

# FRIENDS OF WAITE CONSERVATION RESERVE Inc.



## COMING EVENTS

### Working Bees

September 5 & 20

October 3 & 18

November 7 & 15

December 5

### Geology Walk

October 10

See pages 7 & 8 for  
details



THE UNIVERSITY  
of ADELAIDE

## President's page

Last year's bushfires precipitated, dare I say it, heated discussions on the need for more fuel reduction burns to mitigate bushfire severity. So-called prescribed or controlled burns are also often promoted for ecological benefits. Many Australian ecosystems are well adapted to fire after millennia of Aboriginal burning. 'Cultural' burning is another term being used.

The keepers of the University of Adelaide's Sandland Bequest fund responded to the bushfires by dedicating this year's funding allocation to fire-related research. Long story short, researchers from the university's School of Biological Sciences and Environment Institute Tom Prowse, Jasmin Packer and Phil Cassey with PhD student Johanna Kuhne, have received funding for a 3-year project to monitor the ecological responses of a prescribed burn in the reserve.

The project aims to better understand the impacts of prescribed burning on woodland vegetation and fauna, and to develop methods to improve woodland condition after fire. The specific objectives are to:

- quantify the impact of prescribed burning on native vegetation, weeds, grazing animals, invasive predators and native birds;
- test the ability of different interventions (pre-fire seeding of shrub species, post-fire weed control and herbivore exclusion) to aid the recovery of native flora and fauna; and

- mitigate the risk of uncontrolled bushfire while protecting an endangered plant community and rare flora from a single catastrophic fire event.

The burn is provisionally planned for southern Stone Reserve and a small section of adjacent Quartz Hill in November. The burn would be overseen by the Department of Environment and Water fire management team including their fire ecologists.

The project will use a modified BACI design (Before-After Control -Impact) to compare burnt and unburnt areas before, and for three years after the fire. Work will start soon to intensively monitor vegetation composition, and herbivore and bird use before the fire. The project will also use herbivore exclusion plots to measure grazing intensity, and trial seeding and weed control prescriptions to improve vegetation biodiversity and condition.

This is an exciting and slightly scary development. Exciting in that it provides opportunities and insights to better manage the reserve through long-term collaboration with a research group looking to develop greater expertise in restoration ecology. Slightly scary in that neither the burn nor its ecological responses are completely predictable. Not all consequences will be favourable. There are always winners and losers in any change to the status quo. But on balance the burn should provide opportunities to maximise biodiversity outcomes as well as fulfilling community expectations for the university to manage bushfire risk on its property.

*Pete Bird*



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Spring wildflowers of Waite Conservation Reserve



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## Key to spring wildflowers

1. Red Parrot-pea *Dillwynia hispida*
2. Blue Squill *Chamaescilla corymbosa*
3. Creeping Bossiaea *Bossiaea prostrata*
4. Common Woodruff *Asperula conferta*
5. Running Postman *Kennedia prostrata*
6. King Spider-orchid *Caladenia tentaculata*
7. Tiny Star *Pauridia glabella*
8. Purple Cockatoo *Glossodia major*
9. Wallflower Donkey-orchid *Diuris orientis*
10. Tall Sundew *Drosera auriculata*
11. Native Carrot *Daucus glochidiatus*
12. Matted Bush-pea *Pultenaea pedunculata*
13. White Goodenia *Goodenia albiflora*
14. Common Everlasting *Chrysocephalum apiculatum*
15. Rock Logania *Logania saxatilis*
16. Twining Glycine *Glycine rubiginosa*
17. Blue Pincushion *Brunonia australis*
18. Pink Fingers *Caladenia carnea*
19. Blue Grass-lily *Caesia calliantha*
20. Native Buttercup *Ranunculus lappaceus*
21. Hill Raspwort *Gonocarpus elatus*

(Images: Peter Bird)

# Winter is tree planting time

Last November two groups of Urrbrae TAFE Conservation & Land Management and Horticulture students collected and grew seed from the reserve. Subsequently 65 students returned over 5 days in June to plant out and guard 1200 or so of the resultant 2000 tubestock of the 27 species below. Most were planted on the Western Slopes, Koala Gully and Stone Reserve. The remainder were either planted by the Friends or small ones carried over to next year.

They also direct-seeded several hundred spots with a shandy of 20 seeds, mostly grasses, lilies, chenopods and other understorey plants. At the same time they assessed survival of last year's seedlings at about 70 percent, very good given the dry year.

In late July one group of students returned to the Western Slopes and assessed survival of the plantings done 6-7 weeks earlier. Disappointingly, deer and roos had knocked guards off 16 percent. Fourteen percent of trees were already missing or dead. The students replaced the guards but inevitably this will be an ongoing problem. Anyone contemplating a walk might like to take the road less trod and replace a few guards. Take a hammer for the stakes.

Thanks to help from Jeff Glasson, Chris Thompson, Simon Treloar and Clint Garrett for preparation and planting and to lecturers Sam Bywaters, Mareya Dashorst, Joley Didwell and Ben Cavuoto.



TAFE students planting on Western Slopes Photo: Mareya Dashorst

Species	No.
<i>Acacia acinacea</i> Wreath Wattle	13
<i>Acacia melanoxylon</i> Blackwood	98
<i>Acacia paradoxa</i> Kangaroo Thorn	140
<i>Acacia pycnantha</i> Golden Wattle	314
<i>Allocasuarina verticillata</i> Drooping Sheoak	427
<i>Atriplex semibaccata</i> Berry Saltbush	60
<i>Austrostipa</i> sp. Spear-grass	3
<i>Bursaria spinosa</i> Sweet Bursaria	>100
<i>Clematis microphylla</i> Old Man's Beard	5
<i>Convolvulus remotus</i> Grassy Bindweed	41
<i>Cullen australasicum</i> Tall Scurf-pea	10
<i>Dichondra repens</i> Kidney Weed	6
<i>Dodonaea viscosa</i> Sticky Hopbush	409
<i>Einadia nutans</i> Climbing Saltbush	39
<i>Enchylaena tomentosa</i> Ruby Saltbush	8
<i>Enneapogon nigricans</i> Black-head Grass	36
<i>Eryngium ovinum</i> Blue Devil	18
<i>Kennedia prostrata</i> Running Postman	2
<i>Malva weinmanniana</i> Australian Hollyhock	8
<i>Pittosporum angustifolium</i> Native Apricot	61
<i>Pultenaea daphnoides</i> Large-leaf Bush-pea	23
<i>Senecio hypoleucus</i> Pale Groundsel	48
<i>Senecio quadridentatus</i> Cotton Groundsel	1
<i>Solanum laciniatum</i> Kangaroo Apple	6
<i>Themeda triandra</i> Kangaroo Grass	1
<i>Vittadinia blackii</i> Narrow-leaf Vittadinia	59
<i>Vittadinia cuneata</i> Fuzzy Vittadinia	15
<b>Total</b>	<b>~2000</b>



Tree planting in Stone Reserve Photo: Clint Garrett

# What's that rustle?

As the warmth of spring gains momentum so does the rustling. Most can be attributed, not to snakes thankfully, but to skinks. Half of the reserve's 14 reptiles belong to the family Scincidae. Three small species dominate, making up 72 percent of all reptiles recorded during the 2008 fauna survey.

The **Garden Skink *Lampropholis guichenoti*** accounts for most of the rustling. The other two are cryptozoic, meaning they spend most of their time hidden, usually under the cover of rocks and logs. So-named for its partiality for eastern Australian capital city gardens (alas not mine), the Garden Skink is common, diurnal and very active. It is fairly easily separated from other small lizards in the reserve by its coppery head and by sheer weight of numbers. In preferred habitats it can be ridiculously abundant with densities up to 10,000/ha or 1/m<sup>2</sup>. While the number on our patch is nothing like this, they are still very common, especially in moist gullies. In contrast they are effectively absent on north and west facing slopes; suggesting they may struggle in the hotter, drier climates of the future.



The **Three-toed Earless Skink *Hemiergis decresiensis*** is just that – it has three tiny toes on each puny leg and no external ear openings. When you spend most of your time under a log, the need for speed and acute



hearing is superfluous. Big strong legs and the usual five toes would simply get in the way. Ear holes would fill up

with dirt and grow fungus. In the cooler months there seems to be one under every

second rock or log, each a rich glossy brown above and beautiful orange below.

**Bougainville's Skink *Lerista bougainvillii*** is similarly smooth and shiny but is a beautiful pale silvery grey with a black lateral stripe. Juveniles have golden translucent tails. It has five fingers and five toes. The Leristas or 'sliders' are a huge genus of about 90 species often with reduced limbs and fewer than five digits. This is an adaptation to the mostly loose dry sandy desert habitats they occupy through which they 'swim'. The fact that Bougainville's Skink has rather well developed legs with five digits on each suggests it spends rather more time on the surface than some of its congeners.



Interestingly the three skinks share a French connection. The Garden Skink was named after Alphonse Guichenot, a zoologist who described the collections from several French expeditions; Bougainville was a navigator, the first Frenchman to circumnavigate the world; and *decresiensis* is derived from "L'île de Decres" the island of Decres, the name the French gave to Kangaroo Island in honour of their admiral and minister.

Pete Bird



Meg Robertson, Faerlie Bartholomaeus, Nic & Lucy Verco & Chrissie Hagger tackle weed bulbs on Quartz Hill  
Photo: Clint Garrett

# Bye-bye olive piles

Winter saw the pyromaniacs out! Two years of Basal Bark Treatment had left a dense and tangled forest of *mostly* dead olives (Note the emphasis). Follow-up control of re-sprouting olives and the multitudes of seedlings is critical. Thickets of living olives are difficult to push through but impossible when every tiny branchlet is hardened and sharpened in death. Only those with the right password ('chainsaw') may pass.



John Glover on the Western Slopes Photo: Clint Garrett

Standing dead olives continue to provide important protection for small birds, lizards and revegetation. Consequently, when chain-sawing we typically aim to thin half the trees to provide reasonable access while still maintaining adequate cover. No clear-felling here.



Noel Nicholls adds to a pile in Stone Reserve Photo: Clint Garrett

Cutting down the trees only worsens access. The litter of branches must be dragged into piles and burnt. Which is what happened on 6 days in July-August when 24 people volunteered 260 hours to burn 73 olive piles on the Western Slopes, Pittosporum Gully

and eastern Stone Reserve. The treated area barely amounted to a hectare. Only another 15 to go.

Thanks to the burners: Andy, Anne, Bec, Carrie, Chris, Clint, Colin, David, Glenn, Jake, Jeff, Jennifer, John, Meg B, Nicki, Noel, Penny, Peter Barnes, Peter Crawford, Richard, Sarah, Simon and Zuzanna.

Pete Bird

## Join the Friends of Waite Conservation Reserve!

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?

Ordinary membership \$15

The Membership/renewal form can be found at:

[www.communitywebs.org/  
friendsofwaiteconservationreserve/](http://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: glenn@margale.net*

Non-members are welcome at our activities

## Geology Walk II

Back by popular demand, join FWCR member Assoc. Professor **Colin Conor** on **Saturday 10 October 9.00am – 12.00noon** as he takes us on a second geological tour of the reserve. Colin has intimate knowledge of the local rocks gained from working on alternative alignments for the lower South Eastern Freeway.

The walk commences with the youngest rocks in the western part of the reserve, before tracking back in time to the oldest in the east. See natural outcrops and disused quarries with evidence of rapid deposition of sediment in an ancient shallow seaway when the only life was microbial. The same rock exposures show clues of later geological events, including the formation of the present Mount Lofty Ranges. The chemical and mechanical variation of rock strata influenced the landform of the reserve and even the distribution of the present plant communities. The walk will also showcase some of the reserve's spectacular spring wildflowers.

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

**Places are limited.** RSVP to Secretary Glenn Gale at [glenn@margale.net](mailto:glenn@margale.net) to book. Enquiries Pete Bird 0418 853 834.



Colin Conor and Clint Garrett with the new signs in the Quarry

## Geological Quarry Update

In preparation for the installing of signage in the Geological Quarry on the Sheoak Loop, Clint enlisted some serious help. Our neighbours at Springwood Park have a 4WD tractor which was ideal for pulling down a mass of steel cable and fencing which had been dumped in a gully at the top of the quarry. Clint secured a cable around the dumped material, which allowed Jai from Springwood Park to attach another cable and then drag the mess down. Once the material was on the floor of the quarry, it was a simple task to use the forks on the tractor to load the cable onto a trailer for disposal. We are lucky to have such neighbours.



Tractor at work in the quarry.

Photo: Clint Garrett

Colin Conor has applied his geological knowledge to developing two signs which explain the significant geological features of the quarry. He has done considerable research, in association with other geologists, to understand how these features came to be. Colin not only provided the written information, but also did some very nice graphical work as well. Clint took his work and matched it up with the University design standard to create the final signs, which are now in place. Take a walk on the Sheoak Loop to see them.

Clint Garrett

# WORKING BEES

While COVID-19 restrictions prevented our first three weekend working bees, attendance has bounced with an average of 12 since we resumed. Work has largely been a mix of digging weed bulbs on Quartz Hill, planting trees and dragging up olive branches for burning. Interspersed with pulling up the odd olive of course!

Upcoming jobs include:

- *planting the last of the tubestock* – forecast good spring rains should help;
- *digging weed bulbs* – to get Sparaxis & Cape Tulip before they flower;
- *pulling Boneseed* – just a few on Sheoak Slope
- *tackling Perennial Veldt Grass* – our annual target on Quartz Hill
- *chasing olives, African daisy* – and all the other regulars

Working bees will meet ‘up top’ at Springwood Park, 198A Mt Barker Rd, Leawood Gardens in September and October, unless advised otherwise. See map for directions or use Googlemaps. Thereafter we will meet at Gate 82, opposite No. 10 Hillside Rd, Springfield. Remember to observe COVID-safe protocols. As usual I will email reminders on the Tuesday before each, so any changes will be conveyed then.

## DATES:

Sat 5 Sept	Sun 20 Sept
Sat 3 Oct	Sun 18 Oct
Sat 7 Nov	Sun 15 Nov
Sat 5 Dec	

As well there are always options to volunteer on week days. Current jobs are weed pulling and spraying and tree planting & maintenance. Ring me.

Contact: Pete Bird 0418 853 834



## New members

The Friends of Waite Conservation Reserve welcome new members who have joined recently including:

Maura Hopkins

## FWCR contacts

**President:** Peter Bird (0418-853 -834) [pbjbird1@bigpond.com](mailto:pbjbird1@bigpond.com) **Secretary:** Glenn Gale ([glenn@margale.net](mailto:glenn@margale.net))

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