



## Upcoming events

**SAT 29 FEB. Twilight wildlife survey, Stirling Park, 7.30-9.30pm.** (Numbers limited)

Observation survey (no traps or handling), led by Sarah Aylott & Jamie Pittock. Book with Sarah: [saraylott@gmail.com](mailto:saraylott@gmail.com) or 0410 038 877.

**SAT 7 MAR. Hall Cemetery Workparty,**

**8.30-11.00am.** Register with [john.fitzgerald@fog.org.au](mailto:john.fitzgerald@fog.org.au) by c.o.b. 5 Mar. See text box on work parties page 3.

**SUN 15 MAR. Stirling Park Workparty,**

**9am-12.30pm.** Meet car park on the lake side of Alexandrina Parade by the rusty 'DNA' sculpture at Blue Gum Point, midway between Mariner Plan and Hopetoun Circuit. Register with [jamie.pittock@fog.org.au](mailto:jamie.pittock@fog.org.au) or 0407 265 131 by c.o.b. 12 Mar. See text box, work parties page 3.

**SUN 15 MAR. Mulligans Flat - 500 year**

**vision, 7-8.30pm.** Special event with Shoshana Rapley. Register with [jamie.pittock@fog.org.au](mailto:jamie.pittock@fog.org.au) or 0407 265 131. See advertisement on page 3.

**TUES 17 MAR. Annual General Meeting -**

**5.30 for 6pm-7.30pm + Dinner for stayers - A must attend.** See advertisement on right.

**SAT MAR. Reptile survey, Stirling Park, 8am-**

**noon -** No date yet, but if interested register with [margaret.ning@fog.org.au](mailto:margaret.ning@fog.org.au). See page 3.

**FRI 3 APR. 9-11.30am, identifying common**

**grasses, Ngunnawal ACT.** This is a repeat of activity held on 10 Jan (see article on page 2), but explores what grasses look like in April. Inquiries & booking: [margaret.ning@fog.org.au](mailto:margaret.ning@fog.org.au).

**SAT 4 APR. Hall Cemetery Workparty,**

**8.30-11.00am.** Register with [john.fitzgerald@fog.org.au](mailto:john.fitzgerald@fog.org.au) by c.o.b. 2 Apr. See text box, work parties, page 3.

**SUN 5 APR. Ginninderry Sustainability**

**Expo.** FOG will be present at the Expo, so roll up and talk to us. For more details, contact [ken.hodgkinson@fog.org.au](mailto:ken.hodgkinson@fog.org.au).



A Ngunnawal grass garden - see page 2.

## Notice of FOG Annual General Meeting 2020

*Tuesday 17 March 5.30 for 6 pm*

*26 Barry Drive (Lena Karmel Lodge), Acton ACT & after,  
Dinner at 8pm at Spicy Ginger Cafe, 25 Childers Street.*

FOG members are encouraged to attend our AGM. Come at 5.30 pm for a wine, nibbles and catch-up before our meeting 6-7.30pm. The meeting will:

- Receive annual accounts and report (to be distributed by email before meeting)
- Accept transition report ([see Matters for AGM, page 10](#)).
- Accept changes to governance arrangements ([see Matters for AGM, page 10](#))
- Motion: This AGM accepts Jamie Pittock as a Friends of Grasslands (FOG) Honorary Life Member for his outstanding contribution to grassy ecosystems since the 1980s, his contribution to Friends of Grasslands and more broadly his leadership and public advocacy of Australian conservation. (A statement in support will be circulated by email before meeting).
- Election of office bearers ([see Matters for AGM, page 10](#)).

For all inquiries and to RSVP (for catering for the AGM & for booking dinner afterwards), contact Geoff ([president@fog.org.au](mailto:president@fog.org.au), 6241 4065 or 0403 221 117).

**Welcome to new FOG members:** Alex Kirk, ACT, Thea O'Loughlin, ACT, Fiona Game, ACT, Franc Crepinsek, NSW, David Crestani, NSW, Emily Sutcliffe, ACT and John Byrne, ACT.

## President's report - Geoff Robertson

2019 was a successful year for FOG. However, it ended with a realisation that to survive FOG needs to undergo a transition. Much of this issue is around this theme.

However, another theme is that nature has declared war on humanity. Throughout 2019, strengthening through the year, there were strong signs of the impacts of climate change. Simply referred to as "The Drought", we saw our rivers dry up and our land dry out, severe dust storms and death of water fauna, wildlife and animal stocks. Since the end of 2019, we have suffered an extended fire season, followed by storms and more.

These events have created a deep anxiety in many of us and our children. Smoke inhalation has caused widespread health impacts. Each of us knows someone, including FOG members, who has lost a house, property, stock, income and/or a job, or has been evacuated. The hail storm wrote off a huge number of cars. Economically all us will be losers, even if it is only through increased insurance premiums. On behalf of FOG, I would like to acknowledge all who have suffered and my admiration for the strength and care each person has shown.

Another blow was the destruction of York Park (page 4). Meantime, there are some practical matters to attend. Our AGM takes place on 17 March and importantly there's a new committee to be elected, endorsing and or amending recommendations to the AGM regarding transition proposals and some changes to governance arrangements. Also it is proposed to make Jamie Pittock an honorary life member. (see AGM notice, page 1, and matters for AGM, page 10). Please take time to read and consider this material.

FOG has reached a stage where it needs people to put up their hand and take on tasks - see *FOG needs you*, page 11. Again, please consider this carefully.

FOG's upcoming events are advertised on our cover page. Some decisions about the program have been delayed due to the fire and, unfortunately, we had to cancel three advertised events due to weather.

FOG is advertising its grassy ecosystem grants for 2020. See and promote the advertisement on next page.

FOG has been busy on the advocacy front. FOG's report on advocacy and FOG's updated position on offsets are included on page 7. FOG has also been working on its submission on the EPBC Act (see page 3).

## FOG events & other happenings roundup

### FOG cancels three events

Three FOG events at Stirling Park were cancelled on 8-9 February due to a forecast heavy rain, including the first planned work party at Stirling Park, a reptile survey and a visit by local and visiting Japanese students and staff from the School of Culture, History and Language. A week earlier, World Wetlands Day at Jerrabomberra Wetland in which FOG was participating was cancelled. The reptile survey is being rescheduled.

## Ngunnawal garden grasses - Margaret Ning

10 Jan. Sixteen people gathered at our Ngunnawal home with its mudstone clayey soil, supplemented with a bit of mulch, and nothing else to recommend it. The day was pleasant so we were saved from jumping from shady spot to shady spot, and just worked our way from the front of the house to the small courtyard back garden.

What did we see? We had 25 native grass species in our garden, across 20 genera, which were actually looking pretty good. Most either had flowered within the last couple of months or were currently flowering, and those that had flowered had assumed a very recognisable second stage with their empty seed heads, so ID at different growth stages was looked at.

Without going far from our property, I also could show half a dozen exotic grasses, which are also good to be able to identify, including Serrated Tussock, African Love Grass and Chilean Needle Grass.

I would like to thank John Fitz Gerald for bringing additional native and exotic species, including a native *Eragrostis* species for me to add to my collection. Also thanks to Bill Willis for showing us *Poa induta*, a beautiful soft velvety leaved tussock grass, that I had not seen before and is also now part of my collection. And thank you to Linda Spinaze for a non-grassy offering for morning tea. We all had a nice leisurely morning.

This activity will be held again on 3 April (see page 1) as some people missed out last time and and we can see how we go identifying grasses in autumn.



Native grass species in Ngunnawal garden: *Anthosachne scabra*, *Aristida ramosa*, *Austrostipa densiflora*, *A. rudis* and *A. scabra*, *Bothriochloa macra*, *Chloris truncata*, *Cymbopogon refractus*, *Dicantheum sericeum*, *Dichelachne* sp., *Digitaria brownii*, *Echinopogon ovatus*, *Enneapogon nigricans*, *Eragrostis brownii*, *Eragrostis trachycarpa*, *Lachnagrostis filiformis*, *Microlaena stipoides*, *Panicum effusum*, *Poa labillardierei* and *P. sieberiana*, *Rytidosperma* sp.1 and 2., *Sorghum leicladum*, *Sporobolus* sp. and *Themeda triandra*.



## EPBC Act review – Naarilla Hirsch

The Commonwealth's Environment Protection Biodiversity and Conservation (EPBC) Act is currently being reviewed. A discussion paper containing 26 questions relating to the review has been released and comments invited from all Australians on the paper – see <https://epbcactreview.environment.gov.au/>. Due to the bushfire situation this summer, the closing date for comments has been extended until 17 April. The Advocacy Group is preparing a submission for FOG, which is nearing completion. We encourage FOG members with an interest in the EPBC Act and the

protection it affords to threatened grassy ecosystems and species in our part of Australia to put in their own submissions as well. If you would like some ideas, email [advocacy@fog.org.au](mailto:advocacy@fog.org.au) for a copy of the draft FOG submission. The Places You Love alliance has also prepared a submission guide on the review.

### FOG to sign K2C MoU

At Kosciuszko to Coast's AGM on 19 Nov, a new and stronger committee was elected and Rainer Rehwinkel was elected secretary. An updated Memorandum of Understanding was approved and FOG at its last committee meeting agreed to sign it.

### Mulligans Flat - 500 year vision 7-8.30pm, Sun 15 Mar

Shoshana Rapley will lead a walk and talk on a *500-year vision for restoration at Mulligans Flat*. She is undertaking her honours research on reintroduction of bush stone-curlew at Mulligans Flat and has very kindly offered to lead an evening walk for FOG members to see the changes to the woodlands as an impact of reintroductions. Mulligans Flat is run by the Woodlands & Wetlands Trust (WWT) which can take a long-term vision. Some parts of the woodland will take centuries to return, like the soil depth and complexity, and hollows. Fortunately, we can aid that process using scientific problem-solving, which Sho will explain on the walk. Not to give too many spoilers away, one of her main experiments is researching how the reintroduced species act as ecosystem engineers driving the restoration of vegetation communities and processes. Hopefully, we will also catch sight of some of curlews, bettongs and even a quoll.

Participating adults are asked to make a \$15 donation to the WWT (at <https://woodlandsandwetlands.org.au/product-category/donation/> or by cash on the night). Register: [jamie.pittock@fog.org.au](mailto:jamie.pittock@fog.org.au) or 0407 265 131.

### FOG-ACTHA reptile survey, Stirling Park

The date for survey is not determined but likely to be a Sat 8-noon. This is a FOG-ACT Herpetological Association survey to discover reptiles and record them on Canberra Nature Map. We will compile a list of all the reptiles we see, and also how many of each species we see. We plan to start early to avoid the heat. Please bring your phones and/or cameras for the photography, water to drink and wear sensible clothes. We shall split into at least a couple of teams. We have UHF radios which will help us with our communications. Register with: [margaret.ning@fog.org.au](mailto:margaret.ning@fog.org.au) or 0427 788 304 if you plan to come to obtain details of meeting place, or if you have other inquiries.

### Information on work parties:

#### General

Your help is always needed and welcome, but **you need to register** at least two days before the event.

Work includes weeding, planting and rubbish removal. Herbicides are often used, so events are not suitable for young children. You need to wear gardening clothes (including hat) and solid footwear appropriate for the work and the weather, and bring your own drinking water.

The work party convenor provides morning tea, making these pleasant social occasions.

Work parties will be cancelled if: a) the forecast is 35 deg C+, b) it is a total fire ban day, c) there is lightning, or d) there is heavy rain.

#### Stirling Park and Yarramundi Reach

Working bees are held Sat 9am-12.30pm, 15 Mar, 10 May, 9 Aug, 13 Sep, 11 Oct, 8 Nov and 13 Dec. Note: May and Sept events also include Yarramundi Reach.

Tools are provided. When you register, you'll be sent more details about the work party: such as tasks, targets and, for Stirling Park, where to meet. For Yarramundi we met at 245 Lady Denman Drive.

**Hall Cemetery:** Working bees are held on Saturday mornings: 7 Mar, 4 Apr, 3 Oct, and 7 Nov. You should bring a small digging tool. Meet at Cemetery entrance near the Wallaroo Rd/Barton Hwy junction.

### FOG 2020 Grassy-ecosystem grants

FOG is again offering a small number of grassy ecosystem grants of \$500–\$1500. Any individual or organisation may apply. A grant may be used for a small project or as part of a bigger project and may support publications, research, education, on-ground work, advocacy, publicity and/or training related to grassy ecosystems.

FOG will publicise projects it funds and, if possible, provide in-kind support if sought. Successful recipients will be asked to keep FOG informed, to write up the project for our newsletter, and provide other information and output if applicable.

The application form may be downloaded from <http://www.fog.org.au/supportedprojects.htm> and completed forms should be submitted by c.o.b. Monday 13 April to [supportedprojects@fog.org.au](mailto:supportedprojects@fog.org.au). We hope to announce successful applications by end May.

For inquiries contact [supportedprojects@fog.org.au](mailto:supportedprojects@fog.org.au).

## News roundup

### Destruction of York Park

7 JAN. The two picture right, say it all. Mindless total destruction of a remnant of natural temperate grassland with its many species of grasses and wildflowers, and a population of critically endangered Gold Sun Moth which delighted us last year. No attempt was made to allow a rescue of plants and moths. A much needed hotel will rise on the site and the Commonwealth takes the money from the land sale - a grubby and corrupt process. (Photos: Fiona Game, Friends of York Park, Facebook)

### Removal of pine trees at Stirling Park

11 FEB. FOG welcomes the National Capital Authority's statement on the replacement of the pine plantation with a restored Box Gum Woodland at Stirling Park. The pine trees represent a safety risk during high winds, storms and fire. The work will reinstate the natural landscape of trees, shrubs, forbes and grass consistent with the adjacent box gum woodland of Stirling Ridge. Pine removal is planned March to May, weed control for 2020-21 and planting of native species to commence in autumn 2021. FOG is being consulted over this work.

### Two Thumbs Wildlife Trust & Bredbo Gentian

24 JAN. Lauren van Dyke (Bredbo Landcare) reported James Fitzgerald's (Two Thumbs Wildlife Trust) homes where he cared for injured/recovering Koalas were destroyed (23 Jan). Two weeks earlier 600 acres were lost to fire. "This is devastating... considering James had a colony of healthy koalas on his surrounding 2000 acres and they have most likely have perished. ...The plane that came down killing its three passengers did so on James' property ... trying to save the dwellings." She has told FOG that the Bredbo Gentian site on Peak View Road has survived.

**Australian Alps flyover** (Photo below of resplendent Radio Hill being Cooma as he took off in the helicopter)

24 JAN, members of Invasive Species Council organized a helicopter inspection Australian Alps. Jamie Pittock, Professor, Fenner School of Environment & Society, Australian National University, was part of the inspection and reported on the trip in the Conversation (<https://theconversation.com/fire-almost-wiped-out-rare-species-in-the-australian-alps-feral-horses-are-finishing-the-job-130584>).



Jamie stated "I was devastated by what I saw. Cherished wildlife species are at grave risk of extinction: those populations the bushfires haven't already wiped out are threatened by thousands of feral horses travelling the land... Kosciuszko National Park provides habitat for two species of corroboree frog (critically endangered), the alpine she-oak (endangered), broad-tooth rat (vulnerable) and stocky galaxias (a critically endangered native fish), among other threatened species. As the climate has warmed, the cool mountain habitat for the species is shrinking and bushfires have decimated a lot of what is left. Feral horses now threaten to destroy the remainder, and an urgent culling program is needed." In one of the three survey blocks, North Kosciuszko, feral horse numbers have risen from an estimated 3,255 in 2014 to 15,687 in 2019, a near five-fold increase.

### Scottsdale burnt

We have heard from Bush Heritage that about 60% of the Scottsdale reserve has burnt but the shearing shed and nursery area are ok.

### NPA NSW Appeal

NPA NSW plans to employ a dedicated Senior Campaigner well versed in ecological, operational, community and political complexities of fire management to undertake an analysis of fire impacts, to assist landholders and to advocate for better protection and management of threats. It is also seeking volunteers.

To volunteer contact: [volunteer for our projects](#), and to donate contact [any financial contribution](#).



## Our dying trees - Rod Holesgrove

"Today (6 Feb) I was up on Mt Ainslie. Looking down to Anzac Avenue and Old and New Parliament House one cannot avoid seeing in the foreground on the lower slopes of Mt Ainslie, swathes of dying and dead trees.

Recently published by Upper Lachlan Landcare, there is a report of an interview with Dr Mason Crane of ANU's Conservation Landscape Ecology Unit. Dr Crane says while the bush dieback was extensive during the Millennium drought, we possibly "are now seeing it on a scale we have not previously observed." As Dr Crane says water shortage is the main cause. Among the measures that could save trees - "ground cover is the best help".

Unfortunately the Morrison Government will not commit to increased effort to reduce emissions and is now on a mission of more controlled burning that will further reduce ground cover. So - much of Australia's iconic bush looks doomed."

## ACT Government money for biodiversity

10 FEB. Minister Gentleman (Environment and Heritage), announced \$7.8m of investment in environment and planning, including \$2.3m (RangerAssist and ACTWaterwatch), \$1.1m (Infrastructure and capital investments at Lake Tuggeranong), \$1m (extra urban wildlife rangers), \$2.2m (Grassland Earless Dragon habitat) and \$1.2m (Simplifying the ACT's planning system). FOG particularly welcomes funding that will assist the dragon, support extra rangers and biodiversity volunteers and Frogwatch. However, FOG is not aware of how these monies will be spent.

## Ginninderry's Treasures

The Conservation Council has released *Ginninderry Treasures*, the sixth book in the *Treasures of the ACT Region* series. It is a treasure containing info and photos on Aboriginal and European cultural heritage, woodland, grassland and river ecosystems of the Ginninderry region of north-western Canberra. Also included are plant and fauna profiles. Available (\$5) at [Order Ginninderry Treasures](#).

## Cat containment in ACT

FOG has been a long time supporter of Cat Containment in the ACT, supporting the Conservation Council's lead on this issue. The CC is now campaigning on the ACT Government to introduce city-wide cat containment by the year 2025. You will find its submission on the Draft Cat Plan at [our submission](#). The CC has also created an [information pack](#) to help you start a conversation with your neighbours about the benefits of keeping their pet cats contained to their property both day and night.

## Beacons of hope after fire

11 FEB. Brett McNamara (Chronicle/The Queanbeyan Age) wrote a lovely item on the fires. He commenced "Having returned from northern Kosciuszko on fire deployment, it was a relaxing day. After all, we have just subdued a troublesome fire that was knocking on our door. It was a public holiday, a cherished day off. Then the mobile rang. A column of smoke has been spotted. It was growing in the heart of Namadgi National Park, a fire prone and tinder dry landscape." In attending the fire, Brett was reminded of his 2003 experience fighting a



similar fire. Brett has a deft touch with language. He finished his item with "as we start our post-fire journey along the green shoots of recovery, these beacons of hope will illuminate our pathway. They will represent the pivot points by which we as a community can once again reconnect with our beloved mountains. The bush capital is indeed resilient." Brett is a highly valued leader in ACT Parks and Conservation Service, has a regular column in the Chronicle and often contributes to various Canberra media. He reminds us what a fantastic job our rangers do caring for nature and fighting fires.

## World Environment Day Dinner - Sat 6 Jun, 6.30-10.30pm

The theme of this year's Conservation Council's World Environment Day Dinner *Regenerating our Earth* with speaker Costa Georgiadis, to be held 6.30-10.30pm, 6 June, at the National Museum of Australia. Earlybird tickets are available. Costa is familiar to viewers of the ABC's Gardening Australia and is a powerful advocate for sustainable practices in agriculture and across society. [Find out more](#). FOG members wishing to join the FOG table, please register for the event and mention that you want to be on the FOG table.

## International year of plant health - Suggestions to FOG??

2020 is the UN's International Year of Plant Health (IYPH) and provides an opportunity to raise global awareness of how protecting plant health can help end hunger, reduce poverty, protect the environment, and boost economic development. A large number of events (exhibitions, cultural performances, contests, panel discussions and conferences) are taking place worldwide. The relevant UN website is at [Find out more](#). Info on Australia's involvement may be found at <https://www.planthealthaustralia.com.au/international-year-of-plant-health-2020/>.

## Drones spraying weeds in NSW

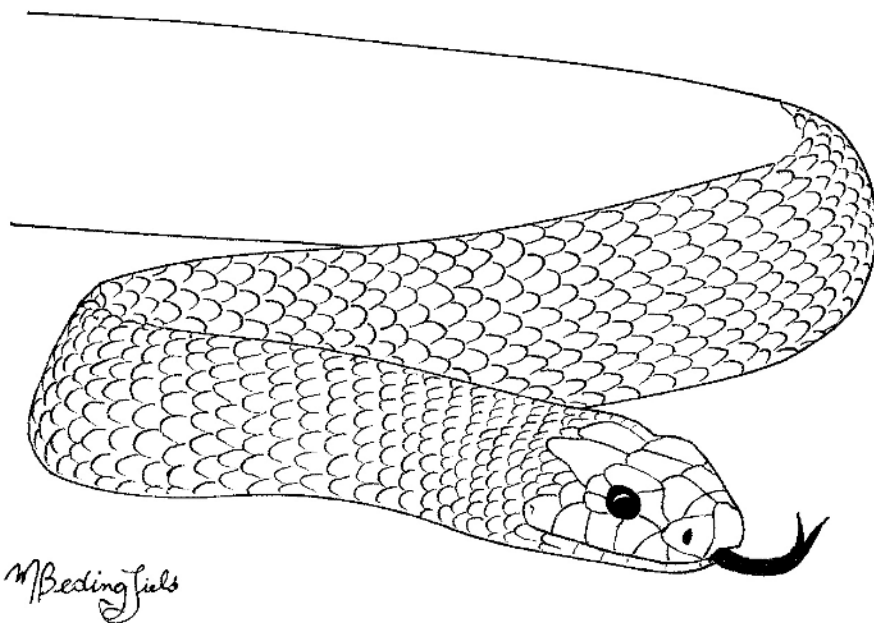
More and more we are hearing of the use of drones in weed spraying. Here is another that is worth a read: *Drone operator granted licence to spray weeds in Tasmania first* reported by ABC Rural (<https://www.abc.net.au/news/rural/2020-02-06/drone-spraying-licence-granted-in-tasmania/11935702?>).

*News roundup - continued on page 9.*

## Eastern Brown Snake - *Pseudonaja textilis* - the one you're most likely to see - Michael Bedingfield

Snakes have been feared and revered throughout the centuries. Their toxic venom and secretive behaviour create anxiety in many people. A person who is called a "snake in the grass" is one who is regarded as being treacherous but who hides his true nature. In the modern world where we live in a largely urbanized society and are separate from nature, the mystery and mystique of serpents and their value are not broadly appreciated. But for some, the simple habit snakes have of shedding their skin makes them a symbol of rejuvenation. The medical doctors' symbol is a winged staff with two snakes curled around it. And for some Australian aboriginal communities the Rainbow Serpent is an important mythical creature or deity from the Dreamtime. It shaped the earth with its movements, creating the mountains and rivers. It can be seen when there is a rainstorm in the beautiful arch of a rainbow, as well as in the night sky in the majestic curves of the Scorpio constellation.

The most common snake to be seen at lower altitudes in the ACT is the Eastern Brown Snake, with the scientific name of *Pseudonaja textilis*. The head is small and bullet-shaped and the body slender. An adult can grow up to about two metres in length but the average is around 1.5 metres. The chosen habitat is grassland, woodland or dry forests. During spring and summer it will venture into urban areas on the edge of town but doesn't stay long. Its normal colour varies from pale brown to grey, but occasionally the colour can be dark brown, blackish or orange. Juveniles are often black on the top



of the head with a bar behind the head, and may be banded or partially banded.

For food the Eastern Brown Snake will seek out vertebrate animals such as small mammals, birds, frogs and other reptiles as well as eggs. It is fond of introduced rats and mice. Generally it will strike the animal swiftly, then move away to a safe distance until it dies from the

venom. The meal, which may be much larger than the snake's head, is swallowed whole and snakes have a specially designed jaw to assist. The upper and lower jawbones are connected by elasticated ligaments and the skin nearby is quite elastic too, allowing for the mouth to be opened very widely.

These reptiles hide away during the cooler months and go into a torpor. They may come out occasionally and briefly on warmer days. In spring they become active and begin to breed. Males compete for receptive females in ritual combat, wrestling and intertwining tightly until one is able to overpower the other. Sometime after mating the female lays her eggs in a burrow or other safe place, with an average number of about 15. The clutch of eggs is left unattended and incubation takes quite a while, varying considerably depending on the temperature. At 25°C it takes about 95 days. In the ACT hatching happens from late January and through February.

If the Eastern Brown sees an intruder at a distance it may remain stationary hoping to avoid being seen or it may retreat rapidly if given the chance to do so. However, it is an alert and nervous species and can react quickly if surprised, putting on an aggressive display. When it feels very threatened it will adopt a classic snake defence posture of lifting the front part of its body into an 'S' shape, then lunging forward toward the intruder with mouth wide open.

Snakes have a reputation for being dangerous, but there is a great variation in how dangerous they can be depending on the species. The factors involved are the degree of aggressiveness, length of the fangs, venom potency and the amount of venom delivered. This

species is quite aggressive, but has short fangs of about 3mm which make biting through a heavy cloth more difficult. It has a medium venom yield but its venom is very toxic. There have been occasional human fatalities from this snake's bite. By comparison the Red-bellied Black Snake *Pseudechis porphyriacus*, has longer fangs but it is relatively shy and not aggressive and its venom is less toxic. It is found mostly near rivers, swamps or other moist habitats. Overall, the Eastern Brown is considerably more dangerous than the Red-bellied Black.

The Eastern Brown Snake is widespread through eastern Australia, becoming less common as you move west into SA and NT. It is absent from Tasmania but occurs in PNG and Indonesia. I've provided a drawing of the front part of the body for illustration. Next time you see a 'snake in the grass' it may well be an Eastern Brown Snake!

### References:

*Reptiles & Frogs of the Australian Capital Territory*, Ross Bennett, National Parks Association of the ACT Inc., 2011  
<https://australianmuseum.net.au/learn/animals/reptiles/eastern-brown-snake/>  
<https://australianmuseum.net.au/learn/animals/reptiles/red-bellied-black-snake/>



## **December 2019**

In December another EPBC referral for the proposed City to Woden light rail link was out for comment. FOG's first comment related to the lack of information about proposed offsets. The second was about the piecemeal nature of development proposals and approvals in relation to impacts on GSM in central Canberra. FOG's view was that, before any further developments impacting on GSM in the central Canberra area are approved, there should be a strategy developed to guide Golden Sun Moth conservation in the ACT. This strategy should: (a) put the conservation status of existing GSM populations into context with losses of populations and habitat in the past 25 years as well as proposed and likely future losses; (b) include any evidence of increases in GSM habitat and/or populations in offset sites or as a result of offset actions; and (c) provide a context for the significance any particular population such as the central Canberra populations, to assist in decision making about developments impacting on the population.

A significant submission this month was our submission on the Canberra Nature Park Draft Reserve Management Plan. Particular improvements suggested for the Plan included: (a) with research and monitoring, a stronger focus on small creatures and what is below ground in the future; (b) an additional section giving an emphasis in the plan on how non-Indigenous people can gain from learning from Traditional Custodians; and (c) if important additional information is available for particular reserves, that it be added to the descriptions of the nature reserves on the website, and if additional sites are designated as nature reserves before the next management plan is published, that descriptions of them as per the existing descriptions be added onto the website. All the detailed comments are in the submission on the FOG website.

The year finished with comments on the Draft Integrated Plan for Red Hill Nature Reserve and Surrounds. FOG supported the opportunity to formalise corridors between the surrounding urban open space and Red Hill Nature Reserve. Other comments included the need for any development to minimise the impact on existing ecological values (including protecting trees with hollows), and whether offsets should be offered, and why the rezoning of Deakin Section 66 from the Territory Plan be as open space buffer rather than included in Canberra Nature Park.

## **January 2020**

With Rainer Rehwinkel's help, FOG made a submission about the preliminary determination of listing White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands and NSW South Western Slopes Bioregions. FOG drew attention to significant taxonomic issues, and also distributional issues (with a strong bias away from the occurrence of the community in south-eastern NSW). The determination requires a slight broadening of its range to reflect occurrences in areas not covered, with a parallel

name change. FOG also expressed concerns that the determination includes elements and vegetation types characterised by those occurring in the less fertile, and thus the less threatened parts of the community's environmental envelope, with possible depletion of the higher value, more threatened parts of the community occurring on the lower, more fertile parts of its distribution as a result. A number of other points were included in the submission.

## **February 2020**

In responding to the EPBC referral concerning construction of a public high school in Kenny, FOG noted that only a very small area of Striped Legless Lizard (SLL) population was impacted, but asked for an offset such as improvement of SLL habitat in Kenny Nature Reserve and/or inclusion in the high school's education program of maintenance and restoration of biodiversity assets near the school.

*The full text of FOG submissions appears on our website.*

## **Revised FOG Offset Principles**

On 28 October 2019 Advocacy Group members and others reviewed FOG's 2014 Offsets Policy. A new offsets principles document has now been finalized and agreed by FOG's Main Committee. This is a summary.

As before, the document starts by reiterating the view that the document should not be taken as support for the concept of offsets as a way of allowing developments to impact on vulnerable or endangered species or ecosystems. In fact, FOG's view is that there should be no development that impacts on vulnerable or endangered species habitat or ecosystem communities, and it opposes the use of offsets in these circumstances. However, the document does recognize the reality of the current situation where offsets are mandated by government for the destruction of native vegetation and sets out statements of FOG's views when it becomes necessary to discuss offsets to achieve the best conservation outcome. The document lists 21 principles regarding the use of biodiversity offsets.

Drawbacks to the view that offsets are a primary tool to conserve biodiversity are highlighted. One is the restriction of offsets to endangered ecological communities (EECs) and threatened species. Another is that offsets are triggered when there is a proposal to change land use or develop land that may impact on remnant threatened species or EECs, but this does not cover lack of mitigation of threats. It should be recognized that offsets are only one of a number of tools available to mitigate against loss of biodiversity.

With development proposals, the mitigation hierarchy should always apply, i.e. avoid, then mitigate, then offset if there is no alternative. FOG recognises some situations where the government has gone to considerable effort to avoid threatened species or EECs, or to minimise impacts.

Offsets should involve no net loss across the landscape, i.e. either: (a) the offset should be in place before construction commences (advanced offset) with a clear

*Revised offset principles continued on page 11.*

## Pretty Invasive, Close-Up

John Fitz Gerald

Back to weeds again - unfortunately plenty to choose from in Australia, with thousands having been compiled by Richardson et al. into their valuable identification guide. These are all plants that invade places where they are unwanted. I have chosen 3 plants from different families, certainly not top-tier invasives, but still troublesome.

Firstly, *Romulea rosea* var. *australis*, Onion Grass, native to S. Africa (pics 1 & 2). This small bulbous plant can be a real nuisance in pastures and is very difficult to poison, having tough narrow leaves, a bulb that grows well underground, and being a prolific seeder. The plant also turns dormant for autumn and winter at least. In the recent past, this plant has been awarded pest status, even rated noxious in some regions. In the ACT, it is fairly common to find ground turned over by Cockatoos or Galahs uprooting dense crops of Onion Grass bulbs. The small flower (pic 1) is quite distinctive in colour and shape. Its brown seeds (pic 2 with scale bar 1 mm) are rounded with some facets developed.

*Tragopogon porrifolius*, Salsify, (pics 3 & 4) native to Europe and Asia, can grow densely in the right conditions and distribute seeds widely via the wind in typical daisy fashion. According to some web sources, its roots and leaves are edible, and it is sometimes called Oyster Plant as boiled root of this plant is said to taste this way. Its large purple daisy flower (pic 3) is striking - note abundant pollen at the centre of this inflorescence. It normally thrives in our summers but this tough year seems to have stopped it in its tracks around the ACT - many plants flowered but did not produce the mature puffball heads, and little seed



can have floated away. Even on heads that did puff out, seeds were shrivelled. After much searching I did find one plant carrying full seed. In pic 4 (scale 2 mm) I show part of the feathery pappus (top left) that would catch the wind and carry an attached seed, also one intact spindly fruit (or achene) with its rough surface of ribs plus numerous pointy structures (bottom), and finally a smooth long waxy seed (centre) which I'd carefully cut out of its achene.

*Medicago minima*, Woolly Burr Medic, (pics 5 & 6) native to Europe and W. Asia, is one of many three-foliolate invasives in the pea family. Clovers are another common example, legumes widely wanted as nitrogen fixers in agriculture. Medics are prostrate in style, and easily recognised once seed structures form. Seeds are contained in a pod like many peas, but in this genus the pod is distinctively coiled ('discoïd' is one description) and in *M. minima* covered in spines with hooked tips (pic 5, green plant). Again I cut out some seeds, from a matured pod, and show four on the right of pic 6 (scale 2 mm) with a coiled spiny pod on the left.

Micrographs were taken at the National Seed Bank of the Australian National Botanic Gardens. They can be reproduced freely if attributed and linked to the Creative Commons licence CC BY, see <http://creativecommons.org.au/learn/licences/>.

Sources of information include Richardson FJ, Richardson RG and Shepherd RCH (2016) *Weeds of the South-East, third edition*.

NSW Flora Online <http://plantnet.rbgsyd.nsw.gov.au/floraonline.htm>





## Vale Bob Wilkinson - Geoff Robertson

(Bob Wilkinson died 17 Dec, but due to the fire, his Memorial was not held until Sat 22 Feb, Cooma).

Before I met Bob, I had read Alec Costin's *A Study of the Ecosystems of the Monaro* and Keith Hancock's *Discovering Monaro*, and began to meet many Monaro pastoralists, with their strong love of country and fierce sense of independence. I had heard many stories of the Wilkinsons and their broadacre Monaro property with its fabulous arrays of native grasses, delightful wildflowers and animals, including its grassland earless dragon, Monaro golden daisy, copper wire daisy and many more. Bob welcomed scientists and other visitors who wanted to learn, to collect data and to hear about his experience.

Rainer Rehwinkel who could not attend the memorial service as he was travelling in India wrote to June stating "You and Bob have made a significant contribution to conservation in south-east New South Wales and I know you will miss him dearly, as will the conservation community." Rainer recalled his first meeting with Bob in 1995, when he inadvertently blocked Bob's driveway, mistakingly thinking it was the entrance to Ravensworth TSR. According to Rainer, Bob waited patiently to off load a bull into the paddock. Rainer also recalled Bob's explaining to him that Poa Tussock in seed is a valuable part of a cattle grazing regime. I think that Rainer's observations say a lot about Bob.

Bob often agonised about whether or not he was doing the right thing by the country. He eagerly wanted to hear from other land managers and scientists to attune his thinking and practice to theirs. He was ahead of his time in trialing exclusion fencing to study its impact on vegetation. He came to embody important values of good pasture and farming management, passing on the land intact for future generations, and a sense of learning from nature and working with it. I am fortunate to have learnt some land management practices from First Nations people and I am struck by the similarity of Bob's attitudes and theirs. They regard nature as teacher, developing an intimate knowledge of landscapes, plants and animals, and how to extract resources from nature to live comfortably but to leave nature intact.

Bob made a very strong contribution to grassland conservation. His attitudes showed that pastoralists and conservationists can have a common goal, bridging what otherwise may have been a deep divide. His integrity, experience and wisdom profoundly influenced Friends of Grasslands' thinking as it developed its positive message of combining conservation and production, and provided important insights on how best to conserve and restore natural temperate grasslands. Bob participated in many field trips, including a very memorable one to the Hay Plain. His company was always enjoyable, informative and good humoured. He was present at many working bees on Old Cooma Common - well into his eighties, he would put on a backpack, pursuing African love grass and St John's wort.

Rainer also said to June "I will remember Bob as a gentle and powerful advocate for conservation." I agree and would like to add that Bob has moved on to become a great spiritual protector of our Monaro Grasslands.

News roundup - continued from page 5.

## Great American Prairies - Geoff Robertson

Grasslands around the world suffer and a recent item well worth a read is *Great American Prairies - the Most endangered ecosystem on earth*. The article mentioned that in some regions, 80% of the prairie land is now gone. In the very eastern regions of the Plains, estimates are that less than 0.01% of those prairies remain! Although bison numbers have rebounded somewhat in recent years, the number of wild bison in the late 1800s was fewer than 500 animals. Sadly, most of the bison found today (fewer than 500,000) are in private herds managed by landowners, not in wild herds migrating across the grasslands of history (<https://soilsmatter.wordpress.com/2020/02/01/great-american-prairies-the-most-endangered-ecosystem-on-earth/>). The eastern prairies are the tall grass prairies where the grass natural grow over two metres tall. I have had the opportunity to visit both the tall grass eastern prairies (1998) and the western prairie (2001), wonderful experiences.

## Bushfires and threatened species listings

11 FEB. The Commonwealth Department of Environment and Energy released an initial list of threatened and migratory species which have more than 10% of their known or predicted distribution in areas affected by bushfires in southern and eastern Australia from 1 August 2019 and 13 January 2020. (<http://www.environment.gov.au/biodiversity/bushfire-recovery/research-and-resources>).

Preliminary results indicate that 49 listed threatened species have had more than 80% of their known or predicted distribution burnt, 65 species 50% to 80%, 77 species 30% to 50% and 136 species and 4 listed migratory species 10% to 30%.

It also stated many unlisted species have had much of their range affected by the fires and, in some cases that impact may mean that these species have become threatened. The Department will be considering assessments of these species in the near future.

## The 1939 Fire

Craig Kelly MP's claim that the 1939 fire showed that massive fires have always happened, is not the case according to a thoughtful article *The Unlearned Country* by Philip Zylstra (Meanjin Quarterly, 20 Jan). This is well worth a read. Philip is an Honorary Research Fellow, Centre for Sustainable Ecosystem Solutions, University of Wollongong. (<https://meanjin.com.au/blog/the-unlearned-country/>)

## Good news on corroboree frogs

The Guardian recently reported that the Australian Defence Force flew threatened species experts to Kosciuszko National Park to inspect the enclosures for the southern corroboree frog. Three of four enclosures that protected the frogs from the deadly chytrid fungus were burnt in recent fires but, apart from some that had died, the frogs remained. Concern remained for the remaining population of northern corroboree frog. (<https://www.theguardian.com/environment/2020/jan/30/defence-force-flies-experts-to-kosciuszko-in-corroboree-frog-rescue-mission>).

## ACT State of Environment Report

13 FEB. The four-yearly report was tabled in the Legislative Assembly. It will be reviewed in our next issue. ([https://www.envcomm.act.gov.au/soe\\_about-the-report](https://www.envcomm.act.gov.au/soe_about-the-report)).

## Matters for AGM

### Nominations for executive positions

The AGM elects the FOG committee, including office holders (President, two vice-Presidents, Secretary and Treasurer) and up to eight ordinary committee members. Financial members may be nominated to any position. A nomination requires a nominator and seconder and agreement by the nominee (who may be nominator or seconder). Under our rules, nominations should be received by our returning officer, [paul.archer@fog.org.au](mailto:paul.archer@fog.org.au) by c.o.b. 10 March. Please seriously consider nominating. You may contact Paul with any queries.

### Changes to governance arrangements

Changes to the ACT *Associations Incorporation Act 1991* were introduced as of 1 July 2019 (for a summary see [https://www.accesscanberra.act.gov.au/app/answers/detail/a\\_id/1504/~/incorporated-associations](https://www.accesscanberra.act.gov.au/app/answers/detail/a_id/1504/~/incorporated-associations)). After inquiring of Access Canberra, the committee decided to recommend not to change FOG's constitution until the ACT Government issues new model rules which FOG would then adopt. (FOG has always followed the model rules with some exceptions).

However, FOG should change some of its procedures:

- **Membership register.** The committee from end 2020 should prepare annual register containing members' name, postal address and email address which may be released by the secretary to members for legitimate purposes. Members may request that all or some of this information not be included in the register. Note: currently a membership list is held for various administrative purposes and access is restricted.
- **Release of meeting minutes.** The FOG constitution and final minutes of meetings will be available to members on request.
- **Dispute resolution.** The current rules allows for members to be disciplined or expelled. Members have the right of appeal to a general meeting. In any dispute, the committee will attempt to arrange for an independent party to resolve the dispute.

Note: FOG has never been requested to provide a membership register or minutes, nor has it disciplined or removed a member and there has not been any disputes between members.

### Transition plans

The committee is considering trailing a number of initiatives:

#### Governance

Currently, the FOG committee meets every two months. At its last meeting, it decided to trial a new structure to reduce and spread the workload, increase membership participation and strengthen training.

- An administrative committee to meet informally (no minutes taken) monthly or as needed to deal with administrative matters. Meetings would take less than an hour, likely over coffee.
- Full committee to meet March, July and January for 1-2 hours. Its focus would be to receive reports and focus on broad policy and strategic issues. Each meeting would review a particular area of FOG's activities (e.g. finance, membership). Minutes recorded.
- Open committee/forum: May, August and November. Focus would be on reviewing and providing training on an area of FOG activity (e.g. advocacy, events, communications, projects and on-ground work). Each would include presentation on background, current thinking and approach to topic, possibly a case study, etc. Only record would be a short newsletter item.

#### Membership

Committee considering:

- Survey of members to find out likes and dislikes and potential for volunteering.
- Membership drive aimed to recruit people involved in grassy ecosystem conservation.
- On-line membership application, credit card, etc.
- A year's free membership to grant recipients.
- \$250 payment to undergraduates for policy papers.

#### Events

- The program should include more events aimed at non members and to be advertised through known networks where appropriate.

#### Other issues

- Term limits for office holders and reducing newsletter to four times a year under consideration.

### Projects, coordinators & appointed officeholders

The following is provided to indicate current arrangements in FOG:

**On-ground projects & co-ordinators:** National Capital Lands (Jamie Pittock and John Fitz Gerald (Yarramundi Reach), Hall Cemetery (John Fitz Gerald), Franklin Grassland (Geoff Robertson), Scottsdale monitoring (Linda Spinaze) and OCCGR, other Cooma sites and Monaro Golden Daisy (in abeyance).

**Other projects:** Events (Margaret Ning) and events coordination & eBulletin (Geoff Robertson), Advocacy (Naarilla Hirsch), Awards (Janet Russell), Newsletter despatch (Sarah Sharp), and Grassy ecosystem grants (Andrew Zelnik).

**Individual office holders:** Public Officer (Andrew Russell), Membership (Heather Sweet), Sales (Sarah Sharp), Newsletter (Geoff Robertson), Website (Richard Bomford), Info@fog & spokesperson (Geoff Robertson) and Occupational Health and Safety (Geoff Robertson). FOG is also a member of several other organisations (e.g. Conservation Council, K2C, and Snowy Monaro Region Biosecurity (Weeds) Advisory Committee).





## FOG needs

### *you - Ways you may contribute*

So, please read the following carefully and think about whether you may contribute!

FOG is overstretched and needs people to fill in many key roles. FOG can be flexible by breaking down and rearranging tasks so that you may do a lot or a little - it all helps. Knowledge of grassy ecosystems is definitely not necessary, and many tasks can be done without attending meetings or living in Canberra. FOG can use whatever skills you have or help you to develop new ones. We need people who can help coordinate activities, have some oral or written communication skills, and/or who have a modicum of clerical, administrative, financial and/or computer work - that should cover everyone. Of course if you are a highly articulate, friendly, visionary and strategic leader with a deep understanding of and ability to communicate with people on grassy ecosystems you would be more than welcome. There are many (non-financial) rewards being a FOG volunteer and, as FOG is a powerful influencer, your participation could be a powerful force for grassy ecosystems and more.

We need help in all areas of our work. Particular areas where help is most urgently sought is:

- Our committee - under our revised structure we need a small group to meet regularly, make decisions and carry out administrative work.
- Secretary - we need someone to take on this role after our AGM.
- Our newsletter - in the past our newsletter editor has carried a major responsibility, but the task can be broken down into several manageable chunks or we can have editors taking turns.
- Activities co-ordinator/eBulletin editor. This involves keeping track of activities and compiling the eBulletin.
- Facebook editor - currently vacant.
- Spokesperson - this involves answering queries from [info@fog.com](mailto:info@fog.com), that come from the press, the general public and members. Again, tasks can be broken down and shared.
- Advocacy - there are numerous ways to assist here.
- Events - organising the program and/or individual events.

For more info, please don't hesitate to contact FOG [president@fog.org.au](mailto:president@fog.org.au)/ 6241 4065.

*Revised offset principles continued from page 5.*

assessment of their conservation benefit and the additionality of this benefit; or (b) the aim of the offset should be a clear net gain to ensure an actual "no net loss" situation in the long run.

Offsets need to be like for like, and if there are no options for like-for-like offsets, then the development needing offsetting should not proceed. Offsets and their management also need to be either in perpetuity or have a long term time frame associated with them.

Strategic frameworks should be considered for multiple developments in the same area, particularly when these impact on the same species or EEC. This might also allow for combining sites to get a better offset site.

Offsets should be treated as part of the conservation estate, irrespective of whether they are on-reserve or off-reserve, and off-reserve conservation options need to be considered.

FOG supports the development of a nationally consistent and agreed set of principles that guide biodiversity offsetting and also sees a need for government to measure and provide quantitative evidence of ecological outcomes from offset sites.

Other principles include transparency and accessibility of offsetting processes and outcomes; full disclosure of costs, benefits and obligations; the need for regular reporting on the status and condition of offset sites; and compliance in meeting ecological objectives.

Questions that need to be addressed include accounting for additional site pressures over time such as the impacts of climate change; the adequacy of the metrics used to capture ecosystem functions, services, and quality; and the underlying assumption used in many offset proposals that site condition will deteriorate over time without management or intervention.

If you would like a copy of the complete document (which includes some background material), send an email to [advocacy@fog.org.au](mailto:advocacy@fog.org.au).

## Donations to support FOG

FOG makes small grants to researchers, educators and on-ground projects, a highly effective way to support grassy ecosystems.

To support this, you can make a tax deductible donation to FOG Public Fund by:

**Direct debit:** BSB 633 000, A/c 153493960 (Bendigo Bank). Please include your name and advise our Treasurer [treasurer@fog.org.au](mailto:treasurer@fog.org.au).

**Cheque:** payable to 'Friends of Grasslands Public Fund', mailed to Treasurer, Friends of Grasslands Inc., PO Box 440, Jamison Centre, ACT 2614.

Include your name and postal address.

A receipt for tax purposes will be sent to you. You may also include a donation when you complete your membership application/renewal form. THANKS

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## *Contact us*

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### **To join FOG work parties:**

Hall Cemetery woodland, ACT: [john.fitzgerald@fog.org.au](mailto:john.fitzgerald@fog.org.au)

ACT Yarramundi Grassland & Stirling Park woodland: [jamie.pittock@fog.org.au](mailto:jamie.pittock@fog.org.au)

Old Cooma Common, NSW: [margaret.ning@fog.org.au](mailto:margaret.ning@fog.org.au)

'Scottsdale' (near Bredbo), NSW: [linda.spinaze@fog.org.au](mailto:linda.spinaze@fog.org.au)

**Health & Safety matters:** [info@fog.org.au](mailto:info@fog.org.au)

**FOG merchandise info (books, etc.):** [booksales@fog.org.au](mailto:booksales@fog.org.au) (order forms are at [www.fog.org.au](http://www.fog.org.au))

**Applying for FOG small grants:** [supportedprojects@fog.org.au](mailto:supportedprojects@fog.org.au)

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**To contribute to FOG advocacy:** [advocacy@fog.org.au](mailto:advocacy@fog.org.au)

**Website matters:** [webmanager@fog.org.au](mailto:webmanager@fog.org.au)

## *For more on FOG, see*

Our webpage: [www.fog.org.au](http://www.fog.org.au) and Facebook page.