

ASBS

*Australian
Systematic
Botany
Society*



Newsletter

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ASBS Inc. business

Proposed changes to the ASBS financial year

In a previous issue of the Newsletter (*Austral. Syst. Bot. Soc. Nsltr* 120: 1) in 2004 I outlined the situation concerning proposed changes to the ASBS financial year. In short, to meet the requirements of the Associations Incorporation Act 1991, ASBS either needs to change the Society's financial year, or hold our Annual General Meeting within the first five months of the calendar year. Council has opted for the former, for reasons also given in that Newsletter issue.

The proposal to change the Society's financial year was presented to a Special General Meeting held in Canberra on the 16th March 2005. Fourteen members (including four Council members) attended, and resolved to present the proposed changes as written to the Society's members in the form of a ballot. Enclosed with this current issue of the *Newsletter* is a ballot paper presenting the proposed changes to the rules. I would urge all members to please cast their vote on this issue, as we need *at least 75%*

of members to respond to carry the vote one way or another. Council's preferred position on this matter is that the changes be adopted (i.e. mark the "agree" boxes on the ballot paper). For those members wishing to learn more about this issue before voting, please see the relevant article in the *Newsletter* mentioned above and referred to on the ballot paper.

Ballot papers must be returned to the Secretary of ASBS by 13th May, 2005.

An important point to note regarding these proposed changes is that there will be *no change to the subscription year*, and Council will not be seeking additional subscriptions from members if the changes are adopted.

Results of the ballot will be announced at the Society's 27th Annual General Meeting, details of which are repeated below for members to note in their diaries:

Australian Systematic Botany Society Annual General Meeting Tuesday, 24th May 2005

To be held at 3:00 pm, in the Caley Room at the National Herbarium of New South Wales, Royal Botanic Gardens, Mrs Macquaries Road, Sydney, New South Wales.

Please note that a minimum of 13 financial members is required to form a quorum for the AGM, so please come along if you can.

If Society membership votes in favour of the proposed changes, they will come into effect after the 27th Annual General Meeting. In this case we will have to hold another AGM between July and November 2005 to satisfy the requirement to hold an AGM within five months of the end of the Society's financial year. This will be conditional on the outcome of the ballot.

An early follow-up Annual General Meeting

If the changes are passed, **the Society's 28th AGM will be held on Thursday, 3rd November 2005** at 5:00 pm, in the F.M. Bailey Conference Room at the Queensland Herbarium, Brisbane Botanic Gardens Mt Coot-tha, Mt Coot-tha Road, Toowong, Qld. Reminders will be posted if this meeting is required.

On behalf of ASBS Council I would like to thank members for their patience in matters regarding changes to the Society's Rules. They are a necessary part of making sure that ASBS is fully 'legal' and functioning within the bounds of the relevant regulations that affect us as an incorporated Society.

Please don't forget to vote!

Brendan Lepschi
ASBS Secretary

Please remember to Vote !

Please vote on the proposed changes to the Rules using the voting slips enclosed with this Newsletter.

A response from 75% of members is required.

Minutes of Special General Meeting of the Australian Systematic Botany Society, Inc.

Held on Wednesday 16th March, in the Common Room, Australian National Herbarium, Canberra, ACT.

Starting time: 5:00 pm.

The Secretary welcomed the 14 members present.

Present: John Clarkson (Vice President), Brendan Lepschi (Secretary – Minutes), Anna Monro (Treasurer), Darren Crayn (Councillor). Ex officio: Kirsten Cowley (Public Officer), nine members.

Apologies: Steve Hopper (President), Marco Duretto (Councillor).

1. Proposed changes to ASBS Rules

Changes to Society Rules regarding the definition of the financial year were presented to the meeting by the Treasurer, Anna Monro. Suggested changes are that the Society's financial

year be amended from the current calendar year to a financial year (i.e. July – June). Full details of the proposed changes are presented in the *ASBS Newsletter* 120: 1.

Anthony Whalen and Lyn Craven asked what effect these changes would have on membership dues. No effect is envisaged. Membership year would remain a calendar year.

Proposed: Annette Wilson; **seconded:** Lyn Craven. **Carried.**

Rule changes will now be presented to the membership in the form of a ballot, with the results to be announced at the ASBS AGM in May 2005.

2. Any other business

Nil.

Meeting closed: 5:15 pm

Queensland Herbarium 150th Anniversary celebrations – ASBS Conference *Plant Systematics in Australia – Where is it Going?*

Council is pleased to announce that at very short notice Ailsa Holland from the Queensland Herbarium has agreed to organise a two day conference in Brisbane to replace the conference planned for Perth in September which, due to unforeseen circumstances, has had to be cancelled. The conference will be held at the Mt Coot-tha Botanic Gardens Toowong on 2nd and 3rd November and will be part of BRI's 150th anniversary celebrations (see p. 9).

You will appreciate that, given the short notice, details of the conference are still somewhat sketchy but Ailsa and her team are working hard to present an interesting program. The working title for the conference is *Plant Systematics in Australia - Where is it Going?*

In addition to the papers of a purely technical nature, it is hoped to have invited speakers cover topics such as the relevance of herbaria today, tertiary training in plant systematics in Australia and the rapidly expanding role of computers. In this age of molecular studies, the conference is keen to explore the use of additional tools such as cytology and developmental anatomy.

Students in particular are encouraged to attend and ASBS will offer its normal financial support to students who deliver a talk or prepare a poster presentation.

Expression of interest

An expression of interest form is included in this Newsletter. As the program takes shape details will be available on the ASBS web page and we will keep members informed by e-mail when this information is available.

Nomenclature workshop

In conjunction with the conference, ASBS is happy to work with CHAH on its request to hold a one day workshop on botanical nomenclature. This will be held either on the Tuesday preceding or the Friday following the conference. Details of this will also be available on the ASBS web page. If you would like to be kept informed when more details are available please tick the appropriate box on the expression of interest form.

John Clarkson

BRI 150th Anniversary – Expression of Interest

Please remember to complete
the enclosed form and forward it
to Ailsa Holland.

The level of funding for the Australian Biological Resources Study – a letter of concern from systematics societies and organisations

The President was involved in the following correspondence.

Senator the Hon. Ian Campbell
Minister for the Environment and Heritage
Parliament House
Canberra ACT 2600

1 March 2005

Dear Senator Campbell

We write to you as the Presidents or designated officers of three key scientific societies representing the interests of approximately 1200 Australian scientists. Together we are responsible for the discovery, naming and classifying the country's plants and animals. Such studies are essential for the responsible management and ongoing conservation of Australia's biodiversity.

We are deeply concerned that the level of funding for the Australian Biological Resources Study remains at a low level despite the critical importance of the program to the sustainability and conservation of the nation's biota. We note that the Administered Funds remain under \$1.9 million, despite the urgent need for a sustained financial boost to document the fauna and flora of Australia. Repeated calls for significant enhancement to the funding of the Australian Biological Resources Study, particularly to the research grants program, have been made by numerous organisations including the Australian Academy of Science. These requests have yielded no net increase in real terms over the past decade, even though the cost of doing this type of research has increased significantly over the same period.

The static funding level for ABRS is of immediate and direct concern to the scientific community and, importantly, to those who are major users of biosystematic and bioresource information in Australia. ABRS is the only agency in Australia that specifically funds research on the discovery and documentation of our incredibly rich flora and fauna. It is the experience of systematists that the Australian Research Council does not fund pure systematics projects. Most of our biodiversity is very poorly known, and the importance of these studies cannot be underestimated. Information on the diversity and distribution of our biota directly underpins the management of our natural resources for tourism, conservation, forestry, agriculture, fisheries and mining. Indeed, the

major strategic goals of ABRS mesh closely with the Commonwealth Government's own National Research Priorities (see <http://www.dest.gov.au/priorities/>), including several items of "An Environmentally Sustainable Australia" and one of "Safeguarding Australia". An increase to the ABRS budget would see it deliver tangible benefits under these National Research Priorities by developing further partnerships with state agencies, universities, other Commonwealth agencies and other biodiversity-focussed organisations.

ABRS is central to research on the diversity of Australia's living resources, and its record developed over the last 30 years is the envy of and a model for many other countries. ABRS is essential to the funding of taxonomic research on Australia's plants, animals and microorganisms, and making this information available to ecologists and environmental managers through its publications program. ABRS is a world leader in providing data on a national biota through its website. The Australian Faunal Directory and Flora of Australia Online are two high-profile programs that deliver online biodiversity information to the community. An increase in funding to ABRS could see the listing of the entire named biota of Australia in just a few years. While this does not tackle the issue of the unnamed biota, it would represent an essential but minimal baseline by identifying what we currently know of our plants, animals and microorganisms.

Previous reviews of the capability of the nation to tackle the enormous backlog of unnamed Australian species have highlighted the aging taxonomic workforce and the need to train future generations of biodiversity professionals to identify, document and name the biota. ABRS's highly successful post-graduate training program, implemented several years ago, should be augmented by a well-funded post-doctoral program. Such a program would allow trained specialists in systematics and taxonomy to advance their research to enable them to establish careers in the profession. Limited opportunities in this area sees many post-doctoral researchers choose other careers or move overseas. The gains made by training these postgraduates will be lost unless they can obtain employment in systematics in this country, so that they can put their training into effect for the benefit of Australia.

We note that the Federal government has made substantial increases over recent years to the

Australian Research Council and the National Health and Medical Research Council through the program Backing Australia's Ability. We strongly urge you to provide similar increases to the ABRS budget so that the documentation of the nation's biota can proceed at a more substantial rate.

We suggest that, given the central role ABRS has played in the understanding and management of Australia's biodiversity, its level of funding be substantially increased for 2005-6 and that this funding be maintained in future years. Such increases would enable ABRS, in partnership with State agencies and with other Commonwealth agencies, to more rapidly document Australia's living resources at a level commensurate with its size and importance.

We look forward to your reply to this urgent and important matter, and we would welcome the opportunity to meet with you and discuss these issues further.

Yours sincerely

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Nancy Burbidge Medallists 2004 & 2005

Alexander Segger George: 2004 Burbidge Medalist

I am delighted to announce on behalf of ASBS Council that Mr Alex George has been awarded the 2004 Nancy Burbidge Medal for service to Australian systematic botany.

Alex has had a distinguished and productive career in systematics, as a monographer, in biological survey programs, and as an author and editor.

Born in East Fremantle, Western Australia on April 4 1939, Alex was educated at Applecross Primary School, Wesley College, and the University of Western Australia. He graduated with a Bachelor of Arts in 1963, plus Botany 30 in 1964.

He commenced work at the Western Australian Herbarium as a Laboratory Assistant in 1959 and was reclassified to Botanist from 1964-1981 until moving to Canberra and taking up the position of Executive Editor, Flora of Australia with the Australian Biological Resources Study (within DASETT to June 1990, then within Australian National Parks and Wildlife Service) from 1981-1993. He also served for more than two years as Acting Associate Director, Flora of Australia, Australian Biological Resources Study (DASETT, then ANPWS), from April 1989 to August 1991. From 1993 Alex has been based

back in Perth as a freelance botanical and editorial consultant and indexer, as well as a valuer for the Cultural Gifts Scheme from 1994.

Alex has also served in several other capacities with various institutions, including:

- Seconded to Royal Botanic Gardens, Kew, as Australian Botanical Liaison Officer, from 11 Dec. 1967 to 2 Jan. 1969
- Technical Subcommittee, Conservation Through Reserves Committee to the Environmental Protection Authority of Western Australia, 1972-1975
- Secretary, International Organization for Plant Information, 1991-1997
- Honorary Research Associate, Western Australian Herbarium, 1993-
- Honorary Research Fellow, Murdoch University, 1994-
- Honorary Associate, Royal Botanic Gardens, Kew, 2002-
- Horticultural Volunteer, Royal Botanic Gardens, Kew, July-Nov. 2003, Dec. 2004-
- Australian Botanical Liaison Officer, Royal Botanic Gardens, Kew, 29 Nov. 2004 to 31 Aug. 2005

Alex has 154 publications to his credit since his first (on orchids) appeared in the *West Australian Naturalist* in 1961 under active encouragement

by that journal's Editor at the time, Dom Serventy. Early in his career Alex published new Western Australian taxa with coauthors such as Charles Gardner, palynologist G. Erdtman and eucalypt botanists Denis and Maisie Carr. He also produced more popular works, including *Orchids of Western Australia* (with H.E.Foote), an attractive colour booklet published in 1969. He was a major contributor to *Flowers and Plants of Western Australia*, by R.Erickson, A.S.George, N.G.Marchant & M.K.Morcombe, first published in 1973.

Alex's taxonomic interests diversified as he contributed to many treatments published in *Nuytsia*, *Flora of Central Australia*, and *Flora of Australia*. He produced substantial monographs, including those on *Banksia* in 1981, *Verticordia* in 1991, *Synaphea* in 1995 and *Dryandra* in 1996. He also has published several books ranging from the exquisite folio volumes on *The Banksias* (with artist Celia Rosser – 1981, 1988, 2000) to monographs on William Dampier (1999) and his self-published *The Long Dry: Bush Colours of Summer and Autumn in South-western Australia* (2002) based on his Presidential address to the Royal Society of Western Australia (*Journal of the Royal Society of Western Australia* 85: 1–15).

Perhaps less well known are Alex's botanical contributions to biological survey of remote parts of Western Australia, published mainly in the 1970s and early 1980s. He was the first taxonomic botanist to do so in many of these regions, discovering a range of new taxa in the process. He has contributed more than 18,000 numbers to the collections of the Western Australian Herbarium with duplicates elsewhere. His work contributed significantly to the creation of many conservation reserves in Western Australia.

Alex cites many special interests, including systematics of the Australian flora, especially Proteaceae and Myrtaceae; bibliographic research and compilation; botanical history;

conservation; improving the standard of scientific writing and reporting; and the use of Australian plants in horticulture, art and craft. He also maintains interests in photography, gardening, music, travel, reading, and aviation (he was a light aircraft pilot for 20 years).

As an editor, Alex has served as:

- Editor, *Journal of the Royal Society of Western Australia*, 1969–1971
- Editor, *Nuytsia*, bulletin of the Western Australian Herbarium, 1970–1980
- Report of the Conservation Through Reserves Committee to the Environmental Protection Authority of Western Australia, 1974
- Editor, *Australian Systematic Botany Society Newsletter*, 1978–1980
- Member, Editorial Committee for the *Flora of Central Australia*, Australian Systematic Botany Society, 1979–1981
- Executive Editor, *Flora of Australia*, 1981–1993
- Freelance editor, 1993–

He has been a longstanding member of ASBS, including as Editor, and is a frequent contributor to the Newsletter. Currently he is preparing a book to be called *Australian Botanist's Companion* which will include biographical data on all who collected plants in Australia up to 1900, brief histories of Australian botanical institutions, bibliographies of Australian botanical and natural science journals and other information useful to those working in Australian botany. He is also undertaking library research and data entry for the forthcoming *Taxonomic Literature Cryptogamia*.

Such a vigorous and ongoing contribution is thoroughly deserving of the Nancy Burbidge Medal. On behalf of all ASBS members, I convey warmest congratulations to Alex for this acknowledgement of his life-long interest in and work on Australian plant systematics.

Steve Hopper
President, ASBS

Dr Barbara Gillian Briggs: 2005 Burbidge Medalist

It is our pleasure to announce that ASBS Council has decided to award the 2005 Nancy Burbidge Medal for service to Australian systematic botany to Dr Barbara Briggs.

Barbara has been a leading plant systematist in Australia for almost five decades. She published her first scientific paper in 1959, on the taxonomy of Australian *Ranunculus*, one of a total of 105 publications to date in a long and distinguished

career. Her work is broadly based, both in terms of groups studied and methods and theory applied, with her most important contributions being on the families Restionaceae, Proteaceae and Myrtaceae.

Barbara completed her B.Sc. Hons. (1st class) at the University of Sydney in 1956 and proceeded to undertake Ph.D. study on hybridisation in *Darwinia* and *Ranunculus* with Prof. Spencer

Smith-White at the same institution. While in the latter stages of her Ph.D. study (the degree was conferred in 1961) she was appointed Botanist Grade 1 at the National Herbarium of New South Wales (NSW), the beginning of a long and extremely valuable association with that institution. Except for a postdoctoral sojourn at the University of California, Berkeley in 1962 to early 1963, she was to spend her entire career at NSW. She was promoted to Botanist Grade III in 1967 and Research Scientist in 1969, rising to management of the herbarium as Deputy Chief Botanist (position later re-titled Assistant Director, Herbarium) in 1972. This role continued until 1980, when she undertook the position of Senior Assistant Director (Scientific), the position she held until her retirement in 1997. This period was a crucial one for NSW, and saw the emergence of the Royal Botanic Gardens Sydney as a world class botanical research institute. This was due in no small part to the development of the scientific programs under Barbara and the Director, L.A.S. Johnson. Some of the major achievements during this time were construction of the new Herbarium building (Brown Building) and the later addition of the 4th floor, the establishment of the Molecular Systematics Laboratory, the development of electronic databasing systems for herbarium collections, and the publication of the *Flora of New South Wales*.

Apart from her outstanding research, Dr. Briggs' contributions to the scientific community in general and systematic botany in particular include:

- Committee memberships
 - Flora Editorial Committee of ABRs Member 1988–92, Chair 1982–7
 - Society for the Study of Evolution Board of Associate Editors 1966–69
 - International Organization of Plant Biosystematists 1969–72
 - Chair Systematic & Evolutionary Botany Section XIII International Botanical Congress 1981
 - Council of Linnean Society of N.S.W. 1970–79
 - Council of Heads of Australian Herbaria Member 1972–97
 - International Congress of Systematic and Evolutionary Biology (ICSEB) Board of Directors 1972–80; ICSEB International Committee 1985–90
 - Organising Committee for Monocots II Conference 1995–9
 - NSW Natural Resources Information Management Strategy Steering Group 1996–7

- NSW Biodiversity Survey Advisory Committee, including Vascular plants and Survey Guidelines Working Groups 1996–1997
- Research Scientist Classification Committee (NSW Public Service) 1998–2000
- Resolutions Committee XVI International Botanical Congress 1999
- Australian and New Zealand Association for the Advancement of Science N.S.W. Committee 2001–
- Leadership roles
 - President, Linnean Society of N.S.W. 1978
 - Chair, Council of Heads of Australian Herbaria 1979, 1986, 1994
 - Vice President, General Committee, International Association for Plant Taxonomy 1999–2005
- Advisory roles
 - ABRs Advisory Committee 1979–83
 - World Wildlife Fund (Australia), Scientific Advisory Committee 1983–87

In addition she has made invaluable contributions to the Society as Vice President (1993–1994) and President (1984–1989), and as a member of the Hansjörg Eichler Research Committee (2003–).

She has been previously honoured in various ways, including the Clarke Medal of the Royal Society of New South Wales (1994), Corresponding Membership of the Botanical Society of America (1996), Avon Spirit of Achievement Award for Australian Women, Environment Category (1997) and the Public Service Medal (1998).

Barbara is currently Honorary Research Associate at the National Herbarium of New South Wales. She continues to be remarkably productive, with 36 publications since retirement in 1997, and is a constant, valuable and much loved participant in the social and scientific milieu at NSW. Her enviable contribution to Australian systematic botany, undertaken with enthusiasm and humility, sets a shining example to all in the discipline. Barbara is a most worthy recipient of the Nancy Burbidge Medal.

Darren Crayn
ASBS Council Member

Steve Hopper
ASBS President

Articles

The taxonomic status of *Dimocarpus leichhardtii* (Benth.) S.T.Reyn. (Sapindaceae)

A.R. Bean
Queensland Herbarium

Dimocarpus leichhardtii is an enigmatic species known only from a single specimen deposited in the National Herbarium of Victoria (MEL). It is currently listed as "Presumed Extinct" under the 1994 schedule of the Queensland Nature Conservation Act 1992 (Queensland Nature Conservation (Wildlife) Regulation 1994).

The species was first named as *Euphoria leichhardtii* by Bentham (1863). Bentham did not discuss its affinities, and cited the single specimen as "Queensland (?), Leichhardt (*Herb. F. Muell.*)". The variety *hebeptala* Benth., described at the same time, was also based on a Leichhardt specimen, but the latter has since been redetermined as *Arytera foveolata* F.Muell. (Reynolds 1982).

Euphoria leichhardtii was transferred to the genus *Nephelium* by Mueller, then to the genus *Arytera* by Radlkofer, and finally to the genus *Dimocarpus* by Reynolds.

It is now around 160 years since Leichhardt collected the type specimen of *Dimocarpus leichhardtii*, and no other specimens have ever been attributed to that species. The obvious questions are: where did he collect it and why has no one else seen it?

Unfortunately Leichhardt's specimen is undated and the label (written by Mueller) gives the locality merely as "eastern subtropical Australia".

In Australia, *Dimocarpus* is confined to rainforest environments of north-eastern Queensland. Leichhardt did not collect specimens in this part of Queensland, except for a brief foray on Fitzroy Island on the way back from Port Essington (Roderick 1988: 387-8).

Reynolds (1982) showed that the type specimen of *Dimocarpus leichhardtii* is distinctly different from *D. australiensis*, the only other Australian *Dimocarpus*, but she also stated that it is "very close to *D. longan* subsp. *longan*, differing from overseas material in having narrower and shortly branched panicles". In 1987, P.W. Leenhouts (who had revised the genus *Dimocarpus*) determined the type specimen of *D. leichhardtii* as *D. longan* var. *longan*, and wrote that it is "identical to material cultivated on Java in the early 19th century".

Dimocarpus longan var. *longan* (the Longan) is related to both the Litchi and the Rambutan, and

like them, has a succulent edible fruit. Longan does not occur naturally in Australia, but it was, and still is, cultivated in higher-rainfall parts of tropical and subtropical Australia.

From the above, it seems clear that Leichhardt's specimen was taken from a cultivated plant of Longan (*Dimocarpus longan* var. *longan*). A cultivated origin for *D. leichhardtii* would also explain why no one else has collected it.

Bentham evidently neglected to compare Leichhardt's specimen with Asian or Malesian material, in the belief that the collection was from a native Australian plant.

Leenhouts' annotation seems to suggest that Leichhardt collected his specimen from Java, but it is well known that Leichhardt never visited Java.

The most likely collection site was either the German Mission at Zion Hill [Eagle Farm], Brisbane, where Leichhardt stayed for about a week in June 1843 (Roderick 1988), or the 'government garden', also in Brisbane. At the latter site, Leichhardt, in his diary (reported in Roderick 1988) said that "sugarcane grew well, the clumps of plantains and bananas were huge, and guavas and loquats flourished".

Dimocarpus longan Lour., *Fl. Coch.* 233 (1790).
Nephelium longan (Lour.) Hook., *Curtis Bot. Mag.* t. 4096 (1844).

Type: Taiwan, Tafu, Miaoli, 12 July 1965, Liao & Kuo 1598 (neo: L; iso: TAI), fide Leenhouts, *Blumea* 19: 122 (1971).

Euphoria leichhardtii Benth., *Fl. Austral.* 1: 468 (1863).

Nephelium leichhardtii (Benth.) F.Muell., *Append. to Rep. Intercol. Exhib.* 25 (1867), *Fragm.* 9: 99 (1875).

Arytera leichhardtii (Benth.) Radlk., *Sapind. Holl. ind.* 44, 114 (1879).

Dimocarpus leichhardtii (Benth.) S.T.Reyn., *Austrobaileya* 1: 495 (1982).

Type: Queensland?, undated, *Leichhardt s.n.* (holo: MEL), *syn. nov.*

Acknowledgements

I am grateful to Val Stajsic (MEL) for sending images of the type specimen, and to Paul Forster, Megan Thomas and Laurie Jessup for comments on this manuscript.

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The deletion of *Sterculia foetida* L. from the Australian flora

A.R. Bean
Queensland Herbarium

There have been numerous references to the presence of *Sterculia foetida* L. in the Australian flora, but all appear to be spurious.

The first instance was a notation made by Robert Brown during the circumnavigation of Australia by Matthew Flinders. On 2nd November 1802, Brown went ashore and spent a few hours on Goods Island in the Torres Strait. A species list he compiled for the island survives, and was reproduced in Vallance *et al.* (2001). Included on the list was "*Sterculia foetida?* fol: tantum visa" [leaves barely seen]. Evidently he did not collect a specimen of this plant. Goods Island has been visited by a few botanists in modern times, but has not been thoroughly surveyed. However, no *S. foetida* has been found on any of the Torres Strait islands, many of which are now botanically well known, nor in New Guinea. Brown himself was doubtful about the identity of the plant on Goods Island, and so it seems reasonable to dismiss this alleged occurrence.

Mueller (1860) compiled a list of species that he considered were native to both Australia and India, and he included *S. foetida* on that list. He did not, however, give any details or justification. Bentham (1863) included *Sterculia foetida* in the *Flora Australiensis*, mainly based on Brown's written record. He did not see any specimen collected by Brown. He also ascribed to *S. foetida*, a sterile specimen collected by Beckler from the Hastings River. Kostermans (1959) examined this specimen and found it to be *Heritiera trifoliolata* (= *Argyrodendron trifoliolatum*).

Bailey (1883, 1899) omitted *Sterculia foetida* from the Queensland flora, probably due to lack of evidence of its existence there.

Recent plant listings for Australia (Hnatiuk 1990) and Queensland (Henderson 1994, 1997, 2002) have recorded *Sterculia foetida* as a native Australian plant species. These records are apparently all based on Queensland Herbarium specimens from Whyanbeel Creek and Port Douglas. However, the Whyanbeel Creek specimen is actually an *Argyrodendron* sp. (G. Guymer pers. comm.) and the Port Douglas specimens, while correctly identified, were taken from cultivated plants.

Two *Sterculia* spp. (*S. holtzei* and *S. quadrifida*) are recorded for the Kimberley region of Western Australia (Wheeler 1992) and the Northern Territory (Dunlop *et al.* 1996).

In conclusion, *Sterculia foetida* is known from Australia only as a cultivated plant. It should be excluded from any future census or flora dealing with native or naturalised Australian taxa.

Acknowledgements

I thank Gordon Guymer for discussions and identifications

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Announcement

The Queensland Herbarium celebrating 150 years

Ailsa Holland
Queensland Herbarium

The Queensland Herbarium, along with the Brisbane Botanic Gardens, is this year celebrating 150 years since establishment. Starting in mid-July, we will be highlighting the great contributions that individual botanists have made to botanical science in Queensland, past and present in an exhibition called "A passion for plants". We will be opening our doors on two weekends: 9 and 10th July for the Gardens open weekend, and 3 and 4th September for the SGAP show. There will be talks, displays, tours and giveaways. We are also providing material for the Museum of Brisbane exhibition "Science in the Garden" which starts on September 1st.

The history of the Queensland Herbarium, as an institution, dates from 1855, four years before

Queensland became a separate Australian colony. In that year, Walter Hill was appointed Superintendent of the Botanic Gardens at what is now known as Gardens Point in central Brisbane. At separation in 1859, Hill was appointed Colonial Botanist as well as Director of the Brisbane Botanic Gardens, positions he held until his retirement in 1881. Hill was interested primarily in the introduction of economic plants such as sugarcane and fruit trees but he also collected native plants from many parts of the State. However, he was unable to establish a working herbarium of specimens in Brisbane due to the poor state of the Gardens' buildings and lack of time due to the demands of his other Gardens' activities. He therefore sent most of the plant specimens he obtained to Sir William Hooker and later Sir Joseph Hooker for the herbarium of the Royal Botanic Gardens, Kew, London, England, or to Baron Ferdinand von Mueller for the herbarium of the Royal Botanic Gardens in Melbourne,



Figures. Left, Walter Hill, Colonial Botanist, 21st Feb 1855 – 28th Feb 1881, likely taken towards end of term (Ross McKinnon pers.comm.) (Original owned by Brisbane City Council; reproduced with permission). Right, Frederick Manson Bailey (Queensland Herbarium).

Victoria. Hill's books, however, were transferred to the Queensland Museum on his retirement and later became the nucleus of the present Queensland Herbarium library. Frederick Manson Bailey succeeded Hill as Colonial Botanist in 1881. At the time of his appointment, Bailey already had a high reputation as a botanist, was Keeper of the herbarium at the Queensland Museum and was Acting Curator of the Museum as well, then situated in William Street, Brisbane. He held these positions concurrently till 1882. His collection of plant specimens and others of the

herbarium of the Queensland Museum, formally established by the Queensland Government in 1874, formed the foundation of the present Queensland Herbarium plant collection.

From *The Queensland Herbarium 1855 – 2005*
(Web ref. 1)

Web ref. 1. Information sheet under
"Publications" on www.epa.qld.gov.au/herbarium
(Queensland Herbarium website)

CHAH business

The Consensus Census:

The List of Agreed Australian Vascular Plant Names

In the March 2005 *ASBS Newsletter* No. 122 an advertisement appeared for the appointment of a Senior Scientist to coordinate the preparation of a National Plant Census – Australia's *Consensus Census*. By the time this newsletter appears, an announcement on the Project Officer appointment will have been made, and the project work will be well underway.

Australia has had only four comprehensive national censuses of vascular flora: those of Mueller in 1882 and 1889, the *Flora Australiensis* of Bentham in 1863–1878, and the *Census of Australian Vascular Plants* coordinated by Hnatiuk in 1990.

To fill the void, many organisations and groups have written regional or State Census lists, the best known of course being those produced by the State and Territory Herbaria. These lists work well for their designed purpose, but problems arise when the information is applied to cover composite areas. Not unexpectedly, non-congruence occurs where censuses overlap. This is particularly apparent in broad scale land management projects, or in management of rare and threatened taxa on a national scale. For example, a survey by a national conservation organisation in 2003 discovered that managers were trying to reconcile 12 different census lists for vascular flora, all of which overlapped, and differed in taxonomic concepts.

The Council of Heads of Australian Herbaria (CHAH) has agreed that their member organisations will cooperate to produce a single consensus list of the names (with major synonyms) to be used on a day-to-day basis for Australia's vascular flora. This list will be advisory and a living document, subject to continuous update as (consensus) knowledge advances. The List of Agreed Australian Vascular Plant Names will be the view presented in the Australia's Virtual Herbarium (AVH). The list will be built on the Australian Plant Name

Index (APNI), and will in effect be an additional view of that database, in the same way that *What's Its Name* and *APNI Light* present customised views of the data. A time line of 2 years has been set to achieve the first iteration of the *Consensus Census*, with information being available progressively as data is entered.

Funding for employment of the Project Coordinator has been provided by the Natural Heritage Trust (NHT) through the Commonwealth Department of Environment & Heritage, to the Centre for Plant Biodiversity Research (CPBR). The project will be jointly managed by the CPBR and CHAH. The Project Coordinator will be located in Canberra as part of the Australian National Herbarium (ANH) with direct access to APNI and its support database group.

CHAH has committed wholeheartedly to the project, including nominating a staff member from each herbarium to form a CHAH Working Group, which will work in close collaboration with the Project Coordinator, to develop the list of names. Procedures will be put in place for involvement of members of the Australian botanical community and to provide opportunities for individuals to participate.

This *Consensus Census* project has been described as the fifth BIG initiative in Australian botany - the other four being Bentham's *Flora Australiensis*, establishment of ABRS and the *Flora of Australia* project, *Australia's Virtual Herbarium* and *APNI*. It is an exciting scheme and will have major influence into the future.

The next *ASBS Newsletter* will provide a more complete description of how the project will operate and how individuals can participate. A description of the project will also appear shortly on the CHAH website (www.chah.gov.au).

Judy West
Australian National Herbarium
on behalf of CHAH

Standardising informal names in Australian publications

Informal names have become increasingly prominent over the last 20 or so years in Australian literature on plants, particularly in Censuses, floras and checklists. The major reason for this has been the improvement and expansion of lists of protected plants, now often deemed “plants of conservation significance”, which have become an important adjunct to legislation (Barker & Barker 2005).

Informal names have various forms (refer to various State Censuses and Floras in last 20 years):

- latinised names qualified by “manuscript”, “ms” or “ined.”;
- letters or numbers;
- phrases, with or without citation of a voucher specimen signified by a sheet number, or the collector name followed by the collector number, collection date or combination of herbarium acronym and sheet number.

A major issue for CHAH has been the different informal names that are sometimes applied to the same plant across borders, in State Censuses and Floras, and by specialists.

Reconciling whether informal names apply to the same or different species has proven particularly problematic.

Formal names are serviced by strict rules on formation. In particular their author citation is shorthand for a reference to a full publication able to be found in printed or on-line indices.

By contrast, informal names in Australian literature often lack reference to the source of the name so that contact has to be made with a Herbarium or specialist where either may have no idea what has been done by the other. Non-taxonomists have also begun to propose such names. For example, in South Australia phrasenames have appeared in local publications by environmental groups, dealing for example with the conservation of orchid variants in local habitats. The publication of the State’s Census has provided an opportunity to appeal for such proposals to be vetted by the State Herbarium (Barker & Barker 2005).

CHAH’s agreed Australian standard

In an endeavour to stem the confusion, CHAH has agreed to the following standard for their publications:

Genus-name sp. *Phrasename* (*Voucher-specimen identifier*) Source¹

The Voucher-specimen identifier is a combination of:

- Collector name
- Collector’s unique number, or, failing that being available, collection date or sheet identifier (herbarium acronym and number).

An example is:

Pterostylis sp. *Sandheath* (*D.Murfet 3190*)
R.J.Bates

The “sp.” functions in databases as a delimiter defining a species phrasename². For infraspecific taxa, no “sp.” delimiter is needed as the infraspecific rank does this job.

Exclusions

Latinised epithets, even if cited as manuscript names, and phrasenames for unpublished new genera are to be avoided. Latinised epithets can lead to confusion as to whether they are published by the:

- subsequent dropping of the manuscript “ms” or unpublished “ined.” that is usually appended;
- the publication of latinised names found on determinavit slips in herbaria by others who have not checked that they have been published;
- authors changing their minds prior to publication by using a completely different name.

Instead of a generic phrasename being coined, an existing allied genus should be used. The aim of a phrasename is to provide a consistent unique interim name for a taxon that does not have an appropriate formal name, not to express relationships to the finest detail.

Transitional approach

In order to avoid additional new phrasenames where informal names have been published previously the following approaches have been adopted in the new South Australian Census (Barker et al. 2005):

- a Voucher-specimen identifier has been added to informal names designated by letters of the alphabet, e.g. *Ajuga australis* R.Br. f. A (*A.G.Spooner 9058*) Toelken;

¹ In a recently published paper T.J. Entwisle & P.H. Weston (2005) have inadvertently cited a superseded proposed standard by CHAH’s working group on informal names. CHAH’s adopted standard is that outlined here.

² In the State Herbarium of South Australia’s Census database the “sp.” is included as part of the species epithet field and takes that field’s formatting in report outputs.

- latin manuscript names have been retained, but they have been capitalised and followed by the Voucher-specimen identifier, e.g. *Eremophila sp. Praecox* (R.H.Ashby 131) Chinnock .

References

Barker, W.R. & R.M. Barker (2005). The Census of South Australian Vascular Plants – a catalogue of changing knowledge. *J. Adelaide Bot. Gard. Suppl.* 1: 1-17.

Barker, W.R., R.M. Barker, J.P. Jessop & H.P. Vonow (Eds.) (2005). Census of South Australian Vascular Plants. Edition 5.00. *J. Adelaide Bot. Gard. Suppl.* 1: 19-398.

Entwistle, T.J. & P.H. Weston (2005) Majority rules, when systematists disagree, *Australian Systematic Botany* 18, 1-6.

Bill Barker
State Herbarium of South Australia
for CHAH

News

Professor Bryan Womersley wins SA Great Award

Congratulations are extended to Professor Bryan Womersley who on 28th December 2004 received yet further accolades for his achievements in southern Australian phycology – in this case the prestigious 2004 SA Great Environment Award.

At 82 years old, Bryan is still actively working at the State Herbarium but is gradually reducing his hours.

For recent reference to Bryan's achievements see *Austral. Syst. Bot. Soc. Nsltr.*: 112: 8, 114: 16.

A new research publication – *Kanunnah, The Research Journal of the Tasmanian Museum and Art Gallery*

The title of this new journal, *Kanunnah*, is one of the Tasmanian Aboriginal language words for the Tasmanian Tiger (Thylacine). The Thylacine is also the state logo for Tasmania. The first issue of the journal is currently being prepared for publication, and includes papers on botany, palaeobotany, history and zoology.

It is planned that one issue of *Kanunnah* will be published annually in both hard copy and electronic format. It covers all areas of research undertaken by the Tasmanian Museum and Art Gallery and includes the life sciences, including botany, culture, history and the arts. Papers on any of these research areas will be considered, but papers dealing with Tasmanian, southern Australian and sub-Antarctic issues will be particularly welcome. Short communications are also welcome.

Researchers based outside the institution are encouraged to submit manuscripts for publication to the journal, although they should be relevant to the museums primary areas of study. It is envisaged that the journal will be published

annually, but this will be dependent upon receiving sufficient quality papers and funding.

The journal *Kanunnah* joins the *Papers and Proceedings of the Royal Society of Tasmania* and the *Records of the Queen Victoria Museum and Art Gallery* as venues for publishing and documenting the State's cultural heritage and natural history.

The referencing is in *Australian Journal of Botany* format. Additional information about the journal can be obtained from the Managing Editor, Andrew Rozefelds.

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Meetings of the Tasmanian Chapter of Australian Systematic Botany Society

The monthly meeting of the Tasmanian Chapter of the Australian Systematic Botany Society will be held at the *Hope and Anchor* pub at 5.00 pm on the first Friday of the month. The *Hope and Anchor* in Macquarie Street, Hobart, is the oldest continually licensed hotel in Australia. It was opened as a public house at 8.00 pm on July 25th 1807, by Hopkins, the Servant of the Lieutenant Governor.

Members and guests, and visitors from the mainland, are welcome to attend.

Andrew Rozefelds
Convener
(03) 6211 4148

Forgotten Flora poster launch

What are the little green umbrellas growing with my pot plant? Why is my roof green and fuzzy? What are those bright splotches of colour on rock outcrops if they're not paint? How does a plant with no chlorophyll, and therefore no way of making its own energy, grow? Is the mushroom I just picked a fruit or the whole plant? Which mushroom may have caused the symptoms displayed by 'witches' in the 17th century?

The answers to these questions and many more are provided in a new suite of educational posters and CDs developed by the Royal Botanic Gardens Melbourne. The *Forgotten Flora* project was officially launched at the Royal Botanic Gardens Melbourne on March 11th 2005 by Cheryle Beale of the Science Teachers Association of Victoria. The launch included an exhibition of *Forgotten Flora* illustrations, artwork and living display material.

The *Forgotten Flora* project encompasses the bryophytes (liverworts, hornworts, mosses), lichens and fungi. Our aim was to produce a set of easily accessible and informative resources to encourage participation in science and promote

increased awareness of the *Forgotten Flora*. Australia has a great diversity of these fascinating plants and fungi. Many are small and thus easily able to be studied, making them accessible and highly valuable educational tools.

The resources include a set of ten posters and three partially interactive CDs, all beautifully illustrated with extensive diagrams and photographs. Some of the poster titles are: Key to the forgotten flora, Taking a liking to lichens, Bryophytes- more than moss, Where do the forgotten flora grow?, The whole fungus, and Poisonous fungi. Each CD gives a general background to the group (fungi, lichens and bryophytes), incorporates figures and photographs that can be used in presentations, practical information on how to study each group, suggested activities and worksheets and a comprehensive list of additional resources.

The forgotten flora revealed

Authors: Josephine Milne & Teresa Lebel

Illustrator: Anneke Veenstra-Quah

To order and for more information, see:

www.rbg.vic.gov.au/plant_science

[/publications/forgotten_flora](http://www.rbg.vic.gov.au/publications/forgotten_flora)

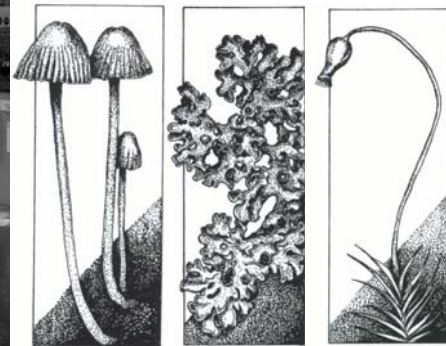
or email: forgottenflora@rbg.vic.gov.au

Teresa Lebel
National Herbarium of Victoria



Figures. (clockwise from left): a. Some live displays and printout from the CDs; b. Royal Botanic Gardens Melbourne staff at the *Forgotten Flora* exhibition; c. The illustrations representing the Fungi, Lichens and Bryophytes.

Ph. (a-b) J. Prentice



ABRS report

ABRS staffing news

It is hoped that a new Assistant Editor appointment will be finalised very soon to replace Katy Mallett who resigned from ABRS in November 2004

Dr Steve Shattuck commenced recently as part-time ABIF Project Manager. Steve is expected to continue in this role until around November/Dec 2005 - his usual position is at CSIRO Entomology (Digitisation of Natural History Collections). Mr David Levy has recently accepted appointment on a non-ongoing contract for 12 months as ABIF Project Manager. David brings strong programming and web-service skills to the project. He commences 4 April.

Ms Maggie Nightingale has been employed for a 3 month contract to undertake editing on *Flora of Australia* (Vol 30).

ABLO

Annette Wilson has returned, much enriched from her experience as ABLO, to her position at ABRS managing the Vascular Flora Subprogram. Alex George is the current Australian Botanical Liaison Officer at Kew. Alex will hold the position until the end of August 2005.

New publications

***Antarctic Marine Protists*. Edited by Fiona J. Scott & Harvey J. Marchant.**

Published by Australian Biological Resources Study, Canberra and Australian Antarctic Division, Hobart (January 2005) viii + 563 pages.

ISBN 0 642 56835 9 (hardcover). Price AU\$95.00 (includes surface postage for overseas orders, and GST and postage within Australia).

To order, contact abrs@deh.gov.au

Protists are microscopic algae and protozoa, formerly thought of as single-celled plants and animals. Planktonic protists constitute the base of marine food webs and play a key role in the exchange of carbon dioxide between the atmosphere and the ocean. This book is a comprehensive guide to the protists living in the surface waters and sea-ice south of the Antarctic Polar Front. More than 550 species are described and superbly illustrated with over 1300 light and electron micrographs and drawings. A bibliography of more than 1100 entries and a thorough glossary will make Antarctic Marine Protists an indispensable resource for marine biologists.

Flora of Australia Vol 44B (Grasses III)

The second in a projected set of four volumes by ABRS on the grasses of Australia, Volume 44B of the *Flora of Australia* documents five subfamilies of the grass family (the Poaceae), comprising 55 genera and 468 species.

The largest subfamily in the volume, the Chloridoideae, is largely tropical, and includes the important endemic genera *Triodia* (Spinifex, symbolic of central Australia) and *Astrebla* (the Mitchell Grasses), the large genera *Eragrostis* (Lovegrasses) and *Sporobolus* (Ratstail Grasses) and the Windmill Grasses — *Chloris* and relatives.

The Arundinoideae include the aquatic *Arundo* and *Phragmites* (Reeds), and the endemic *Amphipogon* (Greybeard Grasses). The Danthonioideae incorporate the temperate Wallaby Grasses. Most of the representatives of the other two subfamilies are found predominantly in the drier areas of Australia: the Aristidoideae, comprising the large genus *Aristida* (Kerosene Grasses, Three-awns); and the largely endemic Micrairoideae, which includes *Eriachne* (Wanderrie Grasses), and the unique *Micraira*, which are resurrection plants (returning to life from complete air-dryness), and the only grasses whose leaves grow in spirals on the stem. Forty-eight authors, illustrators, and photographers contributed to this volume. There are 83 plates of line drawings and 64 colour photographs, illustrating nearly every genus, to help readers appreciate the beauty and variety of Australian grasses.

Key to Australasian Liverwort & Hornwort

Genera (CD-ROM). By David Glenny, Manaaki Whenua Landcare Research, PO Box 69, Lincoln, New Zealand and Bill Malcolm, MicroOptics Ltd, PO Box 320, Nelson, New Zealand

Published by: Australian Biological Resources Study (ABRS), GPO Box 787, Canberra, A.C.T. 2601, Australia and Centre for Biological Information Technology (CBIT), Level 6 – Hartley Teakle Building, The University of Queensland, Brisbane, Qld 4072, Australia. ISBN 0 642 56840 5 © Commonwealth of Australia, 2005

Liverworts and hornworts, together with the mosses, make up the group of plants known as the bryophytes. Here, we present the first comprehensive key to all 181 genera of liverworts and hornworts known from Australia and New Zealand.

The latest web-integrated Lucid™ Player provides an easy-to-use interface, with comprehensive fact-sheets, including a list of diagnostic characters for each genus and numerous photographs of macroscopic and microscopic features.

Features

- An interactive key to the genera of liverworts and hornworts in Australasia
- Diagnostic characters of each genus
- Genus descriptions along with details of habitat and distribution
- Up-to-date checklists of species in Australia and New Zealand
- Literature references for each genus
- In most cases, enables the identification even of sterile specimens
- More than 1000 photographs and drawings
- 90 characters to aid accurate identification
- A comprehensive glossary of technical terms accessible by hyperlinks
- An Introduction that provides an overview of liverwort and hornwort biology, evolution, taxonomy and biogeography in the Australasian region
- Advice on how to collect and examine specimens

This key will be an invaluable tool not only for amateur and professional bryologists, but also for biology students and their teachers, conservation and land managers, environmental consultants and, indeed, anyone interested in the diversity and beauty of the natural world.

System requirements

- Windows 95/98/ME/NT(SP6)/2000/XP
- 16MB RAM; 32MB NT/2000/XP (32MB RAM or higher is recommended)
- Free hard disk space up to 52MB + Internet Explorer

- Internet Explorer (recommended) 5.0 or greater
Or Mozilla Web Browser 1.0 or greater
- SVGA monitor (800 × 600 or better)
- CD-ROM 4× speed or greater
- Mouse
- Internet connection optional

ABRS Online

Two new online checklists have been developed this year:

- *Online Checklist of Australian Liverworts and Hornworts and*
- *Online Checklist of the Lichens of Australia and its Island Territories*

Substantial updates have also been prepared for the *Australian Marine Algal Name Index (AMANI)*.

Flora of Australia Online

Work continues on converting further volumes of the *Flora of Australia* into xml for inclusion in *Flora of Australia Online* database. Five volumes (vols 18, 22, 25, 45 & 46) are now loaded in a development database and relevant species published since 1990 are being added.

Australian Biodiversity Information Facility (ABIF)

The design and project planning for the ABIF national portal has now commenced. A part-time project manager has been appointed, and a full-time programmer will commence on 4 April. A Reference Committee is being convened to discuss development plans, to set standards and review policy documents. A Technical Sub-Committee is also being appointed to provide guidance to the ABIF Project Manager.

Mary Colreavy
Director, ABRIS

ABLO report

We arrived at Kew when the last autumn leaves still provided some colour amid the rapidly shortening days. Although I was unable to overlap with Annette Wilson I had the benefit of previous visits to Kew, including a long stay in 2003 when my partner Roberta Cowan was ABLO. With the aid of the ABLO Manual prepared by Roberta and advice from Annette I soon slipped into the routine.

Topics covered in requests from Australia have ranged from bibliographic and taxonomic to the

living collections. There have been several inquiries from the UK. Although many requests are 'routine' they usually involve literature and taxa different from those seen during one's own work, and there is always the possibility of something unexpected turning up. So far, for example, I have found two letters from Ferdinand Mueller filed with herbarium sheets, copies of James Drummond's letters to the *Inquirer* newspaper with Drummond's annotations in the margins, and several names to add to my list of early plant collectors. A Robert Brown collection

of *Amperea* at the BM shows evidence of fire the year before he collected it, in the form of burnt stem bases and regrowth flowering stems.

Requests from Kew staff have included input into planning the next extension to the Herbarium building and finalising the Memorandum of Understanding to be signed between Kew, ABRs and CHAH. The new wing comes almost 40 years after Wing D which was completed during my term as ABLO in 1968 (and had a further floor added later). It will be built in the very northern part of the Gardens, next to Ferry Lane, and will necessitate demolition of the old Mycology building. Mycology will move to the extension of the Jodrell Laboratory, construction of which has begun (a large gantry crane has just been added to the Kew skyline).

Construction of the new Alpine House at the northern end of the Rock Garden is well under way. In exterior design it bears an uncanny resemblance to the glasshouse built several years ago at the Adelaide Botanic Gardens.

Other requests have been for assistance in obtaining colour slides for a book *Legumes of the World* now being finalised at Kew, and input to new display panels for the Temperate House.

For my term the ABLO duty statement has been varied to include input to the Global Biodiversity Information Facility (GBIF). The major Australian herbaria, CHAH and ABRs, together with RBG Kew, have received a grant from GBIF, managed by the Australian National Herbarium (CANB), for a trial run on imaging and databasing type and other significant early collections at K. The goal is 10,000 sheets in 12 months. The ABLO's role is to select the sheets and pass them to K staff who prepare the images and transfer them to CANB, where another team databases the sheet annotations. The images and data will be available through both Kew and the Australian Virtual Herbarium. Annette Wilson began the process with Goodeniaceae. I have completed this family and begun certain genera of the Papilionaceae.

Imaging herbarium sheets has become a major effort at Kew. Beside 'routine' scanning in response to requests, there are projects to image collections under the Africa Plants Initiative and the Brazilian Repatriation Project.

Bernard Verdcourt turned 80 in January and was feted by his many associates. Brian Mathew received an MBE in the UK New Year's honours

list. At the end of 2004, Mike Lock retired as editor of *Kew Bulletin*, having held the position for 13 years. In a new structure, the Chair of an Editorial Board for the journal is David Simpson, and the Managing Editor is Ruth Linklater.

Australian visitors have been Amelia Martyn (Mount Annan Botanic Garden), also visiting Wakehurst Place, Peter Wilson (NSW) to attend the Myrtaceae Checklist Workshop held at Kew 14–18 February, and Zoë Smith (University of Melbourne, Burnley) to study species concepts in Orchidaceae with Dave Roberts.

My present systematic research project is preparing an account of *Calothamnus* (Myrtaceae) for the *Flora of Australia*. Last September (accompanied by Dick Brummitt from Kew and Ted Oliver from Stellenbosch) I made two field trips in W.A. to collect material of several undescribed taxa, as well as the *C. quadrifidus* complex, and I have duplicates at Kew to study in conjunction with collections here and at the Natural History Museum.

As an extra-curricular activity I work 4 hours each Sunday in the Hardy Display section of the Gardens as a Horticultural Volunteer. Besides helping me to keep fit this gives a closer insight into the living collection side of Kew. Gardening under the public eye (and fielding questions) is an interesting experience!

I shall visit the Muséum d'Histoire Naturelle, Paris, in May. Could anyone with queries relevant to P please send them by 6 May? My only other visit to a herbarium outside south-eastern England will be to Edinburgh in September. The latter will be after I finish my term but I will handle any moderate requests.

Timing visits to Kew at IBC time

There may be people (e.g. students) attending the IBC who are unfamiliar with procedures to visit Kew. By the time this appears we'll be getting close to the IBC; so this seems a good time to let people know what they should do.

Planning to visit Royal Botanic Gardens, Kew on your way to or from the XVII IBC in Vienna? Please let the ABLO know well in advance so that the appropriate paper work may be prepared. Information should include dates of visit, staff you wish to see and taxa you wish to study. Bear in mind that, with adequate advance notice, permission will be given to visit the Herbarium on Saturday, but it is closed on Sunday.

Alex George
email: ablo@rbgkew.org.uk
fax: 44 20 8332 5278

Book reviews and announcements

A new illustrated account of Australian orchids

Steve Hopper

Plant Biology, University of Western Australia

Riley, J.J., & Banks, D.P. 2002. *Orchids of Australia*. University of New South Wales Press, Sydney. 308 pp.

This is the first in a series aiming to publish in large format the beautifully crafted “botanical drawings” of Australian orchids by John Riley. The author, David Banks, and writer of the Foreword, David Jones, rightly refer to R.D Fitzgerald’s (1882) *Australian Orchids* and W.H. Nicholls’ (1969) *Orchids of Australia* as comparable predecessors, but similar reference could also be made to the exquisite though largely unpublished orchid paintings of Ferdinand Bauer (Mabberley 1999).

Riley’s work is a true pleasure to behold, and the presentation of the first 210 paintings in this volume represent superb bookcraft and publication. Each full colour plate occupies a right-hand page, faced by a page giving accepted name, author, date and place of publication, type locality, recent synonyms, etymology, flowering time, distribution map and description, altitudinal range, distinguishing features, habitat, conservation status and discussion. Captions for plates provide the orchid’s name, collection locality (though vouchers are not cited), date and a list of plant parts illustrated.

Introductory text is minimal. The half page Foreword is followed by a two page Preface, acknowledgments and just two pages titled “About this book”. Orchid genera are arranged alphabetically, with species placed “in informal groupings, ... then appearing in chronological order, starting with the first-named”. A two page Glossary is followed by a brief Bibliography and index of “species” names (binomials).

While the book makes no claim to be a taxonomic work, it does, of necessity, use names

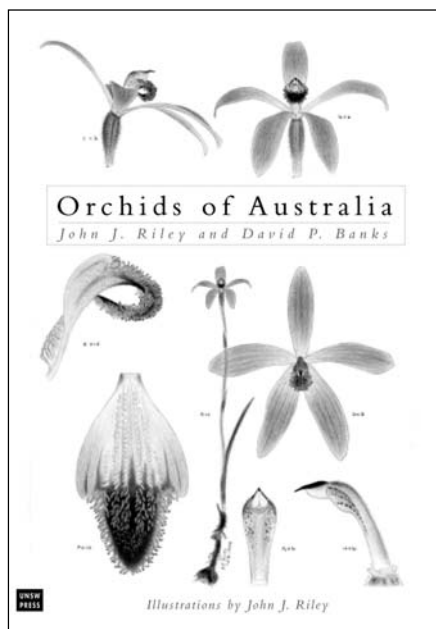
and therefore present views on generic and specific relationships and nomenclature. The text was checked by CANB’s David Jones who provided “additional information” and “some controversial discussion on the distribution of species”. Banks elaborates in page xiii when explaining what is covered for each species under Distribution:

“... The information provided here may contradict other published works as we have used a narrower concept of the species. What were once considered variable species that previously enjoyed a wide distribution have since been dissected into separate taxa. The distribution maps will also reflect this.”

Thus, the authors appear to have accepted the species-level taxonomy of Jones but, interestingly, do not adopt the new genera proposed, for example by Jones *et al.* (2001) for *Caladenia sens. lat.*, of which Banks was well aware as then editor of *The Orchadian* in which these new names were published. Instead, the alternative generic concepts are mentioned under the discussion of pertinent species, but not, interestingly, under the heading for recent

synonyms. In practice, the authors treated these new names as synonyms, even if formal synonymy was not effected.

No explicit mention is made of the alternative generic taxonomy for *Caladenia* published by Szlachetko (2001) or Hopper and Brown (2001), though this reference is listed in the Bibliography, and effectively the authors follow this latter treatment except for *Pheladenia deformis*, which is treated as a *Caladenia* as originally published by Brown (1810). Indeed, for this species, featured on the book’s cover, the taxonomic situation is most confused. Its placement in *Cyanicula* (Hopper and Brown 2000) is treated by Riley and Banks as a recent synonym under the name *Caladenia deformis*, yet it was only



published as a synonym of *Pheladenia deformis*, not of *Caladenia deformis*, by Jones *et al.* (2001). Subsequently, support for Jones *et al.*'s (2001) view of synonymy has been published (Hopper and Brown 2004). Riley and Banks' confusion here hopefully will be clarified in future volumes.

This is the only significant nomenclatural issue I picked up on reading this sumptuous work, although I am less familiar with eastern Australian orchids than western.

I thoroughly recommend this volume as a worthwhile acquisition for any reader interested in Australian orchids. The paintings are botanically accurate and the text informative and written by authors intimately familiar in the wild with most species treated.

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A global view of fossil plants

Bob Hill

University of Adelaide

Paul Kenrick & Paul Davis 2004. *Fossil Plants*. Natural History Museum, London. ISBN 0-565-09176-X

I have learnt the hard way to be cautious about books by authors from the Northern Hemisphere that have titles suggesting a global coverage. In most cases I have found that "global" means "temperate Northern Hemisphere", and consequently the books are of very little interest to those of us who aren't in tune with boreal conifer forests. However, this time I was pleasantly surprised. Paul Kenrick and Paul Davis have taken an unbiased approach to fulfilling the expectations presented by a book that is simply titled "Fossil Plants" and the Southern Hemisphere gets a fair hearing. The table of contents suggests that the book follows the standard voyage through time, starting from the earliest Precambrian glimpses of unicellular life and progressing through to the complexities of angiosperms and extreme regionalisation of the vegetation. At only about 200 pages, and with a healthy dose of illustrations, the text is brief, and many major events are explained in sparse detail or are not covered at all. However, the structure of the book did surprise me, with diversions along the way that are important and interesting (e.g. a chapter on coal), but which are largely unexplained and hence a bit disconcerting.

The authors have clearly tried hard to put contemporary and interesting examples in this book, and that certainly sets it apart and adds

greatly to the interest. However, in the instances where I have some first hand knowledge I found the information scant, sometimes incomplete, occasionally misleading, and once or twice just plain wrong. I can't be this harsh without examples, so I will expand on some of my main complaints. There are some inconsistencies with names, like the complex history of the early land plant genera *Rhynia* and *Aglaophyton* as presented on pages 25 and 26, referring to the family Taxodiaceae (page 56), which most (all?) of us now consider has had a decent burial within the Cupressaceae, and, to really nitpick, calling the fern order Marattiales a family on page 90. On page 43 we see one of my major problems about this kind of text. There is the beautiful reconstruction of the star fossil *Archaeopteris*, which contains the wonderful story of the combination of gymnosperm fossil wood with fern-like reproductive structures, and hence represents one of the genuine breakthroughs in our understanding of plant evolution. This reconstruction has been used countless times, but if you trace it back to the original paper, you will see that there are caveats about which parts of the reconstruction are based on direct evidence and which are best guesses. The authors owe it to the audience to explain these caveats, but there is not a word about them – this reconstruction has become fact by virtue of common use. On page 45 is another standard reconstruction, this time of the delicate seed-bearing cupules of *Archaeosperma arnoldii*, with the extremely delicate cupule arms pointing directly upwards.

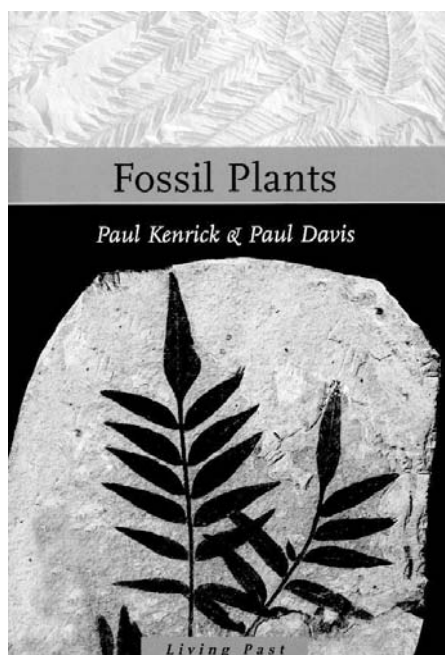
There has been quite a lot of debate about these cupules in the literature – did they point upwards as shown in this book, or did they (as I think is much more likely) point downwards and provide some genuine protection for the seeds? No hint of that debate is given here. Turn the book upside down and think about it, the logic is overwhelming.

The brief discussion of Wollemi Pine is lazy. On page 109 is a photograph of fossil *Agathis australis*, which is actually *Agathis jurassica*, since *A. australis* is the extant New Zealand Kauri Pine. Part of the caption reads “Foliage of the so-called Wollemi Pine is similar to fossils such as *Agathis australis*”. Yes, that is probably true, but what does “similar to” mean? Is this a chance similarity? Does this have phylogenetic meaning? Let’s go to the text to find out. On page 150 we are told that foliage of Wollemi Pine is “very similar” to foliage found in the Mesozoic and Cenozoic of Australia. I have spent the last two years fruitlessly searching for any fossil in the Australian Cenozoic that looks even remotely like Wollemi Pine, so this was interesting news for me. I see no compelling evidence for a close phylogenetic link between *Agathis jurassica* and Wollemi Pine at all. The specimens of *Agathis jurassica* look beautiful, but are really quite poorly preserved from a scientific perspective and they add little to our

understanding of plant evolution. It’s one thing to feature one in a poster from the Sydney Botanic Gardens advertising the find of the amazing Wollemi Pine, it is another thing altogether to give it currency in a text of this nature.

There is an opportunity missed here. The beauty of the fossil record is that it allows for informed speculation and gives enormous opportunity to explain the uncertainties and complexities of life. The few examples I have given here demonstrate that these authors have usually taken a conservative approach and have missed a great opportunity to bring the fossil record alive. When they do take a lateral approach, they do it with style. Their explanation of the evolution of tree trunks that begins on page 68 is both novel and beautifully presented.

If you are looking for a brief but relatively thorough walk through the plant fossil record, this book is as good as anything going around. The dramatic advances in our understanding of early angiosperms is presented here, but is missing from the standard texts that are only a few years old because so much has been discovered recently. That gives this book a currency that is lacking just about everywhere else and makes it a useful reference for anyone looking for an introduction to a straight down the line account of fossil plants.



Images from Australian gardening history celebrated

David Symon

State Herbarium of South Australia

R.Aitken. 2004 *Gardenesque. A Celebration of Australian Gardening*. Miegunyah Press. Retail price \$45.00

Age is wearying me and the years condemn, but I have always thought that the purpose of a printed page was to be read. Therefore clarity of text is a major contributor to the quality of a book. In this *Gardenesque* fails dismally. It is printed in light brown ink on light cream paper and frankly some of it is so trying to read that one rapidly gives up. Looking at the print under a binocular microscope one finds that some of it is a computer font and actually none of the letters are

fully coloured which must be part cause of the disaster.

The book is a result of an exhibition of the many printed articles on gardening in Australia up to modern times, on display at the State Library of Victoria. The Foreword states that “the book and the exhibition form a complementary pairing”.

There are far too many aspects of the Australian garden to itemise them here. Snippets on Australian Flora in Art, Hill’s Hoists, the Dahlia in Australia, the Garden year with Mr Bear, Arbor Days, the Australian Roadside, Lawn

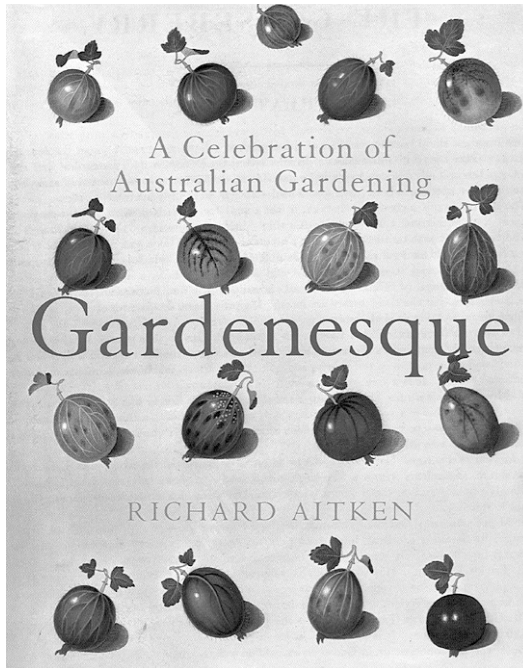
Mower Advertisements etc. All of this gives colour and interest to the history of Australian gardens. Any one of these could be elaborated but the chapter "Adapting to the Antipodes" seems quite inadequate for the long and fascinating history of the garden as a political statement, as establishing the UK "home" in Australia, the long denial of the worth of Australian plants. Of the latter the important role of the Society for Growing Australian Plants (now Australian Plants) is inadequately treated for its work in changing the composition of a huge number of Australian gardens in the post war period. It generated scores of plant nurseries specialising in Australian plants. The Society was a grass-roots organisation and its social history is yet to be written.

Almost every page of the book bears one or two illustrations, each accompanied by a paragraph of text. Many of the illustrations come out quite well so the book

is a selected furrow through our garden history. The book concludes with bibliography of source material but there is no index.

Editorial comment

David was not alone in his lack of appreciation of the lightness of the printing and the consequent difficulty in reading the text. Others we have spoken to shared this difficulty. Which is a pity since there is a great deal of beautifully illustrated and whimsical information in this book. One can dip into it at any point and find articles of familiarity, such as the Yates Seed Book cover, items of illumination such as that about the March Stand or items of intentional or perhaps, unintentional, humour such as *He digs, but finds it hot* of 1842, the *Rustic Adornments for Homes of Taste* in 1856, the image of the Irish Cistercian monks of Notre Dame Abbey off to work in 1957 and *The complete guide to growing Marijuana* by Lobotomy Press of 1972.



Earth Alive! – Mary White's view of the biosphere

Steve Hopper

Plant Biology, University of Western Australia

White, M.E. 2003. *Earth Alive! From microbes to a living planet*. Rosenberg Publishing, Dural, NSW. 192 pp. Retail price \$49.95.

This book, the fifth in a series commencing with Mary White's inspirational *The Greening of Gondwana* (1986), shares the theme of Australia's landscape and biota through time. *Earth Alive!* takes a broader look at the biosphere, its evolution and its ills, through the eyes of an Australian palaeontologist and gifted science writer. It is very much an account of the unsung and unseen, microbial life and its evolution, with macroscopic fungi, plants and animals alluded to where necessary.

The book, with a foreword by CSIRO's Dr John Williams, has a brief Introduction followed by four parts – (i) Earth, air life and water – the elemental biosphere; (ii) cycling of material in the biosphere; (iii) the living soil – an organ of the

biosphere; and (iv) Australian ecosystems: How they function as units of the symbiotic planet. A brief epilogue is titled "Looking back, looking forward", which sums up White's belief that historical evolution provides worthwhile lessons for planning future sustainable living.

The titles of Parts Three and Four give away White's philosophical conversion: "I was a Gaian when I started [writing the book], now I am a proudly Bacterial Gaian living in a Symbiotic Planet!". She elaborated:

"The research for me has been a revelation of the interconnectedness of everything in the Biosphere; the marvels of bacterial beginnings and the amazing symbioses that produced the *five* Kingdoms of living organisms; the Life-driven control of the atmosphere through time and Life's modification of the inanimate crust of the Earth; ..."

She proclaims her conviction that "... the Biosphere, in fact, *is* life."

To a confirmed skeptic, this announcement at the start of what purported to be a work of popular science raised some concerns, but I read on. It was an engaging read, idiosyncratic and selective, to be sure, but enjoyable and richly informative nonetheless.

Having struggled myself recently with the challenge of attempting to synthesize outside the confines of a narrow scientific discipline, I have nothing but admiration for White's prose. She has consulted across disciplines, provides a substantial and reasonably up-to-date reference list (though annoyingly not alphabetic), and wrote a brief glossary (though lacking definitions of "life", "metabolism", and "Gaia", keys to understanding her philosophy).

The text, at its best, is classic White, providing interesting well-written accounts of research from diverse disciplines. Scientific names and terms are present, from geology, biochemistry, microbiology, botany, zoology, oceanography. At times they make for a hard slog, but add to the scientific authenticity and feeling of reading work in direct touch with today's researchers. At times, there were one too many diversions and boxed stories who's relevance to the chapter were not explained well enough – a bit of a ramble through interesting yarns as one might relay over a campfire. But these are infrequent, and most of the way White remains focused and her meaning is clear, presented in well-crafted error-free text.

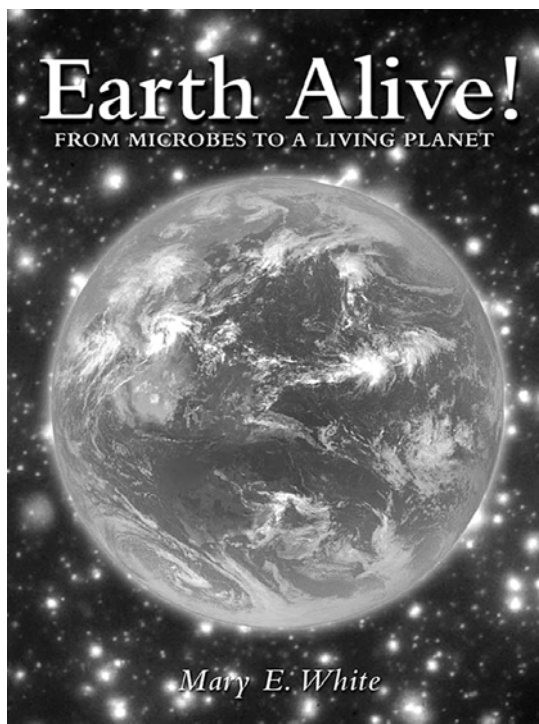
I especially enjoyed Part Three, the account of soil, its biota and its bioturbators in Australia. White is spot-on in arguing that soil biota have been neglected for too long in attempts to conserve biodiversity, and need special attention in Australia. Her argument on the cover sheet reads:

"Because terrestrial life is dependent on plants – whose photosynthesis provides the basis of all food chains – the role of soil micro-organisms is all-important.

Understanding how plants and the soil biota interact is basic to achieving sustainable land use and thus our own survival."

In Part One I learnt interesting new things about extremophiles, and geomicrobiology. Part Two was a useful refresher regarding nutrient cycling, and Part Four highlighted rarely treated Australian ecosystems such as groundwater systems with their stygofauna, the hyporheic zone of rivers and microbial life of the Southern Ocean. The latter were covered alongside the more familiar rainforests, brigalow, tropical savannah, mallee, mulga, southwest kwongan and Great Barrier Reef.

As with her other books, White has ensured the text is richly embellished with colour photos, drawings and maps, as well as some microscopic images to illustrate the minute. The illustrations are crisp and illuminating. Only one (on page 128) detracted from an otherwise high quality cast.



I have a few criticisms. Firstly, pertinent to the interests of this society, it is disappointing that White perpetuated the five Kingdom higher classification of life, now 50 years old, despite referring often and well to the molecular systematics revolution in understanding the three Domains and their phylogeny. Instead, we are given a [surprisingly for White] unreferenced statement and classification prefaced by: "Because of the complications that exist as a result of the many different classifications and the changing concepts, a standard and precise usage throughout this book is as follows: Three Super-Kingdoms are recognised: Archaea, Bacteria and Eukarya..." In this respect the book departs significantly from its otherwise admirable attempt to present authoritatively the latest in scientific thinking.

Secondly, White in places loses her scientific detachment and fails to clearly distinguish between that which has passed the test of refereed scientific scrutiny v/s unsubstantiated beliefs. This is evident in her support for Gaia

philosophy, her subtle but confusing definitional quagmire on life itself, her uncritical belief in now outmoded ecological concepts such as the “balance” of nature hypothesis, and indeed, that there are “laws” in biological science (cover sheet). To avoid such pitfalls, Ernst Mayr’s (2004) recent book makes for insightful reading.

Thirdly, the treatment of subjects with which I have some familiarity (e.g. kwongan) was clearly selective, relying on the few references quoted and advice of individuals mentioned in the acknowledgements. Many interesting stories were missed as a consequence, and alternative hypotheses not explored. Like other science synthesizers dealing with big picture themes, perhaps White had to follow this course. She carries it better, with less personal bias, than most writers in this idiom, but could have conveyed more of the excitement and uncertainty of science in progress rather than focusing so much on “just so” stories.

Perhaps because the book was sponsored by CSIRO’s Land and Water and by ANU, parts of the book read like advertorials for these and a couple of other institutions. These boxed accounts detract from, rather than add to, the unfolding story, and convey the implicit suggestion (though unintended) that no other research group in the field covered is worthy of

special mention. This too is a reflection of the limitations on wider consultation presented by the challenge of synthesizing across so many disciplines, and to the perils of modern sponsorship. It would have been better to have left these treatments out, and to focus more on the richness of research teams contributing to new discoveries.

A small quibble concerns the few mistakes in plant names I noticed, e.g. *Viminaria juncei* rather than *Viminaria juncea*, and the name *Borya nitida* incorrectly applied to what is *Borya sphaerocephala* in the caption to the photo on page 148.

These issues aside, *Earth Alive!* is a worthwhile addition to the library of anyone interested in Australia’s biota, its evolution and conservation. We need more writers and synthesizers of the calibre of Mary White to communicate to Australians what science might contribute towards environmental understanding and sustainable ways of living.

Reference

Mayr, E. 2004. *What Makes Biology Unique? Considerations on the Autonomy of a Scientific Discipline*. Cambridge University Press, Cambridge, UK.

The botanical contribution of the Forsters revisited

Robyn Barker

State Herbarium of South Australia

***The Forsters and the Botany of the Second Cook Expedition (1772-1775)*, Dan H. Nicolson & F. Raymond Fosberg. *Regnum Vegetabile*, vol. 139 (2004) Institute of Botany, University of Vienna.**

Distributed by Koeltz Scientific Books and listed as €160.00 or US\$217.

Copy from the library of the Botanic Gardens & State Herbarium, Adelaide.

The subjects of this book are the Forsters, father (Johann Reinold Forster) and son (Georg Forster), who accompanied James Cook on his second (1772-1775) expedition, and their plant collections. The basis of this work was that of Dr Raymond Fosberg (1908-1993), well-known author in matters concerning Pacific Botany. His co-author, Dan Nicolson, took over the project and the proofs of Fosberg’s first paper on the Forsters (Fosberg 1993) following Fosberg’s death. The project clearly expanded a great deal from this time and the history of that expansion is well documented within the introduction to the volume.

This is a thorough volume. Not only do we have an account of every herbarium which has Forster material, there is also an account of how it arrived there and an approximate number of specimens held. By far the richest is that of the Natural History Museum (BM) where multiple sets are held of the Forsters’ flowering plant and fern collections. The lack of cryptogam collections remains to be explained.

Thorough too is the background to the life of the Forsters’, not the least of which is a redressing of the claims of plagiarism levelled at their work by Merrill (Merrill 1954) in those years when the reputations of a number of German-born scientists and explorers, previously held in high regard, were sullied.

As an illustration of the quality of the work by the Forsters, Nicolson (p. 15) notes that half of the 94 names published by them in *Characteres Genera Plantarum* (1775 & 1776) still exist in the same form today, while others still exist as combinations in different genera; only 5 of their binomials are now considered to be synonyms.

The major part of the book is composed of an alphabetical arrangement of families, each with a list of species collected by the Forsters, under the headings Algae, Bryophytes, Pteridophytes, Monocotyledones and Dicotyledones. Under each species there is a consideration of the name of the plant, its distribution, a reproduction of the Forster text, a list of herbaria where these specimens can be found (often with further literature or cited references in addition to comments on the state of the material or comments on morphological characteristics), usually a typification of the species, these followed by remarks about the species. The remarks section is often a history of past names for the plant, but it may also have other comments taken from journals. The most useful information is probably that concerning where specimens were not found, such negative data often missing from many of today's taxonomic treatments.

So, a thorough book, thoroughly recommended for anyone who has to deal with Forster names.

References

- Fosberg, F.R. (1993). The Forster Pacific Islands collections from Captain Cook's *Resolution* voyage. *Allertonia* 7: 41-86.
- Merrill, E.D. (1954). The botany of Cook's Voyages and its unexpected significance in relation to anthropology, biogeography and history. *Chron. Bot.* 14: 161-384.

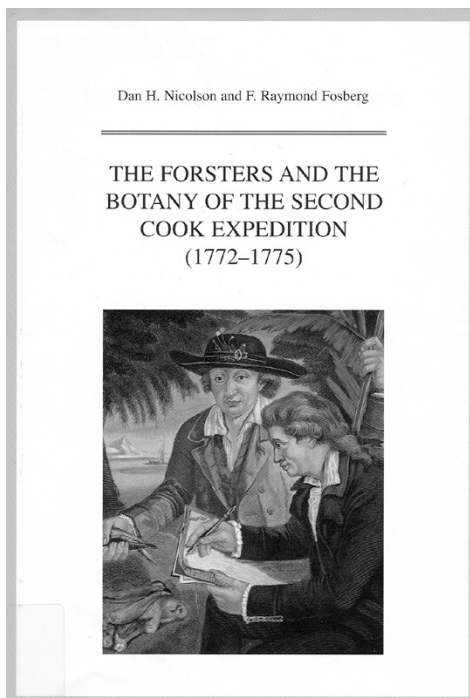
Addendum: Accessing the Forster Herbarium

Coincidentally, the Forster Herbarium at Gottingen is available on the web at www.sysbot.uni-goettingen.de/ and it can also be purchased as a CD-ROM entitled *The Forster herbarium at Gottingen (GOET)* from this site.

Crosschecking a selection of the GOET material against the account in Nicolson & Fosberg revealed that some of the species listed as being present in GOET by Nicolson & Fosberg do not appear in the database search e.g. *Alyxia scandens*, *Neisosperma oppositifolium* and *Barringtonia racemosa*, nor in the species listed on the site. In all three cases Nicolson & Fosberg described the GOET material as fragmentary. Other specimens are housed under the name applied to them by Forster rather than their present day name e.g. *Forster 190* is housed as *Sida rhombifolia* rather than *S. pusilla*, and so there may be difficulty in locating some of the specimens.

The specimens themselves may not be large but the scanning is extremely

generous and one can study them very close-up; see for example *Ruellia reptans*, which in the thumbnail looks quite depauperate, but in close-up shows all the detail of the fruits. Detail from the label is shown separately and this too is easily read.



Two publications on early French botany

Alex George

Australian Botanical Liaison Officer 2004-05

How often do we see publications on the same or similar subjects appear at around the same time, commonly quite coincidentally. Here are two.

Lucile Allorge avec Olivier Ikor. 2003. *La Fabuleuse Odyssée des Plantes: les Botanistes Voyageurs, les Jardins des Plantes, les Herbiers* (JC Lattès, Paris). Pp. 733, 12 colour plates (on 16 pp.). Price €28 (paperback). Text in French.

In 28 chapters this remarkable work traces the history of botany from ancient times to the present. Here we follow explorers and botanists, sailors and doctors, gardeners and colonists as they discover, study, transport, grow and use plants. Woven throughout are the contemporary historical, social and political contexts.

The lives and achievements of the major players (ships' captains, collectors etc.) are covered in

some detail. Inserts give potted biographies of botanists who worked on the collections, such as d'Incarville, Commerson, Desfontaines and De Candolle, and discuss matters such as how to press specimens and the problem of scurvy.

For Australia there are brief accounts of the major French voyages: la Pérouse, Baudin, Freycinet, Duperrey, d'Urville, their ships and those who voyaged with them. Generally the text appears accurate, but I noticed that the Huon River is first said to flow into the sea at Esperance Bay (though later correctly sited in Tasmania), the archipelago there is the Entrecasteaux, and Cape Riche is also said to be at Esperance Bay instead of in its correct position farther west. On a small matter of orthography, Anselm Riédle has two diacritics—previously I have seen his family name with only the second.

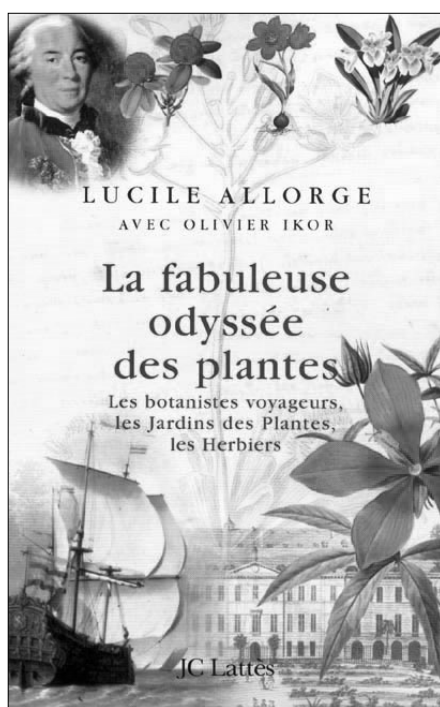
Three annexes list collectors cited in the catalogue of the herbarium of Jussieu, 1868; the journal (letters) of a mysterious J Macé who was in l'Île-de-France in 1793 and who collected specimens now in the Jussieu herbarium; and a list of plants collected in Guyana by Stoupy, another 'inconnu' (unknown person) in the Jussieu herbarium.

Many sources are cited in the text, and there is a 7-page bibliography.

Benoît Dayrat. 2003. *Les Botanistes et la Flore de France: Trois Siècles de Découvertes* (Muséum national d'Histoire naturelle, Paris). Pp. 693 Price €45 (paperback). Text in French.

This second work on the history of botany in France concentrates on the people and covers a shorter period, from the 18th century to the present. The four chapters cover the periods 1753–1790, 1790–1850, 1850–1920, and 1920 to the present. Each of the first three chapters has a short introduction on the main developments in systematic botany in European countries. Then follow short biographical accounts of the French botanists and collectors of the period, with some portraits and a scattering of other illustrations such as reproductions of title pages and colour plates of plants. While many of the people have contributed to our botany, mentions of Australia are relatively few, shown by just six entries in the general index. There is a table of plants in the flora of France named by French botanists.

The different emphasis in these two books is reflected in the bibliographies: only four works cited are common to both. Like Allorge, however, Dayrat also cites many text references as footnotes.



Encyclopaedia of past and current plant use in Europe

David Symon

State Herbarium of South Australia

***Compendium of Symbolic and Ritual Plants in Europe. Vol. 1. Trees & Shrubs. Vol. 2. Herbs.* Marcel de Cleene, Marie Claire Lejeune. 2003. Man & Culture Publishers, Ghent, Belgium (in English).**

The cost from Amazon Books (UK) was £115 or €179.48 (hard cover editions) with shipping cost of £7.98 or €11.65.

Personal copy of D.E. Symon.

These two solid volumes comprise 1580 pages. The contents, arranged alphabetically under

English common names with substantial indices at the end of each volume, are described as botanical, cultural and the uses of these plants by man.

The volumes were first written in Dutch and published in Belgium in 1999, 2000 and 2003.

They were then translated into English by Gregory Ball.

To take a few examples almost at random: Box, *Buxus sempervirens* L. has 10½ pages of text and 165 references and three black and white illustrations. The dwarf palm, *Chamaerops*, of southern Italy does not get a mention, but the more restricted Date Palm, *Phoenix dactylifera*, has about 10 pages of text and 190 references in addition to 7 illustrations. The text includes numerous references to the substitutes for palms used throughout Europe.

The cereals are dealt with in one entry, include a number of species with numerous illustrations in 45 pages of text and an enormous

bibliography of 640 references.

Groups of plates throughout the volume depict plants in modern colour photos and pages from herbals, and their use in artefacts, fonts, doors, images, stained glass and architectural motifs.



These are not the sort of books one sits down to read straight through, but as sources of an amazing amount of information seem unequalled. They are scarcely relevant to the native Australian flora except as a reminder of what we have probably lost of Aboriginal lore. As most of these species are now in Australia the volumes are of use to anyone writing on our weeds or many of our horticultural plants. They will remain substantial reference volumes for a great while.

Miscellaneous publications

The herbarium of William McNab in Glasnevin

Robyn Barker

State Herbarium of South Australia

Nelson, E. Charles (2004). William McNab's Herbarium in the National Botanic Gardens, Glasnevin, Dublin (DBN) with catalogues of specimens. *The Scottish Naturalist* 116: 43-199.

Those of you familiar with Charles Nelson's researches into historical specimens will be pleased to hear that he has produced his catalogue of the specimens in the McNab Herbarium held by the National Botanic Gardens in Dublin. William McNab (1780-1848) was employed in the Royal Gardens at Kew from 1801-1810 and then at the Edinburgh Botanic Gardens from 1810-1848. He collected specimens from cultivated plants from both institutions between 1805 and 1818. This time coincided with the coming to fruition of some of the seed collections of Peter Good, Robert Brown, George Caley and Archibald Menzies, all of Australian interest, as well as other well known plant collectors such as Francis Masson and William Kerr. New South

Wales Colony governors, William Bligh, Philip King and Colonel William Paterson are mentioned amongst other collectors.

This paper has been in preparation for quite a few years and was at one stage referred to as being about to be published in *Occasional Papers, National Botanic Gardens, Glasnevin*. Other references to it include

1) Australian herbarium specimens in the National Botanic Gardens, Dublin (DBN). *Australian Systematic Botany Society Newsletter* 27: 12-13 (1981).

2) Notes on Australasian specimens in the National Botanic Gardens, Glasnevin, Dublin (DBN: Herb. McNab) relating to the second edition of Aiton's *Hortus Kewensis*. *Australian Systematic Botany Society Newsletter* 89: 21-25 (1996).

Important weed documents available on the Web

Robyn Barker

State Herbarium of South Australia

Groves, R.H., Boden, R. & W.M. Lonsdale. (February 2005). *Jumping the Garden Fence - Invasive garden plants in Australia and their environmental and agricultural impacts. A CSIRO report for WWF-Australia. Downloadable (173 pp.) from www.wwf.org.au/News_and_information/Publications/PDF/Report/jumping_the_garden_fence.pdf*

We all know that garden plant introductions to Australia have contributed greatly to the weed species in Australia – of the estimated 27,000 introduced plants in Australia, 94% have been introduced by, or for the gardening industry. Some 10% (2800) of the introduced plants have become naturalized (the number increases by about 10 species a year) and 66% of these naturalizations represent garden plants. Here are all the facts and figures on the effects of escaped garden plants on the Australian landscape. Here to is a warning about differing attitudes to particular weeds by the states and territories and the continuing availability of many of these invasive species for sale in nurseries.

Native Australian plants which have become weeds outside their natural range are featured in the appendix listing naturalized invasive and potentially invasive garden plants. From a quick survey this listing needs some input by botanists – a number of species, and even genera, are not there which I would have expected – *Ruellia*, *Asystasia* and *Dicliptera* to name just some in Acanthaceae, while there is a listing for *Rubus parvifolius* as an introduction in the Australian Alps where it is a native species.

There are fact sheets for the ten most seriously invasive garden plants that are still being sold by nurseries for each Australian state or territory with the recommendation that they be prohibited from sale by July 1, 2005. There are also recommendations that 80 species currently available for sale should be prohibited nationally as a matter of urgency and that further plants be progressively added to such a list. Amendments to the current Federal *Environment Protection*

and Biodiversity Conservation Act should allow a national approach to the prevention of sale of invasive garden plants.

Furthermore the report encourages the interaction of nurseries and weed managers, that bushland adjacent to gardens be regularly monitored by botanists and trained volunteers and of course, increased resources to promote awareness of the problem in the community.

Glanznig, A. (April 2005). *Making State Weed Laws Work. WWF-Australia Issues Paper. WWF-Australia, Sydney. Downloadable (32 pp.) from www.wwf.org.au/News_and_information/index.php*

A follow up document to the *Jumping the Garden Fence* report. It examines why State and Territory weed legislation is ineffective in stopping the legal importation of new invasive plant species and also in preventing these being available for sale in nurseries. Subjects addressed include the present poor alignment between State and Territory declared weed lists and problems with the nature of the existing lists. A series of 13 recommendations are made to improve the situation; these recommendations have an emphasis on a national approach that is proactive rather than reactive, so that there would be a national list of permitted plant species allowed into Australia. Anything not on the list would be banned from entry.

A Senate enquiry on weeds

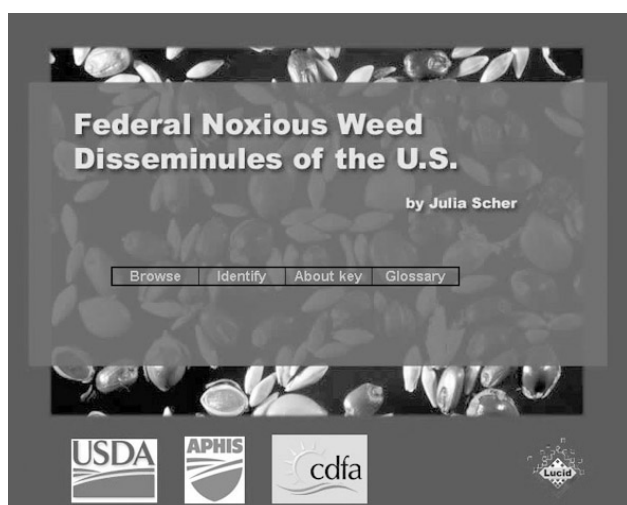
The Senate Inquiry into the *Regulation, control and management of invasive species and the EPBC Amendment (Invasive Species) Bill* has been completed. The Senate Committee has now released their report from the Inquiry, along with 27 Recommendations.

Links to each chapter of the report are found at: www.aph.gov.au/Senate/committee/ecita_ctte/invasive_species/report/index.htm

A new Lucid key to noxious weed disseminules of the USA

Just released, this key by Julia Scher covers the 96 taxa currently on the USA federal noxious weed list, and 10 taxa regulated under the Federal Seed Act. The key was commissioned by the US Animal and Plant Health Inspection Service, and has been built by Julia Scher at the California Department of Food and Agriculture

Since many of the species, or at least genera, treated here also occur on Australian lists – *Cuscuta spp*, *Prosopis*, *Orobanche*, *Nasella*,



Emex, water weeds such as *Hydrilla*, *Eichhornia* and *Ottelia* and the marine *Caulerpa taxifolia* - this has to be of interest to those responsible for determining the identity of noxious weed seeds or disseminules in Australia as well. Each of the species has a comprehensive fact sheet with excellent illustrations of the disseminules

If you already have the Lucid Player installed on your computer you should be able to download and play this readily from the website. It is available online at lucidcentral.org/keys/viewKeyDetails.aspx?id=300 There are also instructions for downloading the Lucid player. Or if you would prefer, the key is also available as a CD from:

Dr Dan Fieselmann
USDA APHIS PPQ CPHST
Director's Office-Suite 400
1730 Varsity Drive
Raleigh, NC, 27606, USA
Fax (1-919) 855-7480

Web sites of interest

Herbarium specimens of Japanese plants

The collection of Professor Emeritus Joju Haginiwa, Pharmaceutical Sciences, Chiba University, Japan, consists of c. 54,000 flowering plants from all over Japan, as well as Thailand and Taiwan; it was collected between 1947 and 1996.

Following his death in August 1996, these collections were databased for pharmaceutical education and research in the field of medicinal resources in Japan and the specimens are now projected on the web (Web ref. 1). They can be searched for by their Latin name. The images of the specimens are impressive, the labels easily read, and if one could understand Japanese, their collecting locality easily cited. However the presence of a map of Japan with each specimen with an area highlighted in red indicates the general area of collection.

Web ref. 1.³ www.sakuyou.p.chiba-u.ac.jp/index_E.html

Images of South African plants

A site (Web ref. 1) found to be particularly useful in dealing with weeds is the South African Plant

³ This site was communicated by A.R.Bean.

Web. Not comprehensive with respect to species but those that are represented have more than one image and there is often detail shown which is not readily available elsewhere. For example *Orobanche minor* has 4 images, one of the inflorescence, the flower from a different angle, the inside of the flower and an opened out ovary. The hairs on the style are easily visible. For *Protea* there are a number of species shown and for some of these, cultivars are also shown. There are numerous species shown for *Erica*, many of them with detail of the flowers. Many of the pictures have been taken using a flat-bed scanner which accounts for the detail and also highlights the use which can be made of this instrument.

Web ref. 1. www.plantweb.co.za/Plant_Pictures/index.html

Explorers' journals on line

The University of Sydney in collaboration with the State Library of New South Wales at their web site (Web ref. 1) brings you *First Fleet, Early Settlement and Inland Exploration Documents*. Journals from the First Fleet section includes those of Phillip, Hunter, Clark, King and Tench. Also included is John White's *Journal of a Voyage to New South Wales* which includes the Natural History appendix with sixty-five plates of "non descript animals, birds, lizards, serpents, curious cones of trees and other natural productions"

Later journals on inland exploration include the accounts of Blaxland and the crossing of the Blue Mountains, Oxley's Journal of Two Expeditions in New South Wales, Major Mitchell's 1839 and 1848 expeditions, Ludwig Leichhardt's 1847 Port Essington expedition, Edward John Eyre's Central Australian expedition, Charles Sturt's 1833 and 1849 narratives of his expeditions, John McDouall Stuart's account of his 5 expeditions and finally Baldwin & Gillen's 1899 account of the native tribes of Central Australia.

All of these journals can be viewed as html or they can be downloaded as a pdf document. Images associated with the original publications are also reproduced.

While on this subject the State Library of New South Wales now also has a site where their collection of Joseph Banks papers can be viewed (Web ref. 2). Not so easy to navigate as the above and also not always so easy to read since we are often dealing with the handwritten copies of letters rather than publications or transcripts. The exception to this is Banks's *Endeavour* journal a transcript of which can be downloaded in its entirety in your choice of form. There are other interesting pages, one in particular under the title, Gardeners and Collectors, where mention can be found of Peter Good, Christopher Smith and George Caley. Also included and reproduced in the collection is a copy of the "Rules for collecting and preserving specimens of plants" which is more comprehensive than the one usually cited.

Web references

1. <http://setis.library.usyd.edu.au/oztexts/explorers.html>
2. www.sl.nsw.gov.au/banks/

Discussion paper on Rec. 60C.2 of the Code

Paul van Rijckevorsel of Utrecht, Netherlands has put together a discussion paper on orthography in preparation for the nomenclature session in Vienna in July. His discussion can be seen at <http://botgard.bio.uu.nl/Taxonomy/Ortho-2.htm>

A new phylogenetic site

⁴A new site (Web ref. 1) for the phylogenetic community provides news (articles, programs, updates, etc.), a forum for questions and discussion, links to labs, programs, etc., eventually downloads of scripts and how-tos, and more.

⁴ From Taxacom archives

To view and download everything you can just go, to contribute, just register on the site. You are then free to contribute to whatever sections you wish.

Stephen A. Smith
Department of Ecology and Evolutionary Biology
Yale University

Web ref. 1. www.yphy.org/phycom/

Plant explorers site

An interesting "popular" site (Web ref. 1) with background information on a number of botanists, including Linnaeus, the Hookers of Kew, Nathaniel Ward and the French Missionary botanists in China, and artists, including Marianne North, W.H. Fitch and the Bauer brothers. It's not clear where the site originates but there does seem to be a Kew bias in the choice of information. But then there are links to Botanic Gardens all over the world, seed collecting links, links to equipment and supplies for photographers and expeditioners and also an offer to obtain photographs (at a competitive price) of that elusive plant for which you need illustrations!

Web ref. 1. www.plantexplorers.com/index.html

Paul Foelsche – photographer and naturalist

Presently open at the South Australian Museum is a travelling exhibition featuring the photography of Paul Foelsche. *The Policeman's Eye: Paul Foelsche's frontier photography* was put together by Philip Jones and Tim Smith. It consists primarily of photographs taken by Foelsche in and around Darwin from 1869 to 1914. As well as being a photographer, Foelsche was also a plant collector, his specimens mostly going either to Mueller or to Richard Schomburgk. *Eucalyptus foelscheana* F.Muell. and *Dendrobium foelschei* F.Muell. were both named in his honour. The exhibition is on line (Web ref. 1). As well as seeing his photographs there is also access to a full biography of Foelsche.

Web ref. 1. www.samuseum.sa.gov.au/page/default.asp?site=1&page=OnlineExhibs_Policeman

Australian Systematic Botany volumes now all on line

The print archives of *Australian Systematic Botany* back to the first paper in Volume 1 have now all been digitised and are now available online to all subscribers.

The back issues have been fully indexed and are searchable using the CSIRO Publishing search engine as well as by Google. There is also a button showing the top 20 *Most Read* papers since CSIRO Publishing started collecting online usage statistics in 2000.

Internet course on Linnaeus's life and sciences

As a prelude to the celebration of Carl Linnaeus' 300th birthday 2007, Uppsala University offers a unique Internet-based course about Linnaeus's life and sciences. The aim of the course is to give knowledge about the teacher and scientist Carl Linnaeus from a scientific and historical point of view.

Leading experts on botany, zoology, geology, medicine, history, literature and theology introduce Linnaeus' different fields of research. Special focus is given to his main topic, systematic botany.

The course runs part time (25%) from September 2005 to January 2006, and invites interested students from all nationalities and ages.

Last day for application is 15 April 2005. For more information and application form please visit the web site: www.ibg.uu.se/linnaeus

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www.ibg.uu.se

Names politically incorrect, embarrassing, conserved or rejected

In early March an interesting thread ran through the Taxacom pages (Web ref. 1) under the heading "So much for nomenclatural stability". It concerned attempts to change scientific names for political reasons (Turkish attempts to change some animal names to remove reference to Kurdistan and Armenia – originally reported at Web ref. 2) and because of embarrassment (attempts to change *Phallus* to *Morellus* and attempts to revoke the name of a lady's slipper orchid because it was illegally collected – see Web ref. 3).

All this led to the discovery of a website (Web ref. 4) for looking up conserved and rejected plant names maintained on the Smithsonian Institution site. Search the site database to find out just where your name was rejected or conserved or which is the correct one to use. Records go back to 1892.

Web references

1. <http://listserv.nhm.ku.edu/archives/taxacom.html>
2. <http://news.bbc.co.uk/2/hi/europe/4328285.stm>
3. www.ubcbotanicalgarden.org/weblog/000050.php
4. <http://persoon.si.edu/codes/props/index.cfm>

Conferences and workshops

Conferences in Perth in 2005

With the cancellation of the proposed ASBS meeting in Perth in September (moved to Brisbane in November: see pp. 1, 2, 9-10), there are three other conferences of interest for those of you who remain keen to visit Western Australia in spring:

- **Australasian Evolution Society 4th meeting:** Fremantle 27-30 September 2005. Details are available at www.evolutionau.org
- **Association of Societies for Growing Australian Plants 23rd Biennial Conference – Theme "the West's Wonderful Wildflowers":** Perth (Hale School, Wembley Downs) 3-7 October 2005. Contact: wildflowers@ozemail.com.au

- **Advances in plant conservation biology: implications for flora management and restoration**, jointly sponsored by CALM and BGPA: Perth 25-27 Oct 2005. Contact Dr David Coates: davide@calm.wa.gov.au

International Botanical Congress 2005

Final registration (now at the higher fee) is possible before 3 July 2005.

Contact:

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Secretary-General, IBC 2005
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e-mail: office@ibc2005.ac.at
Phone: +43-1-4277-54122
Fax: +43-1-4277-9541
www.ibc2005.ac.at/

Invertebrate Diversity in Landscape Management

*Australian National University, Canberra, 4-9
December 2005.*

This is a combined conference and incorporates the 36th Scientific Conference of the Australian Entomological Society, the Society of Australian Systematic Biologists Conference and the 7th Invertebrate Conservation and Biodiversity Conference. Further information and an expression of interest form is available (Web ref. 1), including a poster for the conference (Web ref. 2).

Web references

1. www.invertebrates2005.com/scientific.htm
2. www.invertebrates2005.com/poster.pdf

TDWG 2005 – St. Petersburg, Russia, 11-18 September 2005

Important information concerning travel and hotel arrangements, and the first draft of the

meeting schedule for the TDWG 2005 Meeting can be found in their web pages (Web ref. 1).

It is important that you read this information if you wish to attend the meeting in September, as it introduces the procedure that will be necessary to book hotel accommodation and obtain a visa to enter Russia. Please note that, although it will be quick for most delegates using the system we have devised, nationals of some countries will require several months to obtain a Russian visa. More information will be available so so keep checking back.

We look forward to seeing you in St. Petersburg!

Adrian Rissone

E-mail: A.Rissone@nhm.ac.uk (with Subject line "TDWG 2005")

Secretary and Meeting Coordinator
Taxonomic Databases Working Group
www.tdwg.org

Web ref. 1. www.tdwg.org/2005meet/TDWG_2005_Intro.htm

Correspondence

Short term curatorial and research position in Fiji

The SUVA Herbarium has in recent years expanded in terms of the activities we are involved in and more importantly in the number of specimens we hold. Recently the whole Honiara (Solomon Island) herbarium collection was relocated to the SUVA facility.

I would like to bring to your attention a *short-term botanical research opportunity with partial funding* for someone who wants to spend time off normal work for some working holiday here in Fiji. The person will be required to do some basic curatory work at the SUVA herbarium and this will mostly involve validating preliminary identification on some specimen vouchers – especially those collected by parataxonomist and ethnobotanists, consultation on improving our database and exploring possible projects which we could collaborate on.

Funding will be provided for accomodation and field expenses. We will also take care of all logistical matters in relation to your field work.

Duration of your research or stay can range from a few weeks to a year and I hope to begin this in 2005.

Marika Tuiwawa
Curator

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Suva, Fiji

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Fax: +679 3300373

Email: Marika.Tuiwawa@usp.ac.fj

Request for back volumes of *Australian Systematic Botany*

I am looking for a more or less complete set of *Australian Systematic Botany* (from volume 1 and onwards). Any suggestions are welcome.

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104 05 Stockholm, SWEDEN

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Fax: +46-(0)8-5195 4221

ASBS Publications

History of Systematic Botany in Australia

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

For all those people interested in the 1988 ASBS 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

Austral.Syst.Bot.Soc.Nsltr 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*.

Australian Systematic Botany Society Newsletter

Back issues of the Newsletter are available from from *Number 27* (May 1981) onwards, excluding *Numbers 29, 31, 60-62, 66, 84, 89, 90, 99, 100* and *103*. 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.

Evolution of the Flora and Fauna of Arid Australia

Edited by W.R. Barker & P.J.M. Greenslade. Peacock Publications, ASBS & A.N.Z.A.A.S., 1982.
\$20 + 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.

Also available from. Peacock Publications, 38 Sydenham Road, Norwood, SA 5069, Australia.
(To obtain this discounted price, post a photocopy of this page with remittance).

Ecology of the Southern Conifers (NOW OUT OF PRINT)

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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AD tel: (08) 8222 9307 fax: (08) 8222 9353 www.flora.sa.gov.au	HO tel: (03) 6226 2635 fax: (03) 6226 7865 www.tmag.tas.gov.au/Herbarium/ Herbarium2.htm	MEL tel: (03) 9252 2300 fax: (03) 9252 2350 www.rbg.vic.gov.au/ biodiversity/	NSW tel: (02) 9231 8111 fax: (02) 9251 7231 www.rbg Syd.gov.au/conservation _research/herbarium_&_services
CANB tel: (02) 6246 5108 fax: (02) 6246 5249 www.anbg.gov.au/	BRI tel: (07) 3896 9321 fax: (07) 3896 9624 www.epa.qld.gov.au/nature_ conservation/plants/ queensland_herbarium	DNA tel: (08) 8999 4516 fax: (08) 8999 4527 www.nt.gov.au/pwcnt	PERTH tel: (08) 9334 0500 fax: (08) 9334 0515 http://science.calm.wa.gov.au/ herbarium/
QRS tel: (07) 4091 8800 fax: (07) 4091 8888	MBA tel: (07) 4092 8445 fax: (07) 4092 3593	NT tel: (08) 8951 8791 fax: (08) 8951 8790	
Council of Heads of Australian Herbaria (CHAH) Chair: Dr Greg Leach (DNA) www.chah.gov.au/	ABRS tel: (02) 6250 9554 fax: (02) 6250 9555 email: abrs@deh.gov.au www.deh.gov.au/biodiversity/ abrs	Australian Botanical Liaison Officer (ABLO) Alex George Herbarium Royal Botanic Gardens, tel: 44-20-8332 5270 Kew fax: 44-20-8332 5278 Richmond, Surrey email: TW9 3AB England ablo@rbgkew.org.uk	

These listings are published in each issue. Please inform the Editors of any change.

AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED

The Society

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

Membership

Membership is open to all those interested in plant systematics. Membership entitles the member to attend general meetings and chapter meetings, and to receive the Newsletter. Any person may apply for membership by filling in a "Membership Application" form and forwarding it, with the appropriate subscription, to the Treasurer. Subscriptions become due on January 1 each year.

The ASBS *annual membership subscription* is \$45(Aust.); full-time students \$25. Payment may be by credit card or by cheques made out to *Australian Systematic Botany Society Inc.*, and remitted to the Treasurer. All changes of address should be sent directly to the Treasurer as well.

The Newsletter

The Newsletter is sent quarterly to members and appears simultaneously on the ASBS Web site. It 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.

Citation: abbreviate as *Austral. Syst. Bot. Soc. Nsltr*

Contributions

Send to the Editors at the address given below. They *preferably* should be submitted as: (1) an MS-DOS file in the form of a text file (.txt extension), (2) an MS-Word.doc file, (3) a Rich-text-format or .rtf file in an email message or attachment or on an MS-DOS disk or CD-ROM. *Non-preferred* media such as handwritten or typescripts by letter or fax are acceptable, but may cause delay in publication in view of the extra workload involved.

Formatting of submitted copy. Please use Word in formatting indents, bullets, etc. in paragraphs and for tables. Do not format primitively with tabs, which change with the Normal style sheet. If embedding tables or references or other Objects from other software (Excel, bibliographic software, etc.) ensure that these are converted to Word tables or paragraphs. Letters in abbreviations of Australian States (SA, WA etc., but Vic.) and organisations (e.g ASBS, ABRIS) should not be separated by full-stops, but initials should be (e.g. W.R. Smith, not WR Smith).

Images: their inclusion may depend on space being available. Improve scanned resolution if printing your image is pixellated at a width of at least 7 cm (up to a 15 cm full page). Contact the Editors for further clarification.

The *deadline* for contributions is the last day of February, May, August and November. All items incorporated in the Newsletter will be duly acknowledged. Any unsigned articles are attributable to the Editors.

Authors alone are responsible for the views expressed, and statements made by the authors do not necessarily represent the views of the *Australian Systematic Botany Society Inc.* Newsletter items should not be reproduced without the permission of the author of the material.

Advertising

Advertising space is available for products or services of interest to ASBS members. The current fee is \$100 per full page, \$50 per half-page or less.

Fliers may be approved for inclusion in the envelope for products or services of interest to ASBS members. The current fee is \$100 per flyer, plus the cost of inserting them (usually roughly \$25-30). Flyers are not part of the Newsletter and do not appear with the Newsletter on the ASBS Web site.

A 20% discount applies for second and subsequent entries of the same advertisement. Advertisements from ASBS members are usually exempt from fees but not the insertion costs in the case of a flier. Contact the Newsletter Editors for further information.

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