

THE FRIENDS OF THE WAITE ARBORETUM INC.



WAITE
ARBORETUM

NEWSLETTER NO. 46 Summer 2006

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FORTHCOMING EVENTS AND DIARY DATES

8 pm Monday 13 February 2006 in the Coach House
Jill Woodlands from the **Mediterranean Garden Society**

wed
8 pm Monday 5 April (AGM) in the Coach House
Prof. Chris Daniels, University of Adelaide – Environmental Biology
will talk on **Urban Habitats and the BioCity project.**

FROM THE COMMITTEE

Friends of the Waite Arboretum held a very successful exhibition of Beryl Martin watercolours, many inspired by specimens in the Arboretum. It was officially opened by Hon. Martin Hamilton-Smith on Friday September 9th at a very pleasant gathering. The exhibition was staffed by volunteers and sales exceeded \$22,000, which raised \$5,500 to help support Arboretum projects.

Sixteen large interpretive labels with illustrations and descriptions have been commissioned for special trees. This year we have given \$4,500 towards nos 9 – 12 which have already been installed, and pledged \$4,500 for nos 13-16 in preparation.

General labelling of trees presents problems – labels get lost, damaged, or fall to the ground – and Jennifer has experimented with various materials. She thinks she has the answer now and we have paid \$6,000 for these anodised aluminium labels and for their attachment with the stainless steel cable donated by Mitre 10 at Glenunga.

The need for pruning and other arboriculture work is always with us and \$5,200 is our latest contribution for this. Irrigation is to be installed in Elm Avenue and it is important that the trees be mulched to conserve the water, so we have allocated \$2,000 for transporting and spreading mulch. It is good to see money from subscriptions, donations and fund raising used so effectively.

IN THE ARBORETUM

JUNIPER (*JUNIPERUS COMMUNIS* AND *J. PHOENICEA*)

The genus *Juniperus* has about 50 species, represented by evergreen shrubs or small trees. They occur across the northern hemisphere from arid North Africa to subalpine heights, including North America. The leaves of juniper may be of two forms, namely narrow sharp pointed leaves in 3s, often with a white band on the upper side or as small, rounded, appressed leaves as in *Cupressus* spp. They are not major timber producers but two American species produce a soft timber called Red Cedar (not related in any way to our Red Cedar, *Cedrela*).

Juniperus communis is the species best known and occurs from Britain to Asia and is one of the few tree species that extends to North America. The fruiting cones are berry-like and consist of a few whorls of scales with usually one only being fertile. On ripening, they become a somewhat fleshy mass enclosing few seeds. They dry a reddish brown to almost blue-black. There are many cultivars now available, e.g., short or tall, prostrate or erect, weeping or columnar, golden or bluish. Considering its wide geographic range, it is surprising that it has not become feral.

Juniper was once used more widely in Europe than it is now "the chips render a wholesome perfume within doors" or "the wood and berries burnt to fumigate the rooms of the sick". The berries were used in cooking to flavour sauerkraut, pickled herring, game, veal, ham, sausage and baked lamb and junipers. However, do not consume too many berries and a daily dose of 4-8 berries per day is enough.

In ancient times, juniper was dedicated to the Furies and a juniper twig burnt instead of incense to the Gods of the Underworld – and to fumigate the death room. The closely related juniper of southern Europe (*J. phoenicea*) was dedicated to Apollo and was used to invoke Hecate who presided over magic and spells. The uses of juniper in Europe were numerous. The sharp, needle-like foliage was useful to ward off demons and the unpleasant scent of *J. phoenicea* gave protection from witches. Striking animals, humans and plants with a juniper rod was a source of fertility.

The use of juniper (mainly the berries) in herbalism and medicine was extraordinary. Various concoctions relieved stomach pains, chest pains, cured corpulence, relieved coughs and brought hard abscesses to a head. In addition, they were used to treat surplus aqueous humour, sprains, fractures, colic, affects of the womb, sciatica and, if you are suffering from the plague "Eat juniper berries and pimperl and you will not die so quickly". They strengthen the brain, aid memory, fortify sight, help fluxes, haemorrhoids, piles and kill worms, cure itch scales and psoriasis, purify the air for silkworms and fumigate stables. A tea made from shoots and berries would do almost as much as it aids digestion, constipation, gout, rheumatism, is a powerful diuretic and, as a powder or ointment for genital warts, polyps, warts and psoriasis. After that, one wonders the need for doctors! Safer to stick to gin, first formulated as a therapeutic medicine in the mid 1500s by a Dutch chemist in Leiden.

The Waite Arboretum has 20 Juniper trees representing 9 species and one cultivar. Our *J. communis* was grown from a cutting collected from an old tree in the garden of A. Howard in Blakiston. Our *J. phoenicea* was grown from seed obtained from Estacao Agronomica Nacional Oliras-Portugal.

David Symon

THE TAILED EMPEROR – a resident of the Waite Arboretum

The Tailed Emperor *Polyura pyrrhus sempronius* occurs in northern Australia, NSW and ACT. It was recorded in South Australia apparently for the first time during the unusually humid summer of 1973-74, when a number of specimens were collected or sighted in Adelaide and the surrounding suburbs (Fisher, 1978). Jennifer has found the beautiful green larvae with spectacular blue tipped horns on the Queensland Lacebark *Brachychiton discolor*, Arboretum tree # 250 (I9) on 25 May 1991 and again on 20 September 2005.

She reared the September larva, providing it with a plethora of Lacebark leaves which it ate voraciously (and rather noisily!) until it pupated on 25 September. The adult emerged on 1 November 2005, after a pupation period of 37 days. The butterfly was released and headed for the hills. We hope that it found a mate and that the female will return to the Lacebark tree to deposit her eggs.

The striking larvae are masters of camouflage. At rest, the larva positions its bright green body along the leaf so that its yellow lateral lines align with the midrib of the leaf and the yellow-green horns on its head align with the lateral veins. Look for the emerging Autumn brood in April and May.

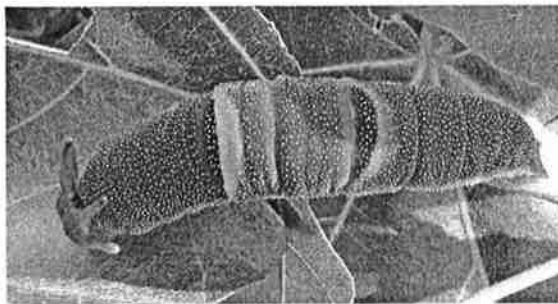
Reference: Fisher, R.H. (1978) *Butterflies of South Australia*. (Govt. Printer, SA)

Jean Bird & Jennifer Gardner

Photos: Jennifer Gardner A coloured print can be requested by email: jennifer.gardner@adelaide.edu.au



Detail of head



Mature larva



Beginning pupation



Newly emerged butterfly and chrysalis

BUTTERFLY WALK

The very successful combined Friends of Waite Arboretum, Urrbrae House and Waite Conservation Reserve Christmas drinks party was held on Monday 5 December in Urrbrae House. This was preceded by a walk for about 50 people in the Arboretum conducted by Roger Grund from Butterfly Conservation SA.

Roger's interesting and illuminating walk and talk concentrated on various butterflies whose larval food plants occur in the Arboretum. He illustrated his talk with photographs in *Butterflies of South Australia* (Fisher 1978). He began with Sapphire and Small Skipper butterflies whose larvae feed on various lush grasses, both native and exotic, and explained that the larvae join leaves together to form a silken "nest". The larvae of the Large Skipper butterflies (*Hesperilla* spp.), which feed on the leaves of saw-sedges (*Gahnia* spp.) also do this and Roger was able to show us one or two of these "nests" on the *Gahnia* near the creek crossing. Common Crow, *Euploea core corinna*, larvae feed on milk-sap plants and, in the Arboretum, native figs (*Ficus* spp.) are their hosts. Native lime (*Citrus glauca*) is the host for the Common Swallowtail (*Papilio* sp.) larvae, as are other spp. of *Citrus*, but, despite our best efforts, we were unable to find any larvae or pupae on our *C. glauca*.

Roger said that it is common for female butterflies to head for the hills to find a mate and then return to the host plant to lay their eggs and this is the case for the Tailed Emperor, *Polyura sempronius*, (see earlier notes on this butterfly) but does not apply to the Common Brown, *Heteronympha merope merope*, whose adults emerge in December and mate. The female hides and aestivates until autumn and then flies off to lay her eggs on grass hosts at the end of May.

Many Caper Whites *Belenois java teutonia* were still flying round our *Capparis mitchellii* (Mitchell's caper), although we didn't find any larvae or pupae (except one of the latter on the young *Capparis*). Of the 50,000 or so eggs laid, fewer than 50 butterflies might emerge due to predation of eggs and larvae.

Jean Bird

Capparis mitchellii Mitchell's Caper or Native Orange



Capparis has 17 species and belongs to the Caper family Capparaceae. The buds of the Mediterranean *C. spinosa* are the familiar edible capers, and the sweet fruit of *C. spinosa* var. *nummularia* is a significant Aboriginal food being rich in protein and vitamin B.

Mitchell's Caper is a small compact tree, widespread in outback Australia, and named after Sir Thomas Mitchell, surveyor and explorer. The juvenile phase of *Capparis mitchellii* consists of a tangle of intricate branches with small bright green leaves and vicious hooked prickles, in contrast to the adult tree which is unarmed, has a single trunk and dull green leaves.

Buds burst open to four ephemeral ivory petals below a dense tuft of long creamy stamens. Light green velvety fruits form, containing about 50 comma-shaped seeds in an aromatic gluey flesh from which a refreshing drink can be made.

This species is the larval food plant of the migratory Caper White butterfly *Belenois java teutonia*. The butterflies usually arrive from northern Australia in November, and this tree has been found to carry an estimated 40,000 tiny spindle-shaped eggs at one time. The gold-speckled larvae emerge in 4 days, feed voraciously on the leaves for 3 - 5 weeks, and pupate. By Christmas the tree is usually surrounded by a cloud of butterflies.

POT - POURRI

SCIENTIFIC OR COMMON NAME?

The rich profusion thee confounds, my love
Of flowers, spread athwart the garden. Aye,
Name upon name assails thy ears, and each
More barbarous-sounding than the one before.

Translated from a German poem by Goethe (1749 - 1832) to explain the plant world to his wife.

Once upon a botanical time, scientific names of plants consisted of a short (and sometimes not so short) Latin description. This was too cumbersome as a name yet seldom gave a proper description.

Gradually, over a number of years, there developed the first concepts of modern Families. One botanist to begin this was Pierre Magol (1638 - 1715) whose name is remembered by the generic name *Magnolia*. This was extended by Carl Linnaeus (1707 - 1778), probably the most famous of the botanists of the transition period from the Renaissance to the modern period. He published 'Species Plantarum' in 1758 which established the foundations of present-day nomenclature. For the first time there was a consistent use of the binomial system used today where each species is given a scientific name consisting of two words in Latin. The first name is the genus (plural - genera), the second a subdivision of the genus, the species. The genus name is capitalised, the species name is not. Both are italicised.

Many people are bewildered when faced with the botanical names of flowers they admire. Actually, these are not so difficult when their parts are understood.

Certainly it is comfortable to use only common names but there are drawbacks to this; the main one is that the same vernacular name is often used for quite different plants, for example Dogwood is a common name for several different plants. Also the same plant may be known in different areas by different common names. *Eucalyptus* is an example of this. A botanical name has one name only in every country. But then, why should we have to call a small South Australian herb, oval-podded or downy cress *Phlegmatospermum cochlearinum*? There would be no problem if botanical names were as simple as that for the native grass *Poa fax*.

Each species, when recognised, is given a scientific name in Latin and each name is governed by an international code of nomenclature. It is certainly easier to talk about a plant, or buy one for the garden, if one knows what its scientific name is. With a bit of practise this becomes easier and of course it is essential for accurate identification.

Nomenclature is a rather fussy science with its own pedantic rules. Plants may be named for their place of origin, to honour a person or place, may have a native name or may be descriptive.

One example of a well-known plant is *Banksia serrata*.

Family is Proteaceae; named by Linnaeus in 1781 and is related to the proteas of South Africa as these were named first.

Genus is *Banksia*; after Sir Joseph Banks the great naturalist, who collected many plants new to science at Botany Bay in 1770.

Species is *serrata*; the leaves are serrated.

One more example to make the point, using both common and scientific names, is the River Red Gum, *Eucalyptus camaldulensis*.

Genus is *Eucalyptus* - *eu* from Greek means 'well'; *Kalyptos* means 'covered'; the cap (operculum) that covers the stamens in the bud.

Species is *camaldulensis*. This name comes from the Camalduli Gardens in Italy where seedlings of this species were first cultivated.

River Red Gum - the colloquial name indicates the red-coloured timber and that the trees prefer to live on river banks and flood plains.

So, by considering both the common name and the botanical names we have an accurate description of these well-known Australian plants!

Mary Tester

EDMUND WRIGHT HERITAGE AWARD

On 16 September, 2005, The Urrbrae House Historic Precinct Volunteers were named outright Winners in the category "Heritage Volunteers" in an impressive ceremony held in Edmund Wright House. The award was presented to Mrs Lindsay McWha and Dr Colin Jenner, on behalf of the Volunteers. by the Honourable John Hill, Minister for Environment and Conservation.

The Heritage Volunteer category was included this year for the first time as one of the seven categories judged. Only some of these categories had entries deemed of sufficiently high standard to be granted the status of Winner. So the award for the Volunteers is highly esteemed.

The Historic Precinct consists of Urrbrae House, three outbuildings and the surrounding gardens. Since 1991 a project has been established to care for, conserve and refurbish the whole site and to establish an outreach program that interprets its history. The Precinct is now a registered museum and heritage centre attracting about 20,000 visitors a year. The small permanent staff of three is supported by a large and dedicated volunteer group who have played a vital role at every stage of its development. At the moment there are about 85 active volunteers.

In their citation the judges "...commented that this outstanding entry blends many elements of volunteer effort:- physical work, research, organisation, promotion and education and is a quality volunteer model providing many benefits to the community". A handsome plaque hangs in the entrance hall of Urrbrae House commemorating the award.

Colin Jenner

WAITE VOLUNTEERS AND FRIENDS GROUPS

There have been a number of successful achievements in 2005 for both Friends groups and Waite volunteers. These have included a number of excellent fund raising events including a concert series and the exhibition "A Brush with Nature". Congratulations are due to all those involved in organising these events. Congratulations are also due to all the Waite volunteers who work regularly in the Historic Precinct and Waite Arboretum who received the Edmund Wright Heritage Award for volunteers who make a significant contribution to the care of a listed heritage site.

These activities have also led to some confusion about the differing roles of Friends and volunteers and the use of spaces for fund raising activities. We believe that it is opportune to clarify this matter.

All those who work regularly in the gardens, Arboretum and Reserve are regarded as **Waite volunteers** and are acknowledged by the University of Adelaide through the University Volunteers Committee and of course by Arboretum and Precinct staff. This includes the people who serve on the three Friends committees who work regularly to maintain the Friends groups and organise the various activities. Many volunteers are also members of the Friends groups and although the work they do may be in the gardens, Arboretum, Reserve or on collection management it is in their capacity as Waite volunteers rather than as members of one or more of the Friends groups that they are recognised.

The spaces in the Historic Precinct buildings, gardens and Arboretum are available for use by any Friends groups **at no charge** for their program of activities. Charges will only be made where an unavoidable cost that must be passed on, is incurred. For example where some form of extra cleaning or site preparation is required. Whilst joint events are always welcomed there is no obligation for events to be joint as no one area is exclusive to any one group.

Peggy Rowe is both the co-ordinator of Urrbrae House and the Volunteers Co-ordinator. Peggy is also responsible for bookings and keeps the diary. All spaces should be booked through Peggy. As Volunteers Co-ordinator Peggy also maintains volunteer records and can answer all general enquiries on volunteering. Jennifer and Yvonne are responsible for supervising the work of specific volunteer groups and any specific issues about tasks should be referred to them. Jennifer manages the Arboretum, Historic Precinct gardens and Conservation Reserve for the University. Yvonne manages Urrbrae House and the historic out buildings, Coach House, Battery House and Garage for the University.

Jennifer Gardner & Yvonne Routledge

NEW MEMBERS

We warmly welcome the following new members: Helen Pryor, Hawthorn; Helen Gill, Mitcham; John McCarthy, Henley Beach; and Susie Clarke, Highgate.

COMMITTEE MEMBER PROFILE

NORMA LEE

We hardly knew where Adelaide was when Ken was offered a position in the Soils Division of CSIRO in Waite Road, but we quickly learned to enjoy living here, especially in this corner of Adelaide – such a contrast with our cold windy small town near Wellington, New Zealand.

After completing my degree in New Zealand I taught maths and physics for some years, then stopped work for ten years to have a family, as one did in those days. But after ten years at home, I went back to work, first in New Zealand, then in Adelaide, where I worked for nearly two years at Plympton High School, then for more than twenty years at PGC (now Seymour College), where I was Head of Maths for many years. I also served on the committee of the Maths Association of SA and worked with the Public Examinations Board, involved in setting and marking the Year 12 exam maths papers.

My association with the Arboretum began when Mary Tester, a former colleague from Seymour, who was Treasurer for the Friends, suggested that I take over from her. Because I enjoy working with numbers I was pleased to do so.

One thing that added to the attraction of being connected with the Waite was that we had at one time lived at the Agricultural Campus of Aarhus University in Denmark. It was quite a distance from town and hadn't been engulfed by the town as the Waite has. There was accommodation for students who came for one- or two-week stays. We, with three young children, lived in an old farm house, built in a square around a courtyard. The animals no longer lived in the other half of the building!

Although I don't know much about trees, I have been able to help in a practical way. Since 1998 Mary and I have measured regularly the growth of *Celtis tournefortii* which was planted as an experimental street tree in Brompton, Ken and I have participated in the TREENET experiment measuring UV under street trees, and I have enjoyed my association with the friendly people I have met.

Norma Lee