

THE FRIENDS OF THE WAITE ARBORETUM INC.



NEWSLETTER

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GENERAL MEETING on Monday 28 October 1996 at 8 pm

Our speaker, Valmai Hankel, has charge of the Rare Books and Named Collections of the State Library of South Australia and has been prominent among librarians of this state for many reasons. Apart from the quality of her mind which she brings to the tasks she undertakes, there is her willingness to share with the public the treasures for which she is responsible by speaking to more groups and individuals than most people would consider to be a reasonable workload. She also shares her other interests like the growing of vines and making wine and writes and speaks on those topics too. This may sound a bit fulsome but her name is known to so many and for the very nicest reasons and like her collection she is one of the treasures of Adelaide. I was only sorry that more of the Friends were not there to hear her address which she dubbed, *Botanical Describers*. Delivered in her own congenial style, it was a very satisfying story, with slides as illustration, of those who ventured into the wilderness of Australia to describe its flora.

Botanists in the New World of the 18th and 19th Century had a huge task and no fixed points from which to work. Plants of this area are so different from those described by Linnaeus and his followers. Dampier provided the first published description of Australian flora from his voyage on the *Roebuck* in 1699. His book, *A Voyage to New Holland, in the year 1699* was published in 1703 and contains a description of the plant we know as Sturt's Desert Pea. His book did nothing to encourage tourism and it was 60 years before there was any interest in New Holland. In 1768 Lieutenant James Cook brought HMS Endeavour to the Pacific to observe the transit of Venus across the face of the sun and to search for the Great South Land. What a wise fortune it was that dictated that he would be accompanied by Banks, Solander and Parkinson. In 1771 the ship returned with 1,300 new plant species and 110 new genera from the Southern Hemisphere. Banks supervised and financed the engraving of 743 plates from Parkinson's work, the artist having died on the way home. Publication did not occur until 1820 and again between 1901 and 1905 the British Museum published 30 of the 33 Australian plates. At last Banks' *Florilegium* appeared, all 738 plates in colour, published in 1989 after nine years work and, thanks to the generosity of the Friends, the State Library has a complete set. The slides which Valmai showed were magnificent.

That was the beginning of a long trail of fine botanical artists and their contribution to natural history. Surgeon-General John White's *Journal of a Voyage to New South Wales*

FROM THE COMMITTEE - Meetings on 1 October and 2 December 1996.

- A set of eight postcards depicting well-known and beautiful plants from the Arboretum has been produced for the Friends as another source of funds. Mary Tester has organised this venture very capably.
- The Committee congratulated Dr Gardner, the Curator, on the good condition of the Arboretum and she attributed much of the responsibility to the efforts of several volunteers. Volunteers do find much reward for their efforts by the nature of their workplace. A horticultural student has started work on necessary pruning. Seed collection from local native grasses will start soon for later planting around the dam.
- Planning is under way for classes in botanical art to be held at the Arboretum. More details will be forthcoming soon.
- The President of the Friends has written to the Director of the Waite Institute requesting that no parking be permitted beneath the elms at the eastern end of the Elm Avenue lest the trees be damaged and urging the Director to reject the proposal to reopen the Elm Avenue to vehicular traffic.

NEW MEMBERS

Welcome to: Ms Patricia Alexander, Hawthorn; Dr Arun Aryan, Waite Campus; Mrs Molly Carvosso & family, Bellevue Heights; Hiscock-Croft Family, Parkside; Ms June Littleford, Henley South; Dr Lesley MacCormac, Netherby; Dr Anne Rendell, Manningham; Ms Di Shearer, Netherby; Ms Patricia Spark, Kent Town; Dr Simon Wooley, Beetaloo Valley.

It is with sadness we record the death of Foundation member Wendy Abbott-Young. Our condolences are extended to her husband Peter and their family.

ARBORETUM NEWS

Watercourse

The watercourse is developing well with the waterplants becoming established and the addition of three large cycads and six large palms which were relocated from a building site elsewhere on campus. Thanks to Rob Wittkowsky the new Waite Campus Grounds Manager who offered the plants to the Arboretum and oversaw their transplantation.

To improve the water quality and general ecology of the Claremont dam, carp were eradicated in late December by scientists from South Australian Research & Development Institute (SARDI) - Aquatic Sciences - Inland Waters Research. SARDI donated their time and the City of Mitcham purchased the piscicide Rotenone which is derived from the powdered root of *Derris* spp. Removal of the introduced carp has resulted in clearer water and will enable aquatic vegetation to be established. This will provide more food and better habitat for frogs, birds, tortoises and other native animals. Signage will be placed to inform people that the release of carp is illegal and to educate people about the benefits to native aquatic fauna and flora of not reintroducing more carp. In a few months the dam will be stocked with native species of fish which will contribute to the conservation of these species. The City of Teatree Gully has offered to provide aquatic vegetation from their established wetlands. There will be a collecting trip on Wednesday 29 January. Anyone who would like to help with collection or subsequent planting out should contact me on 8303.7405.

Web site

A Web site has been established for the Arboretum and also for the Twentieth Century Rose Garden at Urrbrae House. The full address is still not finalised, but you can find it via The University of Adelaide - Faculty of Agricultural & Natural Resource Sciences home page: <http://www.waite.adelaide.edu.au>.

All *Gmelina* are rainforest species with *G. leichhardtii* occurring naturally from the south coast of N.S.W. to the Eugella Range west of Mackay, Queensland, from sea-level to 500 m - usually as scattered plants or as small groves of 3 to 5 trees. However today mature trees are rare in the wild as their beautiful timber is as valuable as *Toona australis* - the more famous Red Cedar. The timber is soft but very durable, light grey to brown and one of the slowest drying Australian timbers (it has a tendency to rust nails!). It is similar to European Beech, hence the common name White Beech. It was much in demand for many uses and so has been extensively logged.

Gmelina leichhardtii is an attractive tree, hardy, fast-growing and, while too large for the average garden, is an excellent tree for parks or for street planting. It grows to 35 m (less in cultivation) with spreading branches and an open crown which is semi-transparent in sunlight. Semi-deciduous with the leaves falling in November, the new growth commences almost immediately. The large (to 14 cm) oval leaves are conspicuous, coarse, leathery and bright green with distinctive prominent veins on the undersurface which is covered with a dense, velvety down. There is a short petiole and the leaves are arranged almost horizontally.

Flowering occurs soon after the new leaf-growth. These are tubular white flowers with yellow markings, 2 cm long and borne in dense terminal clusters. Succulent blue or purple globular fruit follow. These are 2.5 cm in diameter and inside the fleshy mesocarp is a hard stone with four cells. Each has a single seed which is often difficult to propagate because of its hardness.

There are three *Gmelina leichhardtii* in the Waite Arboretum at A4 -#949, B8 - #944 and J10 - #151. These were planted between 1931 and 1933 and are small, regular-shaped trees about 5m. tall. In late December #949 was covered with flower buds. Although much smaller than if they were growing in sub-tropical conditions, these healthy trees show that they will tolerate a drier climate.

Mary Tester

ARBORETUM SCULPTURE

Many people have admired the 4m high Austen steel sculpture 'Floating Figure 1' by Greg Johns and have asked to know more about the sculptor and his work.

Greg has a well established reputation having exhibited in New York, Philadelphia, Japan and the U.K. as well as in Australia. His work is held in collections in U.S.A., England, New Zealand and Singapore. He describes his work as follows:

"My piece is very much a sculpture about this country. Perhaps a comment on where we stand now in that I see the work as being a hybrid work of European and Australian sculptural influences. Conceptually the piece reflects the underlying interconnected patterns of Celtic and Aboriginal mythology. The shape of the head is European in form and the elongation of the body echoes Aboriginal paintings.

The figure emerges from a continuous wave pattern which relates to the contemporary scientific theories on the nature of matter. I am interested in the physical forms emerging from wave patterns.

The piece evokes a protective or guardian spirit the notion of which has been lost from our culture."

The loan of the sculpture for one year was made possible by a grant from Art for Public Places through the Dept for the Arts and Cultural Development and the work is for sale.

Greg is also the principal artist collaborating on the design for the Paddocks Garden in the Mallee Block. This plan and the other garden plans are on display in Urrbrae House.

Jennifer Gardner

It provided a major summary of the formal taxonomy to that date and is a platform for further advances. It could be argued that in view of the considerable activity in *Eucalyptus* taxonomy that this publication was premature and that Chippendale should have waited. I am not sure I agree with that viewpoint. Just as Pryor & Johnson's 1971 account was a useful summary, so was Chippendale's. Now in 1996 nearly 10 years later there is still no consensus.

Two other research developments became active from that time onwards. One was the development of cladistics - the demonstration of relationships by computer analysis of large amounts of data for many species. The second was sequencing in which precise chemical relationships can be shown. Both cladistics and sequencing can be linked and used to suggest the closeness or distance apart of species and groups.

The bloodwoods have long been considered a distinctive group within the larger concept of *Eucalyptus*. Now Johnson & Hill (1995) have published a formal account of the group as the genus *Corymbia*. They have included the Ghost Gums in this genus and have left open for the moment the status of other proposed splits from the 'old' *Eucalyptus*. It is too early yet to know how this will be received.

David Symon

CORYMBIA

Hill & Johnson (1995)² erected the new genus *Corymbia* comprising 113 species, 33 of which were new. Research indicates that the bloodwoods, while clearly distinct from *Angophora* species are more closely related to them than to the other eucalypts. Thus it is useful and informative to recognise both these genera as separate from *Eucalyptus*. The common name 'eucalypt' includes all three genera.

The combination of features that distinguish the bloodwoods (so called because of the dark red sap of some of the species) are as follows:

- inflorescences compound with unit usually 7-flowered;
- fruits medium-sized to large, urn-shaped to globular, capsule deeply sunken;
- bark persistent fracturing in small polygonal flakes to appear tessellated, or smooth, peeling in flakes or short strips;
- juvenile shoots and leaves with complex bristle-glands which give them a whiskery appearance; and
- adult leaves with lateral veins closely spaced, oblique and intramarginal vein close to the margin.

Familiar species in the *Corymbia* besides the ghost gum *C. aparrerinja* (formerly *Eucalyptus papuana*) include Lemon scented gum *C. citriodora*, red flowering gum *C. ficifolia* and yellow bloodwood *C. eximia* which in my view is one of the loveliest eucalypts in the Arboretum.

Jennifer Gardner

FORTHCOMING EVENTS AND DIARY DATES

10 February at 8 pm General Meeting in Urrbrae House. Talk by **Prof. Hugh Possingham** on "The Upper South-East: to Drain or not to Drain".

General Meetings in 1997: **14 April (AGM), 14 July, 10 November** 8 pm in Urrbrae House. Speakers to be announced. The November meeting will take the form of a special walk. **Guided walks on the first Sunday of every month.** Meet at Urrbrae House at 11 am.

² K. D. Hill and L. A. S. Johnson in 'Systematic studies in the eucalypts. 7. A revision of the Bloodwoods, genus *Corymbia* (Myrtaceae)'. Teleopea 6 (2-3): 185-504 .