

NEWSLETTER

**SPRING 2009
NUMBER 18**

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

President's Page

The Old Coach Road travels through quite a large section of the reserve. We often use it while on working bees to get from Wild Dogs Glen to Urrbrae Ridge and across to Pultenaea Hill. At other times we catch glimpses of the delicate trackside cuttings and accompanying stonework from across the valley. Literally under our feet is an intriguing story of the building and use of this pioneer road.

We know that the road was built in 1861 by Arthur Hardy. It commenced opposite the old Toll House, wound towards Birksgate, and then climbed steeply towards Urrbrae Ridge and on further through the reserve in a south-easterly direction. As such it was one of the first roads to Mt Barker and the eastern states.

We have all driven up the new Mt Barker Road, and possibly the old Mt Barker Road and there may well be members or other interested people who would enjoy unraveling the fascinating story behind what may be the original Mt Barker Road. The Mitcham Heritage Research Centre tells me that it is possible to look up the original plans and the opening and closing proclamations for this road.

It may also be possible to find in the minutes of the Central Road Board the debate and discussion around why the road was built.

I have also been told that in the book *Valleys of Stone* there is a chapter by Bill Stacy on the Mt Barker Road that would provide good background and references for anyone interested in finding out more about our local early 'highway'.

If you are interested could you please contact me or Jennifer Gardner at Urrbrae House.



Old Coach Rd above Wild Dogs Glen

Chris Kaczan

I am very grateful for the continued assistance of a very able committee. Their voluntary work underpins the many achievements of the Friends group. I'd like to publicly acknowledge their good work which is detailed in the AGM report elsewhere in the newsletter. A number of very kind people have continued to make donations towards the reserve and their thoughtfulness and generosity is much appreciated.

Regards *Chris Kaczan*

Reference: *Valleys of Stone: the archeology and history of Adelaide's Hill Face*, edited by Pam Smith, F. Donald Pate and Robert Martin. 2006. Kōpi Books. Belair. South Australia.

Could *Phytophthora* be in Waite Reserve?

Phytophthora (commonly known as Root-rot Fungus or *Pc*) is present in Cleland Conservation Park, Eagle Mountain Bike Park and is suspected in Brownhill Creek Reserve. With increasingly frequent foot and bicycle traffic on the Yurrebilla Trail through the Waite Reserve, could it spread here too?

Once an area is infested, it cannot be eradicated!

Origins

Although most likely introduced into Australia in the 1800s, it was first identified in the Mount Lofty Ranges in 1972. There are 32 species in Australia but the most widespread & destructive is *Phytophthora cinnamomi*, so named as it was first isolated on a cinnamon tree in Burma.

What is it?

Pc is a soil and water borne water mould which attacks the roots of plants preventing uptake of water and nutrients. The first symptoms of infection are typically yellowing of the foliage followed by dieback of the entire plant. It is spread either by zoospores which can persist for 4 days, or by hard-coated chlamydospores which can persist for several years then germinate when conditions are right.

Visual symptoms may take years to develop after the initial infection and then only once plants are stressed. To confirm the presence of *Pc*, samples of soil and plant roots must be tested, interestingly in a laboratory on Waite Campus.

It is feared that heavy rainfall following the past drought may promote severe outbreaks this coming spring in the MLR or on Fleurieu Peninsula and KI.

Areas at risk of infection

The risk of *Pc* becoming established is highest in areas with:

- >500 mm rainfall
- neutral to acid pH soils
- low soil nutrients & organic matter
- few micro-organisms
- poor drainage
- susceptible plants present

Does WCR have any of these?

Species susceptibility

Grass-trees (*Xanthorrhoea spp.*) are important indicator species which have little resistance and die quickly. Other susceptible groups include certain heaths, peas, wattles, grevilleas, banksias and stringybark eucalypts.

Susceptible species from Waite Reserve include:

Drooping Sheoak *Allocasuarina verticillata*
Ground-berries *Acrotriche spp.*
Guinea Flowers *Hibbertia spp.*
Kangaroo Thorn *Acacia paradoxa*
Large-leaved Bush-pea *Pultenaea largiflorens*

From this list it is clear that the parts of the reserve at greatest risk are the most diverse and least disturbed areas.

How is it spread?

Pc is spread by movement of ground and surface water, by animals, especially cloven-hoofed species and plant-to-plant via infected roots. Any activity which involves the movement of soil, water and plant material has the potential to spread *Pc*. Footwear, clothing, tools, tyres,

machines & camping equipment are all potential transporters of contaminated soil and plant fragments. Disturbance caused by maintaining power-lines, firebreaks and roads; recreational activities and tree-planting provide the greatest risk of spread.

How to limit spread

Careful management can minimise risk of spread.



Waite sheoak woodland at risk?

Precautions include restricting access to high risk areas especially in wet weather, minimising soil disturbance and adopting hygienic procedures including cleaning and disinfecting all footwear, tools and vehicles.

Friends should be aware of their potential to introduce *Pc* to the reserve. Be mindful to brush dirt off boots and tools, and spray with methylated spirits after visiting other potentially infected sites.

Thanks to Renate Velzeboer, DEH Ecologist – Plant Dieback, for the great workshop, pamphlets and information which were used to write this article. For further information go to:

<http://www.environment.sa.gov.au/biodiversity/plants-animals/dieback.html>

Helen Pryor

WORKING BEE REPORT

Working Bees this year were split over two general locations. We spent the first part of the season (May-July) in the lower regions of the reserve in the areas around the Hillside Drive entrance, Wild Dogs Glen and Koala Gully.

Working Bees from August-Dec will be in the upper Reserve around Urrbrae Ridge, Leafhopper Gully, Hardy Block and the Old Coach Rd.

I am very happy with the planting achieved so far this year which goes some way towards restoring natural vegetation in areas where there has been successful weed control. We will continue with planting throughout September with some associated weed control in the areas to be revegetated. From October onwards our focus will be hand weeding smaller populations of weeds.

PLANS FOR 2010

Over the past few years the Friends of Waite Reserve has been a member of *Trees for Life*. As part of this we receive materials to grow 1000 plants for revegetating the reserve. We supply our own seed for propagation which is all collected from within the reserve.

In addition to these we also have our own materials, so the number of plants propagated each year is much greater. Any volunteer who is interested in growing for the reserve, whether a box of 50 plants or several boxes, should contact me and we can organise suitable species.

Growing is not that difficult so no experience is necessary, just a willingness to water the seedlings through the summer. Growing seedlings is satisfying and builds a sense of connection with revegetation in the reserve. It is also a good way of learning about the different species of plants which grow in the reserve.

I also have several species already germinated and growing but not big enough for planting this season which need caring for over summer.

Next year the Friends will help with rehabilitation of the infamous landfill site on the Western Slope. I envisage the first working bees of the year to concentrate on this site. I plan a high density revegetation with species suited to the area and compatible with fire risk minimisation planning. The size and nature of the site will require many plants, so we need a well organised and large growing program over the coming season.

Stephen Wait

Friends of Waite Conservation Reserve
invite you to

Weeds & Wildflowers Guided Walk

Sunday 20 Sept 2009

10.15 am – 12.15 pm

followed by a free sausage sizzle

Each year your committee arranges an activity in the Waite Conservation Reserve to which all members and their friends are invited. This provides an opportunity for you to enjoy some aspect of the reserve and its flora and fauna and to see first-hand the results of recent activities.

It also provides a convenient and, we hope, enjoyable way for you to maintain your links with the reserve. It may be of particular interest to members who are not able to join in our Working Bee program.

Stephen Wait will lead this year's event. He has worked in the reserve for many years, and is the regular supervisor of our Working Bees. He knows the reserve down to the last square metre and will show us a variety of weed pests and discuss aspects of their biology and control. For those interested, there will be an opportunity for 'class participation' ... if you have ever longed to dig up Cape Tulip bulbs this is your chance!

By late September many wildflower species will be flowering. These will be pointed out including showy Native Buttercups, Chocolate and Bulbine Lilies and orchids. Native grasses should be putting on a pretty show by then too.

The tour will start at the "Springwood Park" gate – the first driveway on the right, off the Eagle-on-the-Hill Rd (old freeway) coming from the city. Arrive 10.15 am for departure at 10.30 am sharp. The walk will last about 1½ hours, after which we will provide a sausage sizzle and coffee *gratis*, finishing about 1.00 pm.

To assist us to plan transport and catering, please RSVP to Secretary Joe Haslam, ph 8271 2660 or at haslamparkside@optusnet.com.au by Thurs 17 Sept.

President's AGM Report

The 137 ha Waite Conservation Reserve is nestled into the foothills at the back of the Waite Precinct. To the surprise of many people it supports over 280 plant species and as we will hear tonight from our guest speakers a considerable number of animal species.

The aim of the Friends group is to help protect the biodiversity of this area which includes what has been described as the most significant example of grey box woodland in South Australia. By controlling the weeds, principally olives, we reduce the stress on the native vegetation and provide more opportunities for natural regeneration.

In addition the Friends group plant seedlings propagated from seed collected in the reserve. We thank Russell Pope from *Trees for Life* and John Zwar from *Urrbrae TAFE* as well as committee members Linda Yates, Helen Pryor and Stephen Wait for the many hundreds of seedlings they have grown for planting out at working bees.

Stephen Wait and Grant Joseph are also sincerely thanked for their preparation for, and organization of the 16 working bees that ran last year. Over twenty five different people helped at these working bees and between them they donated more than 620 hours of time towards the reserve. Their efforts are greatly appreciated.

In return the committee actively tries to give something back to the members including members' days such as the one run at the end of the biological survey, a guest speaker at the AGM, two newsletters and the working bee BBQs. The BBQs are coordinated by Annette Baker and are much appreciated. In addition the committee applies for grants and lobbies on behalf of the reserve.

All committee members are sincerely thanked for their contributions including the secretary Joe Haslam and the treasurer Lynda Yates. Helen Pryor did an excellent job of coordinating the setting up of the Friends display board in a number of public places including the Mitcham Library and Lirra Lirra Café.

We are particularly grateful for the donations received during the year. Some of this money is being used to document the results of the biological survey. This survey was a major event last year and was particularly well supported by a large number of members and friends.

We are looking forward to hearing more about the many fascinating animals that live on the reserve from the survey leader Peter Bird in a few minutes. Finally I would be remiss if I didn't mention the valued and continued support from Jennifer Gardner and the University of Adelaide.

Thank you *Chris Kaczan* May 2009

Mystery of the 39 steps

(Older) fans of the spy-thriller novel may have been a little spooked if they counted the new permapine steps recently installed along the Wild Dogs Glen Walking Track. There are exactly 39!

'*The Thirty-nine Steps*' was a novel by John Buchan later made into a movie of the same name by master film-maker Alfred Hitchcock.



Tim Reynolds, weed ecologist, of the Department of Water, Land & Biodiversity Conservation on Waite Campus saw the winter rains starting to erode the track and enlisted Peter Bird to help install the steps from materials salvaged on campus. A final count at the end of the day revealed an unplanned 39 steps. Thanks to Tim for seeing a problem & fixing it.

Rustling in the undergrowth

As the warmth of spring gains momentum so does the rustling of reptiles in the reserve. Skinks are the most abundant group in the reserve, both numerically and in species diversity; half of the 14 reptiles are skinks. Three small species especially dominate the scene: the Garden Skink *Lampropholis guichenoti*; Three-toed Earless Skink *Hemiergis decresiensis* and Bougainville's Skink *Lerista bougainvillii*. Between them these three made up 72% of all reptile records during the fauna survey of last spring.



Garden Skink

Peter Bird

The Garden Skink is by far the most obvious. So-named for its predilection for eastern Australian capital city gardens (alas, not mine), it is common, diurnal and very active. It is fairly easily separated from any other small lizard in the reserve by its coppery head. In preferred habitat it can be ridiculously abundant with recorded densities of up to 10,000 individuals per hectare or one per square metre. The fauna survey showed them to be common in the long grass of the cool, moist gullies. In contrast they were effectively absent on north and west facing slopes suggesting they may struggle on our patch in the hotter, drier new world order imposed by climate change.

Both other skink species are cryptozoic, meaning they live in hidden or darkened places. Neither then is very obvious unless you specifically go looking for them by turning rocks or logs.

The Three-toed Earless Skink is well-named – it has three tiny toes on each puny leg and no external ear openings. When you spend most of your time under a log, legs just get in the way and acute hearing is obsolete.

Consequently evolutionary forces have ditched their big strong runner's legs, their usual five toes per foot and ear holes which would only have filled up with dirt and grown fungus.



Three-toed Earless Skink

Peter Bird

The Earless Skink is a richly polished dark brown above. Often this is the only impression you are left with as the lizard rapidly disappears into the surrounding grass when you turn its sheltering rock. Bougainville's Skink behaves similarly but the glimpse this time is of a lighter silvery fawn colour. Juveniles have a beautiful golden translucent tail. Their limbs are also reduced in size but they have five fingers and five toes.



Bougainville's Skink

Peter Bird

Interestingly the three skinks share a French connection through their specific names. The Garden Skink was named after Alphonse Guichenot, a zoologist who described many new species from French expeditions. Bougainville's Skink was named for French navigator, L. A. de Bougainville the first to circumnavigate the world; and the Three-toed Earless Skink bears the name *decresiensis* from "L'île de Decres" the name given to Kangaroo Island by the French and from where this lizard was first described.

Scott has a Field Day!

Our inaugural President returns for a visit

After being away for five years, it was with eager anticipation that I set off up Wild Dog's Glen last Tuesday for a stroll through the Reserve. I was not disappointed. In the ongoing struggle against ever-encroaching weeds, two achievements immediately stood out.

The first was with respect to olives. When I first visited the Reserve over 15 years ago, one had to stoop and scramble through a forest of olives just to make it to the top of the Glen. Those days are over. One has to climb a long way off the track to find a mature olive tree; and as I greeted the management team on the lower stretch of Old Coach Road, those were being put to the chainsaw and injected with poison, an approach we now know is a virtual death sentence for even this tenacious invader.

Strolling along Urrbrae Ridge and towards Pultenaea Hill, for the first time I was able to see clearly across the forest floor everywhere I looked; just as you should in a grassy woodland. A sustained campaign against some very well-entrenched mature olives has paid dividends and opened up the understorey. For the first time since I have been involved, the high ground in the Reserve has been secured and I got the sense that we are "winning" against the olives. The tide is turning.

However, the most satisfying experience – and one that may not be very striking to the untrained eye – was in Leafhopper Gully, which like Urrbrae Ridge has now been thoroughly cleared of olives. Nine years ago this gully was not a pretty sight. Reluctantly one wet winter morning I waded down into the gully (literally waded – the wall of olives was dense, chest-high and in places impenetrable) and had my worst fears confirmed: several well-established patches of bridal creeper lurking in the olive regrowth. A quick survey then revealed that this devastating environmental weed was present in almost every corner of the Reserve and likely spreading fast, constituting a major threat. Today, after relentless annual spraying campaigns and the successful establishment of the rust fungus *Puccinia myrsiphylli* for bridal creeper biocontrol, the threat appears to be well under control. At the original site of discovery in

Leafhopper Gully, both it and the olives are gone completely. Strolling up the gully today is an easy and pleasant experience, interrupted only by the sight of grey box seedlings springing up and flourishing sticky hop-bush revegetation. It is a stunning transformation and a major achievement of which the management team can be justly proud.

Continuing around to Sheoak Hill, it was great to see fanflower (*Scaevola albida*) and running postman (*Kennedia prostrata*) popping up in newly cleared areas, clumps of common raspwort (*Gonocarpus tetragynus*) bursting out of the ground, mats of native cranberry (*Astroloma humifusum*) continuing to spread and the beautiful creamy candles (*Stackhousia monogyna*) flourishing. With the big clump of clustered everlasting (*Chrysocephalum semipapposum*) at the top of the Glen and the spectacular large-leaved bush pea (*Pultenaea largiflorens*) in full bloom, a walk around the Reserve is richly rewarded at this time of year.

The bush birds were also out in force, with Yellow-faced Honeyeaters, Striated Pardalotes, Buff-rumped and Striated Thornbills and the tiny Weebills constantly making their presence known. Along Urrbrae Ridge I even saw a pair of Port Lincoln Parrots (which are most likely escaped cage birds, not being locally indigenous) happily sunning themselves in a big bluegum.

In all, it was great to return and see the Reserve moving forward so well and to know that its management is in capable and dedicated hands. It remains one of the most important remnants of grey box woodland in the region and despite the recent progress, a multitude of threats to its integrity remain. So by spending a few minutes of your weekend working on its restoration, and helping the native species re-establish their former dominance, you are making a valuable contribution to conservation in South Australia. Keep up the good work!

Scott Field

[A wonderful piece from our inaugural President and important feedback for our rehabilitation efforts. It is sometimes difficult for regular visitors to the reserve to appreciate the great improvement in its condition when changes occur only incrementally. It should give us great encouragement to continue our hard work. Ed.]