



Friends of Sturt Gorge

"Volunteers working for conservation"

Newsletter

Number 50, December 2020

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PRESIDENT'S REPORT

Thank you everyone for following COVID safe requirements from Friends of Parks and the Department for Environment and Water while undertaking working bees and attending meetings. Unfortunately, restrictions meant our last meeting for the year had to be cancelled, so we are looking forward to having a social event in January 2021.

I have just received the good news that we have been successful in our application to the Green Adelaide Board for the Sturt Gorge Bush Care boost funding. As mentioned in the last report, Management Unit 11 is one of the focus areas. This area is south of Eve Rd in Bellevue Heights, and runs right down to the thin strip of MU 2 that straddles the Sturt River. MU11 is listed as Priority 9 of 32 in the Park. MU11 is a woodland with Grey Box gums (*Eucalyptus microcarpa*), and She-oaks (*Allocasuarina verticillata*) as the main canopy trees.

Below these sit a diverse range of understory trees, bushes, lilies, orchids, ferns, grasses, ground covers, mosses and fungus. Some of these only have leaves, flowers or fruiting bodies above ground while there is good moisture in the soil while others are visible all year round. The following species are examples of the plants we are protecting by eradicating weed species like European olives. Each of these is critical for the survival of native butterflies, whose caterpillars usually require a specific host plant.



Twigg bush-pea (*Pultenae alargiflorens*)

A medium-sized shrub with masses of large orange and yellow pea flowers in spring. They are the caterpillar host plant for the Fringed Heath-blue butterfly.



Pale fanflower (*Scaevola albida*)

A caterpillar host plant for the Meadow Argus butterfly, and nectar source for adult butterflies. It grows low to the ground, with flowers that can be white, pale pink, or mauve.



Mat rush (*Lomandra* sp.)

Seven species of *Lomandra* (mat rushes) are found in the Sturt Gorge, and their small and large tussocks can be found across MU11. They are not actually rushes - they are members of the lily family, and their tough strappy leaves allow them to flourish all year round. They are caterpillar host plants for the Heath Ochre butterfly.



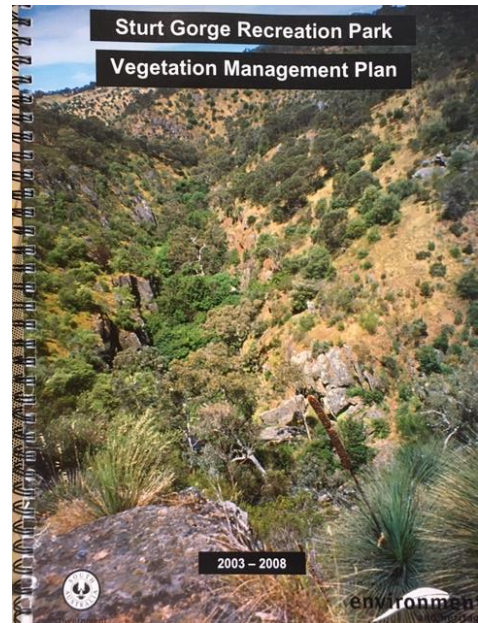
Native cherry (*Exocarpos cupressiformis*)

The native cherry can grow to 8 metres in height, but in MU11 these trees are only around 4 metres tall. They have a strange hard green nut which sits on the end of a fleshy stem that turns red. This plant is the host for the Wood White caterpillar.

What are Management Units?

You may have seen reference to management units before in our calendar of events. In 2003, Joe Quarmby prepared the *Sturt Gorge Recreation Park Vegetation Management Plan*. He comprehensively surveyed the Park to evaluate the distribution and abundance of native and introduced species. The Park was then zoned into 32 vegetation management units (VMUs or MUs), and each assigned, “a value and rank according to rated species value, vegetation association integrity, and environmental weed threat.” This plan guides us in the best places to work for biodiversity outcomes, including instructions and directions of work within each unit. This avoids many hours of working in degraded areas which would be reinfested by the weed seed-bank the following year, instead of directing our efforts to the few weed species that are threatening the most intact areas.

Since 2003 many things have changed in the Park, including our reduction of weed loads in specific areas, prescribed burns changing vegetation types, and new weed threats like fountain grass. Therefore, we now don’t always stick to the Management Plan when prioritising our biodiversity working bees. For example, with more members and more working bees we can target walls of boneseed and olive-threatened old growth trees in areas of lower value, because we now have the feet on the ground and the regularity of visits required to stay on top of regrowth. Otherwise it would take generations for us to work through all of the other units before we reached the lowest priority units. You can borrow a copy of the Plan from our library.



Amy Blaylock
President, Friends of Sturt Gorge

A NECESSARY EVIL?

Littering doesn't seem to be much of a problem in the Sturt Gorge Recreation Park. Thankfully it's rare to see scraps of paper, cans, bottles or other discarded items that have been dropped by trail users. However, there is one item of litter that always catches my eye when walking along the River Trail and that's those green plastic tree guards that have become stranded amongst the reeds at regular intervals for the entire length of the Gorge.

Last March I read an article in a Queensland newspaper about a farmer who after a flood had picked up more than 300 plastic tree guards from the banks of the Bremer River that flowed through his property west of Brisbane. It was estimated that more than 2000 tree guards had been washed down the river during the flood, and about half of these had been picked up along the shoreline. He was concerned that the rest would eventually end up in the Pacific Ocean. Clearly wayward tree guards are not a problem unique to the Sturt River.



The tree guards found in the Sturt Gorge are also the result of local flood events, and have all come from tree planting projects upstream of the Park. As luck would have it, most of the guards seem to get lodged in the most inaccessible places making their removal a very difficult exercise, and once they've been extracted what do you do with them?

Tree guards are essential to ensure a high level of success in any tree planting project. They allow new seedlings to gain a secure foothold, by providing protection from weeds, predators, herbicide spraying and the elements. As you're probably aware, there are a variety of tree guards on the market made from different materials, but the most commonly used are the green plastic corflute triangles. Given their general resilience to sun and rain, plastic tree guards have historically been considered the best option to get seedlings established. However, many years later after trees have gained a foothold, the plastic guards are often carelessly left in situ to slowly degrade in the sun. They become brittle with age and eventually end up in bits and pieces scattered across the landscape, or washed into nearby rivers either whole or in shards.

Driving through the hills these green tree guards seem to be popping up everywhere. It would appear that most volunteer groups, local government organisations, and private landowners prefer to use the plastic corflute guards over any of the other types of guards that are available. I'm aware of some very large tree planting projects on the Fleurieu Peninsula where there are hundreds and even thousands of green plastic triangles spread across entire hillsides. I just hope all these sites have and adhere to a management plan that includes the duration that these tree guards will need to be in place, and have assigned someone to remove them when that time arrives.

I've been advised by people who have used corflute tree guards extensively that they last between 3 to 5 years before they become faded and too brittle to reuse for future plantings. Some manufacturers suggest a lifespan of 8 years; it really depends on local climatic conditions and exposure to sunlight. All plastic guards eventually break down if left in place for several years wrapped around an established tree. Neglected plastic tree guards left in situ eventually inhibit the growth of a plant, can trap small

animals, or even be mistaken for food and ingested by them. This old brittle corflute material eventually breaks down into micro-plastics that can easily enter the food chain and create yet another type of environmental problem.



I had heard from friends in rural NSW that they had struggled to find a recycling depot that would take their old plastic tree guards, even the ones that were clearly branded as “recyclable”. I wondered if we were to collect all the discarded plastic corflute tree guards from along the Sturt River, and all those scattered around the countryside, how you would dispose of them responsibly. I contacted KESAB Environmental Solutions to find out what was the situation in SA. I was told that corflute plastic tree guards weren’t actually recyclable, and that they should definitely not be deposited with other plastics in your household kerbside recycle bin. Apparently the process for corflute plastic recycling is different from that for the majority of standard packaging plastics, and most recycling facilities in Australia are not set up for the required process. Consequently, most old corflute tree guards go straight to landfill. This is curious when considering the abundance of this material in our everyday life. I was advised that the only place in SA that recycled corflute plastic was YCA Recycling at Wingfield, and that I would have

to take it there personally for disposal (I reckon they must be going flat out after an election!).

However, there is a solution to all these problems. There are now a number of companies producing a range of cardboard (made from recycled paper) tree guards that do the job just as well as plastic guards without any disposal problems as they can all be recycled or even composted at the end of their usable life. These guards are competitively priced and generally cheaper than the plastic alternative, I hope to see them taking over the market.



It is high time that all tree planting groups and property owners cease using plastic corflute tree guards and use the more environmentally friendly alternatives that are readily available. I know that many members of FoSG are also members of other volunteer groups like ours. I would urge all of you to discourage the use of single-use plastic corflute guards for tree planting at every opportunity and encourage the use of the more environmentally friendly alternatives. And please make sure that someone gathers up all the old plastic guards once your trees have become established.

Les Gray

SIX THINGS YOU MAY OR MAY NOT KNOW ABOUT NOISY MINERS

- The Noisy Miner (*Manorina melanocephala*) is a native bird and should not be confused with the introduced Common Myna (*Acridotheres tristis*), a bold raucous species that is said to have an arrogant walk and is currently only found in the eastern states of Australia where it is slowly expanding its range.



- If you walked through a colony of Noisy Miners you would know why they are referred to as “noisy” miners, but why are they “miners”? It’s because the early European settlers were familiar with Common Mynas from Asia and the bright yellow beak and black face of the Noisy Miners reminded them of those (unrelated) Myna birds. Then in his 1865 work, “Handbook to the Birds of Australia,” John Gould noted that the colonists of Tasmania called them “miners” and the name stuck.



- Being honeyeaters, Noisy Miners probe flowers for nectar, but they are also well adapted to peck invertebrates from the surface of leaves, bark and branches. Insects form a major part of their diet throughout the year.
- During the breeding season, Noisy Miners breed cooperatively, with helpers assisting the parents by feeding the nestlings, and this service continues after the young have fledged; some helpers may attend several nests in this way during the same breeding season.
- Colonies of Noisy Miners vigorously defend their territories, aggressively attacking a range of other birds, varying in size from pardalotes and spinebills, to herons and cormorants, even though these birds may offer neither threat nor competition; people and sometimes other mammals are also often their targets.
- The Noisy Miner is one of the few native species to have been declared as a threat to endangered species within its natural geographical range.



Source: Birdlife Australia website

NEW STURT RIVER TRAIL OPEN

You may have noticed that there has been quite a bit of construction work just upstream of Horner's Bridge during the past few months. This is all part of the Sturt River Linear Park redevelopment which was finally completed mid December and is already attracting large numbers of walkers and cyclists. The aim of the Sturt River Linear Park is to establish a continuous open space trail network from the Mount Lofty Ranges, following the Sturt River to the Patawalonga on the coast. This last stretch of sealed pathway along a particularly attractive section of the Sturt River links a short section of the trail from the old Coromandel Valley institute building on Main Road to Horner's Bridge.



Woody weeds have been removed along the trail and revegetation undertaken using local native and ornamental plants (and it's great to see they have only used recycled paper tree guards, not a single green plastic guard to be seen!). The civil works included interpretive signage at points of interest, a bitumen shared use trail for pedestrians and cyclists, installation of safety fencing, replacement of an existing bridge and the installation of two new pedestrian bridges. It will be interesting to see if visitor numbers to the Sturt Gorge Recreation Park increase as a result of this path leading walkers to one of its main entrances.



KANGAROO ISLAND AFTER THE FIRE

In November, FoSG members, Lorraine and Murray Billett visited Kangaroo Island with the Royal Geographic Society. During the visit they met Peggy Rismiller and Mike McKelvy who are long time wildlife researchers on Kangaroo Island and are currently monitoring bushfire recovery sites. Lorraine and Murray visited one of their monitoring sites and were given a presentation on the results of their surveys. Following are the results of a survey conducted in February at one monitoring site.

8 February 2020. Second Field Fire Update from established data sites that were within the December 2019/January 2020 fire area.

Since the start of the Kangaroo Island fires we have received hundreds of emails and letters from people seeking facts. One of their most common questions is “after the fire, where will the wildlife get water?” Kangaroo Island experienced some heavy rainfalls the first week of February and we went back to the fire grounds two days later.

The rains enhanced the natural water ways on the fire grounds, providing additional drinking areas for wildlife. It also washed ash and silt off the fire grounds and promoted more plant germination. Ephemeral pools and ponds appeared and frogs were recorded calling day and night. Thick knee curlew and white face heron, and masked plover moved across the fire grounds feeding on emerging insects. Our rain did not answer the question “If animals are not living near or cannot access a stream or natural pond, what is their source of water?” Kangaroo Island has vast Eucalypt habitats. These range from the spectacular and verdant Red Gums to numerous species of mallee. Mature mallee can be hundreds of years old. The old parts are not the radiating trunks or limbs but the central ground level or some time subterranean lignotubers. Lignotubers can survive fire, wind, and flood and even “mechanized chaining

of artificial land clearance.” The lignotuber is the plants genetic storehouse and life centre.

Many of the lignotubers develop cavities or natural reservoirs for moisture collected on leaves, channelled down branches, radiating trunks, and terminating in hidden pockets of natural rainwater. We call these “water trees.” Water trees not only collect water when it rains, but they also collect and transport fog and morning dew to their reservoir. We extracted samples of the water we found. It was tea or coffee coloured, but tasted fine. The colour was not surprising since the water had “infused organic material” just like when people make cold processed tea or coffee. We have observed and documented skinks, Rosenberg’s goannas, birds and macropods seeking out openings in the mallee lignotubers and digging out the water hole.

Working across the fire grounds a clear record of wildlife movement was recorded in the mud and ash. Tracks and scat left by kangaroo, wallaby, bandicoot, brush tail possum, feral cat and a multitude of invertebrates told the story of present and active introduced and native species.

The rains were followed by warm summer days and overnight a green mist of invigorated sprouts covered many of the hills and flats with what looks like “a green five o’clock shadow.” Kangaroos and wallabies came out of the surviving core vegetation and were observed browsing on the fresh green shoots.

The rains caused a spurt of growth to the yaccas deep within the fire zones. These new shoots are also being eaten by macropods as a food source. This evidence is found scattered around the plants as well as on the ground.

Colourful fire dependent moulds and fungi continue to thrive on some plants and in the temporary ash pools of constantly changing levels of alkalinity and

acidity. The resulting temporary soil profiles provide optimal conditions for many native plants including several rare species that have not been recorded since the last major event of this type. In nature, lightning strike fires like those experienced this season, are one of several natural “reset buttons.”

While surveying the fire grounds we visited properties and walked the land with our island neighbours. We found the remains of a large termite mound that had obviously over grown a fallen log. The imbedded timber had burned and left the mound a mass of crumbling ash. Less than one meter away a new, vigorous and healthy termite mound was already recycling organic materials back into the soil. Our farmer neighbour shook his head and said “I wish we could bounce back as quickly as those buggers. If they can do it, so can we.”

This monitoring was conducted and results compiled by P Rissmiller and M McKelvey, Pelican Lagoon Research & Wildlife Centre, Kangaroo Island 5222 Australia.

NEWSLETTER CONTRIBUTIONS

I will endeavour to produce a newsletter on a quarterly basis; ie. around the end of each March, June, September and December, and look forward to receiving articles, reports and images relating to our activities that you think will be of interest to our members.

Check out past issues as a guide for content. Good sharp images to accompany articles are also welcome. Please provide your text as files attached to emails, not as emails themselves, likewise your photos as separate files. List the captions for each image below the article in the email. Email your articles to lesandmon@adam.com.au

Acting newsletter editor
Les Gray



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