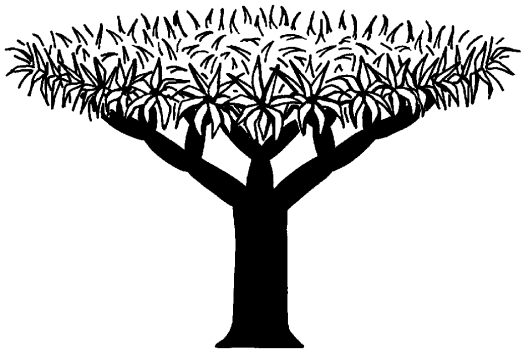
THE FRIENDS OF THE WAITE ARBORETUM INC.



NEWSLETTER

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IN THE ARBORETUM

All I needed was a husband.

Capparis mitchellii

*Capparis mitchellii (*Native Orange*)* has been mentioned in several previous newsletters. A twelve year old specimen was reported (Summer 1999) as having been destroyed by vandals and its attraction for the caper white butterfly has been commented on.

Our present tree is well grown, flowers well and hosts a cloud of butterflies. Despite profuse flowering there is no record of it ever having produced fruit.

Una Roberts, an old hand of SGAP, has a tree in her garden at Brighton and brought me flowers from it. So I hand-pollinated every flower I could reach on the Waite tree. Lo and behold, three fruits developed!

These were ripe in the first week of December. One was shed on the ground, the other two came away in my hand. The fruits were narrow egg-shaped, 4x6 cm, and light green with a velvety skin. They had 47, 48 and 52 seeds respectively. The seeds are large, 8 mm in length, irregular in shape and perhaps best described as a thick, blunt comma. They are set in yellowish gluey flesh that is pleasant enough to eat. In each fruit 2-3 seeds had commenced to germinate as you can sometimes find in Citrus.

The fruits have a strong aroma and as they are apparently shed to the ground they are probably dispersed by a ground animal rather than by a bird. Fruits dispersed by birds tend to be brightly coloured and remain on the parent for the bird to seize.

Enquiries at the Botanic Gardens in Adelaide suggest that their single old tree does not fruit. All this indicates that *Capparis* is essentially an out-crossing species.

David Symon

GENERAL MEETING

A general meeting, the first for 2002, was held on Monday, February 18, chaired by our President, Cicely Bungey, and addressed by Pam Catcheside, an Honorary Research Associate with the South Australian Herbarium.

The topic was **"Fungal Hunting in South Australia"**.

Probably the earliest, and certainly the most prolific worker with Fungi in our state was the late Sir John Burton Cleland. In 1934 he described about 600 species in his publication "Toadstools and Mushrooms and other larger Fungi of South Australia." (This was revised by Cheryl Grgurinovic in 1997.) Professor Cleland provided many of the 16 000 strong collection of fungi specimens in our SA Herbarium — the richest in the country.
Since leaving teaching several years ago, Pam, with the help of her husband, has travelled widely in SA collecting and classifying fungi. He has been the associated photographer.

Pam's entertaining and informative talk was accompanied by a slide show, with 60 colour slides, illustrating many of the species she has seen and sometimes even discovered. Pam has received some support from various organisations including the Department of Environment and Heritage, but most of her work has been self-funded.
Each specimen seen must be very carefully described. Its size, colour, shape and also the nature and position (latitude and longitude) of discovery must be very carefully recorded while it is still fresh. Fungi can dry out, become squishy and otherwise degenerate so specimens are difficult to preserve! To identify a given Fungus one not only needs a detailed macroscopic description but also a microscopic description of the spores.
Fungi consist of either a single cell, as in yeast, or as a mass (mycelium) of threadlike elements called hyphae. The mushroom, toadstool or truffle is the fruiting body of a fungus and produces the spores.
Fungi play an important part in the environment as many form symbiotic relationships with other plants and thereby stimulate the growth of those plants. An example is the fungus that foresters introduced into Australia in order to assist in the growth of *Pinus sp.*
Pam has collected fungus specimens from many parts of SA, including the Mt. Lofty and Flinders Ranges, Fleurieu peninsula, Eyre Peninsula and our northern desert areas. Fungal maps are being produced to form an atlas, indicating the whereabouts of the various species. I was fascinated by the description of desert fungi, so dependent on suitable climatic conditions that they might only appear every 10 or 15 years on average. There are obviously many yet to be discovered!

Some fungi, such as the field mushrooms are edible, some are poisonous to some people and not to others, some have medicinal properties and are used by Australian aboriginals; others are very poisonous to everybody. Many of the species are so similar that mistakes can easily be made when attempting to identify a particular specimen. For safety, it is best to avoid tasting all fungi except those purchased from food shops.

I was personally amazed to hear of fungi able to emit light of sufficient intensity that books can be read when placed nearby. I read recently that this radiation was due to the same cause as that emitted by fire-flies!
To sum up the talk was interesting and beautifully enhanced by the slides. One can only both respect and admire the skills involved in Pam's following such a "Hobby".

B. Possingham

THE FIR TREES OF CAPTAIN CORELLI'S ISLAND

Have you read Louis de Berniere's book "Captain Corelli's Mandolin", or perhaps seen the film? You may remember the goatherd Alekos who lived on the summit of Mt. Aenos. During World War 2, a British aeroplane dropped Lieutenant "Bunny" Warren who floated to earth by parachute onto the mountain (this really did happen incidentally). Alekos thought he was an angel and cared for him carefully after untangling him from the trees.

The island where the story was sited is Cephallonia (sometimes spelt Kefallinia). It is the largest of the Ionian Islands, Mt Aenos (1628 m) is the highest point on the island and the trees are Cephallonian or Grecian firs (*Abies cephalonica*) which grow naturally only on this island and on the mountains of southern Greece.

Cephallonia, just off the west coast of Greece, has a long and colourful history. Historians believe that the first inhabitants were the Kefalenes, an ancient tribe from Epirus, a mountainous region in northwest Greece. Mythology tells us that the name of the island was derived from the hero, Kefalus, who came from Attica.

Mt Aenos was once covered with the legendary forest of fir trees where dragons and demons lived and which gave the island the appearance of being covered in a dark cloak. Here both Pan and Boreas, the north wind, fell in love with the nymph Pitys. She chose Pan so Boreas blew her off a cliff. When Pan found her body he changed her into a fir tree and the resin which oozes from the cones are her tears. The forest of Puck and Titania in "A Midsummer-Night's Dream" was set in a "Wood near Athens". This is a forest of Cephalonian firs 1 000 m up on Mount Parnassos north-west of Athens.

The ancient name of Mt Aenos was Melaina which meant "black" and the Venetians who ruled the island from 1571 to 1797, called the mountain Monte Nero (Black Mountain). Today a great number of the trees are gone but there are still many of these tall, pyramidal trees with their long, horizontal branches growing over the mountain slopes. Abies, the Latin name for fir is derived from abine - to rise - alluding to their great height.

Abies, family Pinaceae, is a group of evergreen conifers with single needles and flowers of both sexes on the same tree. The solid cylindrical cones are born on the topmost branches. Most firs are Asian with only three species European - *A. nordmanniana*, the Caucasian fir, one of the most beautiful of the firs, *A. pinsapo* which grows in the mountains behind the Costa del Sol in southern Spain and *A. cephalonica*.

Abies cephalonica is a mountain tree found on slopes over 800 m. Too big for average garden use, it grows to a height of 30 m with a distinctive crown and huge spreading branches often 10 m across. The bark is scaly orange-brown which matures to dull grey and breaks into small square raised plates. The needles are distinct - stiff, sharply pointed and radiating all round the shiny, dark red-brown shoots. This characteristic makes the Cephalonian fir unmistakable. The male flowers are red turning yellow with the females green. The tapered cones grow to 10 cm in length.

The firs have been the island's most famous source of wealth as the timber is strong and straight and so valuable for boat-building. It was much used by the Greeks and the Venetians. Homer wrote that the oars of Odysseus's boats were made of Cephalonian pine. However over the centuries much cutting plus forest fires and grazing by goats of seedlings have destroyed much of the forest.

There is only one fir growing in the Arboretum - *Abies pinsapo*, near Fullarton Road at grid A5. It was planted in 1956 but is barely 3 m tall so is surely is telling us it is unhappy. Jennifer tells me that she has planted 5 Abies since 1990, none of which have survived. Over 40 specimens representing 15 species have been tried in the Arboretum but only #1027 still lives. These wonderful giants are happiest only on their mountain slopes.

Mary Tester

ALFRED, MARIE AND THE HOLY GRAIL - 1991

In June 1876, on his fifth expedition, the explorer Ernest Giles's wish was granted when he reached the Alfred and Marie Range (in Western Australia) from the west, having travelled from Perth via the Ophthalmia Range. Giles was somewhat disenchanted with the hills, as they were clearly low and uninteresting. The party "passed by the northern end" of the range and headed east.

Following Giles's return, Ferdinand von Mueller identified a species, *E. rameliana*, based on a single specimen collected by Giles. The collection locality given was "near Alfred and Maria Range". This specimen was clearly not a known species. In later years *Eucalyptus rameliana* became the Holy Grail of eucalypt botanists as it had not been found since Giles's expedition, despite several attempts.

The Albert and Marie Range is about 130 km NW of Warburton. It is a range of low, reddish, stony, conical hills extending for about 20 km and is within the Gibson Desert Nature Reserve. The nearest track from the south is a "cut line" which leaves the Gunbarrel Highway about 4km NW of Mt Beadell.

In 1990, Bob Nicolle, a nurserymen from Reynella, took his family in search of the elusive species. In a 4 WD vehicle they drove to the end of the cutline* and then proceeded cross-country by compass in the direction of the Alfred and Marie Range. After locating the range, he headed up the western side to the northern end. No example of *E. rameliana* was found. They decided to try again in 1991 and invited me and a friend David Kleinig to go with them. David and I met Bob and his family at Coober Pedy and travelled in our separate vehicles to Giles, Warburton and Mt Beadell. We then set off from there along the cut line. At the end of the line we found last year's tracks across stony ground and mulga, and followed them across the spinifex and through the mulga, suffering punctures from hidden mulga sticks. Part of the "track" goes across completely bare stony ground upon which no traces could be seen. To assist us on our return, we laid a trail of stones wrapped in aluminium foil at intervals across the bare stretches. This became the "potato trail" which served us well when we came back a few days later.

On reaching the range, we could see that the southern bluff carried a few trees of a form of ghost gum. The same species was also found on spinifex plains all the way from the Gunbarrel Highway. These trees have strikingly white bark and are up to 10 m in height. We camped for several days near the northern end of the range where the hills were devoid of eucalypts. The plains were largely spinifex and mulga interspersed with large areas of bare stone. Conditions were dry and the flies were unbearable. Some party members went west on a four day hike and found some eucalypts including an unidentified mallee about 10 km south of Macpherson's Pillar. It was similar to the species for which we were searching but more material was needed for further study.

A few weeks later we returned to the area, driving up the Gary Highway to a point about 62 km north of the Gunbarrel Highway and then east for about 30 km, eventually reaching the region where the mystery mallee was previously found. At the base of a small hill we found more trees in a patch of another species. They were in bud and fruit and more collections were made. Despite further searching, we saw none other like it so returned home. Was this *E. rameliana*?

A few weeks after our return, Steve Hopper from Kings Park rang me to say that *E.rameliana* had been found, in the southern part of the Great Sandy Desert. Giles had misled us. He had been temporarily blind, so perhaps we should not be put out that he was not more specific when he stated the species was found "near the Alfred and Marie Range".

Ian Brooker

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* Ed's little note. I did not know what a cut line is or was! I asked a few friends, people who were engineers and surveyors. General consensus was that it was a straight line, bulldozed across the country thus enabling seismic investigations to be made – maybe even to discover oil wells!

PORTRAIT OF AN ARTIST.

Pam Brinsley, a Member of our Friends Committee

Pam Brinsley was born in London and spent her early years there. It was her ambition to be a commercial artist, but her art studies at Bolt Court School in Fleet Street were ended by the severity of the air-raids in WWII. She completed an engineering drafting course and worked as a draftswoman through the war years. After the war she came to Australia for a brief visit and found the life here so agreeable compared with war-weary Britain that she never returned there to live.

In Melbourne, Pam worked in the Drawing Office of ICIANZ, and then became a TAA air-hostess in order to see more of Australia — at least from the air. She became Staff Artist at Dept. of Air HQ where she illustrated two RAAF magazines with drawings of aircraft, cockpit layouts, navigational equipment etc. She also designed badges, squadron crests, and the kangaroo roundel seen on all Australian military aircraft. She married RAAF pilot Kevern Brinsley and went with him to live in Kuala Lumpur during "The Emergency" when she worked for the Director of Security and Intelligence.

On returning to Australia she did an Interior Design Course which proved useful when she accompanied her husband as Air Attache to the Australian Embassy in Saigon. The Ambassador asked her if she would design the furniture and furnishings for his suite in the Embassy. She taught English Expression in a Chinese school, and when confined to her home during coups d'etat (and there were many), and when there was a curfew, she made the most of her time by painting still life.

Later in Canberra, she became a botanical illustrator at the CSIRO Division of Land Research until her husband retired from the RAAF and they moved to the Adelaide Hills. She illustrated books for Rigby's, Cheshire's, CSIRO Soils Division and the Productivity Promotion Council, and then returned to drafting work for a prominent Adelaide soils engineer. There she was responsible for the drawings for a feasibility study for a Proposed Adelaide Underground Railway, and also for the original Rundle Mall. There followed a period when Pam had exhibitions of Botanical and Ornithological water-colours.

While her work as a commercial artist did not follow a conventional path, she enjoyed the variety of opportunities that came her way.

NEW MEMBERS

A warm welcome to the following new member:

Miss Susan Underwood, Fullarton

Note: It might be worth members considering the possibility of giving a Year's Membership to "The Friends" as a gift and we would then have another Friend. All you need do is request the Secretary or Treasurer to arrange this. You need only state the name or names of the new Friend, your own name, and either $10 for a single Friend or $18 for a couple or family.

IN THE ARBORETUM

The following article concerns that section of the Arboretum that is termed the north-western section. This is the area bounded to the north by Cross Road, to the west by Fullarton road, to the south by the roadway to Urrbrae House and to the east by the previously cultivated land now planted with trees. Most of the following material comes directly from the report, actually a management plan, prepared by Andrew Crompton, at the request of Jennifer Gardner, and produced in 1998.

According to D. N. Kraehenbuehl, in "Pre-European Vegetation of SA", published in 1996, the site of the Waite Arboretum was formerly within an extensive area of *Eucalyptus microcarpa* (Grey Box) woodland referred to by the early European settlers as the Black Forest. The commencement of grazing at the study site in about 1840 prevented the regeneration of indigenous woody plants. The removal of trees and shrubs and the introduction of exotic grasses and broad-leaved herbs (forbs) began to cause the extinction of indigenous species. Grazing of sheep continued until 1991. Subsequent management has been by regular mowing.

Since by 1880 the Black Forest had been almost completely cleared, and also no intact Grey Box forest remains on the Adelaide plains, it was recommended that attempts be made to encourage the growth of original grasses, small trees and shrubs in order to assist the survival of one of our original S.A. habitats. Andrew collected specimens of all indigenous grass species in the area in question.

Volunteers and Friends have recently worked to achieve the above aim and many shrubs have been planted. It is not easy for many Friends and other "city dwellers" in Adelaide to distinguish between indigenous and introduced grasses. In order to assist with identification, some indigenous grasses: Windmill Grass *Chloris truncata* (a few specimens are still present), Wallaby Grass *Danthonia sp* (still common) and Kangaroo Grass *Themeda australis* (almost certainly was once in this region), have been beautifully drawn by Pam Brinsley and appear on pages 8 and 9. Windmill Grass is readily identified by its windmill-like flower spikes and Kangaroo grass, by its bluish leaves and russet-tinted flowers.

Many native grasses such as Windmill Grass grow during summer when the introduced (abundant) herbaceous weeds and grasses have dried off. It is hoped that with carefully chosen times for mowing, careful weeding and appropriate planting and care for indigenous species, we may ensure that some of the original vegetation survives.

B Possingham

FERDINAND BAUER

I did enjoy Pamela Brinsley's interesting article (Newsletter, Summer 2002, No. 30) about three botanical artists. Pam pointed out the "botanical correctness and fine detail" of the Bauer brothers' illustrations. To record observations so accurately and in minute detail, the botanist Nikolaus Jacquin, in Vienna, encouraged them to use the micro-scope. This was a pioneer skill which Ferdinand in particular used to great effect all his life.

Botanist Robert Brown was also a master of the microscope and he also encouraged Bauer to make good use of it. Bauer was an excellent draughtsman who drew and engraved his works, including colour and form, which gave a true three-dimensional image. A reduced black and white copy of the watercolour of Blue Pincushion *Brunonia australis* by Ferdinand Bauer is shown on page 7. The original drawing is housed in the botany and zoology libraries of the British Museum (Natural History); a coloured copy was recently on view in Urrbrae House. Blue Pincushion is a small, perennial herb, native of South Australia and bears heads of cornflower-blue flowers in spring and summer.

Mary Tester

FORTHCOMING EVENTS AND DIARY DATES

Wednesday 10 April 8 pm:

AGM then **'Landscape South Australia'** Bernd Stoecker, one of SA's foremost landscape photographers will present his slides on the National and Conservation Parks of SA, bringing the landscape to the city.

August Meeting date and speaker to be confirmed

Thursday 5 & Friday 6 September

TREENET Street tree symposium. Friends of Waite Arboretum will cater for morning and afternoon teas at Urrbrae House as a fund raisers. Volunteer help & cakes needed.

September

Return visit to Ian Roberts property at Blythe, near Clare to see his native garden. Date to be advised.

5 pm Friday 8 November

Noted rosarian **Maureen Ross** of Ross Roses will share some of the wealth of her knowledge and expertise on roses and rose growing, followed by a glass of champagne and guided walk through the Urrbrae House rose garden.

6 – 8 pm Monday 9 December

Annual joint **Christmas party** with the Friends of Urrbrae House and the Friends of the Waite Conservation Reserve

Editor's notes, sins and omissions.

1. Either an editorial or a typographical error appeared in Newsletter No. 30. Pam Brinsley had written that Ferdinand Bauer died in AUSTRIA in 1826. I translated this into AUSTRALIA, this was quite incorrect. Apologies to Pam.