

THE FRIENDS OF THE WAITE ARBORETUM INC.



**WAITE
ARBORETUM**

NEWSLETTER

Summer 2004

No. 38

Secretary
Mrs Rosemary Sawley
8379 7102

Editor
Ginny Ellis

Urrbrae: 8303 6728 Home: 8331 9347

Mobile: 0402 477 300 email: ginbean@adam.com.au

AN IMPORTANT DATE TO REMEMBER

Monday 16th February 2004 AT 8PM

GENERAL MEETING

GUEST SPEAKER

ROGER BUNGEY

on

**“THE WOLLEMI PINE –
a relic from antiquity”**

Visitors welcome
Gold coin donation for supper



The Wollemi Pine – A Relic from Antiquity!

The 150 million year old Wollemi Pine was thought to be extinct until 10 years ago. It has enjoyed celebrity status and worldwide attention since it was discovered in the Blue Mountains, West of Sydney, in 1994. A new species and genus of the ancient conifer family, the pine is believed to have survived ice ages, geographical disturbance and increasing competition from flowering plants because of its remote and isolated environment in a deep gorge.

Thanks to the inquisitive nature of a field officer with the National Parks and Wildlife Service, who took a leaf sample thinking it was a bit unusual, scientists have discovered what is probably the oldest species of conifer known on earth, as well as the rarest. Its closest relatives are more than likely the now-extinct Araucariaceae that would have dominated the landscape during the Jurassic and Cretaceous periods – between 65 million and 200 million years ago.

Don't miss Roger Bungey's fascinating talk on The Wollemi Pine



Notes from the President

Plans for the celebration of the 75th Anniversary of the establishment of the Arboretum kept the dedicated committee under the leadership of Rosemary Sawley very busy in the second half of the year. The Minister for the Environment, Mr John Hill, launched the occasion under the Bunya Pine.

During November, we arranged a series of walks in the Arboretum which were well promoted in the media and attracted 110 – 120 people overall.

Our combined Christmas Party with the Friends of Urrbrae House was a very happy occasion. A major activity was the unveiling of the first of the interpretive signage plaques, so beautifully illustrated by Emma Kinnane and Beth Chandler.

We look forward to another year of activity and interest. In particular, we hope you will attend our meetings and activities and bring a friend with you. Your support is much appreciated.

Warmest regards
Cicely Bungey



The 75th Anniversary Open Day

Our long-awaited 75th Anniversary of the Arboretum finally arrived on a very windy Sunday on the 16th November, and we celebrated with an Open Day which everyone voted a great success.

Many volunteers were here bright and early to help set up, and the Arboretum, the House, and the surrounding gardens were a hive of activity and preparation, during which the wind almost sent the information marquee into orbit; but thanks to the efforts of volunteers David Oates and Bryan Milligan, the tent was safely reconnected to Australia.

The wind also played havoc with the children's artwork which was being pegged to a line down in the mallee; most of the paintings became airborne while the hapless hangers darted about in all directions below like whirling dervishes, valiantly trying to retrieve them.

Meanwhile, the trading table, the ice cream van and the Salvia Society's display were being organised beneath the pear trees, while the Palm and Cycad Society, with practised expertise in sausage sizzling, had an impressive production line in commission, which was running like a well-oiled sewing machine. Their sausages and onions with sauce in bread were surely the hit of the day, the provocative aromas of which enticed a continual procession of hungry visitors all afternoon.

People gathered beneath the Bunya Pine while our Master of Ceremonies, Malcolm Campbell, gave a very funny account of previous special activities in the Arboretum, before introducing our president, Cicely Bungey, AM. Cicely then welcomed everyone, and introduced Professor Geoff Fincher, the newly-appointed Director of the Waite Agricultural Research Institute, who spoke of his great interest in and support for the Arboretum, and in particular, the welfare of Elm Avenue, before introducing Mr John Hill, MP, Minister for the Environment.

Minister Hill spoke of the history of the Arboretum since its inception, before officially declaring the 75th Anniversary celebrations "open".

Shortly after, we were entertained by the Highgate Primary School String Orchestra beneath the Bunya Pine, and then the Mitcham Primary School Band, and their smaller percussion group, had us all enthralled up on the croquet lawn.

The two guided walks conducted during the afternoon were very well patronised. Arborist Chris Lawry pointed out aspects of tree biology, arboricultural solutions for structural problems, and illustrated the importance of mulch for tree roots when he excavated a small patch of leaf litter under the bay laurel. Many people wandered throughout the Arboretum all day. David Lawry, co-founder and research officer of TREENET, led a walk which included a site inspection of innovative stormwater harvesting techniques in a TREENET trial in Claremont Avenue.

Inside Urrbrae House, there were exhibitions and displays, including Beryl Martin's watercolours, a fascinating fossil display produced by Ph D student, Rosemary Paull and Professor Bob Hill from the University of Adelaide's Discipline of Environmental Biology. There were also more children's artworks, and a trading table and display of textile crafts by the group TARTS. As always, the Friends of Urrbrae House provided Devonshire Teas downstairs in the House.

Many people also enjoyed themselves up on the balcony, sipping champagne in the westering sun, and enjoying the view. At 4pm Cicely drew the raffle, which was won by a group of ladies visiting from Western Australia; they were thrilled when Jennifer telephoned them to deliver the good news, as they had left before the draw, and they dropped in the next day to pick up their prize of wine and chocolates on their way back to the west.

Special thanks must go to Rosemary Sawley, for all her time and effort with the organisation of the raffle, and that of the ice cream van, as well as the procurement of the champagne, and of course to God, who decided not to have rain fall that second Sunday in November.

The Editor



The Vice-Chancellor
Prof. James McWha

Jennifer Gardner

Cicely Bungey AM
Friends of Waite
Arboretum

Elma Lippett
Friends of Urrbrae
House

Yvonne Routledge



***Citrus glauca* Desert Lime**

The family Rutaceae is one of the southern families and is well developed in Australia. The species occur widely but are less common in the colder and the arid areas. Almost all members contain aromatic oils and some are famously fragrant (*Boronia*, *Citrus*). Quite a number of increasingly popular native shrubs are grown and include *Boronia*, *Eriostemon*, *Crowea*, *Correa*, *Phebalium*, *Diplolaena* and *Murraya*.

The trees *Flindersia* spp. have grown well in Adelaide, as has *Geijera* (Wilga). *Microcitrus* has not succeeded here to any extent, and is found in northern Australia but the Desert Lime has a few remarkable outliers in South Australia. It was first found in South Australia by Dick Blackburn, a CSIRO soil surveyor, who discovered the colony Moochra Towers in 1947. Since then several other isolated colonies have been found in the lower Flinders Ranges. Like *Owenia* and *Capparis*, it may represent botanical relics of earlier moister times. All of these relics are clonal and no doubt a single colony may live a very long time even after reproduction by seed is no longer possible.

The Desert Lime has an interesting growth habit, as in early life it forms an intricate shrub with no suggestion of a main trunk. The shrubby stage consists of wiry, green, photosynthetic stems with well-developed thorns in the leaf axils – each presumably an aborted branch. One conjectures that the strong thorns and abundant aromatic oils are a defence against herbivory. When the shrub is about 1.5 m high at the centre, at least, getting beyond the reach of herbivores, it shoots out of the top centre, an erect-growing, totally unarmed tree growth. These shoots will ultimately bear the sweetly scented, white flowers, to be followed by globular or oval cumquat-like fruits only 1.5cm in diameter with a couple of large seeds. These can be useful for juices or marmalade. The older Arboretum tree [# 163 (J11) planted in 1966] still shows the thorny shrubby base below the unarmed top. The younger specimen [#797 (C6) planted in 1991] is still a low shrub. Our older tree flowers occasionally in November with fruits following in December and in some years it is laden.

It has been suggested that the Desert Lime could be used in citrus breeding programmes to introduce greater drought hardiness. *Citrus* species can be grafted onto the stock but I know of no developments there.

Slowly dying in the lower Arboretum is *Poncirus trifoliata*. This is one of the most cold-hardy citrus. It is deciduous and has relatively large, white flowers followed by globular, hard, short-hairy fruit that Dr Eric Sims has turned into marmalade. The species has been used as a stock for *Citrus*. Even if cold-tolerant, it is not drought resistant and can only be recommended for sites with higher rainfall.

David Symon



MUNDULLA YELLOWS RESEARCH FUNDING BY THE ARC

Mundulla Yellows (MY) is a newly recognised lethal disease of eucalypts and other woody native species. It is contagious and spreading. From presently available evidence a virus-like organism is the most likely cause, but a causal organism has not yet been identified. MY is now widely acknowledged as a threat to Australian native environments, biodiversity conservation and a number of industries.

The prestigious Australian Research Council (ARC) has announced on their website (www.arc.gov.au) three years' funding for the project "A Comparative Study of the Distribution and Spread of Potential Molecular Markers for Mundulla Yellows Disease" under their Linkage Programme.

Project partners include the University of Adelaide, the WA Department of Conservation and Land Management, Transport SA, State Forests of NSW, the District Council of Tatiara, the Barossa Council and Coorong Council.

The project is based on biotechnology developed at the Waite Institute by Dr. D. Hanold and Prof. J.W. Randles. They will be carrying out molecular research with the aim of developing a routine diagnostic test for MY and identifying a causal organism. Reliable diagnosis is essential to ensure that planting stock used in our wide revegetation programmes is free of MY and does not accidentally spread the disease into new areas.

In addition, fieldwork will be carried out in collaboration with the partners, to provide information about a possible mode of spread and the disease cycle. Results from this work will assist in designing specific control strategies for MY.

Projects are selected by the ARC on the basis of scientific excellence, taking into account the track record of the applicants as well as the quality of preparative groundwork and the proposed research based on it.

The grant will provide much needed continuity for the MY research programme at the Waite which has been severely hampered in the past by funding interruptions.

D. Hanold and J.W. Randles
Waite Campus, University of Adelaide

MEDIA RELEASE

20 October 2003



We note the passing of one of our committee members, Kevin Kemmis, who died on November 13th 2003. Although he had retired early due to ill health, Kevin was an integral part of our Friends' committee, who worked tirelessly for several years as a Tuesday volunteer, and as an Arboretum guide; he was a staunch supporter of the Waite Arboretum and will be sadly missed.



I am very pleased to announce that we have received a \$600 grant from the State Government Volunteer Support Fund for the Arboretum and Gardens, and plan to spend it on gardening tools; any suggestions for what is needed will be appreciated and considered by Jennifer.

Don't forget we have pure cotton Arboretum T shirts for sale; they are great value at \$16, in dark green, with the white Arboretum logo on the front. They come in 3 sizes: medium, large and extra large. They would make a great gift for your friends, while promoting awareness and support for the Arboretum!



**DON'T FORGET TO RENEW YOUR MEMBERSHIP! MAYBE YOU HAVE A
FRIEND WHO MIGHT LIKE TO JOIN ALSO.
PLEASE FILL IN THE ATTACHED FORM AT THE END OF THIS
NEWSLETTER AND RETURN IT WITH YOUR SUBSCRIPTION.
THANK YOU**

FORTHCOMING EVENTS

Monday 19th April 2004 AT 8PM

ANNUAL GENERAL MEETING

GUEST SPEAKER to be announced

**Please note: gold coin donation for supper
Visitors welcome**