

THE FRIENDS OF THE WAITE ARBORETUM INC.



NEWSLETTER

AUTUMN 1999

No 19

Secretary
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Editor
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GENERAL MEETING

Monday February 8th 1999

This meeting took the form of an entomological walk through the Arboretum under expert guidance.

The evening of Monday, February 8 was perfect for a stroll. It was pleasant to see that many other people felt the same. We gathered with our President, Roger Bungey, and Curator, Dr Jennifer Gardner, to join entomologists, Dr Mike Keller, Dr Gary Taylor and John Jennings, who came to demonstrate some of the often-invisible insects which inhabit the Arboretum. The first speaker was Mike who told of his work in developing a biological control of the rose aphid *Macrosiphum rosae* by a parasitic wasp *Aphidius rosae* introduced from Italy. This was not the best time to see aphids, but most of us know them all too well. At peak times in autumn and spring, when numbers are large, this wasp lays its eggs inside rose aphids.

"Parasitised aphids are eaten and finally killed by the developing larvae of the parasite. A paper-like skin is all that remains of an aphid after parasitism. The larvae of the parasite attaches the skin of the aphid to the plant and uses it as shelter in which it spins a cocoon. These round and shiny forms are called mummies and are easy to find on roses. Inside the mummy, the larvae transform to pupae and then to the adult stage. The adult wasp bites a hole through the mummy and finally emerges, ready to attack new aphids. Every female has the potential to kill more than 300 aphids. Depending upon temperature, the whole life cycle takes 2 to 3 weeks." Dr Jorg Kitt

Native insects, such as ladybirds and hoverflies, eat aphids too but they are not as effective as the wasp. Though considerable work has been done at the Waite, there is much yet to do.

The group was then led through the Arboretum discovering other interesting creatures. You may have seen galls on eucalypts. These are caused by 35 to 40 different species of insects sucking the sap and causing the tree to produce galls, which mimic fruit in appearance. On the pond were to be seen three species of dragonflies feeding on mosquito larvae. We were also shown midges, water boatmen and crusader bugs.

A wonderful sight to see in the Waite Arboretum and in the Botanic Gardens from November to December are clouds of Caper White butterflies *Belenois java* on the native orange *Capparis mitchellii*, a tree with a comparatively wide distribution in the north of South Australia. It is in these northern areas that the butterfly usually breeds.

"In some years, particularly during early and mid-summer, immense migratory flights of adult butterflies begin in these regions and extend generally in a southerly direction, reaching the Adelaide Plains, and even Mount Gambier and Kangaroo island. These flights are composed of literally millions of individuals. ... The two sexes of the Caper White are substantially different from other butterflies that we see near Adelaide, and are therefore not difficult to recognise. Both sexes have large white areas on both sides of the wings, but with broad black margins and other black markings. On the underside the male has some yellowish areas, and in the female, these are much more extensive. ... It is interesting that near Adelaide there are at least two known specimens of the host plant, native orange *Capparis mitchellii*. One is in the Botanic Gardens and one in the Waite Arboretum, Urrbrae. When migratory flights occur near Adelaide, thousands of eggs are seen to be deposited on these trees, and in due course adult butterflies are produced from the larvae and pupae that evolve from these eggs. Interestingly, the damage done to the trees by the larvae seems minimal." Robert Fisher

Evening walks are proving to be popular and provide a good opportunity to learn and to take pleasure in the wonderful surroundings. Thank you to those who gave us this treat.

Barbara Crompton

FROM THE COMMITTEE

The Committee agreed the following expenditure:

- An offer to St Michael's Church of \$40 for their card carousel.
- The sum of \$650 to pay for the removal of the aloes on the western side of the Arboretum, the tidying up of the area and the planting of more oaks.
- \$500 to, at least, start removing the elm suckers that are causing problems.

The following items were also discussed:

- The possibility of a future trip to Currency Creek to see Dean Nicolle's eucalypt arboretum. This could, perhaps be followed with a visit to the wildflower garden on the outskirts of Victor Harbor.
- The desire to encourage greater membership; perhaps all of us could help here.
- Arrangements for the Wood Exhibition to be held later this year were discussed.

The Committee has been active on the Netherby Kindergarten issue; a letter written by the President to the Minister of Education and his reply were tabled. Copies of our letter have been sent to all MPs.

Anna Cox

IN THE ARBORETUM

Phytolacca dioica L. Family: Phytolaccaceae ombu, bella sombra.

Phyto — plant and *lacca* — milk (referring to the white coloured sap). The specific epithet *dioica* refers to the fact that the genus is dioecious, ie the male and female flowers are on separate plants. The wood is of little value for structural timber as it is fibrous and contains as much as 80% water.

Striking in appearance, *Phytolacca dioica* is an evergreen native of South America. Attractive wide spreading branches and a thick smooth trunk are supported by well developed roots. The heavy and stout appearance of the trunk and branches is in direct contrast to fresh bright green smooth leaves and delicate racemes of white flowers which on the female plant are followed by attractive tiny, clusters of green berries. *Phytolacca dioica* has been planted extensively as a shade tree in Southern Europe. In Spain the tree is known as bella sombra or sweet shade.

There are some 35 species in the genus. Decoctions and preparations from the different species have been recorded as being used for drenching cattle, colouring agents for port, dyes, and for a variety of medicinal purposes. *Phytolacca* species are toxic; the chemical constituents of the genus include phytolaccic acid. Current research is focussed on screening the chemicals present in different species, some of which have shown potential as anti-viral agents.

There are three specimens of *Phytolacca dioica* growing in the Arboretum # 866 (B8) planted in 1921; # 971 (D9) planted in 1960; and #871 (D9) planted in 1993. The two older specimens are male. The youngest specimen has not yet flowered, but it is hoped it is a female and thus provide fruits and seeds. The grid references B8 and D9 can be located opposite the oval towards the western end of the elm avenue.

Cate Paull

ARBORETUM NEWS

Thanks are extended to members of the Palm and Cycad Society who held a working bee on Sunday 28 February to plant more specimens which they have donated.

Volunteers have been busy weeding and watering the Palm and Cycad collection, maintaining the watercourse, raising new seedlings of indigenous understorey plants for the North Arboretum and monitoring tree growth and health at TREENET sites. Volunteers have also been helping in the gardens of the Historic Precinct, harvesting lavender and tending the Sensory Garden and Twentieth Century Rose Garden. Archival research is being done to find images for the scientific narratives which will be told in the Garden of Discovery. Revision of the Arboretum map is in progress. Thanks are extended to all the volunteers for their much valued assistance.

During February, Anne Sellar, a Flinders University Cultural Tourism student, did a four-week placement at Urrbrae House. She worked on our volunteer program and developed an induction manual, volunteer bulletin and a number of other initiatives. Any one who is considering becoming an Arboretum volunteer and would like a copy of the first bulletin, please contact me on 8303 7405. I would especially like to hear from anyone with computer skills eg database management using FileMaker Pro, image scanning, spreadsheet use to tabulate TREENET measurements using ClarisWorks or Excel, and desktop publishing of pamphlets etc. using PageMaker, Photoshop and Illustrator.

The banksia collection around the dam is again accessible with repair to the path around the dam having been completed. Forty tonnes of rock have been emplaced to create a viewing platform. Native fish have been placed in the dam and tortoises and a variety of waterbirds can be seen. This part of the Arboretum is very popular with visitors, especially young children.

The rather uninspiring aloe collection west of the dam has been removed to make way for more oaks. A number of unusual oaks were inter-planted there last year and there are about 20 more species in the nursery ready for planting this winter.

Sculptures by Greg Johns have now been installed in The Mallee. This project was funded by a grant from the Australia Council. The sculptures make reference to Peter Waite, his pastoral pursuits, and his immigration from the European landscape to the harsh Australian arid lands with its heat and fire-adapted vegetation. A new seat in the north east corner of The Mallee, overlooking the Arboretum, provides a shady spot for visitors waiting for guided walks.

Jennifer Gardner

NEW EDITOR

Observant Friends will have noticed that, between editions 18 and 19 of the Newsletter, the surname of the editor has changed. For four years we have been indebted to Barbara Crompton for preparing a most informative publication which has kept us all in touch with the Arboretum and the society's activities. Barbara, a person of many interests and with a background in librarianship, was one of the original group of Arboretum guides who formed the nucleus of the first committee of the Friends of the Waite Arboretum.

Over the years her commitment to the Burnside Council (especially to its environmental activities) has taken over more of her life, so with much relief, she has handed over the editorship of this newsletter to an old friend, Barbara Possingham. We are very glad to say that Barbara Crompton has agreed to continue reporting the talks at our general meetings, something she does with unparalleled grace and warmth.

Barbara Possingham has had a most interesting career in physics, covering research, lecturing, teaching (including a stint at an international school in India), and "digging" in Jordan. Currently she is visiting her sons in California and Holland.

Barbara gained a PhD in physics at Adelaide University (one of the first women to obtain a PhD in science at Adelaide), was awarded the "1851 Scholarship" to the University of London, returning to lecture at the Institute of Technology, now the University of South Australia. She was the first president of the Science Alumni at Adelaide. More recently she has taught at Pembroke and Mercedes.

The differences between the backgrounds of our two editors underlines the varied skills and interests of those who have particular interest in the Arboretum. We have been running an occasional column on the experiences of committee members which have impelled them to help support the Arboretum and its aims. It is planned to continue these when space permits.

We are exceedingly fortunate that this society has been able to attract people of the calibre of these two generous people. Barbara and Barbara, the members thank you both very much indeed.

Anna Cox

NEW MEMBERS

A warm welcome to the following new members:

Dr Philippa Horton, Dr Allan Pring and family, Fullarton.
 Mr Tim Mares and Ms Robin Eaden, Balhannah.
 Mr & Mrs P D Harvey, Kingswood.
 Mr Peter Barclay, Glen Osmond.
 Mrs Diana Mayfield, Netherby.

FORTHCOMING EVENTS AND DIARY DATES

Members are reminded of the following.

Exhibitions for 1999

- A Beryl Martin exhibition will be held, opening on May 2, with a preview on April 30. The exhibition closes on May 16. This will be a fund-raising event for the Arboretum.
Volunteers will be needed to staff this exhibition. If you can spare a couple of hours, please contact Peggy Rowe, phone 8303-7497.
- The SA Woodgroup will put on a display in August of articles made from Arboretum Timbers, or species represented there. It will be for two weeks, commencing on August 20 and ending on September 4.
- A photography exhibition has already been planned to run from October 24 to November 14 this year.

General Meetings

These are held at 8.00 pm (except where otherwise stated) on Mondays: April 12, August 9 and one in November. The meeting on April 12 is the AGM and the speaker will be Tony Whitehill. His subject is "Travelling through Gardens of Europe and England".

The final meeting for the year will be an excursion to Dene Nicholle's Currency Creek Arboretum where there are 750 eucalypts in cultivation, including every species from South Australia. The date, late in November, will be announced.

NOTICES

From the Editor

I should be pleased to receive from any Friend a short letter or article relevant to the past, present or future of the Arboretum. Any article of interest concerning the vegetation or any associated insects, animals or birds, could also be of appropriate. Such articles could well be of interest to many other Friends. The letter or article should be posted to Barbara Possingham, 10 River St Marden 5070.

From the Treasurer

A red spot on your envelope indicates that your membership has not been renewed for 1999. This will be the last Newsletter posted to unfinancial members.

From the Secretary

The AGM will be held on April 12 where all offices will be declared vacant. Please consider standing or nominating a friend.

A rally will have been held on the 27th March to celebrate the 85th anniversary of Peter Waite's gift to the people of SA; you should have seen a green flyer advertising this function. A report on this rally will be published as soon as possible.



To the Honorary Secretary,
Friends of the Waite Arboretum
Waite Campus, Glen Osmond SA 5064

I hereby propose (name).....

of (address).....

.....

to be a member of the Friends of the Waite Arboretum Committee.

Proposer.....

Seconder

I agree to serve on the above Committee if elected

Signature of nominee.....Date:.....