unfortunately at variance with the considerations for conservation of biodiversity.

Chapters 7 (Cytotaxonomy, 10 pages), 8 (Chemotaxonomy and Related Topics, 9 pages), 9 (Immunotaxonomy, 12 pages), 10 (Proteins and Taxonomy, 23 pages), and 11 (Nucleic Acid Methods, 35 pages) provide practical details (*i.e.* techniques) about various sources of taxonomic data. Morphology and anatomy are ignored, presumably as a result of the focus on biology rather than zoology or botany (for example), although this is never spelled out. Most of these chapters are good introductions to their topics for non-experts, although there is, once again, a tendency to use words without explaining their meaning or to use them several pages before their meaning is explained. Also, the section on the analysis of protein data does not discuss the use of BLOSUM matrices, and that on the analysis of nucleotide data does not discuss the corrections for biases (noted above); in fact, the use of distances is treated as "largely historical". Furthermore, the section on sequence alignment incorrectly treats it as a parsimony problem rather than a phenetic problem (computer alignment is based on overall similarity), and ignores the possibility of using functional criteria to align the sequences.

Chapter 12 covers Palaeotaxonomy, Biogeography, Evolution and Extinction (16 pages). These topics are apparently lumped together because they are all non-phylogenetic evolutionary topics; and clearly each of these topics could be dramatically, and usefully, amplified from the brief coverage given here. Furthermore, the discussion of biogeography is abysmal, and that of co-evolution is not much better (but we are finally told about cladogenesis and anagenesis, which should have been mentioned in Chapter 2). This is thus far-and-away the weakest part of this book. This is a pity, because this is the one chapter where it is possible to emphasize and expand on the usefulness of systematics to biology in general,

rather than merely having this point tucked away in the Preface.

The book ends with a chapter on Museums, Herbaria, Biodiversity, Conservation and the Future of Taxonomy (19 pages). The first part of the chapter is about museums only, in spite of the title, and it is thus another example of the zoological bias in the book. The second part of the chapter would be much better as an enthusiastic introduction to the book rather than as a hopeful conclusion.

So, in the final analysis, this book is probably quite acceptable as an introductory textbook, provided that its biases are acknowledged (*i.e.* entomology, parsimony cladistics) and its weaknesses accepted (*i.e.* typographical errors, poor coverage of some important topics). It is, in many ways, a compromise between several competing influences (*e.g.* botany versus zoology, detailed versus broad coverage), and the author has made his own decisions about which way to go, based presumably on his own erudition and inclination. We should not hold this against him. However, this book would certainly be better as a textbook for a class of biologists rather than for a class of botanists.

David Morrison
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STOP PRESS

A number of articles arrived too late for inclusion in this issue of the newsletter and will be published in number 94 (March 1998).

NEW EDITOR

Readers are reminded that articles for the March issue should be submitted to the new editor, Bob Hill.

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ABLO

Ken Hill has advised the following:

'European travel plans are still not clear. Enquiries have come in so far for material in B, F, G, LE, P in Europe, and CGE and E in Britain. I will probably visit the British herbaria in December or January, and will also visit Liverpool to look at the rest of the LINN/Smith herbarium. Europe will probably be later next year.'

E-MAIL FOR MEL (revisited)

A correction to the notice in the last newsletter. E-mail addresses for staff at MEL are formed by taking the first letter of the first name and the first FIVE letters of the surname (no full stop between them) and adding @rbgmelb.org.au. For example, Tim Entwisle's address is: tentwi@rbgmelb.org.au

Some staff also have aliases (*e.g.* mduretto@rbgmelb.org.au), but the standard form given above will also work.

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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.

$30; 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.

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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.

AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED

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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 one of the editors at the address given below. They should preferably be submitted as: an unformatted word-processor or ASCII file on an MS-DOS or Macintosh diskette, accompanied by a printed copy; as an unformatted word-processor or ASCII email file, accompanied by a fax message reporting the sending of the file; or as two typed copies with double-spacing if less than one page.

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

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