NEWSLETTER

SPRING 2008
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Editor: Peter Bird

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New members are welcome. Contact Jennifer Gardner, Manager Waite Conservation Reserve, above

President's Page

This year has seen more planting then in previous years. Hopefully the wet July & August augurs well for the success of these plantings.

The first Hardenbergias & Round-leafed Wattles are starting to flower meaning Spring is just around the corner. This is good working bee weather & I invite members to join us to see different parts of the reserve & to enjoy the company of like-minded people as we improve the ecological health of the reserve.

Each year we organise an event to try to give something back to our members. This year it is the opportunity to see up-close some of the fauna found in the reserve. In November we commence a biological survey to assess the distribution & abundance of the mammals, birds, reptiles & frogs that inhabit our patch. Is there any truth in the long-standing rumour that bandicoots are in the reserve? We hope to find out!

The survey will run 8-16 November. We especially need your help on the first weekend to set up traps. More details about this event can be found inside the newsletter.

Regards

Chris Kaczan

New display on show

The new display board had its first viewing at the AGM in May. It proved very popular, not least because of its cunning position in front of the log fire in the ballroom on what was a very cold night. Membership & working bee forms & walking trail maps in the attached boxes were easily accessible. People were keen to look at the map of the reserve & its access points. Some members were pleased to see themselves in the photos.

In June the display was set up in the Lirra Lirra Cafe on Waite Campus. In July the display was transferred to the foyer of the Mitcham Council Chambers. It was then extended for a further month through August. The Walking Trail maps proved very popular at both locations.

There has been a noticeable increase in walkers (and runners) through the Reserve especially along the Yurrebilla Trail so it might be worthwhile to erect map boxes & interpretive signage along the trail.

We are grateful to the Mount Lofty Ranges Natural Resources Management Board for funding support; to FWCR members for ideas, layout, text, photos & proof reading; & to Tom at Aish Data Design for his patience, design & printing.

Helen Pryor

President's AGM address

The Waite Conservation Reserve is of considerable importance for its biodiversity values. Even though clearing of native vegetation is restricted in the Adelaide Hills, the effects of past clearing continue. Previous AGM speakers David Paton & Janet Pedler have highlighted the decline of native bird species as a result of this extinction overhang. To help counter these effects the Friends group has continued its program of olive removal, strategic replanting & use of natural regeneration to enhance the biodiversity of the reserve.

I am pleased to report that in the last year the Friends contributed to more then 15 working bees & over 400 hours of volunteer work to improve the reserve. Many thanks to the working bee organisers: Stephen Wait, Grant Joseph & Bryan Both & to Andy & Annette Baker for their continuing donations & organisation of the working bee BBQs.

During History Week in SA it is perhaps apt to remember that the past can help inform the present. I was intrigued by a quote in the last Friends newsletter from Thomas Gill who in 1905 noted that "the golden wattle which luxuriated on the western slope disappeared some 30 years ago." Today we are collecting the seeds from the remnant wattles & propagating them to replant the same slopes. The dedicated members who grow seedlings include: Stephen Wait, Helen Pryor, Andy & Annette Baker & Lynda Yates.

The survival rate has been variable with some surprising successes as well as the inevitable failures. Whilst the planting of seedlings is important in previously heavily modified areas, in other places we continue to rely on weed control & natural regeneration.

The Friends provided a donation to the University to help fund a revegetation plan for the reserve. This was written by Penny Paton & builds on some excellent work done by Grant Joseph. This plan helps to provide a long-term framework for future work in the reserve.

Thanks also to Jennifer Gardner & Penny Paton for helping with an Envirofund grant which, in conjunction with the Nature Conservation Society of SA, paid for some contract olive control.

Another successful grant application written by Helen Pryor & Joe Haslam resulted in funding for the mobile display board seen for the first time tonight in the adjacent room. We intend to use it at the university & other community locations to let people know about the reserve & the range of Friends activities that they can participate in.

Thanks to the many members who have added a donation to their membership subscriptions. This money has been used to erect a new table & seats in Koala Gully. This will be appreciated by the increasing numbers of people using the Yurrebilla Trail.

The Friends group held an early morning bird-watching session last spring. Many thanks to Peter Bird for organising this as well as his editing of the spring & autumn newsletters. The botanical articles in the newsletter by Peter Lang are looked forward to & are enjoyably informative. Later this year we hope to help organise a biological survey of the reserve & run a members event in conjunction with it.

Members have recently reported seeing 4 or 5 Western Grey Kangaroos compared with only a couple in previous years. It would be nice to think that this build up of numbers is indicative of a more general improvement in the ecological health of the reserve.

In conclusion I would like to thank all members of the Friends committee for their willing efforts & also the members of the Friends of the Waite Conservation Reserve whose continuing support is so valuable.

Chris Kaczan May 2008

SNAKE AWARENESS

Grant Joseph

I recently attended a Friends of Parks seminar supported by DEH & hosted by Friends of Onkaparinga Park entitled *'Snake Awareness for Volunteers'*. The evening was in two parts, the first by renowned snake educator Geoff Coombe from 'Living for Wildlife', who demonstrated some key points about snakes. After a fantastic supper provided by the Friends, Chris Cotton an Intensive Care Paramedic for SA Ambulance presented information on snake bite & first aid.

Part 1: Snakes

General snake behaviour

- snakes act on instinct using encoded behaviour when responding to a threat
- they lay down scent trails along which they retreat to a 'safe shelter'
- 'safe shelter' is any confined space providing close contact around the body
- snakes prefer known safe shelter & rarely leave it even if the shelter is trod upon
- their most acute sense is 'smell'; a snake uses tongue flicks to draw air-borne particles into the mouth & thence to pits in the roof of its mouth
- poor sight & sense of vibration are not highly informative in identifying threats

Threat reaction behaviour

- snakes prefer to avoid confrontation (too greater risk of coming off second best) by retreating to 'safe shelter' or other opportune shelter
- if the threat remains, they rear as if to strike
- if threat still remains, they strike without biting
- if threat continues, they strike & bite

Threatening situations

- in cool weather (i.e. early mornings or cool spring days). Being cold-blooded, snakes gain warmth from their environment. On cool days snakes are sluggish & need extra time to get out of your way so be extra observant
- when you are unaware of a snake's presence. In this situation you are oblivious to the snake's behavioural warnings (above) & unwittingly fail to remove yourself from the threat

Threat avoidance

- if you see a snake STAND STILL. Motionless you pose no threat to a snake
- a threatened snake will retreat to the nearest 'safe shelter'; this may be towards you; even then, STAND STILL
- look before stepping over logs or rocks
- brown snakes have tiny fangs. Wearing thick trousers (e.g. denim) & boots will prevent bites from penetrating

Snakes of the WCR

The only species known is the Eastern or Common Brown Snake (*Pseudonaja textilis*).

Distribution:	widespread on the Adelaide Plains & Mt Lofty Ranges
Habitat:	most habitats esp. agricultural & disturbed habitats; includes peri-urban areas
Shelter:	under any materials lying close to the ground esp. rocks, logs & rubbish; in disused animal burrows, soil cracks, rock crevices, drains etc.
Food:	small mammals esp. house mice, reptiles, frogs & birds
Toxicity:	very toxic; causes death in as little as 1 hour

Part 2: Snake Bite & First Aid

Snake bite

- ~1500 bites per year in Australia. Most are 'dry bites' with no venom injected. About 300 need treatment with anti-venom, ~3 deaths annually
- amount & quality of venom injected depends on the level of threat, the time taken for the snake to bite, penetration of the bite, season, time since last feed & how much eaten
- injected venom is mainly transported via lymphatic system; heavily influenced by patient movement. Reduced victim movement = reduced venom dispersal
- recent medical research shows that the speed of application of an effective pressure-immobilisation bandage & splinting influences patient outcome & survivability

First Aid

Let others know where you are going. Carry a mobile phone to call an ambulance. Ensure you have a 'Snake Bite First Aid Kit' including sufficient lengths of wide bandage to wrap the leg from toe to hip*.

1. ensure patient (& others) are no longer at risk from the snake
2. reassure patient. Encourage to lie down & keep still. It is critical that the bitten part & patient do not move
3. start First Aid immediately. Do not ignore a trivial bite, especially if suspected from a brown snake.
4. contact ambulance (000) & follow professional advice. A good description of your location is critical to the paramedics finding you.
5. do not interfere with the bite in any way. Do not wash skin. Residual venom can be used to identify the snake for correct anti-venom
6. remove all jewellery from bitten limb
7. apply bandage with even pressure (as for sprained ankle) from extremity to body junction. Splint to immobilise. Use two sticks for arm & other leg for leg. Bandage over clothes when they cannot be cut off
8. mark site of bite on bandage
9. apply bandage & pressure to bites on body or face
10. keep patient still in slightly reclined position with bitten limb below heart. Bring transport to patient. Allow professional paramedics to find you.

Enjoy the outdoors in the Waite Conservation Reserve but be Snake Aware!

**Note: on working bees the ute has a bum bag with a First Aid Kit & 2 compression bandages. There is also a steel box containing 3 more bandages.*

BIOLOGICAL SURVEY
WAITE CONSERVATION RESERVE
8-16 November 2008

Put it in the diary now - the first stage of the Waite Conservation Reserve biological survey commences 8-16 November 2008. The 9-day survey will collect detailed information on the mammals, birds, reptiles, frogs & some invertebrates of the reserve. We need your help!

Past efforts in biological investigation of the reserve have focused primarily on the vegetation. Led by Peter Lang & Grant Joseph we now have a fairly comprehensive picture of which plants occur where on our 140 hectares both at a vegetation community level & in terms of individual species.

By comparison, the fauna of the reserve has received scant attention with little more than basic species lists compiled for most groups. We need to do better.

Until now we have been content in the belief that 'if we build it, they will come', ie. if we rehabilitate the habitat, the fauna will look after itself. This is a dangerous premise. There are many factors beyond vegetation quality that impact on the fauna. Obvious ones are ferals & increaser native species, fire, habitat fragmentation & that big bogey, climate change. How do we manage for these factors if we have little understanding of which animals are there in the first place?

This is all about to change! In November we start the process of systematically surveying the fauna to get a clearer understanding of its distribution & abundance across the reserve. We will use standard Department of Environment & Heritage biological survey techniques at a dozen or so representative sites across the reserve. This will involve use of pitfall, Elliott & cage traps, day-time & spotlight searches & Anabat recorders to detect bats.

Traps will be installed on the first weekend starting Saturday 8 Nov, monitored during the week, then pulled up the following weekend. Assisting us will be the South Australia Herpetology Group & the Field Naturalist's Society of SA Mammal Club.

An 'Open Day' will be held on the final day, Sunday 16 Nov to discuss the results & show off some of the captures. The process will be repeated for a further 9 days in March 2009 to pick up seasonal changes.

Fill out the form below & mail/ email to register your interest. Send to:

Peter Bird
3 Ross St
Thebarton 5031
pbjbird@chariot.net.au
Ph: 8352 3046 (H)

……

NAME:……..

Email: ……
Phone: ……...(H) ……..……..…….(Mobile)
.
AVAILABILITY: (Tick days)

DAY	Sat	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
DATE	8	9	10	11	12	13	14	15	16

EXPERTISE/ INTERESTS

☐ Mammals ☐ Reptiles/ frogs ☐ Birds ☐ Invertebrates

a gum is a gum is a gum

Dr David & Judy Symon started their highly entertaining yet thought-provoking poetry recital with this poem by Mark O'Connor called *"The Monotony of Highway One".* After looking for poems about plants, & realising there was no anthology of verse about Australian flora, David decided to compile one. Despite many poems on eucalypts & acacias, he was unable to find poems covering all plant families so he settled on organising the anthology by themes including poems on fire, politics, aboriginal chants & even weeds.

Weeds are of great interest to the FWCR. They are a regrettable part of the Australian bush; nowadays the second greatest threat to biodiversity. One weed of particular concern to us is the olive, planted probably as early as the 1850's in the hills around Glen Osmond. David read a relevant poem by Mark O'Connor.

To Kill an Olive

Nobody knows how long it takes to kill an olive
Drought, axe, fire are admitted failures. Hack one down
grub out a ton of main root for fuel, & next spring
every side root sends up shoots. A great frost
can leave the trees leafless for years; they revive
Invading armies will fell them. They return
through the burnt out ribs of siege machines.

Only the patient goat, nibbling away down the ages
has malice to master the olive. Sometimes, they say,
a man finds a dead orchard, fired & goat-
cropped centuries back. He settles & fences;
The stumps revive. His grandchildren's family prosper
by the arduous oil-pressing trade. Then wars
and disease wash over. Goats return. The olives
go under waiting for another age.

Their shade lies still where Socrates disputed
Gesthsemane's withered groves are bearing yet.

Unfortunately (or fortunately), we haven't got any goats in the Waite Conservation Reserve although some deer have been seen recently but they along with the kangaroos seem to prefer the Drooping Sheoaks. However the olives in the Reserve are noticeably decreasing with the regular removal of seedlings by FWCR volunteers at working bees & more significantly by Stephen & Grant's efforts during the week. It is an ongoing effort (*yes maybe even generational*) but it is allowing the remnant vegetation to regenerate & space for the FWCR to revegetate.

This enjoyable & stimulating selection of poems gave an insight into the Australian attitude to & cultural appreciation of our plants & an opportunity to reflect on our native flora. A timely book; I'm looking forward to a copy when it's completed. I also recommend David Symon's previous book called *"Sturt Pea: a most splendid plant"*.

To avoid the monotony of Highway One

1. Walk through the Reserve & see the variety of gums & other plants
2. Or better yet come to a working bee & learn more about our native flora

(The poetry recital was held on June 15th at Urrbrae House. Thanks so much to David & Judy Symon for their great selection & skilful reading of the poems & to Mark O'Connor for his kind permission to use the poems in this article)

BOTANICA

Peter Lang

Eucalypt species of the Waite Conservation Reserve

Of the four major tree species in the Reserve, three are Eucalypts with the colourful names of grey, red & blue.

The grey of the Grey Box (*Eucalyptus microcarpa*) refers to the colour of its 'box' bark (rough & somewhat fibrous but not stringy like a stringybark).

The red of the River Red Gum (*Eucalyptus camaldulensis)* refers to the colour of its freshly hewn timber, a rich red-brown, that mostly remains hidden under its smooth gum trunks of grey & white bark.

The blue of the South Australian Blue Gum (*Eucalyptus leucoxylon*) is the colour of its seedling, juvenile & coppice foliage, the broad, stalkless, heart-shaped leaves that clasp the stem in opposite pairs. Cut down a blue gum & that is how the first new coppice leaves to re-grow from the stump will look, before the tree starts to produce 'normal' eucalypt leaves again. The bluish coating results from a crystalline waxy deposit on the surface of the leaf cuticle. Although always evident, it is better developed in inland forms of the SA Blue Gum than in those of the Adelaide region.

The fourth major tree is the Sheoak (*Allocasuarina verticillata*) named for the resemblance of its grainy timber to the European Oak.

Minor trees that come to mind are the Native Apricot (*Pittosporum angustifolium*) & Native Cherry (*Exocarpos cupressiformis*) but these will have to wait for another article. Mention should also be made of the Manna Gum (*Eucalyptus viminalis*) which only just misses out on growing naturally within the Reserve, although some branches overhang the boundary fence on Wylie Ridge & seedlings have been planted out nearby in parts of the Stone Reserve section.

Eucalyptus microcarpa **(Grey Box)**

While grey is perhaps a good description of the bark colour of *E. microcarpa* trees from the southern Flinders Ranges & eastern Australia, the isolated local population found on the plains & western hills from Adelaide to Sellicks Hill has darker & rougher bark (hence the 'Black Forest' of the early Adelaide colonists). It is probably genetically quite different regardless of whether or not one day it becomes recognised as a separate species. Like many of the Box group of eucalypts, the Adelaide Grey Box (as I would like to call it) is adapted to heavy soils. In fact this species seems to prefer those sticky, red, cracking clays along the western hills face. Along with gaping cracks in houses & old clay mines for brickworks, you will find *Eucalyptus microcarpa*.

Grey Box woodlands have become a threatened plant community because of the restricted distribution of the species in South Australia, the pressures & encroachment of suburban development & the susceptibility of fertile soils & more open grassy understorey to weed invasion. The Waite Conservation Reserve is important in conserving valuable remnants of this community on the fringes of suburbia.

Grey Box extends right across the Reserve & ranges from some grand & gnarled old trees along the western foot-slopes to more stunted forms on rocky hill tops. The wood's lack of durability is an advantage in enabling it to readily form hollows in branches & trunks that are important for animal habitat. The foliage is well used by possums & insects. Flowering occurs in late summer & early autumn, often with masses of flowers but a time when most of us are less likely be about the Reserve. The small cup-shaped fruits are the basis for the botanical name *microcarpa,* meaning small-fruit.

Eucalyptus leucoxylon (South Australian Blue Gum)

The blue juvenile leaves of this species are by no means unique & in Victoria where this feature is much more pronounced in other species, *Eucalyptus leucoxylon* is called Yellow Gum. This points to a subtle difference in the colouration of the bark between SA Blue Gum & Red Gum. Both are large generally white-barked gums & can be difficult to distinguish at a glance. However, the trunk & major branches of SA Blue Gum are usually streaked with tinges of yellow-ochre staining from a resinous exudation known as kino. In Red Gum, the bark colours tend more towards bluish-grey. In contrast to Red Gum, the wood colour is pale, a feature recognised in the botanical name *leucoxylon*, which is Greek for 'white-wood'

SA Blue Gum may be readily identified at close range by the moderately large gum nuts & the buds & flowers produced in triplets. These & other features indicate that the species is actually a close relative of the ironbarks of eastern Australia.

In the Adelaide area Blue Gum flowers mainly in late autumn & winter, with the abundant nectar flows from its large deep-cupped flowers providing a feast for screeching lorikeets & other blossom-feeding birds.

Although deep-pink & red-flowered forms are widely cultivated, wild trees mostly have cream-flowers. A small patch of wild pink-flowered trees occurs on Netherby Spur.

Eucalyptus camaldulensis (River Red Gum)

This is the popular iconic gum tree generally associated with drainage lines across much of southern Australia. In certain conditions Red Gums also extend from the valleys onto hillsides, as is the case with south-facing slopes in the Waite Conservation Reserve (see table below).

Red gum flowers in summer. The fruits are small with conspicuous exserted valves that release their seed once they are ripe.

This is in contrast to most other eucalypts which retain mature fruit (with enclosed seeds) on the tree for many years. Red Gum lacks a developed lignotuber & has relatively poor fire tolerance. Nevertheless trees are often very long-lived (estimates of up to 500 years are not uncommon) & they deserve their reputation as 'Nature's Boarding House' for the variety of invertebrate & vertebrate life that they support in their roots, under their bark, in their hollows & on their foliage.

Distribution patterns of the four main tree species in WCR*

Species	Landform	Altitude	Mean annual rainfall
Eucalyptus microcarpa (Grey Box)	all	all	< 770 mm on N-facing slopes; < 750 mm on S-facing slopes
Eucalyptus leucoxylon (SA Blue Gum)	crests & spurs, upper west-facing slopes	mostly > 240 m	> 715 mm on N-facing slopes; 625–785 mm on S-facing slopes
Eucalyptus camaldulensis (River Red Gum)	gullies & south-facing slopes	all	> 680 mm to grow on slopes
Allocasuarina verticillata (Drooping Sheoak)	rocky slopes & outcrops, especially on Mitcham Quartzite	mostly > 260 m	< 770 mm on S facing slopes

* Adapted from information compiled by Grant Joseph in:
Joseph, G. (2006). Waite Conservation Reserve: Revegetation Plan 2007-2010. TafeSA, Urrbrae Campus/ The University of Adelaide, South Australia.