Newsletter 39

Autumn 2018

FRIENDS OF WAITE CONSERVATION RESERVE Inc.

COMING EVENTS

AGM
30th May 7:30pm
Urrbrae House
David Peacock
Re-introducing Quolls & Possums to the Flinders Ranges

Working Bees
See page 3 for details

President's message

It is more than a year since I retired and my love affair with the reserve has only grown. When not otherwise out bush, my default is simply to 'go to the Waite'. There is always something to do: spraying some or other weed, re-photographing photo-points, removing rubbish, collecting a new plant species, or simply 'going for a walk with a pair of secateurs', code for hunting olive seedlings. The reserve provides me with an outlet for my natural history obsession and need to save the planet. It also keeps me physically and mentally fit.

Recently you may have seen reference to the *'Five Ways to Well-being in Nature'* program promoted as an initiative of *Healthy Parks Healthy People SA*. As life becomes more complex, it is important to protect our mental health and wellbeing. Evidence from across the world is showing that spending time in nature makes us feel healthier, happier and more optimistic. The *'Five ways'* can be practised wherever, whenever and however it suits you, but I reckon Waite Conservation Reserve is as good a place as any for the 'wherever'. The reserve qualifies perfectly in each of the following five steps to help build, strengthen and sustain mental health and wellbeing:

- *Connect* – a sense of belonging is key to well being. The Friends of WCR is a welcoming and inclusive group dedicated to bringing back the bush. Come and work shoulder to shoulder with us and be part of our community.
- *Be Active* – physical health and mental health go hand in hand. Exercise improves your fitness, helps trim a few pounds, releases endorphins and blows out the cobwebs. Simply walking up Wild Dogs Glen ticks all these boxes.
- *Take Notice* – look, listen and smell the bush around you; there is something new to experience in every corner of the reserve.
- *Keep learning* – learning to identify a new plant, recognising a bird call or studying the signs left by native animals is great for your confidence, relaxation and concentration.
- *Give* – volunteer in a way that is meaningful to you. There are endless ways to assist in the reserve including weeding, re-vegetation, monitoring biodiversity and doing maintenance. Bring your skills or learn some new ones.

First working bee is Sunday 15 April. Love to see you there.

Peter Bird

Photopoints tell a scary history

Ever noticed the numbered steel posts scattered through the reserve? These mark the location of permanent photo-points set up to monitor long-term vegetation condition. The earliest were established 25 years ago in April 1993 and have been photographed several times since. I've just re-photographed them again.

In preparation for this I revisited all 51 photo-points only to find that some weren't as permanent as I'd supposed; the posts from 8 were missing! Replacing each in just the right place required me to compare past views of each photo-point – North, East, South and West to accurately match the original position of each post.

While comparing the photos over time it became apparent some sites have had chequered history. As an example I include here the photographic record of PP17 looking North from Yurrebilla Trail towards Leafhopper Gully and the city beyond. It tells a sobering tale of what can happen when good works are not followed up. (Photos on page 3)

The sequence starts in 1993 showing freshly felled olives scattered across the near view. Three years later in 1996 all appears well, but by 2000 alarm bells are sounding with a scattering of small olives appearing. These increase in size through 2004 and by 2008 form an impenetrable thicket. The final photo taken in 2011 shows the olives have been removed again. But at what cost, when a few minutes of follow-up could have prevented a lot of pain?

A similar scenario is repeated in the photographic history of several sites. Continued vigilance by the Friends group has maintained the above area olive free for the past seven years. Our aim should be never to let this reversal of good work, happen again.

Photo-points are a simple way to chronicle macro-vegetational change over time, especially to the 'woodland' part of our Grey box grassy woodland. It shows the ebb and flow of trees and larger shrubs, including olives, over time. But it does little to measure change at the 'grassy' scale. Come spring I would like to record under-storey composition at all photo-point sites as a baseline to better track change to the under-storey. Let me know if you would like to help.

Peter Bird

Contract olive Removal

While the Friends group makes good on past olive clearance by removing seedlings and treating re-growth, University contractors continue to whittle away at the residual forest of mature olives. At January last year olives still covered 18.8 hectares or 15.6% of the reserve. Twelve months later in January 2018 this has been reduced by a whopping 5.1 ha to around 13.7ha.

In the last 12 months olives have been treated either by 'Drill & Fill' or by 'Basal Bark Treatment'. 'Drill & Fill' involves drilling holes in the stumps and filling them with glyphosate. Basal Bark Treatment involves spraying the trunks of olive plants with bio-oil and triclopyr. The olives were completely removed in the 'Drill & Fill' process but were left standing with Basal Bark Treatment.

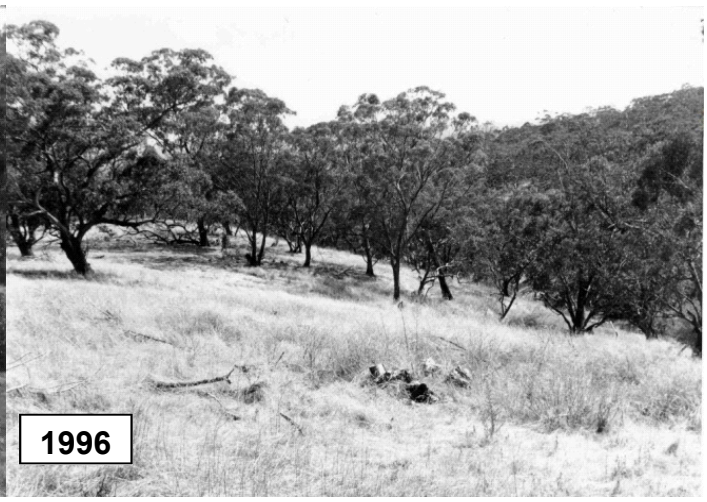
In total EBS treated about 0.5 ha of olives using 'Drill & Fill' in Stone Reserve and Caves Gully, while Donovan's Earthcare and Mike Kaczan removed about 4.5 ha mainly in Stone Reserve and on the Western Slopes.

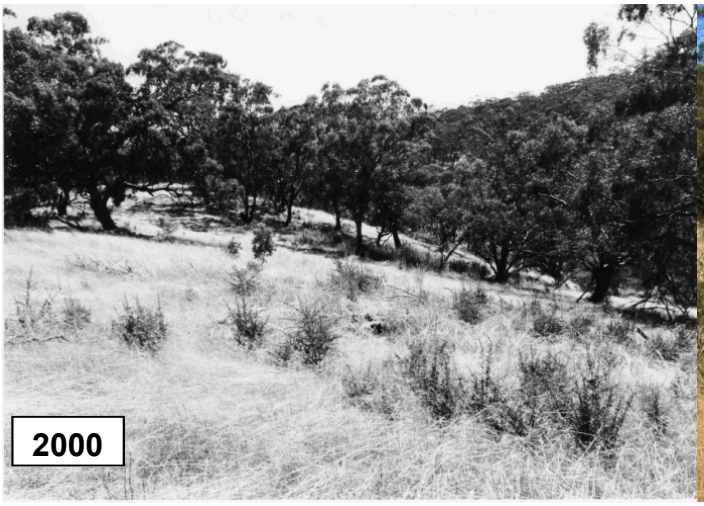
The advent of Basal Bark Treatment has sped up olive control by about 10-fold. At the current rate it seems feasible for all remaining olives to be treated over the next 3-5 years. This will have its challenges. Parts of the remaining area are very steep and some of the trees are very large and can only be treated using 'Drill & Fill'.

But the single most important challenge will be the need for thorough and ongoing follow-up to re-treat missed and regenerating olives and to remove the gazillions of seedlings that will be liberated. The risks are great but the benefits are huge. I'm sure the Friends group is ready for the challenge. Come along for the ride.

Peter Bird

Photopoints tell a scary history





Working Bees 2018

One season bites the dust and the next is just around the corner! Last season the focus again was on hunting down olive seedlings. Twenty-five people contributed 296 hours over 16 working bees. No working bees were missed due to weather.

During that time we covered 95 percent of the olive-cleared area and probably removed something like 50,000 olive seedlings. As well we pulled or sprayed countless other weeds including re-growth olives, hawthorn, buckthorn, boneseed, cottonbush, African daisy, perennial veldt grass, silverleaf nightshade, African weed orchid and false caper.

The plan for the coming season is a big ditto, concentrating again on 'walking with purpose' ie. looking for and pulling olive seedlings. Several years of this strategy is starting to reap rewards with fewer seedlings each consecutive year.

Working bees are held 1st Saturday, 3rd Sunday of each month See the program at right.

Wear appropriate clothing/shoes for the day. Bring something to drink and to eat. We usually sit and have a chat at the end of the working bee.

Erinne Stirling and Chloe Yu removing olives

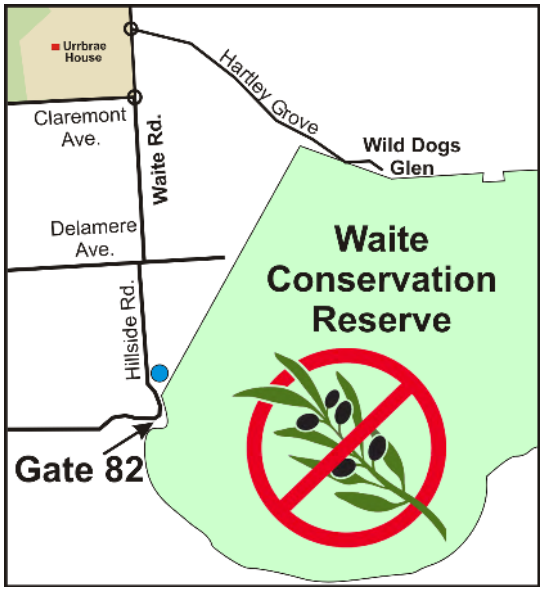
Autumn/Early Winter Working Bees 2018 9:00 am to 12:30 pm

April: Sunday 15th,

May: Saturday 5th and Sunday 20th

June: Saturday 2nd

Meet at Gate 82 Hillside Road, Springfield 9:00 am



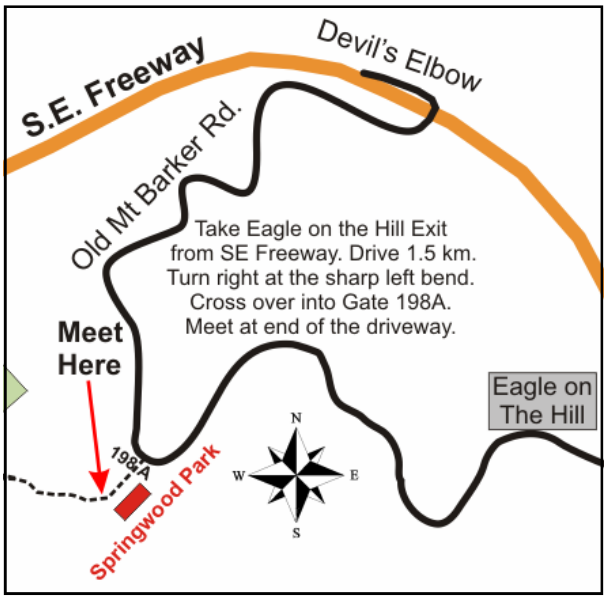
Winter/Spring Working Bees 2018

June: Sunday 17th

July: Saturday 7th and Sunday 15th

August: Saturday 4th

Meet at Springwood Park 9:00 am



Black-faced Cuckoo-shrike

There are some birds that are perennial favourites with birdwatchers and the Black-faced Cuckoo-shrike (*Coracina novaehollandiae*) is one such. I am not sure if it is due to the delicate soft colouring, the distinctive wing shuffle on landing or its mewing cat-like call but it lifts my spirits every time I see this species. Those in the know call them Boofcus due to the shortened form of their name – 'BFCS'.

They would once have been considered a common bird in suburban Adelaide but, like so many species, they have become less so in my lifetime. They can still be seen, usually flying over rather than perched, and they occasionally nest in large trees in suburban parks and gardens. In fact in the 2016 breeding season, a pair raised at least one chick a few hundred metres from our home in Gilberton. They may have nested again in this area as we have seen adults with young birds in large eucalypts in and around our garden over the summer months. There is a moderate chance of seeing this species in the Waite Conservation Reserve, but knowledge of their call helps enormously with identification, as they often fly over without landing.

Black-faced Cuckoo-shrikes are medium-sized birds, about the size of a Red Wattlebird, of slim build, blue-grey in colour and with a black mask over the face and upper breast. They can be confused with the much rarer (in Adelaide and the Mt Lofty Ranges) White-bellied Cuckoo-shrike, which is smaller and has only a black line in front of the eye. However young Black-faced Cuckoo-shrikes have a smaller black smudge on their face, which can lead to confusion. The flight of cuckoo-shrikes is very distinctive and cuckoo-like – they flap their wings to gain height and then alternate this with gliding when their wings held close to their bodies. On landing they almost always shuffle their wings, as if to get more comfortable. This gives rise to one of their common names of 'shufflewing'.

Despite being widespread throughout Australia, there is still much to learn of their movements. They are considered partly migratory and partly sedentary (Higgins *et al.* 2006).

Data suggest that there is a north-west movement away from southeast Australia in winter. In migratory populations, they can move in pairs, small groups and, sometimes, larger flocks. One to three birds is common in Adelaide, but I have seen flocks of about 30 flying north in late summer. At one time it was believed that seeing Black-faced Cuckoo-shrikes indicated rain on the horizon, so they were sometimes called 'rainbirds' or 'stormbirds', but there is no scientific evidence for this belief.

Cuckoo-shrikes are primarily insectivores and frugivores and generally feed in trees rather than on the ground. They make a neat, shallow and well-camouflaged nest of bark, leaves and twigs bound with spider webs and set in a fork of a horizontal branch, usually quite high off the ground. Their call, which is given in flight and from perches, is soft but carrying and has been described as a purring or a rolling trill. The voice of young birds is characteristic, used frequently when begging for food and is a good indication of their presence, usually high up in a eucalypt.

References

Higgins, P.J., J.M.Peter & S.J.Cowling. (eds) 2006. *Handbook of Australian, New Zealand and Antarctic Birds. Volume 7:Boatbill to Starlings.* Oxford University Press, Melbourne.

Penny Paton

Black Faced Cuckoo-shrike
Lip Kee (https://creativecommons.org/licenses/by-sa/2.0)], via Wikimedia Commons

New Plant Species Added

An updated plant list has been prepared for the Waite Conservation Reserve, ready to replace the one on the website which was current to May 2011 (https://www.adelaide.HYPERLINK "https://www.adelaide.edu.au/waite-historic/reserve/flora/"https://www.adelaide.edu.au/waite-historic/reserve/flora/".

The updated list now has a total of 391 vascular plant species definitely recorded within the Reserve, with a further 16 species records flagged as questionable (possible but needing confirmation). Of the definite records, 197 are native, 2 are questionably native, and 192 are alien naturalised occurrences.

Since May 2011 there have been 24 new records added, of which 7 are native to the area and 17 are alien 'weeds'. Most of these have been picked up by the keen eye of Peter Bird in his intensive and frequent perambulations.

Here are some of the highlights. In September 2012, Waldo Bushman reported his discovery of the native *Pelargonium littorale* growing amongst the rocky outcrops below Peregrine Point. In September 2015, Clint Garrett discovered and photographed a tiny flowered relative of the Spider-orchids, *Caladenia pygmaea*, a rare species never before seen in the Reserve. At around the same time I re-examined voucher collections at the State Herbarium and realised there was a second subspecies of the early Nancy (*Wurmbea dioica* ssp. *brevifolia*) represented in the Reserve.

Perhaps the most exciting new native plant addition is *Glycine tabacina*, a perennial pea-flowered vine/mat plant with a thick taproot, and listed as Vulnerable in SA under the National Parks & Wildlife Act. Peter Bird discovered it right beside the track near the top of Wild Dog Glen. It appears to be a recent arrival, presumably by natural dispersal from similar habitats in heavy soil on the western slopes of the hills. The nearest recorded occurrence at the State Herbarium is from Brown Hill Creek Recreation Park.

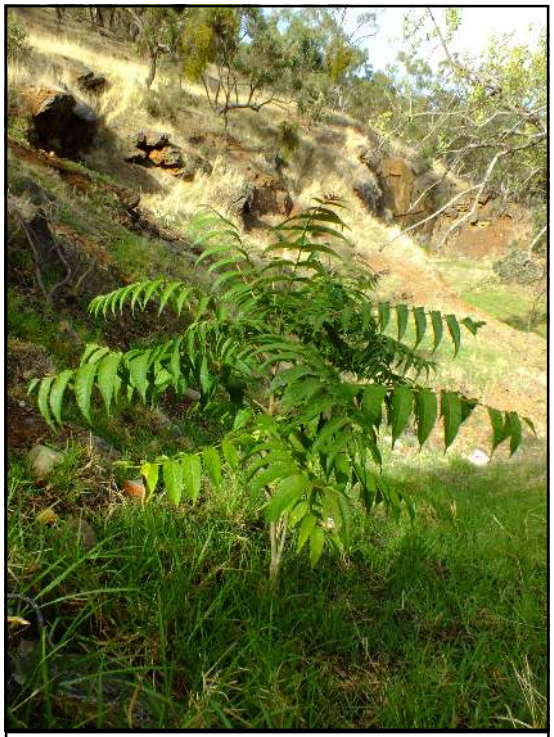
In addition to the new discoveries, there are numerous name changes. Many are minor and merely involve the loss or addition of subspecies or varieties that are recognised (at least in SA) within a species. Others may take more getting used to. For example, the pimpernels formerly *Anagallis* are now *Lysimachia*.

The yellow tiny star formerly *Hypoxis* is now *Pauridia*, and Sorrel *Acetosella vulgaris* is now *Rumex acetosella*.

For the Australian hollyhock that grows in rocky areas of the reserve there have been a succession of name changes. Many will have known it as *Lavatera plebeia* but it was subsequently recognised to be a true mallow, and the name *Malva behriana* was applied. In our 2011 listing it changed to *M. preissiana*, and in the current version it is now *M. weinmanniana*. And that may not be the end of it, as the form growing in the WCR and elsewhere in gullies of the Adelaide foothills doesn't quite fit either *M. preissiana*, or *M. weinmanniana*, albeit considered closer to the latter. (See https://know.ourplants.org/the-plant-press/native-mallow-a-name-change-and-a-second-species/).

Although such changes are annoying, they are a necessary consequence of two things. The first is our growing understanding of the relationships between species (recently expanded through developments in DNA sequencing), and the second is the application of rules of the International Code of Botanical Nomenclature. Both are essential to prevent real chaos from taking over.

Peter Lang



Tree of Heaven *Ailanthus altissima*
A new weed in the reserve
Photographer: Clint Garrett

‘nother new bird

In late February I almost tripped over a bird on Urrbrae Ridge that exploded out from under my feet. Its small compact form, whirring flight, cinnamon upperparts and largely white underparts identified it as a **Little Button-quail**. These birds are abundant in good seasons in the arid north but disperse when conditions dry. And they are very dry in places at the moment. Interestingly Little Button Quails are more closely related to shorebirds than to true quail such as Stubble and Brown Quail which also occasionally visit the reserve.

The reserve bird list compiled by Scott Field in 2000 now stands at 81 species. While we have gained a few mostly vagrant species in the 18 years since, this has been offset by the apparent local extinction of several others in that time. These include the Brown-headed Honeyeater, Yellow-rumped Thornbill and Varied Sitella. Surprisingly, neither have I recorded a single White-plumed Honeyeater over the period.

Peter Bird

Little Button Quail
Photographer Stephen Zozaya

Chemical Safety

Waite Conservation Reserve has its risks. Steep slopes, uneven ground, trip hazards, sharp objects, snakes, bees, heat and cold. Not to mention a million olive seedlings whose pulling, risks back strain and sanity in equal measure.

As well, volunteering with the Friends group potentially involves risks around the use of herbicides, mostly glyphosate, used for treating olives and other weeds. I recently attended a Chemical Safety Management workshop provided by the University of Adelaide to train volunteers in the safe use of chemicals.

If you wish to use chemicals in the reserve – and there is absolutely no compunction for you to do so – you must be trained beforehand. As supervisor I am responsible for training volunteers in the safe use of chemicals in the reserve and to:

- provide applicators and chemicals at correct concentrations
- provide personal protective equipment (or you can use your own, once checked)
- check chemical application
- clean up chemical applicators after working bees

Please contact me if you would like to use chemicals and require training. While chemical use poses some risks, these are easily managed by taking some simple precautions.

Peter Bird

AGM Re-Introducing Quolls & Possums

David Peacock with his Quoll mate Damien
(look carefully at the blue bag)

Wednesday 30 May 2018 7.30pm Urrbrae House

Dr David Peacock: Reintroduction of the Western Quoll (Idnya) and Brushtail Possum to the Flinders Ranges

David is a passionate conservationist and pest animal ecologist committed to the protection of Australian wildlife. His most significant recent achievement has been to conceive and research the successful reintroduction of the Western Quoll, or Idnya, back to the Flinders Ranges where they have not been living for the last 130 years.

David is a conservation and pest animal biologist and author of numerous scientific papers, reports and articles, David holds the position of Research Officer Pest Animals in Biosecurity SA.

Although he struggled in school, David went on to spend 8 years at 3 universities. In 1988 he completed a Bachelor of Applied Science (Wildlife and Park Management), followed by a Diploma in Natural Resources in 1990, and a PhD in 2003 at The University of Adelaide looking for a solution to the catastrophic predation of reintroduced animals by feral cats.

David used to be a National Park ranger in the south-east and met Kathryn, his wife of 25 years, soon after his move to Naracoorte in 1991. They moved to Wilpena in 1995 and had two wonderful years in the spectacular Flinders Ranges, with experiences that included the long drive to Quorn Hospital with Kathy in labour with the first of their 3 children. David worked on the project now called *Bounceback* and here he experienced first-hand the incredible effectiveness of the new rabbit biocontrol agent, Rabbit Haemorrhagic Disease Virus (RHDV), seeing old palatable native plants finally recruit some new young plants. In 1997 he joined the team studying this biocontrol, and apart from his time away doing his PhD, has been with them ever since.

David's has been instrumental in the successful re-introduction of the rabbit-eating western quoll, or idnya, back to the Flinders Ranges after an absence of 130 years. With the invaluable assistance of colleagues this project is going well, except for the issue of feral cat predation, the same problem that he sought a solution for during his PhD. He still seeks a solution to this problem, as he continues to fight to save the environment that he loves so much.

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