

# FRIENDS OF WAITE CONSERVATION RESERVE Inc.



## COMING EVENTS

### Working Bees

April 4 & 19

May 2 & 17

June 6 & 21

July 4 & 19

### AGM

Wed May 6th

See pages 5 & 8 for  
details



THE UNIVERSITY  
of ADELAIDE

## President's page

### Fighting fire with fire

Rain has finally arrived but we aren't out of the (grey box grassy) woods yet when it comes to bushfire. In Australia's worst bushfire season on record we may yet escape for another season. But for how long? Waite Conservation Reserve is long unburnt, highly fire-prone grassy woodland surrounded on three sides by more of the same.

A bushfire in the reserve is inevitable. An increasingly hotter, drier climate will only heighten the inevitability and worsen the outcome. The University undertakes routine annual slashing of tracks and boundaries to mitigate fire risk but this cannot hope to stave off a fire of any reasonable magnitude. To address this, the University is currently in discussion with fire management officers and fire ecologists from the Department for Environment and Water to potentially undertake prescribed burning in the reserve as early as spring this year.

Fire is a double-edged sword. On the one hand it can obliterate infrastructure, native plants, animals, and human lives. On the other, fire can be an important tool for restoration and maintenance of biodiversity and managing the risk of plant and animal extinctions. Australian landscapes have evolved with it. Aboriginal people used fire for millennia including, it would appear, in the reserve (see FWCR Newsletter 23, Autumn 2012).

Prescribed burns bring risks and controversy. Some plants and animals are sensitive to fire and may decline. Some weeds such as African daisy are fire responders and will boom. Herbivores, especially our abundant kangaroo population may suppress or kill regenerating plants. Heaven forbid, the 'controlled' burn could escape, although careful planning and management should prevent this.

But strategic use of fire also has its rewards and opportunities. Prescribed burns may:

- reduce fuel loads in key areas to help manage the scope and severity of bushfires in the reserve and for surrounding neighbours
- promote regeneration of fire-adapted native plants and renew vigour in others
- create a mosaic of differing-aged plant communities to break up the landscape and provide resilience against a single catastrophic fire event
- provide opportunities to create understorey in disturbed areas by pre-fire seeding
- assist control of particular weeds using post-fire prescriptions.

Careful planning and oversight of any proposed burn will be essential to manage the risks. Monitoring of plant and animal responses will also be critical to maximise the benefits and inform possible future burns.

*Pete Bird*

Editor's note: For a recent discussion on the history of fire in Australia, listen to the ABC Rear Vision program <https://www.abc.net.au/news/2020-02-10/fires-bushfires-in-australia-history-lessons-for-future/11937652>



# Waite Loop Works - Sheoak Loop Update

Since the last newsletter, Clint and Charlie have been working on the Waite Loop trail near to the Netherby Lookout. If you were to walk south from the lookout, you would come to a very steep set of Permapine steps. These were a hazard especially in the wet. As proof of this, Clint saw a lady take a fall on them while he was doing the re-routing work nearby. Fortunately it was only her pride that was injured.

A new alignment was chosen which follows the contour more closely, and thereby reduces the grade. 15 steps were built and put into place. In one place a rock wall was built to provide support for the new trail. 15 metres of terracing has been done and a mix of dolomite gravel and sand has been carried in to create a more level walking surface.

Beyond this area, on the north side of Netherby Gully, there were several points where the existing trail was collapsing. Retaining timber work has been placed and dolomite sand has been laid to level the track. Dolomite sand is used, because once it has been wet, it self-cements and as a result is much slower to erode. Four extra steps

have been built in that section to improve safety.

On 18<sup>th</sup> December we received a Communities Environment Program Grant of \$4063 from the Commonwealth Government. This money has been used to pay for the cost of signage and steps on the Sheoak Loop trail. Staff from the office of Nicolle Flint MP, Member for Boothby, have been helpful in progressing the grant and following up on issues where needed.

This work is already proving its worth as the old track over Quartz Hill is re-vegetating because walkers now use the new trail rather than walking through the sensitive areas of Quartz Hill. There has also been positive feedback from walkers who have used the new trail.

Clint Garrett



Some of the new steps near Netherby Lookout.  
*Photo: Clint Garrett*



More than 200 metres of terracing like this has been done on the Sheoak Loop. *Photo: Clint Garrett*



## The pugnacious Noisy Miner — Penny Paton

I am often asked by non-birders: “Is the Noisy Miner a native bird?” No doubt they have heard that it is a problem bird for other native species and they may have heard of the Common Myna, which is an exotic bird and very common in Sydney, Melbourne and along the East Coast of Australia. The Common or Indian Myna is a member of the starling family and was originally introduced to combat insect pests in the Queensland canefields (<http://www.birdsinbackyards.net/species/Sturnus-tristis>; accessed 13/2/20). The Noisy Miner on the other hand is in the honeyeater family and is a native bird with the scientific name of *Manorina melanocephala*.

The Noisy Miner is distributed from north Queensland to the Mt Lofty Ranges in South Australia, but its range has expanded in our state in historic times. The species was first recorded around Adelaide in the early 1890s and S.A. White (1919) noted that it had only appeared in the Reedbeds at Fulham six or seven years previously, which is consistent with suggestions that they were first seen at the Reedbeds in about 1914 (Anon 1917). White’s cousin, J.W. Mellor, reported Noisy Miners breeding in 1917 at Lockleys (Mellor 1917) and by 1917 the species was “fairly numerous at the Reedbeds” (Anon 1917). The suggestion is that the species had extended its range south to the Adelaide plains along the foothills from the Barossa Ranges (Anon 1917).

Noisy Miners continue to expand their range; for example, when we first moved into our house along the River Torrens in Gilberton in 1980 Noisy Miners were found along the river west of the city but did not occur in the river corridor east of Adelaide. Gradually the miners moved east and they now dominate the bird fauna of the Linear Park and many other parks and gardens in Adelaide. I believe that they are also slowly moving south-west from the hinterland of Middleton towards Port Elliot and Victor Harbor, which will be a sad day for the bird fauna of those towns. At present Noisy Miners are absent from the southern tip of the Fleurieu Peninsula.



Noisy Miner at the Waite Conservation Reserve.

Photo: David Gunner

The aggressive nature of Noisy Miners was evident only a few years after their appearance at the Reedbeds, with Mellor (1926) noting their attacks on Common Blackbirds and a Crimson Rosella. He also reported that White-plumed Honeyeater numbers had plummeted since the miners had moved in, but a few managed to exist by hiding out in the boxthorns along with the silvereyes (Mellor 1931). Noisy Miners are notorious now in many urban and woodland habitats for their abundance and aggression which enables them to exclude many smaller bird species from co-existence (Debus 2008).

The impact of a large gregarious aggressive species on other woodland bird species is well-documented and, coupled with the loss of 80% of southern temperate woodland, is pushing some species to extinction. A trial cull in woodland patches in farmland near Gundagai in New South Wales by Australian National University researchers was unsuccessful in reducing the numbers of miners in the long term. At the beginning of the first cull there were 510 miners and 12 months after the second cull there were 512 (<http://www.nespthreatenedspecies.edu.au/news/culling-noisy-miners-fails-in-nsw-trial-study>; accessed 13/2/20).

(Continued on page 4)

## Noisy Miners — *continued*

Noisy Miners are common in the Waite Conservation Reserve and are just one of ten species of honeyeater recorded from the Reserve. Several honeyeater species are now rare if not extinct there and many other bird species have declined in historic times but attributing blame just to Noisy Miner incursion and abundance is difficult. The site is close to a large urban area and habitat clearance and fragmentation in the nearby Adelaide Hills have vastly altered and simplified the bird fauna at the Waite. However Noisy Miners are a compounding factor and no doubt have led to the decline if not the disappearance of some smaller native bird species.

### References

- Anon. 1917. Order Passeriformes, Family Meliphagidae, Genus Myzantha. *Myzantha melanocephala whitei* – The Noisy Minah. South Australian Ornithologist 3 (3): 59-61.
- Debus, S.J.S. 2008. The effect of Noisy Miners on small bush birds: an unofficial cull and its outcomes. *Pacific Conservation Biology* 14 (3): 185-190.
- Mellor, J.W. 1917. Bird Notes. Re Robins at Stirling West. *South Australian Ornithologist* 3 (3): 81.
- Mellor, J.W. 1931. Bird Notes. *South Australian Ornithologist* 11 (4): 104-106.
- White, S.A. 1919. Birds recorded from the early days up to the present time for the Reed Beds District. *South Australian Ornithologist* 4 (4): 101-114.

## Kangaroo Count Results

They gathered on the last day of spring for the great Waite kangaroo count. At 8.00am sharp 19 hardy souls started their count across the 14 prescribed zones. Five minutes later there were only 18! Poor Barry took a tumble on the slippery grass and fractured his arm, instantly ending our count in Stone Reserve. Rain started falling soon after, dampening survey sheets but not spirits.

The survey yielded 107 sightings. Had we counted Stone Reserve (17 percent of the reserve) we might have expected a whopping 130 sightings assuming similar densities. Some kangaroos were undoubtedly double-counted. The plan to combine the location, time of sighting, direction of travel and characteristics of each group to exclude multiple counting was optimistic. Rather than bedded down, most were on the hop and some undoubtedly moved between zones and were counted more than once.

Still, it is clear that there are more kangaroos than expected and many, many more than the three sightings during our biological survey in 2008. Over-abundant kangaroos have long been a problem for native vegetation management in parts of the Mt Lofty Ranges.

But not for us ...until now perhaps! Clint's photo here of decapitated Garland lilies *Calostemma purpureum* – just a few of thousands seen minus their garland of flowers – illustrates what over-grazing by kangaroos (and feral deer) might look like in future. Thanks to the 19 counters, we now have a current estimate of relative density and a technique we can repeat to measure change over time.

And what of Barry? I am pleased to report he is recovering well and in good spirits. He still has a little way to go but should be back on the trail soon.

*Pete Bird*



De-garlanded lilies likely caused by kangaroo grazing  
Photo: Clint Garrett



## WORKING BEES

Twice-a-month working bees resume on Saturday 4 April and continue each first Saturday and third Sunday of the month until Christmas. For the first one I propose we help dismantle old wire tree-guards in the vicinity of Springfield Gate prior to a clean-up. Autumn is a good time while the wire is not so anchored by tangled annual growth.

The trees planted last year on Western Slopes and Koala Gully have done spectacularly despite the dry conditions. Time now to weed and remove corflute guards from around them. And of course there is the perennial crop of olive seedlings to go on with.



Survival & growth of seedlings planted last year has been excellent, this Climbing Saltbush is already fruiting profusely.

*Pete Bird*

### Working Bee Schedule Autumn - Winter 2020:

Meet at Springfield Gate for the first two April bees and up top at Springwood Park for the remainder listed below.

Sat 4 April	Sun 19 April
Sat 2 May	Sun 17 May
Sat 6 June	Sun 21 June
Sat 4 July	Sun 19 July

## Olives continue to tumble

Basal Bark Treatment was again the weapon of choice in the university's 2019 season of olive control conducted October-December. Results from the previous year were somewhat underwhelming, possibly due to a dry winter/spring leading to poor uptake of chemical. Perversely, one day's work failed after rain that night. All this meant that re-treatment took longer than predicted in the Olive Control Management Plan, preventing completion of re-treatment of Urrbrae Gully and new work in Stone Reserve West.

In total the four contractors spent 370 hours treating the following 10 ha:

### Follow-up of 2017 BBT work

<i>Western Slopes North-west</i>	1.26 ha
<i>Stone Reserve East</i>	3.28 ha
<b>TOTAL FOLLOW-UP</b>	<b>4.54 ha</b>

### Re-treatment of 2018 BBT work

<i>Western Slopes South</i>	1.30 ha
<i>Pittosporum Gully</i>	0.87 ha
<b>TOTAL RE-TREATMENT</b>	<b>2.17 ha</b>

### New BBT work

<i>Western Slopes North</i>	1.27 ha
<i>Caves Gully</i>	0.31 ha
<i>Stone Reserve West</i>	1.80 ha
<b>TOTAL NEW</b>	<b>3.38 ha</b>

Early results look more promising than last year with some areas exhibiting almost complete 'brown-out' of foliage only 6 weeks post spraying. The focus of this year will be to consolidate past work by strategically chain-sawing and burning dead olives during winter. This will assist follow-up re-spraying of partially killed olives in spring and improve access for long-term control of olive seedlings and other weeds. Anyone interested in helping to drag up olive branches for burning in winter would be most welcome.



Recently treated olives looking very sick in Stone Reserve

*Pete Bird*

## Late Summer Beauty

Late summer is the time for the Garland Lilies, *Calostemma purpureum*, to thrust their flowering heads above the parched ground. The contrast between these flowers and the dried grasses all around could not be more stark. Most flower heads are in shades of reddish purple, but from time to time there are white forms as well.



Garland Lily *Calostemma purpureum*

Photo: Clint Garrett

Seed is carried in round capsules and seems to germinate readily. The seeding heads die down and in late autumn early winter, large fleshy leaves appear. These photosynthesise and replenish the bulb that produced the flowers. Having done this, the leaves then die down. You could walk right past a patch of *Calostemma* and not realise that they were there, until the flowering stalks appear in the next season.

These plants are great survivors as they are often found on shallow soils in the Reserve. Some plants have even colonised the rock ledges below the Caves and Harold's Lookout. In those places, they are relatively safe from predation, which is not the case for plants in areas more easily accessed by deer and kangaroos, where a high proportion of flowers are eaten before seed can be produced. I have also seen them growing on the cliff faces south of Marino, where they not only have limited water to live on, but salt and wind to contend with too.

Look out for these late summer beauties when next you are in the Reserve.

Clint Garrett

## New wattle for reserve

Until recently 12 species of wattle were known from the reserve: four 'locals' (*Acacia acinacea*, *A. melanoxylon*, *A. paradoxa* and *A. pycnantha*), and 8 'ferals' from other parts of Australia, all removed whenever encountered. A fifth 'local' has joined the ranks - **Hills Wirilda *Acacia retinodes*** - discovered during olive control operations in Stone Reserve last October.

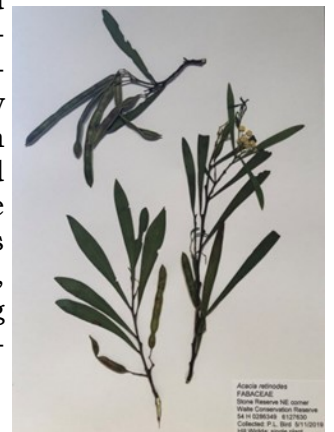
How is it that a 4-metre tree has been overlooked in the reserve for so long? Several reasons spring to mind. Firstly, it was among dense olives on a steep slope where few people go (except mad ones spraying olives). Secondly, Stone Reserve was only added to WCR in 2000. And thirdly, it is quite likely that past sheep grazing eliminated the palatable species and this individual only reinvaded in recent years.



The Lone Hills Wirilda *Acacia retinodes*

FWCR botanist Peter Lang is fairly certain that Hills Wirilda is and was a legitimate part of the original flora of the reserve. Natural populations occur less than a kilometre away and their habitat of 'hillsides and slopes of the foothills in grassy woodland' (Prescott, 2012) matches perfectly the location where the tree was found.

The tree was flowering at the time. Seeds were later collected and supplied to Urrbrae TAFE for Conservation and Land Management students to grow tubestock and plant out in the reserve. I look forward to seeing this species once again gracing the 'hillsides and slopes' of the reserve, and especially replacing the olives which are currently being removed.



Specimen from Stone Reserve

Pete Bird



## Endangered Sun-moth found

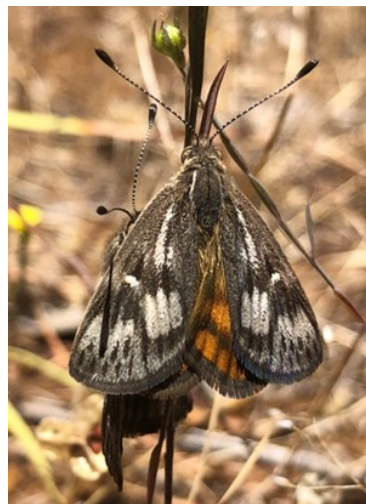
Today's Grey Box Grassy Woodland provides only a glimpse of what this community once looked like. Many plants and animals have already disappeared. Others like the critically endangered Cryptic Sun-moth *Synemon Theresa* hang on by a thread. So it is with some excitement that I report the recent discovery of a small population in Stone Reserve, including a sighting of a mating pair pictured here.

The Cryptic Sun-moth has declined precipitously in response to habitat loss and the proliferation of exotic weeds. It is now restricted to the western slopes of the Adelaide Hills where it occupies lightly-grazed open native wallaby-grassland. Its primary larval food plant is Slender Wallaby-grass *Rytidosperma racemosum* although Common Wallaby-grass *R. caespitosum* and Kangaroo Grass *Themeda triandra* are also likely hosts. All three grasses are fairly common in Stone Reserve.

The Cryptic Sun-moth is characterised by its diurnal flight, orange hind-wing and unusual butterfly-like clubbed antennae. At rest it holds its wings roof-like over its back in typical moth fashion unlike the superficially similar Phigalia Skipper butterfly with which it might be confused. Adult wing span is 26-40mm. Sun-moths like it hot, typically flying late morning and early afternoon in December and January.

The female lays its eggs on the host near ground level. The emerged larvae head underground where they feed on the roots. Once emerged, the adult moth lives fast and dies young. It has no feeding mouth-parts and lives for only few days until its store of body fat is exhausted. Mating takes place during this brief moment in the sun!

Pete Bird



Mating Cryptic Sun-Moths  
Photos: Pete Bird



Photo: Clint Garrett

### 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:  
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Non-members are welcome at our activities

## FWCR Annual General Meeting — May 6th 2020

*Guest Speaker: Dr Katherine Moseby*



***Outsmarting the feral cat -  
innovative solutions to the  
extinction crisis***

Dr Katherine Moseby shares her cutting-edge research and that of fellow desert ecologist, conservation biologist, author (and husband) Dr John Read in protecting endangered Australian wildlife from feral cats. Together they have co-founded four major conservation projects which collectively protect 100,000 ha of wildlife habitat; successfully re-introduced several endangered species to the wild; demonstrated training of predator-naïve wildlife to avoid feral cats; designed and tested the revolutionary *Felixer* Cat Grooming Trap. They are also currently helping develop the Population Protection Implant, another highly innovative technology to protect endangered species from predators, and are contributing to the long-term goal of eradicating feral cats from Kangaroo Island.

**Wednesday 6 May 7.30 pm**  
**Urrbrae House, Entry 3, Waite Rd, Urrbrae**  
**All welcome — Supper provided**

## New members and other news

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

Ian and Janis Richardson  
Joanna Wells  
Anne Campbell  
Lynette Yeomans

The Waite Conservation Reserve plant list has just been updated by Peter Lang and is available to download from the link on the Friends webpage:

[http://www.communitywebs.org/  
friendsofwaiteconservationreserve/resources/](http://www.communitywebs.org/friendsofwaiteconservationreserve/resources/)

The <New Records> worksheet shows the progressive accumulation of species records over the years.

## FWCR contacts

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