

THE FRIENDS OF THE WAITE ARBORETUM INC.



WAITE
ARBORETUM

NEWSLETTER NO. 47 Autumn 2006

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NOTES FROM THE COMMITTEE

Committee members agreed that the Christmas drinks party had been both enjoyable and successful although it was proposed that future Christmas gatherings be from 6 p.m. - 7.30 p.m. with more time allocated to any pre-party activities, since half an hour was not long enough for the butterfly walk which preceded the 2005 Christmas gathering.

The Treasurer reported that at 01-02-06, there were 69 financial members, compared with a total of 149 for 2005. However, she reported a very favourable response to our request for donations in lieu of fundraising events this year, which is very pleasing, and expected that more members would become financial before the AGM. Currently there are 116 financial members.

The Director reported that the University has allocated funds for irrigation of Elm Avenue and that mulching is continuing. Using brush cutters is proving effective in removing the suckers and Kikuyu grass from the elms, as well as spreading the mulch.

Please note: if you have received a red sticker with this copy of the Newsletter, you are still unfinancial and will receive no further Arboretum news until you renew your membership of the Friends of the Waite Arboretum.

IN THE ARBORETUM

A beautiful new jarrah table and seat in The Mallee afford a lovely spot to contemplate the Arboretum and listen to the birds. The table was designed and made by Stefan Calusinsky and donated by Sue McArthur and her family in memory of Ian McArthur, a great lover of the environment and graduate of the Waite Institute.

On Sunday 19 February, 15 enthusiastic members of the Palm and Cycad Society of SA held a working bee along the watercourse in the Arboretum. Four magnificent advanced kentia palms *Howea forsteriana* were transplanted from a garden in Kapunda and 19 other palms representing 16 species were also planted. All recent palm plantings were watered, fertilized and gypsum added to the soil. The collection is developing splendidly and is much enjoyed by visitors to the Arboretum.

Image: transplanting large kentia palm at working bee 19/2/06.



THE CHILEAN WINE PALM

Jubaea chilensis (Molina) Baillon

Syn. *Cocos chilensis* Mol.

Jubaea spectabilis Humboldt & Kunth

Apparently described by Ignazio Molina in "Stagio sulla storia naturale del Chili in Gio" published in Bologna 1810.

The first fossil palms are found in late Mesozoic rocks, about 85 million years B.P., after the break up of Gondwana. By 55 million years B.P. they appear to have been abundant in many parts of the world, including places where they no longer grow naturally. Palms are monocotyledons, having one cotyledon, no tap root, parallel veins in the leaves and sheathing leaf bases.

There are now about 250 genera. Only a few have many species (e.g. *Calamus* with 400, *Chamaedorea* with 100) and there are many monotypic genera. These are generally endemic to one, often small, area. Modern palms are mostly to be found in the humid tropics and subtropics; a few species grow in temperate areas but few are tolerant of cold. *Jubaea chilensis* is such a palm. Some authorities state that it can withstand severe frosts, even when small. Others are less optimistic, stating that it is "notable for its tolerance of relatively cool conditions".

Our specimen in the Waite Arboretum, #392 (F 11) has the typical massive grey trunk of the species, with a crown of glorious feathery, pinnate leaves of a fresh green, paler beneath. As the leaves are shed the scars from their leaf bases remain forming a transverse lenticular pattern around the trunk. This particular palm has had few recorded observations. In 1973, the trunk diameter at 0.6 m was 95 cm and its height was 6.7 m. Current measurements are: diameter at 0.6 m = 99 cm and at 1.0, 1.5 and 2.0 m = 96 cm. Its height is 9.3 m, the height of the trunk to the canopy is 5.6 m and the diameter of the canopy is 6.5 m. When it was planted in 1928, it was sourced from Bowels Nursery. There is no record of when the trunk began to form; in May 1934 the tree is recorded as being 0.9 m high and with a canopy 1.2 m wide. Cultivation notes in several publications mention that early growth is slow, becoming faster after a trunk is formed. For successful cultivation, this species needs that the fresh, thick-shelled seeds be deeply planted in light soil where they will take at least six months to germinate. In the wild it may be that some animal is involved in this process, as fruits whilst fresh when they fall, will not plant themselves deeply.

Jubaea chilensis is monoecious with male and female flowers in the same inflorescence. According to descriptions, these are purplish; the edible fruits are yellowish, coconut-like and with a similar taste. The two genera *Cocos* and *Jubaea* are related. There is no official record of our tree flowering or fruiting, although it is known that single trees can set fruit. It is a species now rare in its natural habitat and is protected by law in its native Chile. There is some attempt at raising plants for reforestation. It is suitable for cultivation in temperate and Mediterranean-type climates but is unhappy in the tropics, as one would expect from its known distribution.

W.J. Bean, in the first edition (1914) of his *Trees & Shrubs*, states that the specimen in the Temperate House in Kew Gardens, London, was then 10 ft (3 m) in girth, 45 ft (13.7 m) high and the canopy spread 30 ft (9.1 m). There had apparently previously been a fine specimen growing outside near the main entrance to Kew Gardens and recorded before 1879. One would need to go to Kew's records to discover whether these palms had been sent back from Chile as young plants or were grown from seeds successfully germinated by Kew gardeners.

In 1831 Charles Darwin left England with Captain Fitz Roy on the "Beagle". He was 22 years old and was away for five years. From that time came *Journal of Researches into the Natural History and Geology of the Countries visited During the Voyage of H.M.S. Beagle Round the World*. Part of his entry for 16 August 1834, which describes his ascent of Bell Mountain, follows and adds some flesh to the bones of the first part of this article. "16th – ... During the ascent I noticed that nothing but bushes grew on the northern slope, whilst on the southern slope there was a bamboo about fifteen feet high. In a few places there were palms, and I was surprised to see one at an elevation of at least 4500 feet. These palms are, for their family, ugly trees. Their stem is very large, and of a curious form, being thicker in the middle than at the base or top. They are excessively numerous in some parts of Chile, and valuable on account of a sort of treacle made from the sap. On one estate near Petorca they tried to count

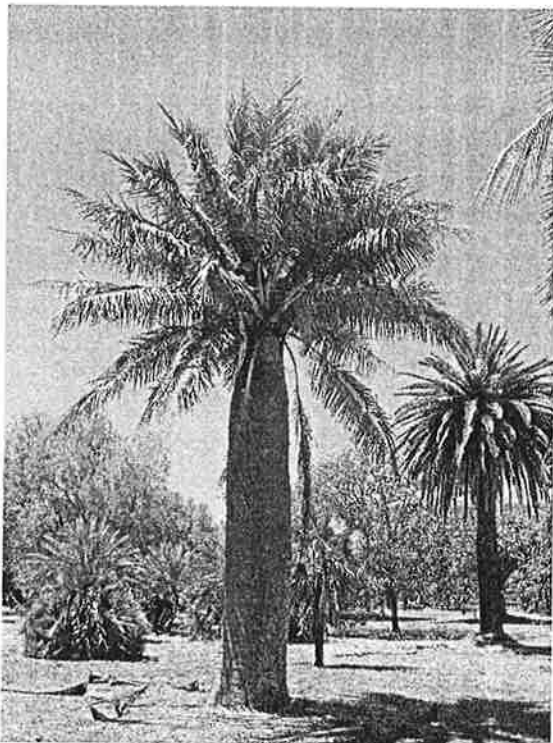
them, but failed, after having numbered several hundred thousand. Every year in the early spring, in August, very many are cut down, and when the trunk is lying on the ground, the crown of leaves is lopped off. The sap then immediately begins to flow from the upper end, and continues so doing for some months: it is, however, necessary that a thin slice should be shaved off from that end every morning, so as to expose a fresh surface. A good tree will give ninety gallons, and all this must have been contained in the vessels of the apparently dry trunk. It is said that the sap flows more quickly on those days when the sun is powerful; and likewise, that it is absolutely necessary to take care, in cutting down the tree, that it should fall with its head upwards on the side of the hill; for if it falls down the slope, scarcely any sap will flow; although in that case one would have thought that the action would have been aided, instead of checked, by the force of gravity. The sap is concentrated by boiling, and is then called treacle, which it very much resembles in taste".

The sugary sap will also ferment nicely, of course, and produce "palm wine". With this attraction, it is small wonder that the palms have become scarce in the wild.

References: Bean, W. J. (1914) "Trees & Shrubs Hardy in the British Isles" 1st edn (John Murray); Blombery, A. & Rodd, T. (1982) "Palms of the World" (Angus & Robertson); Darwin, C. (1845) "Voyage of the Beagle"; Jones, D. (1996) "Palms in Australia" (Reed Books); "R.H.S. Dictionary of Gardening" (1992) (Macmillan); Stewart, L. (1994) "A Guide to Palms & Cycads of the World" (Angus & Robertson).

Leonie Woolhouse

Our Chilean Wine Palm – Photograph: Jennifer Gardner



The interpretive sign for *Angophora* species follows:

Angophora Collection

Apples



Eucalypts are classified into three genera - *Eucalyptus* (gums, boxes, stringybarks, mallees etc.), *Corymbia* (bloodwoods) and *Angophora* (apples).

Angophora species differ from other eucalypts in having adult leaves opposite, and lacking a bud cap or operculum. They are endemic to eastern Australia and there are about 16 species. Four are represented in the Waite Arboretum.

Angophora have rough, persistent, fibrous bark with the exception of Smooth-barked Apple or Sydney Red Gum *A. costata* which has a smooth grey trunk, shedding in irregular flakes to reveal beautiful bright orange - pink new bark.

Broad-leaved Apple *Angophora subvelutina* (illustrated) is a handsome large tree which retains the juvenile form of leaves - sessile and heart-shaped at the base. In spring the flush of new leaves is rosy pink. Young trees are pyramidal, but develop a spreading rounded crown of crooked branches at maturity.

Rough-barked Apple *A. floribunda*, as the name suggests, produces prolific flowers and has performed well in the Waite Arboretum. The smaller size and very showy blossoms of Dwarf Apple *A. hispida* confer great ornamental value. It is being used in TREENET street tree trials and deserves to be more widely planted.

Drawing by Emma Kinnane, text by Jennifer Gardner. Sign donated by The Friends of the Waite Arboretum Inc.

POT – POURRI

THE FAMILY PREPARES FOR THE OPENING OF THEIR ANCIENT VILLA

The gardener had learned, among other things, that Englishwomen, and possibly Englishmen, above a certain age were liable on a short visit to steal plant cuttings. So he was careful to explain ... that lemons, if they were to stand a cold winter, must be grafted onto a sour orange stock, anything else would mean certain failure. As to the famous thickets of roses, they looked more likely to take cuttings from the tourists than the other way about. Apart from that there was nothing else to steal. Any disappointment on that account would disappear when they looked northwards from the terrace at the view of the opposing hills. They were requested, for their own safety, not to lean on the balustrade.

Penelope Fitzgerald: *Innocence* (1986)

The quotation above was kindly provided by Anna Cox.

Penny Rudduck requested that the following be placed in the Newsletter

EDEN PARK OPEN GARDEN

Eden Park Garden, Year 12 Campus Marryatville High School
The Crescent, Marryatville

Open in Australia's Open Garden Scheme

Sat 8, Sun 9 April, 10:00am – 4:30pm

Light refreshments, student musical entertainment, craft and plant stalls.

Eden Park was built by Thomas Scarfe of Harris Scarfe & Co. in the 1890s. When it was sold to the government by his widow in the 1940s, it became sleeping quarters for nurses of the Royal Adelaide Hospital and later a conference centre. Since the early 1990s, Eden Park has been incorporated in Marryatville High School as the senior campus. For the last six years a dedicated volunteer group led by garden designer Penny Rudduck and coordinator Phillipa Roberts have worked with the school community to restore the park-like garden of Eden Park. Features of the garden include magnificent River Red Gums and specimen conifers, which date from the 1850s, and palms from the 1890s, which were planted by Scarfe who was a member of the Board of The Botanical Gardens. Wisteria arbours, fountain and sundial rose bed enhance the Victorian era garden.

With the help of Dr David Symon who was long associated with Waite Arboretum new, unusual tree plantings add to the long-term future of the garden. Theme garden beds have been developed throughout the grounds and particularly along First Creek on the western boundary where native revegetation has been undertaken on the creek banks.

Damage caused in the recent spring flooding was a setback to the volunteer group but long hours of work now see it ready for the April opening. A new planting, the palm *Bismarckia nobilis*, marks the flood high water mark.

The exterior of the Dutch gabled; Federation Style mansion, which is listed on the State Heritage Register, has recently been restored and will also be open to the public, revealing its decorative interior features.

CLIMATE COMPATIBLE GARDENING

Jill Woodlands from the SA Mediterranean Garden Society was Guest Speaker at the General Meeting of the Friends of the Waite Arboretum held on Monday 13 February 2006.

Jill studied Horticulture and graduated from the Ryde School of Horticulture.

After a brief profile of herself, she began her most interesting and beautifully illustrated talk by explaining that a Mediterranean climate is characterised by long, hot summers and cool wet winters with, usually, a long autumn and short spring. She showed us a map depicting the major Mediterranean zones in the

world. These are the Mediterranean Basin, the Cape of South Africa, SW Western Australia and South Australia, Southern California and Central South America, Central Chile in particular. Parts of the east coast of New Zealand and some coastal areas of England as well as parts of Japan and China are also considered to have a Mediterranean climate.

Jill told us that much of the emphasis in the Mediterranean Garden Society lies in climate compatible gardening and to achieve this, several criteria need to be met. These include choosing plants which are suitable for our long, hot summers, minimising water use by using paving and/or gravel as an alternative to lawn or reducing the size of lawns. Members of the Society share their successes and failures with each other.

Some of the characteristics of a Mediterranean Garden are: somewhere to sit, be it in a large garden or in a courtyard or patio; shade, either from a pergola, arbour or shade trees, with emphasis on the interplay between light and shadow; decorative paving or gravel; terraced land or raised beds; topiary; a water feature which can range from a simple drip basin under a tap to a large and elaborate pond. Evergreen plants are often used repetitively, shrubs are used for structure, trees, either evergreen or deciduous for various purposes such as windbreaks, shade or shelter, bulbs and assorted succulents and climbing plants are all used in Mediterranean Gardens to provide colour and texture.

Jill brought examples of plants which can be grown successfully in Mediterranean gardens in Adelaide. Some of these were *Viburnum tinus*, *Dianthus* sp., *Laurus nobilis* (bay laurel), *Coprosma* sp., *Salvia* sp., rosemary sage, lavender, thyme, *Westringia*, *Euphorbia* sp. and many others. Much interest was shown in these plants at the conclusion of the talk.

The talk was illustrated with slides of many different and beautiful Mediterranean gardens, both from South Australia and California and was enthusiastically received by the many who attended.

Jean Bird with input from Jill Woodlands

FORTHCOMING EVENTS AND DIARY DATES

AGM: Wednesday 5 April 2006 at 8 p.m. in the Charles Hawker Convention Centre (enter from Gate 3, Waite Rd) – Prof. Chris Daniels, Director of BioCity/Centre for Urban Habitats, University of Adelaide, will speak on **Adelaide – Nature of a City**

General Meeting: Monday 21 August 2006 at 8 p.m. – Speaker: Robyn Barker

NEW MEMBERS

We warmly welcome Mrs Rosie Johnson, Myrtle Bank and Ms Anne Fricker, Gilberton

COMMITTEE MEMBER PROFILE

JEAN BIRD

I was born, raised and educated in Adelaide and graduated from the University of Adelaide with a Science degree in Botany in 1954. Towards the end of that year, after a short stint as Demonstrator in Botany, I married Alan Bird and went with him to Edinburgh where he completed a PhD. It was in Edinburgh that I became an "instant" Zoologist, purely for financial gain – the Prof. of Botany paid his Demonstrators 2/6 (25c) per hour whereas the Prof. of Zoology paid his 10/- (\$1.00)! That first year was a pretty steep learning curve because I had done only one year of Zoology during my undergraduate course but I managed to keep one (and, on occasion, two or three) steps ahead of the students. I also learnt a lot of Parasitology because, for the first time ever, Alan was lecturing on that topic and we learnt together.

Alan joined CSIRO in 1957 and we returned to Australia, first to Mildura and then to Adelaide. During our year in Mildura, I taught General Science and Botany at the High School - an interesting experience!

After eight years as full time wife and mother, I returned to the University of Adelaide where I taught Biology I, first on a casual and then on a fulltime basis. I remained in the Zoology Department (now part of Environmental Biology) until my retirement. My research interests lay in Parasitology and I published jointly with Alan in that discipline.

I first became acquainted with the Waite Arboretum as an undergraduate when I did several subjects at the Waite. In those days, sheep grazed in the Arboretum and, far from being encouraged to visit it, we were positively discouraged! In fact, even though I had a vacation job at the Waite one year, I don't recall actually going into the Arboretum until Jennifer asked me if I would like to be an Arboretum Guide. Jennifer and I go back a long way. I was one of her tutors when she did Biology I and so I agreed to try Guiding, even though trees do not fall within my areas of expertise! As it turns out, I very much enjoy taking people for walks in our beautiful Arboretum.

Along the way, I became Editor of the *Transactions of the Royal Society of South Australia*, which I edited for about eight years. I enjoyed this, too, and this led me to volunteer to edit the *Friends of the Waite Arboretum Newsletter* when an editor was sought.

Jean Bird

The Friends' Committee would like to draw your attention to a letter, dated 27 January 2006, from the University of Adelaide thanking the Director and Friends for a generous donation of \$4000 towards the wonderful work done at the Waite Arboretum. The letter continued, "It is only with the valuable support we receive from our Alumni and Friends of the University that we are able to provide a facility and beautiful surroundings our students, staff and the broader community are proud of".

It's nice to be appreciated!