

Friends of Sturt Gorge Newsletter

No. 36: January 2017

Visit our website www.fosg.org.au

Friends of Sturt Gorge Web Map: special commendation



Each year at the Friends of Parks Forum a number of awards are made to recognise and celebrate achievements by various Friends of Parks groups. This year Andy Raymond (DEWNR Volunteer Support) nominated Friends of Sturt Gorge for one of these awards - for our new FOSG Webmap tool.

The awards were made at the Friends of Parks Forum dinner on the evening of Saturday 15th October and two of our members attended: David Phillips, who created the Web-map; and Rick Coyte, who has been field testing it to record data on plants, birds, animals, working bees and trails.

In each award category there was a first prize and a Highly Commended for the runner up, and in the Innovation category Friends of Sturt Gorge were Highly Commended for our Web-map.

We were awarded a framed certificate (see above) and a cheque for \$250.

Our thanks and appreciation to Andy for nominating us and to David for his creation of the Webmap.

Wolf spider

The inch ant (see the July 2016 newsletter) isn't the only insect which can be identified by the entrance to its dwelling. Anyone working close to the ground in the Gorge will have noticed the small circular holes – about the size of a five cent coin and flush with the surrounding soil - which occur all through the Gorge.



These are the work of wolf spiders (*Lycosa spp.*) of which there are several species in the southern parts of Australia.



These spiders are rarely seen during daylight hours unless you happen to disturb the leaf litter they're sheltering in. Even then their markings make them almost invisible to the casual observer.

They do most of their hunting at night and, as for all spiders, are a vital part of the insect

ecosystem, helping to maintain the balance as predators between themselves and the more numerous insect species. The sharks of the insect world, perhaps?

Fortunately for us the Wolf Spider isn't dangerously toxic. So if and when you next see one, say "G'day" and give it some living space.

There's more information on this creature at the Australian Museum website: https://australianmuseum.net.au/wolf-spiders

Andrew Goldie

Litter in the Gorge

There's not that much rubbish in the Gorge, although what's there is likely to be in a drainage channel fed by stormwater runoff, or in the Sturt River and Magpie Creek. When I'm out killing weeds my rule of thumb when it comes to litter is to focus on what's harmful and tolerate what's unsightly.

So if it's paper it will disintegrate eventually, and I reckon it's OK to leave it alone. If it's glass or metal it's usually inert and won't do that much harm in the meantime, unless there are sharp edges or puncture points I'd rather not kneel, sit or tread on. I try to get the nasty bits off-site and find an empty 30 litre potting mix bag is ideal – tough, but portable.

However, the litter I never ignore if I can help it is anything plastic. The reason is that the vast majority of plastics in existence today are extremely long-lived and aren't biodegradable so they stay intact but potentially toxic for centuries no matter how small the pieces they break into.

As plastics fracture and break into increasingly small fragments these spread more extensively throughout the environment where they cause problems for life-forms in all their varieties of size, location and food preferences.

It's becoming better established that it's not just the well-publicised instances of sharks and turtles getting fouled in discarded nets or sea birds ingesting indigestible bottle caps that is the problem with plastics.

For example, Prof Richard Banati, a biomedical scientist at the University of Sydney has recently used nuclear analytical techniques to show how trace elements of hazardous materials are transferred from discarded plastic into sea birds. Plastics also increase in their toxicity as they degrade as plastics are a material that likes to absorb trace toxins from the environment. (Source: Radio National podcast at

http://www.abc.net.au/radionational/programs/bigideas/dangerous-plastics/5866384).

Andrew Goldie

Plant profile

With the unusual weather patterns this year we're fortunate in seeing an extended flowering period for **Sweet bursaria** (*Bursaria spinosa*) which usually comes into bloom around the end of December – hence another common name of **Christmas Bush**.



Bursaria growing below Bushland Drive

Blossom and seed capsules

Right now it's about the only mid-storey plant in bloom: the acacias have done their thing in winter, the understorey has gone mad in spring, and unless you're a bird or a bee at canopy level - where the eucalypts are in flower - there's not much native vegetation about closer to the ground with a blossom on it.

This plant thrives naturally in the Gorge and also makes a well-behaved and drought-tolerant addition to the suburban garden. An interesting feature is that the plant is endemic to the south-eastern and eastern coast of the continent. So, unlike so many attractive flowering plants, it doesn't feature in Western Australia.

Part of its botanical name derives from the seed capsules which resemble little purses - *bursae* in Latin – while the other part of its name derives from the spines which occur along the stems in some, but fortunately not all, plants. This is one of the mysteries of life: most specimens you see in the wild will have no spines at all but there are nursery varieties which are sturdy and prickly enough to deter most animals and gardeners. My advice to gardeners is to select the softer variety and enjoy its delicate but showy blooms as Christmas comes around each year.

Weather in the Gorge

Weather conditions in the Sturt Gorge over the past 6 months (July to December 2016) were extraordinarily wet and windy. A remarkable sequence of severe weather events had an impact on the Gorge, causing damage to some of the larger vegetation and exessive erosion of river and creek courses.

Many of the walking trails have been degraded by the strong run-off from heavy rain events.

An obvious upside is that the soil has been unusually moist for this time of year with plants, trees (and weeds!) growing at a rapid rate. With January 2017 also being we much of the Gorge at the moment looks as though it's still in early spring.

The Craigburn Farm rain gauge (eastern fringe of the Gorge) recorded 533 millimetres of rain from July to the end of December, which is well ahead of the average (337 millimetres) for that period. September, October and December were all more than twice as wet as normal.

Total rainfall for 2016 was 849 mm which was 35% higher than average.

It may have felt cooler than normal, but in reality maximum temperatures for the period were close to average based on temperatures measured at the Bureau's observing site in Kent Town.

There was considerable variability from month to month, with September and October well below normal, contrasting with August and December which were notably warmer than usual.

Wind speed data from Adelaide Airport confirmed that July, September and October were much windier than normal – by about 20%.

In walking the Gorge trails the number of shrubs and trees damaged or brought down by the combination of strong winds and wet top soil is quite noticeable. Severe wind events on 12th July, 28th September and 28th December had most impact.

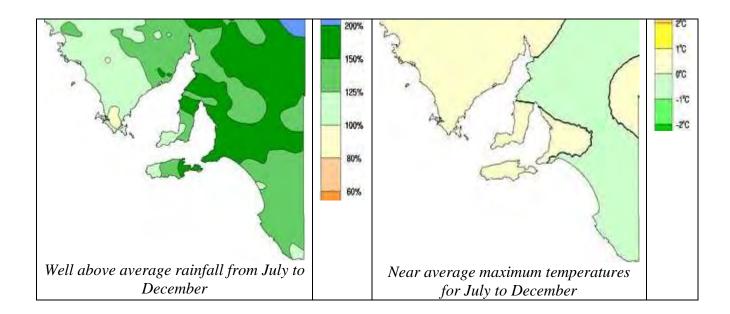
The December event was the equivalent of a category 1 tropical cyclone with heavy rain coincident with howling northerly winds.

The table below compares the rainfall, temperatures and wind speed for the past 6 months with the average.

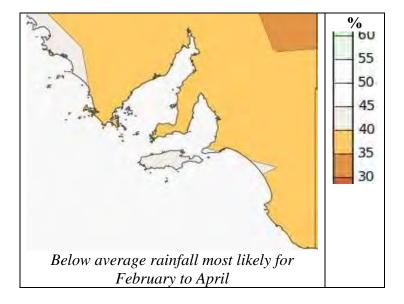
Month	Jul	Aug	Sep	Oct	Nov	Dec	Total
Rain (mm)	127.6	72.6	150.2	83.4	31.0	67.8	532.6
Average	98.7	74.8	60.2	36.4	33.9	32.7	336.7
Max Temp (°C)	15.3	17.7	17.4	21.0	24.7	28.7	20.8
Average	15.3	16.7	19.1	22.1	25.3	27.2	20.9
Wind Spd	23	22	24	27	25	22	23.8
(km/h)							
Average	19	21	21	22	23	23	21.5

The rainfall map below shows that for the past six months the whole of the southern part of the

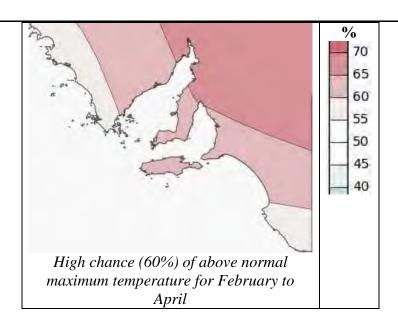
state received above average rainfall, with the Sturt Gorge more than 50% wetter than usual. However, the temperature map shows that maximum temperatures were fairly close to normal.



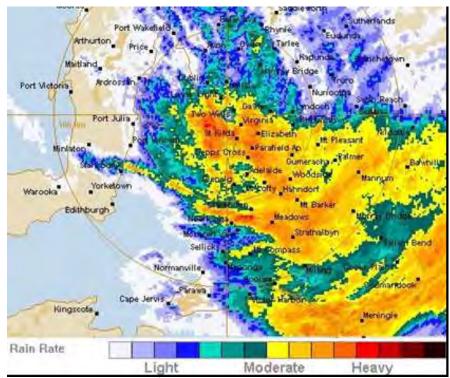
The three month forecast issued by the Bureau for the February to April period suggests that there will be a significant change in weather conditions from those which persisted for much of 2016. It appears as though the unusually wet and mild conditions will revert to a drier and warmer scenario. The map below shows a high probability of below average rainfall



while the next map shows the likelihood of higher than usual temperatures. With that comes the expectation of some late summer hot spells and little rainfall of significance. In that event, soils will dry out and vegetation will hold less moisture. This fire season, which has so far been very benign, might still have a sting in its' tail!



One of the more spectacular weather events over the past six months was the passage of a strong tropical depression through the Adelaide Hills in the early hours of 28th December. It brought a damaging combination of severe winds and heavy rainfall. Northerly wind gusts peaked at 120 km/h and over 50 mm of rain fell in the Sturt Gorge in less than three hours. A number of trees were brought down and creeks and rivers flowed strongly. It was a most unusual event, with the depression gaining in strength as it moved through South Australia from the northwest. It was of equivalent strength to a category one tropical cyclone as it tore through. The only thing lacking with this system was a name!



The weather radar image at 1.30 am on 28th December showed a large area of moderate to heavy rainfall over the Adelaide area at the height of the severe tropical storm.

Fauna

Bob Grant – who lives on Gorge Road, Bellevue Heights – noticed this wanderer just the other day in his front garden, and member Brenton Hay managed to get a rare shot of it in motion.



The echidna (a member of the *Tachyglossidae* family) is a shy and reclusive creature, so a sighting like this has to be regarded as a rare gift.

Echidnas are monotremes, that rare category of egg-laying mammals which also includes the platypus, and are found only in Australia and Papua New Guinea. One of the interesting anatomical features which the echidna shares with the platypus is that the males have a spur on their hind feet.

Despite their casual resemblance to ant-eaters and to hedgehogs they are unrelated to either species. Depending on the subspecies the echidna's diet is either ants or worms and larvae. Lifespan in the wild can be as long as 16 years, although some have survived for 50 years in captivity - quite unusual for such a small animal.

As these creatures are relatively defenceless against a determined predator I'd strongly recommend keeping your canine companion on its leash when visiting the Gorge.

For more fascinating information see: https://en.wikipedia.org/wiki/Echidna

Andrew Goldie

Trail developments

In the second half of 2016 the trails crew were able to complete three projects of note.

The junction of the Sturt River and Magpie Creek is more easily accessible now from the access road which leads to the northern side of the retention dam. The trail from the dam leading down to the Sturt River and along the bank to the Magpie Creek junction has been cleared and graded significantly and is a useful alternative approach, especially if coming from the shared use trails in the south-east sector of the Park.

And at the junction itself, the vertiginous trail which wound its way up the south side of the Gorge wall and connected with the trails running parallel to Broadmeadow Drive has been sculpted and selectively realigned. It's still a testing climb, but is a huge improvement on what was there previously.

Closer to suburbia, the trail from Bushland Drive down to Magpie Creek (previously a steep descent) is now a pleasant walk which follows the hill contour more closely. The work on this trail withstood the torrential rains in late 2016 so hats off to the builders for a well-made, satisfying and sustainable piece of work.

Other work done in the warmer months – when river levels are lower – has included placement of stepping stones, including a few large ones nudged out of alignment by the river in full spate.

The shots below – from last winter at the Magpie Creek junction and more recently further along the Sturt River – say it all.



Andrew Goldie

Membership renewals and Friends of Sturt Gorge walkers' maps

Membership of the Friends of Sturt Gorge falls due at the start of each calendar year. The annual fee is still just \$10 although donations are always welcome. And why not take the opportunity to get a copy of the latest edition of the Friends' map, also just \$10.

Contact Bob Grant on 7329 8296 or at bobgrant@adam.com.au and he'll be happy to take your money and send a receipt / get the map to you.

Gold Pass recognition

Congratulations are in order as our first cohort of members received a Gold Pass in January 2017 - Margaret Milford, Brian Blaylock, Amy Blaylock, Larry Resch, Tom Thulborn, Gordon and Valerie de Rose.

The Gold Pass is a new system for the recognition of significant and valuable contributions of individual volunteers to the Friends of Parks goal of helping to manage the State's parks and reserves in partnership with the Department of Environment, Water and Natural Resources (DEWNR). It is only provided to members who have given 15 years or more contribution to the Department, and provides the cardholder with a range of concessions including free entry into all SA national parks where vehicle entry fees or individual entry access fees apply.



Some of our first Gold Pass recipients (L-R) Margaret Milford, Amy Blaylock and Brian Blaylock

The Friends of Sturt Gorge, under the Friends of Parks framework, came into being at a public meeting held at the Flagstaff Hill Scout Hall on 23 May 1999. Amy Blaylock, Brian Blaylock and Margaret Milford all became inaugural FOSG members at this meeting. Our first President was John Michell, from the Flagstaff Hill Scouts, who had worked for the previous 20 years under the 'Friends of Sturt Gorge' banner and to whom we owe our logo. Amy initially took on the role of both Secretary and Treasurer, and Margaret Milford soon became second president after John Michell stepped down. Larry joined the group at the January 2001 working bee (we used to only have one working bee a month!) followed by Valerie and Gordon in June, and Tom in November of the same year.

Keep an eye out for recognition of more long-serving members as the Friends of Sturt Gorge is great at providing experiences that motivate people to commit long-term.

Amy Blaylock