

FRIENDS OF WAITE CONSERVATION RESERVE Inc.



COMING EVENTS

Working Bees

September 7
September 15
October 5
October 20
November 2
November 17
December 7

Geological walk

October 12

Kangaroo Count

November 30

See pages 4 & 5 for details



THE UNIVERSITY
of ADELAIDE

President's page

How do we know we're making a difference? I can look back through old photopoint images, some taken almost 30 years ago, and see that we have indeed made significant inroads on the removal of olives. But in grassy woodland like the reserve, most of the plant biodiversity occurs below knee height. Unfortunately our photos say little about the condition of the understorey at this level.

I recently read an old report by Phil Shearman describing the reserve and documenting 6,000 hours of bush restoration works undertaken 1992–1994. Of Koala Gully he wrote: "A picturesque, deep and steep gully with several rocky outcrops. Native grasses dominate; *Microlaena* (Weeping Rice Grass) in the creekline, *Danthonia* (Wallaby Grasses) and *Stipa* (Spear Grasses) on the slopes". Today there is still a little Black Speargrass on the southern ridge but I seriously doubt there is a single tussock of Weeping Rice Grass amongst the

tangle of Cocksfoot, Tangier Pea and annual grasses that now choke Koala Gully. Are things getting worse, not better?

Concerned that we had no objective way of measuring longitudinal change in understorey vegetation, I embarked on a monitoring program last spring. My methodology was unsophisticated. I simply used each of the 52 long-term photopoints as the midpoint for a 10 x 10 m quadrat on which to estimate percent frequency of each native plant species. I also recorded the main exotic (weed) species present, although I lumped all annual grasses for convenience.

Spring is a busy time so I concentrated on scoring only the better quality quadrats while the native annual forbs and geophytes were active. Other weedier sites I scored in autumn once the annual grasses and forbs had died off so I could better see native perennial grasses if present.



Hard to tell from a photo but this 10 x 10 metre quadrat supports at least 29 native understorey species.

I still haven't completed my first round of baseline monitoring but hope to do so from mid-September. (Helpers welcome). I'll leave the main analysis until then but with 78% quadrats completed the most diverse had 29 native understorey species and 43 percent had none. Plenty of room for improvement on the score card!

Pete Bird

Friends and helpers in action

Tree planting

It is six years since we last planted trees in the reserve. The drought ended in July when a dozen students from Urrbrae TAFE *Conservation and Land Management* took to the western slopes to plant 400 tubestock overseen by lecturers Nick Crouch and Mareya Dashorst and assisted by our own Penny Paton. Several of the students had previously visited the reserve to collect seed in November or had planted them out in February.

Another 8 students from the Kaurna Ranger program, a joint initiative of DEW and TAFE SA, planted a further 60 Golden wattles in early August assisted by Glenn Gale and David Gunner. The Friends planted the remaining 650 over the two formal working bees and another informal get-together in August. In all more than 1100 plants went in.



TAFE CLM tree-planters helping to save the world

(Pete Bird)

Twelve species were planted, mostly *Acacia*, *Atriplex*, *Einadia*, *Enchylaena*, *Dodonaea*, *Olearia*, *Pittosporum*, *Solanum* and grasses. The seedlings were planted into yellow 'crop circles' sprayed out earlier to reduce weed competition. Another dozen species were direct seeded. Fortunately most of the seedlings were watered in by good rains a day or two after planting. Given some follow-up weed control and more rain, we look forward to these plantings contributing to the recovery of the western slopes.



Kaurna Ranger mob with Pete, Glenn & David

(Sam Bywaters)

Stone Reserve fence rebuild

Prior to crash-grazing Stone Reserve this spring (see newsletter 44) we first needed to refurbish the internal western boundary fence to contain the cattle. Anyone who has visited this part of the reserve will know a significant section was lying on the ground. Not anymore!

In May-June Clint and Pete, with neighbouring 'Springwood Park' manager Terry Jeffries spent several days making it cattle-proof. Some needed only straining and a little TLC but 100 metres was beyond repair and was replaced, complete with strainers, posts and wire. A wide gap was left at the bottom of the fence for access by wildlife and a pedestrian gate was added to cater for walkers. (continued)



Rebuilt Stone Reserve fence with new gate on walking trail

(Pete Bird)

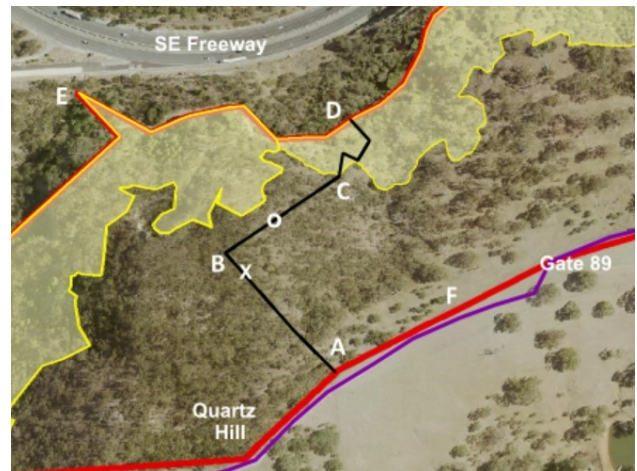
Friends and helpers in action

Stone Reserve fence rebuild (continued)

Replacement of the northern section awaits treatment and removal of the dense olives which currently smother it. These are earmarked for Basal Bark Treatment this spring and removal a couple of years later. In the meantime the dead olives should continue to provide an impenetrable barrier to the cattle.

Special thanks to Terry for his fencing expertise, materials and good humour.

Pete Bird



Location of Stone Reserve fence (A-D). A new pedestrian gate was installed at C.

Brown is the colour of spring

'Tis the season to tread carefully! The Eastern Brown Snake *Pseudonaja textilis* is fairly common in the reserve and spring is when they are most active. Not to be alarmed: brown snakes are very wary so encounters are rare and fleeting. And with a few precautions, like wearing long pants, the risk of snakebite is exceedingly low. So don't be deterred. Read on. Snakes are amazing creatures that deserve a little love.

Male brown snakes typically emerge following the first warm days of September; females not until late September. They are hungry after their 4½-month slow-down over winter (not strictly hibernation) and are immediately on the hunt for their preferred prey of mice, rats and lizards. By October the males have bulked up and are ready to rumble. Territorial adult males engage in vigorous wrestling bouts to determine dominance for mating rights. I remember the first time I encountered intertwined combatants, I mistook them for a mating pair. Mating comes later in October.

November is peak activity for both sexes. Males are still out and about while the now gravid females seek out sites to deposit their clutch of 10–35 elongate, leathery eggs.

These they lay in a soil crack, under rocks or tree roots, or in an animal burrow. Incubation time varies with temperature but peak emergence is usually around February for the 20-cm hatchlings. These grow quickly, fuelled by small skinks, before the onset of cooler weather sees the entire brown snake population head underground around May. And so the cycle continues.

Pete Bird



Easily confused. **Not an Eastern Brown Snake** but an Adelaide Snake-Lizard (*Delma mollerii*), a legless lizard dug from its over-wintering site during recent tree-planting. Make sure you know the difference before you pick one up!
(Pete Bird)

Coming up

Geological walk

Join us **Saturday 12 October 9.00am – 12.00noon** for a walk back in time as FWCR member, Assoc. Professor **Colin Conor**, takes us on a 700 million year geological tour of the reserve. Colin has vast experience in South Australian geology including intimate knowledge of the local rocks gained from working on possible alignments for the lower South Eastern Freeway just over the hill.

The walk features several quarries and cuttings where the rocks are exposed showing evidence of folding and faulting, metamorphism by heat and pressure, past sea-beds and even possible glaciation. Learn



about the quartz of Quartz Hill, the bluestone and quartzite quarries, and how geology and geomorphology influence the distribution of plant communities in the reserve.

The walk is about **4 km** on **mostly easy but uneven grades**. Meet at Springwood Park, off Old Mt Barker Rd (see map), or at Gate 88 if you are walking up from below.

Bring lunch for afterwards.

Places are limited.

RSVP helenpryor10@gmail.com to book.
Enquiries Pete Bird 0418 853 834.



Can you count a roo?

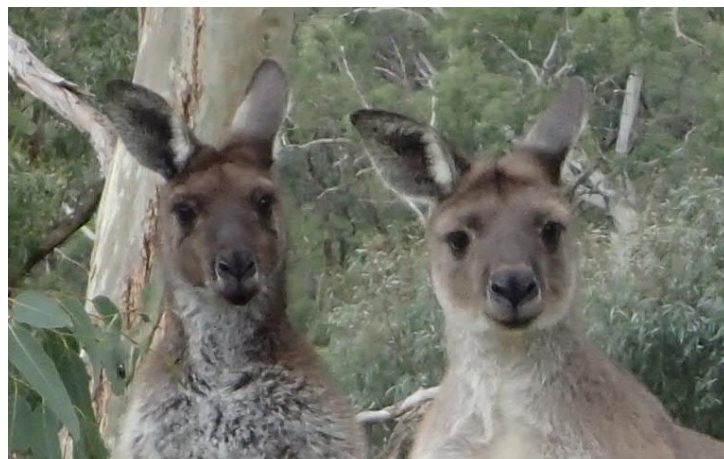
In the last newsletter I suggested we count the Western Grey Kangaroos in the reserve. Lock in **Saturday 30 November** starting **8.00am**. The plan is simply to divide the reserve into manageable zones, then for us to simultaneously count the roos in each zone. More counters should minimise the risk of under-counting. Recording location and characteristics of groups should minimise the risk of over-counting.

Each counter will be allocated a count zone and provided with a map, datasheet, GPS and instructions prior to the day. When roos are sighted counters should record the location and note size, sex, colour, distinguishing marks, pouch young, behaviour etc. of each individual in the group, plus take photos. All pretty simple.

Assuming 10 or so participants we should be all done and having a cuppa within an hour or two.

Please contact me to lend a hand:

pjbird1@bigpond.com or 0418 853 834.



You want to do what with us?

Since last newsletter our usual olive seedling walks have been interrupted by planting activities described elsewhere. Nevertheless we have still deleted the olives over more than half the reserve along with many cottonbushes, African daisies and their weedy brethren. We are well placed to finish the remaining olives over the last six bees, especially if attendances match those to date. Already we have had 40 contributors at working bees, not counting another 20-odd TAFE crew.

At our September 15 working bee we will revisit our tree plantings to add guards as part of Bushcare's Big Day Out. This is our first foray into BBDO, an initiative of Conservation Volunteers Australia, where the public are invited to join community bushcare activities. The kangaroo and deer populations are such that guarding trees seems prudent. As before we will meet at Gate 63, Hartley Grove at the north end of the Easement.

In October we will finish off the olives up top and tackle

Perennial Veldt Grass on Quartz Hill before the fire season shunts us back down the hill. On 2 November we join with Kim Zidarich and TAFE Horticulture students to demonstrate/ oversee weed control techniques. This was a great success last year with students learning Basal Bark Treatment, Drill & Fill, Tree-popping and weed spraying while contributing 50 hours of labours in the process. Please let me know if you are able to help demonstrate on the day. I will continue to email out reminders in the week prior to the dates below.



"Ice" cried a delighted Chung, as the Vietnamese student encountered hail for the first time in his life – while planting trees with the Friends group.



Jeff Glasson, Philippa Horton & Alexander Pring gathering deer-spread olive pits in Stone Reserve.

BEE DATES

SEPTEMBER

- Sat 7 – Springwood Park
- Sun 15 – Gate 63, Hartley Grove*

OCTOBER

- Sat 5 – Springwood Park
- Sun 20 – Springwood Park

NOVEMBER

- Sat 2 – Wild Dogs Glen*
- Sun 17 – Gate 82, Hillside Road

DECEMBER

- Sat 7 – Wild Dogs Glen

White-throated Treecreepers at the Waite – Penny Paton

Two types of treecreepers are found in temperate South Australia – the Brown and the White-throated. Treecreepers are noted and named for their habit of creeping up the trunks and branches of trees, probing under bark for their insect prey.

The Brown Treecreeper is a bird of open woodland and is the most terrestrial of the treecreepers, spending large amounts of time foraging on the ground and on fallen timber and litter. It has the dubious distinction of being one of the Mt Lofty Ranges' declining birds, having moved from a common bird to a quickly disappearing one. They were seen every month at suburban Netherby by John Sutton in 1918 then rarely recorded in the 1920s and early 1930s, and his last record was in October 1935. One can assume that this species was resident in the adjacent Waite Conservation Reserve area but disappeared, probably about the 1930s or shortly after.

Close to Adelaide the White-throated Treecreeper (*Cormobates leucophaea*) occurs in the Southern Mt Lofty Ranges and on the Fleurieu Peninsula, generally in areas over 150m above sea level and where the annual rainfall exceeds 500mm and more commonly exceeds 600 or 700mm (Stove 1994). There are only a few records from the Waite Conservation Reserve: an old record from Scott Field, presumably from the late 1990s or early 2000s (P. Bird pers. comm.), a single bird at top of Leafhopper Gully on 28 April 2012, and then a single bird, most likely the same individual, on 13 of 42 counts between 29 March 2013 and 6 November 2014 (P. Bird pers. comm.). These sightings spanned the area from Harold's Lookout and the top of Wild Dogs Glen to Groundberry Gully, especially on Urrbrae Ridge and Pultenaea Hill. For most of these sightings the birds were in grey box trees, with one record of a bird feeding on a dead river red gum. A more recent record is of one bird seen by Clint Garrett on Urrbrae Ridge on 16 June 2019. Given this species' liking for eucalypt forest and woodland in higher rainfall areas, its scarcity at the Waite is not surprising.

Treecreepers are smallish, mostly brownish and fairly inconspicuous so are most often heard before they are seen. The White-throated Treecreeper has a loud piping call which is not easily confused with any other call. Male and female have a dark brown back, a white throat

and breast, and flanks with white feathers edged with black. The female has an orange spot on the side of the face. Their feet are strong and large to enable them to grip trunks and branches and their bills are stout and slightly down-curved, ideally formed for their diet of arboreal ants. The species is sedentary so these records from the Waite are of vagrant birds, possibly moving in response to very dry conditions in their normal habitat. Certainly the first three months of 2013 experienced below average rainfall, as did the spring of that year, but winter totals



were above average. The first six months of 2019 were also very dry, following a drier than average 2018. However the first three months of 2012 leading up to the April 2012 treecreeper sighting experienced above average rainfall in the Adelaide region.

Like all treecreepers, this species breeds in hollows and also uses hollows as refuges from predators and inclement weather. The breeding hollow is lined with bark, fur and hair and only the female builds the nest and incubates the two or three eggs. The male assists by feeding the female when she is brooding and with feeding the young (Higgins, Peter and Steele 2001). The White-throated Treecreeper has a more elaborate pre-copulation display than other treecreepers, with the male giving crescendo calls for five minutes over several consecutive days leading up to egg-laying. "Facing the female, he shivers his outstretched wings, raises his tail until it is almost vertical, and may rock his body from side to side." (Olsen and Joseph 2011). This behaviour and the male's feeding of the female serve to strengthen the pair bond as well as having the more practical outcome of fattening the female for the energy-intensive process of producing eggs. (*References next page*)

IMAGE ON THIS PAGE:

White-throated Treecreeper (Cormobates leucophaea) female by Patrick Kavanaugh,

<https://www.flickr.com/photos/63175631@N02/18523309043>. Licence at <http://creativecommons.org/licenses/by/2.0>.



FROM THE COMMITTEE

White-throated Treecreeper (*continued*)

References

Higgins, P.J., J.M. Peter & W.K. Steele (Eds) 2001. *Handbook of Australian, New Zealand and Antarctic birds. Volume 5: Tyrant-flycatchers to chats*. Oxford University Press, Melbourne.

Olsen, P. and L. Joseph. 2011. *Stray feathers. Reflections on the structure, behaviour and evolution of birds*. CSIRO Publishing, Collingwood, Victoria.

Stove, K. (Ed) 1994. A second bird atlas of the Adelaide region. Part 2: distribution maps 1984-1985. *South Australian Ornithologist* 31(8): 195-264.

Penny Paton

New plant species record in the reserve

Understorey monitoring forces you to minutely scour each quadrat to locate all native species present. A by-product of this was the discovery of a native new plant for the reserve, albeit a diminutive one.



Quinetia (*Quinetia urvillei*), is an annual composite found in open sandy areas. A few of these tiny (4 cm) woolly grey-green daisies were found on Quartz Hill last spring but not identified until recently by botanist member Peter Lang. Pete tells me the nearest State Herbarium records are from Belair (in 1944) and Black Hill. Amazing what discoveries are still to be made on our patch.

Pete Bird

Not a member? Do You:

- Enjoy being in the Waite Conservation Reserve?
- Value the conservation of indigenous species?
- Think biodiversity matters?
- Want to learn more about local plants and animals?
- Want to make a practical difference?
- Want to work cooperatively with like-minded people?

Then join the Friends of Waite Conservation Reserve!

Ordinary membership \$15

The Membership/renewal form can be found at:

www.communitywebs.org/friendsofwaiteconservationreserve/

Print, complete and forward to this address:

*Friends of Waite Conservation Reserve,
University of Adelaide, Waite Campus,
PMB 1, GLEN OSMOND 5064*

Email: arboretum@adelaide.edu.au

Non-members are welcome at our activities

FWCR contacts

President: Peter Bird (0418-853 -834) pjbird1@bigpond.com **Secretary:** Helen Pryor (helenpryor10@gmail.com)

Treasurer: Lynda Yates **Editor:** Meg Robertson

Committee: Kate Delaporte, Glenn Gale, Grant Joseph, Peter Lang, Penny Paton, Meg Robertson, Andrew Walters

Address: Friends of Waite Conservation Reserve, University of Adelaide, Waite Campus,
PMB 1, GLEN OSMOND 5064 **Phone:** 8313-7405

Email: kate.delaporte@adelaide.edu.au **Website:** www.communitywebs.org/friendsofwaiteconservationreserve/