

News of Friends of Grasslands

Supporting native grassy ecosystems

ISSN 1832-6315

January-February 2020



Upcoming events

10 Jan, Fri 9-11.30am, **identifying common grasses**, Ngunnawal ACT. Reg: margaret.ning@fog.org.au

13-19 Jan 10-4 daily. **Snakes Alive**, ANBG. Tickets actha.org.au/tickets or at door. Inq: 0427 788 304

9 Feb & 15 Mar Sun, 9-12.30, Stirling Park **work party**. Reg: <u>Jamie.pittock@fog.org.au</u> or 0407 265 131.

22 Feb, Sat 8am-noon. FOG-ACTHA **reptile survey**. (date subject to change). Reg: margaret.ning@fog.org.au

29 Feb, Sat 7-30-9.30pm, **twilight walk**, Stirling Park, Reg: saraylott@gmail.com or 0410 038 877. Limited number.

15 Mar Sun 7-8.30pm, **Evening walk & talk:** a 500-year vision for restoration for Mulligans Flat, Reg: <u>Jamie.pittock@fog.org.au</u> or 0407 265 131. Limited number.

More detail on each of these events may be found on pages 2 and 3.

FOG celebrates 25 years

Friends of Grasslands was launched 12 November 1994 and celebrated its first 25 years on Sunday 1 December. Forty-two people attended, although absent was a contingent of ACT government employees at the Tallaganda fire.

Geoff Robertson talked on FOG strengths and future as it goes through a period of transition, Minister Suzanne Orr MLA spoke on Nature in the City and how her working with FOG on Franklin Grassland was a good example of conservation in the city with a community focus, Ann Milligan was awarded a certificate of appreciation (see page 2), while David Wong entertained and challenged us with three of his compositions on Ginninderry, Grassland Earless Dragon and Golden Sun Moth.

On 26 Nov, 21 enthusiastic and energetic people attended the forum 'FOG in the 2020s' and agreed that what FOG currently does is essential but more could be done. However, the take away message was, with ageing leadership, a newer crop of volunteers possibly along with change to the way FOG does things is required. Rainer Rehwinkel and Andrew Zelnik have released a summary of the meeting - discussion continues.

The third big event within a week was a thanks and windup of Yarramundi Grassland Demonstration Revegetation Project on 2 Dec (story page 3). It has been a huge period for FOG activities, as this newsletter demonstrates. Reports on some activities have been carried over.

New ACT non-profit legislation commenced 1 July. These changes are welcome and the committee is working on a raft of constitutional changes.

Our advocacy workload continues to be massive. On 11 Dec, FOG and EDO organised a workshop to discuss our approach to the EPBC Act review. More to come.

Fire rages around us and has directly affected very many of our members, especially those whose properties are threatened. Best wishes for the season, despite these challenges.

Special thanks to Ann Milligan

At its 25th year celebration, FOG awarded Ann Milligan with a Certificate of Appreciation "for her leadership using her considerable communications and organisational skills in



her roles as Newsletter Editor, Activities Officer and Acting President". Sarah Sharp read out the supporting statement prepared by the committee. Suzanne Orr MLA presented the certificate to Ann adding her own congratulations.

It read "Friends of Grasslands (FOG) wishes to thank Ann for her significant contributions to Friends of Grasslands during the years 2014 to 2019. Her achievements include:

- Publishing 35 issues of News of Friends of Grasslands,
- Organising Friends of Grasslands' program of activities and producing the eBulletin, and
- Being a committee member from March 2014 to March and 2017, and being a former vice president.

Ann joined FOG and took on the editorship of *News of Friends of Grasslands*. Her first publication was the March-April 2014 issue and her last was November-December 2019. Numerous people have commented on the very high standard the newsletter achieved under her editorship. One example is an email from Cameron Archer, an author on agriculture and the natural environment, apologising for not attending our 25th celebration, who said:

'I am one of those silent distant members who really values what you do. It is always hard being a completely volunteer based organisation but in many other ways it is a strength because you have human resilience at work and do not have to care so much about high overheads etc etc. I think FOG does great work... My regular readings of FOG newsletters has assisted my thinking. I am looking at writing a book with a much wider coverage in future and FOG information and messages will be very useful. My congratulations to all who contributed to the 25 years of FOG and I wish FOG all the best for the next 25 years.'

For many years Ann has been involved in the FOG program joining Margaret Ning to organise the FOG Events Program. As a result of her efforts, the program has grown, providing many more opportunities for FOG members and others to interact and find out more about grassy ecosystem conservation within this region and elsewhere. As an example, in our annual report for 2018, excluding our working parties on National Lands and Hall Cemetery, Ann played a central role in organizing 24 events involving 520 volunteers and 4700 volunteer hours. In 2019, the number of events has likely increased. Apart from ensuring that our events were



advertised and promoted, Ann often organised these events and/or was the contact point. She frequently took part in stalls promoting FOG and grassy-ecosystem conservation. In all, a huge contribution.

Ann was a member of the FOG committee for three years, joining in March 2014 and standing down in March 2017. In her final year, she and Kim Pullen were vice presidents. As there was no president, she often took on the role of acting president, an essential and often an onerous role.

Ann approached each of these areas with great enthusiasm, conscientiousness and professionalism, providing an excellent example of what a volunteer may achieve, and greatly enhanced the reputation of FOG. She constantly showed great leadership, was actively involved in questioning and re-evaluating the goals and role of FOG, and helping to direct its ability to support conservation of grassy ecosystems."

Sarah added her own personal congratulations describing, from her experience, Ann's many contributions and their friendship.

Upcoming events, Jan, Feb & Mar

Identifying common grasses, 9-11.30am, Fri 10 Jan.

Margaret and Geoff have a small garden in Ngunnawal ACT filled with many local grass species. We will mosey around their garden until about 11am and then enjoy a morning cuppa. Bring grasses that you might like identified and (drought permitting), if you would like to take away a grass or two, bring some soil/potting mix and small tubes/pots.

Register with margaret.ning@fog.org.au.

Snakes Alive! 10-4 daily, ANBG, Canberra, 13-19 Jan

Held daily at the air-conditioned Crosbie Morrison Building. Learn about and see many local frog and reptile species, especially goannas this year. A great opportunity for FOG members to see threatened and rare grassland reptile species. Great place for kids and they get to hold and touch snakes and lizards. Special feeding times 11am and 2pm daily.

Tickets: Adults \$6, conc. \$5, children \$4, available actha.org.au/ tickets & door. Inquiries: 0427 788 304.

Stirling Park Work party, 9 Feb, Sat, 9am-12.30pm

Work includes weeding, planting and rubbish removal. Herbicides are often used, so these events are not suitable for young children. 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. Tools are provided. Registration for these events is needed, including to get details of the starting locations. Register & information: Jamie.pittock@fog.org.au or 0407 265 131.

Other dates for Stirling Park in 2020 are: 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.

Reptile survey, Stirling Park, 8-noon, Sat 22 Feb

This is a FOG-ACT Herpetological Association survey to discover reptiles and record them on Canberra Nature Map. *Detail may change. Register:* margaret.ning@fog.org.au.

Twilight walk, Stirling Park, 7.30-9.30pm, Sat 29 Feb

This will be a twilight wildlife survey walk led by Sarah and Jamie. Numbers are limited. *To book contact Sarah Aylott:* saraylott@gmail.com or 0410 038 877.

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. Sho is undertaking her honours research on reintroduction of bush stonecurlew 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 or 0407 265 131.

Roundup of FOG events

Yarramundi Grassland Demo Reveg Wrap-up 2 Dec

Twenty-eight people from the National Capital Authority, ACT government, Greening Australia, several ACT Landcare groups and FOG attended the wrap-up of FOG's Yarramundi grassland demonstration revegetation project funded in the ACT 2018-2019 Environment Awards. It was an opportunity to thank the many parties involved in the project and and to illustrate the project's findings - John Fitz Gerald provided an excellent handout on this. More on this in our next issue.

Shortly after this, a FOG project team finalised a plant list and compiled an abundance/cover score for each plant species. This followed-up a partial survey undertaken on 29 Sep.





Frogmore Cemetery 9 Nov - Alan Ford

A small but enthusiastic crowd turned out for this long day at Frogmore, 26k north east of Borrowa.

After you go through the gate into the outer paddock you travel upslope to the tall solemn forest of Mugga Ironbark *Eucalyptus sideroxylon* that constitutes the Palace Guard of Frogmore cemetery.

When you enter the cemetery you are confronted by Black-anthered Flax Lily Dianella revoluta and Clustered Everlasting Chrysocephalum semipapposum, the latter in flower. The ever beautiful Finger Flower Cheiranthera linearis was in flower at this spot. After that you have to deal with more tall trees.



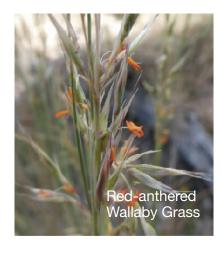
White Box Eucalyptus albens and Red Box Eucalyptus polyanthemos stretching the neck with their overwhelming height. The smaller tree Callitris endlicherithen presented itself for inspection at an easier height.

You then turn to the shrub layer, Varnish Wattle Acacia verniciflua and Sifton Bush Cassinia sifton. There was also Rosemary Cassinia Cassinia quinquefaria and Bitter Cryptandra Cryptandra amara, just to ease the identification crisis that tends to rise over these new places.

There was a whole range of smaller plants, thankfully some of these are quite familiar. Four versions of Lomandra, grasses such as Kangaroo Grass Themeda triandra, Corkscrew Grass Austrostipa scabra, a Wallaby Grass Rytidosperma sp. and Red-anthered Wallaby

Grass Rytidosperma pallidum and right on the ground, Smooth Solenogyne Solenogyne dominii.

On the way out we came to the conclusion that we were looking at Tumbledown Red Gum Eucalyptus dealbata - something really new for the expedition.



Correction

In our last issue, the take home message from Sue McIntyre (in FOG's winter talks and tea) was wrongly worded but corrected in the online edition. It should read "In climate-adjusted provenancing; the 'how' of doing it is critical; and the best places to plant new material are grasslands and woodlands long-unfertilised and dominated by native plants, or eroded areas." For more info and a copy of the related journal paper by McIntyre, S., Nicholls, A. O., Graff, and P., Stol, J. (2018), contact Sue at Sue.McIntyre@csiro.au.



Bioblitz with young rangers, 20 Oct

An almost perfect day greeted the young rangers bioblitzers at Muggangarri Grasslands Reserve on a perfect Sunday morning. The 27 attendees included 12 switched on sub-adults, 10 parents, and 6 presenters.

Apart from the opening and wrap-up plenary sessions, the adults and parents formed into four groups that rotated between presenters. Maree Gilbert explained vegetation structure is monitored over time, Kate Boyd explained feral animal management, Brett Howland showed participants a striped legless lizard and discussed their numbers, behaviour and management, and finally in the floristics group Geoff Robertson showed the variety of plants present, referencing the plants in *Grassland Flora*, while Meredith Cosgrove illustrated, using a metre square frame, how plant coverage is measured. Ranger Craig Wainwright kept time and managed to participate in each group.

Despite the drought, the flowers put on a great display. Each of the younger participants enjoyed the event, asked lots of questions, and went away with a lovely woodland poster.

In 2020, we will examine ways to have more activities aimed at a younger generation. Thanks Maree for organising this event and our presenters, parents and young participants for making the time to be involved.

Fire and koalas prevent FOG trip

FOG called off its weekend trip to Nerriga (15-17 Nov) when we learnt that our hosts Lauren and Norm Booth were caught up by the Taree fires. Lauren later elaborated "I have been promoting and supporting a group called Koalas in Care from Taree, they are a husband and wife team, Paul and Christeen McLeod, who for over 20 years have been caring for sick or injured koalas. They have in care 24 burnt koalas at the moment. It is so heartbreaking. They have assisted us in planting 1000 koala trees on our property near Tinonee. We did 750 back in March and 250 last weekend, that is why we went to Taree. They will harvest leaves off the trees, when they grow bigger, for the koalas they are caring for, and as well the trees will provide habitat in the future. We have quite a few koalas on our property there."

For info on Koalas in Care, and possibly to donate, see: http://www.koalasincare.org.au/pages/contact.htm.

Stirling Park in drought 27 Oct & 24 Nov

Since our last newsletter issue, two work parties took place at Stirling Park - 27 Oct and 24 Nov bringing an end to FOG's work there for the year.

Looking back on 2019, FOG's work with the National Capital Authority (NCA) on its lands proved highly successful, with fifteen work parties, eleven at Stirling Park and four at Yarramundi Reach. In addition at Stirling Park, there was the onsite meeting with the NCA Board in February and three twilight walks led by Sarah Aylott and Jamie Pittock. The key focus for Yarramundi was the Yarramundi Grassland Demonstration Revegetation Project (see page 3).

Each of the Stirling Park work parties covered a range of tasks such as planting, cutting and daubing of woody weeds, removing somewhat intractable weeds such as vinca and ivy, and so on. As the drought has intensified,

drawing water, from the water tank onsite and from Lake Burly Griffin and carrying it to newly planted plants by bucket has been added to the list of priorities.

The project has realised many innovations. One of these has been to protect new plantings from grazing by hungry kangaroos by surrounding plantings with fallen timber and the remains of cuttings. These are illustrated in two of our photos.

Next year, there will be another





round of work parties, another twilight walk and a reptile survey, advertised in our upcoming events.

Thoughts about Deua weekend - Libby Keen

I'm writing this from Canberra in early December. The air is full of smoke, it's very hot, humidity is down to 36%. Not a comfortable place at present but safer than home. The Black Range fire has been contained for the present at the edge of Harold's Cross, a few kilometres from our property. It started on 26th November in the Tallaganda National Park and has since spread across 35,000 hectares. Meanwhile the Currowan fire is approaching Mongarlowe. Our local community has dispersed as the fire comes nearer (except for our brigade members,



about

whom we are anxious). Friends and neighbours along the Shoalhaven Valley are on the alert and eyeing their escape route along the Old Cooma Road. We know that when we return we will find swathes of farmland, grassland and forest necessarily bulldozed and backburnt. Recovery will take a long time.

In these circumstances, looking back on FOG's Deua trip over the last weekend of November (22-4 Nov) feels truly therapeutic. Most of us stayed from Friday evening in comfort at the Deua Tin Huts, hosted by Andy and Clare; others came and went over the weekend. We spent the Saturday at Karen and Michael's beautiful property on the Shoalhaven River; and much of Sunday around Wyanbene camping area, an idyllic green patch of grassland at the foot of a steep forested ridge. Both areas again proved full of interest, yielding plants to add to previous lists, remarkable insects, debatable scats and intriguing rock formations. In both areas we also saw possible remains of huts, tracks and sluices reminding us that they were probably once exploited by settlers and gold prospectors, but have since become rich again in native flora and fauna. At present neither of these places are under threat unless the fire moves south into the Deua National Park

What we also saw on both days was the dry landscape along the valley: hillsides yellow with uncontrolled broom; paddocks bare as bone; the Shoalhaven itself reduced to a series of pools. We know we'll have to live with this environment at least until we have significant rainfall (some say later in the summer) but in the meantime, the memory of a weekend spent in two relatively pristine areas of native flora should help to keep up our spirits and be an important reminder of the land's resilience in the face of destructive impacts. So again a big thank you to FOG organizers and experts, and to our hosts Andy and Clare and Karen and Michael, for an especially rewarding and well-timed weekend.

There will be a full item on our Deua weekend next issue.

Stirling Park wildlife spotlighting walk 16 Nov - *Andrew Zelnik*

On a warm Saturday evening, FOG conducted another wildlife spotting walk at Stirling Park (Gurubung Dhaura) attended by 10 people, including FOG members, family and friends. Again our intrepid leaders were Sarah Aylott and Jamie Pittock. As Geoff Robertson noted for the October visit (in our previous issue), woodland at night with spotlights offers a different experience and sense of adventure. While we are always looking to add to records of Stirling Park's biota, on this occasion and as with our previous walks in March and October we were particularly keen to address gaps in fauna data for vertebrate species including mammals, reptiles and frogs, and invertebrate species including arthropods (e.g. insects, spiders, centipedes, millipedes, scorpions), molluscs (e.g. snails), annelids (e.g. earthworms), and nematodes.

Among sightings of our eagle-eyed spotters were a pair of magpies (an adult and juvenile) initially greeting us, nesting Galahs, an abundance of spiders (on the ground and in trees), a Bark Cockroach Calolampra sp., a Marbled Scorpion (Lychas marmoreus), a roosting Noisy Miner, the ubiquitous presence of Common Brushtail Possums, and a Sugar Glider (possibly one of the pair we saw in March). The spiders spotted included a redback, wolf spider (at least two species), trapdoors, and huntsman. Also flying overhead on a mission, high above the tree tops, we spotted what looked like Greyheaded Flying Foxes (a listed threatened species nationally and in NSW) and Little Red Flying Foxes. To see what we've found and other flora and fauna sightings go to Canberra Nature Map https:// canberra.naturemapr.org/ and type Stirling Park wildlife into the search box.

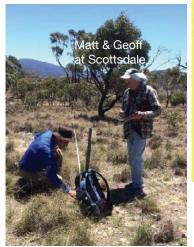
Top four spotlighting photos by Andrew Zelnik, Steve Harrison and James Milligan. Scottsdale photo by Linda.











Scottsdale Monitoring 13 Nov - Linda Spinaze

Only a select few volunteered for the FOG monitoring day at Scottsdale on Wednesday 13 November, but it was an enjoyable and productive day. The "old hands" (Margaret Ning, Geoff Robertson, John Fitzgerald, and myself) welcomed our newest recruit Libby McCutchan, who did a fabulous job in assessing the vegetation.

Matt Appleby, the ecologist from Bush Heritage, took us through the process first, and we then split into 2 groups to monitor the 20 sites. We have monitored these sites now for 4 years, so the vegetation changes are becoming more evident.

It appears that some of the African Lovegrass is succumbing to the low-dosage flupropanate that was sprayed by helicopter 4 years ago, but some of the ALG is not responding at all. Matt's theory is that there are two different species of ALG in the area, one of which is susceptible to the flupropanate, and one which is resistant.

It was noticeable that there were fewer forbs and healthy grasses this year, with many grasses appearing very "crisp", due to the very dry conditions.

At the end of the day Matt suggested that we don't need to monitor these particular sites next year, although it would be good to do them in 2 years' time. So next year we may do something a bit different, possibly assess the survival rate of the various native plants in the scraped areas.

Thanks again to the team, and to Phil for providing some delicious sandwiches for lunch.

One way to give at Christmas and support FOG's small grants program is to make a tax deductible donation, either with your membership renewal (see membership form on website or email membership@fog.org.au) or separately, any time, direct to the FOG Public Fund.

Donations of \$2+ are tax-deductible and are used to support FOG's small grants program and other supported projects.

For direct donations only:

Direct debit: BSB 633 000, A/c 15349360 (Bendigo Bank), with your name in the reference box, & tell the treasurer by email to treasurer@fog.org.au.

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

Farewell to York Park 2 Nov

Nine FOG members joined about 20 other mourners to attend a picnic to Farewell York Park, arranged by Fiona Game, coordinator of Friends of York Park. The mood was good with a touch of sadness on a lovely spring day, with many showy wild flowers and darting Golden Sun Moths, a new experience for many attendees.

Fiona amended the York Park Conservation Sign adding a press release and a red "cancelled". She also circled the words "the Commonwealth's obligations and responsibility for the maintenance of biological diversity" and "the project demonstrates that biodiversity conservation is possible in the midst of urban development", and references to the ACT Wildlife Research Unit and CSIRO contributing to "understanding and conservation of the site" and that the male GSM population was increasing.

David Wong closed the wake with his song, a GSM tribute.

Photos show images of David and Fiona and a male Golden Sun Moth.

FOG advocacy -Naarilla Hirsch

At the time of writing, there are several submissions in the pipeline which will be summarised in our next issue.

October - not reported previously The NSW Department of Planning and Environment put the main works for Snowy 2 out for comment. FOG reiterated its view that no development that has an impact on threatened grassland species and ecological communities should proceed. It went on to argue for a strategic assessment of the environmental impacts of the whole project rather than the current piecemeal approach. Also before any approval is granted, the offsets strategy should be both determined in some detail and expanded in its value to ensure that, in the long term, there is no net loss of impacted grassland and sphagnum moss threatened communities, and





All these activities recognise the Commonwealth's obligations and responsibilities for the maintenance of biological diversity. The project demonstrates that biodiversity conservation is possible in the midst of urban development.

CityScape Services, the ACT Parks and Conservation Service (Wildlife Research Unit), and the CSIRO Division of Entomology have been major contributors to the understanding and conservation of this site.

Surveys have shown that the Golden Sun Moth is being successfully maintained on this site with the numbers of male moths gradually increasing.

species occurring within these communities. The NSW Government needs to establish a trust fund to manage the offset monies in perpetuity, with compulsory annual additional contributions from Snowy Hydro to this fund to cover ongoing impacts, monitoring of the project impacts, and further offsets if the original offsets are not completely effective.

November

The Australian National Audit Office is undertaking an audit of referrals, assessments and approvals of controlled actions under the Environment Protection and Biodiversity Conservation Act 1999. In relation to the question about government, FOG drew attention to the formulation and decisions about appropriate offsets occurring behind closed doors, and also expressed concerns about the process when the Commonwealth government is both assessor and beneficiary. With regard to the question about efficiency and effectiveness of the process, we drew attention to the difficulty a volunteer has in formulating a considered submission when the comment period is only 14 days. FOG also asked for more strategic assessments rather than multiple referrals concerning a particular threatened species or ecosystem within the same area. Other concerns we expressed included compliance with approval conditions, lack of evidence showing that any offset for a grassy ecosystem or species has actually resulted in no net loss of the threatened species/ community post construction, and lack of funding for the department to monitor conditions of approval and offset outcomes.

December

The draft Variation to the Territory Plan to designate Franklin Grasslands as a nature reserve was put out



for comment. FOG supported this and took the opportunity to explain our vision for the site.

FOG made several comments about the discussion paper for the review of the Tree Protection Act 2005. In particular, FOG supported the proposal to establish a tree fund and suggested it include replacement of invasive species (e.g. Cootamundra wattle, exotic species) adjoining nature reserves and other conservation areas. FOG also supported the proposed

system whereby when a tree is removed, a replacement tree or trees are planted on the same block or in the local area, but pointed out that, where this is on or nearby areas of conservation values, the species chosen should be compatible with the natural values of nearby reserves or open space and should take into account possible connectivity between reserves and other urban open space with conservation values.



Legless Lizard, Perunga Grasshopper, Ginninderra Peppercress and provides foraging habitat for the Superb Parrot. FOG has been a strong advocate for creating the reserve as a place of research. education and recreation putting the conservation values first and

foremost.

The full text of FOG submissions appears on our website.

Other FOG news

Hall Cemetery - John Fitz Gerald

FOG held four work mornings in the Hall Cemetery Woodland over 2019. Sixteen people attended one or more of the sessions - a total 110 volunteer hours.

The work focus was consistent with that from recent years, although the lack of regular rain over two years has meant that the woodland is now unusually lightly covered. Impacts are also noticeable from a small but hungry kangaroo community that shelters amongst the trees, and from a growing number of rabbits. Most of our weed-control efforts this year went to reducing exotic Plantain, Phalaris and other exotic grasses, Prickly Lettuce and Cleavers, though some action was also required on Capeweed, Spear Thistle and Vicia. Past successes on woody shrubs including Briar Rose and Hawthorn have meant little effort has been needed here, and similarly for Blackberry vines.

Unfortunately, when FOG works on understorey, we look up in concern that the tree canopy continues to struggle with many mature Blakely's Red Gum showing advanced dieback, and its young regenerating plants suffering extensive damage from Lerp activity. Some large woody debris was carefully placed into the woodland during the year when the authorities cleared some large dead Eucalypt trunks from amongst the gravestones.

The wildflowers in the cemetery area were held back by lack of winter rain, but we did enjoy a reasonable display in early October. Unfortunately we understand that the Tarengo Leek Orchid, monitored in the cemetery by ACT government ecologists, did not flower at all here in 2019. ABC TV, Win News and the Canberra Times attended the announcement at which Suzanne Orr, Thea O'Loughlin (ACT ESPDD ecologist) and Geoff Robertson (FOG) were interviewed. FOG has since put in a submission supporting the Grassland becoming a reserve.

Franklin Grassland to become a reserve 19 Nov

Suzanne Orr MLA announced a proposal to create

end of Franklin Grassland. As she stated, the 20 ha

Franklin Grassland supports both Natural Temperate

Grassland and Golden Sun Moth, along with a small

also home to populations of the threatened Striped

Franklin Grassland as a reserve, standing at the northern

patch of Yellow Box and Red Gum Grassy Woodland. It is

Coverage of the event was reported in the CT (https:// www.canberratimes.com.au/story/6500112/new-franklin-grassland-astronghold-for-threatened-native-species/?cs=14264), on ABC ACT News for that night and Win News.

Info@fog.org.au

Our info@fog address receives guite a few inquiries and we answer them as best we can. Recently, we received the following "I have been enjoying learning from your FOG website. A caring architecture, easy to navigate and bulging with information. I am trying to become literate in Grasses of the Central Tablelands of NSW. Might you know of a similar, expansive web-site (like yours) for this area, please? Most grateful. Keep up the good work!" Rummaging around, FOG came across Common Native Grasses of the Central West published by LLS. It is an excellent document and it is free. (see https://

centralwest.lls.nsw.gov.au/ data/assets/pdf_file/0007/567628/nativegrasses-guide.pdf)

Other grassy news

ACT Woodland Strategy released 12 Nov

FOG was represented at the release of the 2019 ACT Native Woodland Conservation Strategy. FOG made a substantial submission on the draft, and is pleased with the outcome. FOG members are aware of the size, connectivity, diversity and habitat values of the woodlands and the importance of a strategy that will guide their management for the next ten years. The

strategy also includes action plans for five threatened species including three orchids. Download here.

Rainer Rehwinkel a winner 17 Nov

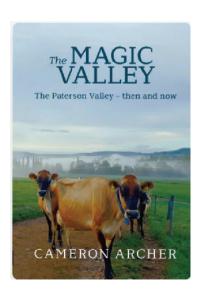
FOG attended Landcare ACT Awards at the historic 'Lambrigg' property. The Australian Government Individual Landcarer Award went to our Rainer Rehwinkel for his many contributions to Natural Temperate Grasslands – congratulations Rainer. The Australian Community Media Landcare Community Group Award went to Red Hill Bush Regenerators. Congratulations Red Hill Regenerators who are great example of landcare.

Jackson Taylor-Grant received the Indigenous Land Management Award, while the Austcover Young Landcare Leadership Award went to Dhani Gilbert whose long list of achievements was truly amazing. Both are Wiradjuri.

The ACT Parks and Conservation Service and ParkCare Volunteers and the ACT Young Rangers Club also received awards.

Cameron Archer - the Magic Valley

Cameron Archer, a FOG member and the author of many books and articles, in his latest book shown here describes a detailed study compiled over 40 years living and working in the Paterson Valley. He analyses the human-environment relationship, starting with the impacts of Aboriginal land management and how this unwittingly benefitted the invading Europeans and their



herds and flocks. His book is based on his PhD research on the Paterson Valley including many interviews of long time residents and his own experiences.

Cameron has spent his life immersed in agriculture and the natural environment, growing up on a farm, attending an agricultural high school, taking an ag. science degree (Sydney University) specialising in botany and plant ecology, working in northern

Australia as a research/extension agronomist and then spending his career in agricultural education. Currently, he is Chairs of the Belgenny Farm Trust and the Primary Industries Education Foundation Australia. He has overseen a diverse range of educational programs and the extensive 2250ha farm enterprises, from which he learnt about vocational education, and undertook post graduate work and a PhD.

We quoted Cameron on page 2.

More information about Cameron, his latest book and other writings mat be found at https://cameronarcher.com.au/.

Monaro lovegrass study 19 Nov

The Snowy Monaro Regional Council published details of a Monaro African Lovegrass Study undertaken Sydney University PhD student Jed Brown. The objectives are first to understand the drivers (including plant community characteristics, soil properties, climate, management history, and landscape attributes) of why and where ALG is spreading across the Monaro. Ultimately he hopes this will gain insight in better management of ALG. He would like to contact Monaro landholders who have no infestations, high conservation native grassland, improved pasture system or monocultures of ALG.

Contact Jed (jed.brown@sydney.edu.au/043 223 1823) or Lachlan (Lachlan.ingram@sydney.edu.au/045 876 7677).

Grassland spring flowering

Our grasslands and woodlands this spring have put on a good flower displays this spring showing their resilience, despite the "drought". Blake Foder reported on the resilience of native wildflowers in Canberra despite the drought (Canberra Times 27 Oct). She included a photo of Brett Howland, looking as resplendent as the flowers, and quoted him extensively. He said that Kama and Mulanggari Nature Reserves both had nice flower patches. He pointed that wildflowers had respond well to use of fire by the Indigenous Murumbung rangers.

Victorian grasslands also had a good year (see Margaret's article p10). A tweet from leading grassland ecologist John Morgan with photo below states "a magnificent grassland on frequently burnt roadside in Western Victoria by the local rural Fire Brigade." Separately, John confirmed to FOG the site is in Wickliffe. Many FOG members will recall this site which FOG visited in 2018.

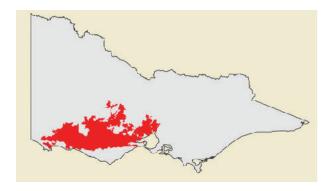


While speaking of flowers, David Eddy's photos of Monaro grasslands landscapes and closeup of their flowers are always a treat. Some may be found in *Native Monaro grasses – part of a dry farming future* by lan Campbell (1 Nov 2019) in "About regional" (https://aboutregional.com.au/native-monaro-grasses-part-of-a-dry-farming-future) where David discussed his view of the future of native grasses in dry farming. David is a Senior Land Services Officer, SE Local Land Services.

Other grassy news items continued on page 15.

Victorian Volcanic Plains - A traditional Plains weekend - Margaret Ning

I think I can call something 'traditional' if we have done it on three occasions, and 19-21 October's Victorian Volcanic Plains (VVP) weekend is the third that I and some other FOG members from Canberra and Melbourne have attended. The VVP grasslands have many plants in common with Canberra's regional natural temperate grasslands, but with a few other special species, and some stunning volcanic geography, thrown in for good measure. After previous weekends away to the Camperdown and Heywood areas on the VVP, this time we were headed for Mooramong Homestead, not far from Skipton. The VVP area is in red to the west of Melbourne, on the map below (source *Plant Victoria* https://vicflora.rbg.vic.gov.au/flora/bioregions/victorian-volcanic-plain).



Friday

Michael Treanor, Di Chambers and I headed off to Skipton with some planned floristic stops in mind. We had a couple of warm-up roadside stops that yielded an abundance of, not-yet flowering, Blue Devil *Eryngium ovinum* and Lemon Beauty-head *Calocephalus citreus*.

Then there was the highlight for the day of the rather sizeable Rokewood Cemetery with its impressive native grassland signage and serious fencing. Outstanding sightings included monstrous Onion Orchid Microtis sp., Sun Orchid Thelymitra sp., more Golden Moth Diuris sp. than I have ever seen, numerous Grass Lily Caesia sp., Chocolate Lily Dichopogon sp., Twining Fringe Lily Thysanotus patersonii and finally Yellow Rush-lily Tricoryne elatior. Milkmaid Burchardia umbellata was not as numerous as the other lilies, but was certainly as widespread and 'obvious', and there were many, many more that had not yet flowered. Blue Pincushion Brunonia australis was my personal favourite, despite it not yet quite flowering. Others flowering included Sundew Drosera peltata. Creamy Candles Stackhousia monogyna, Scaly Buttons Leptorhynchos squamatus and I saw more Button Wrinklewort Rutidosis leptorrhynchoides than I have seen concentrated in one space. And did we see the endangered Matted Flax-lily Dianella amoena? Probably not, but it was exciting to speculate. Sadly, and there is always a 'sadly' these days as one explores our grasslands, Onion Grass Romulea rosea and a very large exotic Oxalis were making

significant inroads everywhere. I pulled some Watsonia in

a token gesture, and also sighted the South African orchid that haunts these parts.

Our last stop for the day was a tiny roadside corner that featured a 'significant native vegetation' sign. We had glimpsed white and yellow flowers and found our first Hoary Sunray Leuchrysum albicans and Common Everlasting



Chrysocephalum apiculatum,

more of Lemon Beauty-head and a crazy small glaucus Lomandra we couldn't find in our field guides. Its flower stem was disproportionally long for its leaves. (To be pursued...) Myriad sundew, sedges and rushes indicated that the site was periodically inundated. Sadly, again, the Onion Grass and oxalis were conspicuously there.

It was an eventful trip into the state's basalt grasslands, past paddocks with past and recent rock piling operations, witnessing huge 20 ton excavators at work in a shameless de rocking process, presumably to be laser levelled and cropped, with occasional wind farms, under construction, thrown in for good measure.

The lowlight occurred when we overtook a cement truck on a gravel road and sloshed water up into the face of the driver as we passed. Oops!

Mooramong turned out to be an amazing old homestead that has been a National Trust property since the mid 1970s. https://www.nationaltrust.org.au/places/mooramong/ The property was just like they left it in the early '70s. Nothing but the best!!! Our FOG group of five



stayed in Stockman's Cottage on the property while the others stayed in the shearer's quarters. We all slept well on our Friday night there, and appreciated the heater, given that it was pretty cold outside.

Saturday

After a tour of the imposing homestead on Saturday morning we had lunch alongside the swimming pool, but given it was a very cool weekend we remained totally

rugged up in our cold weather gear, and no-one was tempted to take a dip.

On Saturday afternoon we moved to an area of the property to hear from Dave Williams from Zoos Victoria re the training of Maremma sheep dogs to look after critically endangered Eastern-barred Bandicoot that will be released in a protected area on the property. (https://www.abc.net.au/news/2016-11-11/maremma-sheepdogs-guard-the-endangered-eastern-barred-bandicoot/8012560) Lots of trial and error so far, looking for a way to essentially change fox behaviour rather than try to eliminate them. The idea is to get the foxes to travel across the property and not to linger. A long long discussion ensued, and glancing around us in the paddock, I couldn't see a native plant to bless myself with!!

Then we moved on to the so-called 'reserve' on the property, and at first sight we didn't think there would be anything worth looking at in the phalaris understorey. However we found around half a dozen native species planted some time in the past, including Common Everlasting, Common Buttercup Ranunculus lappaceus, Bulbine Lily Bulbine bulbosa, and Tussock Poa labillardierei all flowering, with Blue Devil and Lemon Beautyhead not yet flowering. Some original Wallaby Grass Rytidosperma sp., Kangaroo Grass Themeda triandra, native geranium Geranium sp. and Variable Plantain Plantago varia hung on. The true highlights were sighting a brown-coloured snake in the grass (probably a Lowland Copperhead) as well as a blotched blue tongue lizard, both rather sluggish in the cool weather.



We then headed off on a walk to find some Australian Anchor Plant *Discaria pubescens* that had been seen on the property some years earlier. While we failed to find any sign of the Anchor Plant, we did make some interesting discoveries, including an amazingly imposing Tree Bursaria *Bursaria spinosa* and a lovely orange lichen.

The next activity was some tile lifting on another part of the property. The tiles had been put out years earlier and yielded ants, ants, grubs AND THEN another brown-coloured snake, subsequently identified as a Lowland Copperhead. Next was a very impressive bird hide, back near the homestead. We added a Musk Duck and Black Swan with offspring (a day or two old and apparently not normally seen at such an early age) to the

pair of Brolga seen on the property earlier. Horseshoe Lagoon and all waterways on the property were the fullest they have been since 2011.

We were sprinkled on a little throughout the afternoon as we set about the various activities, and it was good to get back to the shearers quarters for happy hour, our evening BBQ meal and general socialising with the other dozen in our group.



Sunday

On Sunday morning we tidied up our luxurious Stockman's Cottage and proceeded to the shearer's quarters to make our lunches. We sorted ourselves with UHFs (10 vehicles after all, with 5 UHFs) and began the thirty minute drive to a private property, near Dundonnell. Tiverton Station in Western Victoria, which is also involved in the Eastern-barred Bandicoot project.

We found out why the vegetation was looking so good as apparently that part of Victoria is having at least an average season compared to everywhere else I have been lately. So many filled lakes! We arrived at Tiverton and were immediately invited to a fabulous morning tea and garden viewing! Manager Tim Hill provided us with lots of background info on the bandicoot project, and then we carpooled to a distant paddock to do some weeding of an earlier shrub/tree planting. In the course of things we noted half a dozen or so native species were present with *Rumex dumosus* being the highlight. Then back to the house for our lunch where we were fully briefed on exactly what was happening on the property re the Eastern-barred Bandicoot releases into the newly fenced off grassland area of around 1000ha.

We had grassland experiences on roadside stops travelling to Tiverton and afterwards. Much of the area was a waterlogged environment with the lakes in the area being full and many of the roadside verges being ankle deep in low-lying water. There were water birds in the lakes and small inundations. At one spot I saw more Small Vanilla Lily Arthropodium minus than I've ever seen in my life, and they were generally over 12 inches tall. And it had been a long time between drinks for me with Drumstick Pycnosoros globosus, with us seeing masses of them over a meter high at regular intervals along some of those wet roadsides. In one spot where we pulled over, Drumstick and Bulbine Lily were putting on a lovely show, as were big fat Yam Daisy, Microseris sp., two Blue Devil species, Eryngium ovinum and Prickfoot E. vesiculosum, and the list went on...... We were dragged kicking and screaming from the site, and Michael

Continued on page 15.

Close-up: A culmination of carexes John Fitz Gerald

Carexes grow in many places in grasslands and grassy woodlands, not just the wetter areas where sedges

should be expected. I've chosen three 'common' sedges that can be found in the ACT, two of them from FOG worksites Yarramundi Reach and Hall Cemetery.

Carex appressa is considered native to the SW Pacific in general and in Australia to the SE mainland corner. It abounds in parts of Hall Cemetery woodland. Plants are large with leaves and culms to 1 metre long. Flowering structures are mostly near the culm tip. A close look reveals many fascinating details. My first image (pic1, scale bar 1mm) shows many feathery stigmas from a female inflorescence ready to receive pollen. My next image (pic2, scale also 1mm) is of brown fruit shaken from a matured inflorescence - each features a distinct beak and obtuse base. This is not the true nut (or seed) of the plant - my third image is an x-ray of two fruits (pic3, scale 0.2mm) - the faint outlines correspond to the brown shapes in pic2, with the denser white feature being the smaller nut inside a thin sac.

Carex breviculmis grows across SE Australia, mostly within 300km of the coast, and Tasmania. It is at home in quite dry areas and is a small plant (10cm) exposed between grass tussocks such as in the dry Yarramundi Grassland. In this species, flowers are held not far above the base of the plant amongst the leaves (pic4), hence the 'brevi' prefix. Close examination of flowers at the pollination stage will show inflorescences with a male spike at the culm tip and female spikes lower down (pic5); the white feathery stigmas can be seen towards the base of this image, yellower anthers towards the top.

Finally Carex bichenoviana. Those knowing the EPBC document protecting the critically-endangered Natural Temperate Grassland of the SE Highlands will recognise this name. A decision flowchart for NTG assessment includes sites where this Carex is dominant, even without Themeda being present, so it is a species of some importance. C. bichenoviana occurs in areas that are seasonally damp across SE Australia and Tasmania, and in ACT occurs at least along Ginninderra Creek and Molonglo River. It characteristically has leaves up to 30 cm long that curl when it dries out after the growing season (pic 6). Flowers again are relatively low in the plants and feature male spikes held above females,

and at pollination stage show anthers and feathery stigmas (pic 7 - white stigmas exserted from spike shown in left half, anthers shown at right with small yellow pollen grains visible near the photo base). I prised some fruit from a mature spike (pic 8, scale 1mm) for a

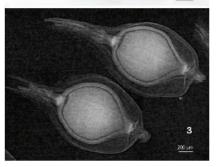
micrograph of a spike with bract at base, and separated fruit above, each with dried stigmas still evident.

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/. The x-ray image was also acquired at the Seed Bank in a facility set up in 2018 to routinely assess quality of seeds collected for long-term banking. Thanks to the National Seed Bank for permission to publish.

Sources of information include Atlas of Living Australia www.ala.org.au.













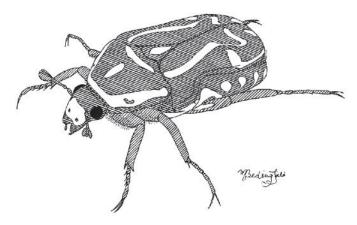




Native Blackthorn & Fiddler Beetle plus Spotted Flower Chafer & other insects - Michael Bedingfield

Native Blackthorn Bursaria spinosa has thorny branches and often has a black fungus growing on those branches, sometimes covering them extensively. Its other name of Sweet Bursaria is very appropriate and in the summer months it flowers profusely giving off a very sweet fragrance. It is a common shrub in grassy woodlands on the Southern Tablelands. Many insects are attracted to feed on the nectar-laden flowers including the Fiddler Beetle, the Spotted Flower Chafer and Pintail Beetles. Native Blackthorn goes by the scientific name of Bursaria spinosa. The flowers are white with five petals and the leaves are grey-green, up to 40mm long and 3-12 mm wide. The fruits are shaped like a tiny purse and thus the species name. When the fruits have dried out they open upwards with the seeds resting loosely inside the seedpods waiting for something to give the branches a shake and catapult the seeds away from the parent plant.

The Fiddler Beetle Eupoecila australasiae is a large flower chafer. Flower chafers are scarab beetles belonging to the subfamily Cetoniinae from the family Scarabaeidae. They often have striking enamelled or metallic colours. The Fiddler Beetle is glossy dark brown in colour with very distinctive bright lime green to yellow markings. The pattern on its back resembles the shape of a violin. The body length is about 20 mm and I have provided a drawing of the beetle for illustration. After breeding in summer or autumn the females lay their eggs in rotting logs or in the soil or debris near them. The eggs hatch into larvae that are white grubs. The grubs feed on the rotting timber and when mature enough they pupate in a cocoon-like chamber within the rotting wood. The adults emerge in summer and feed on flower nectar and pollen. and may browse the petals. They are common in eucalypt woodlands and heath in the Australian states of NSW, Queensland and Victoria and in south-eastern South Australia.



The Spotted Flower Chafer Neorrhina punctatum is also known as the Punctate Flower Chafer. The wing covers and thorax are brownish-yellow with large black spots and red or brown legs. The photo I've provided shows it busy feeding among a dense cluster of the flowers of a

Native Blackthorn bush. It occurs in woodlands and other habitats in eastern Australia from north Queensland to southern Victoria. It is 14-20 mm in body length and has similar habits to the Fiddler Beetle.



There are lots of other insects that are attracted to Sweet Bursaria when it is flowering, including other beetles. I've spotted two species of Pintail or Tumbling beetles feeding on the flower nectar, *Mordella dumbrelli* and *Hoshihananomia leucosticta*. These are small beetles about 10mm long with black and white colouring and an interesting pointed tail. The photo given is of the *Mordella dumbrelli*, also feeding on Sweet Bursaria flowers. When alarmed Pintail beetles curl up and tumble to the ground to hide. Another beetle I've found is the Tiger Longicorn Beetle *Aridaeus thoracicus*, which is black and orange in colour and has antennae that are very long, about the same length as its body, that is about 20mm. I've mentioned these species of beetles because they are relatively easy to identify.



Wasps are also attracted to the fragrant flowers including the Two-spot Hairy Flower Wasp, *Laeviscolia frontalis*, and nectar eating Orange Spider Wasp, *Cryptocheilus bicolor*. But even when the shrub is not flowering there may be insects to find. If you look closely you may also see the Blackthorn Felted Scale *Phacelococcus bursaria* clinging to the branches. The Banded Sugar Ant

Continued on page 15.

Royalla Wander -

and identifying Native Picris - Margaret Ning

Fifteen participants, including six FOG members, assembled for our Whisperer Place Reserve afternoon walk, with perfect weather for company. The area in which we walked is Council land that was set aside as a reserve when Royalla Estate was developed. The reserve occupies a riparian zone with very deep gullies being a feature. There are extensive open patches of forb-rich grassland, and the woodland areas are dominated by tall and spreading Apple Boxes *Eucalyptus bridgesiana* and Candlebarks *E. rubida*. There are also smaller patches of Snow Gum *E. pauciflora* and Black Sallee *E. stellulata*.

A flowering grove of Sweet Bursaria *Bursaria spinosa* near the entrance gate set the positive tone for the whole of the walk. We then passed a few Sticky Hop-bush *Dodonaea viscosa*, looking very attractive in full fruit, and although it was very dry we could see some splashes of colour ahead of us.

Almost immediately we saw a couple of flowering specimens of our target, the Mountain Picris *Picris angustifolia* and the cameras started snapping. The text box below and photos illustrate how to identify it. All in all, on our two and a half hour walk, we would have spotted one hundred picris plants, around 20% of which were flowering. A very healthy population indeed!

The colourful flowering also included lots of Scaly Buttons Leptorhynchos squamatus, Curved Riceflower Pimelea curviflora, Grey Guineaflower Hibbertia obtusifolia, a bluebell Wahlenbergia sp., Clustered Everlasting Chrysocephalum semipapposum, Native Bindweed Convolvulus angustissimus, a hairless woodland speedwell Veronica sp., a native geranium Geranium sp, Common Buttercup Ranunculus Iappaceus, a wood-sorrel Oxalis sp., Small St John's Wort Hypericum gramineum, Hairy Cut-leaf Daisy Brachyscome rigidula, Heathy Bush-pea Pultenaea procumbens, Common Everlasting Chrysocephalum apiculatum, Billy Buttons Craspedia variabilis, Bulbine Lily Bulbine bulbosa, Sticky Everlasting Xerochrysum viscosum, Austral Bugle Ajuga australis, Rock Lily Bulbine glauca, Swamp Isotome Isotoma fluviatilis, Dwarf Milkwort Polygala japonica, Native Violet Viola betonicifolia. Small-fruited Hakea Hakea microcarpa, Slender Speedwell Veronica gracilis, Common Woodruff Asperula conferta, Woolly New Holland Daisy Vittadinia muelleri and Narrow-leaved New Holland Daisy V. gracilis. Less colourful, but also flowering were Variable Plantain Plantago varia, Sheep's Burr Acaena ovina, Stonecrop Crassula sieberiana,



Identifying Mountain Picris
Mountain Picris is identified by
its yellow flower on multiflowered stems, leaves that are
upright and hairy, a hairy
flower stem, and its height
which may be up to two-thirds
of a metre tall. Photo one
shows the whole plant, photo
two its yellow colour, photo
three its basal leaves and the
fourth its long bracts.

and Cotton Fireweed Senecio quadridentatus. And apologies for not listing the many flowering grasses! Common Hovea Hovea heterophylla and Small-leaved Clematis Clematis leptophylla had already flowered. Significantly, many of the wet-area flora species occur in an area of several hectares likely to be a natural grassland.

I am thinking that that is a pretty amazing display for such a dry year. The highlight was the Dwarf Milkwort, of which we see very little in the best of circumstances. A mini highlight was all five local *Lomandra* species growing at the site, which is possibly a first for me to see.

We were led by Rainer
Rehwinkel who discovered the
Picris here last year. He also
gave us a mistletoe lesson,
complete with discussion of
'hemiparasites' and the role of
the Mistletoebird. Bird
highlights included Grey
Fantail, Yellow-faced
Honeyeater, Brown Thornbill,
Grey Shrikethrush and Rufous
Whistler.

Sarah spotted a huge wombat down in the water course, and it was sufficiently far away to feel secure enough to continue going about its business. There were no reptiles to be seen, however.

Royalla Landcare, led by Maryke Booth, have erected Sugar Glider nest-boxes in some eucalypts within the reserve. The reserve does have a significant management problem in the form of a large and rapidly eroding gully, which Maryke informed us is currently being funded for remediation by the Council.

The reserve is easily accessed off Whisperer Place, by a gate into the reserve just beyond the roundabout near the end of that cul-de-sac.

Victorian Volcanic Plains continued from page 11.

had to promise we could go back 'tomorrow'. It was serious 'died and gone to heaven' territory in terms of it being a rare event these days for such fabulous flowerings to occur!

Next was Woorndoo Common, which is an iconic grassland name I have come across many times over the years. From the side of the extensive common, we could see multiple patches of yellows, blues, whites,In flower were Sundew *Drosera peltata*, more Milkmaids than I have ever seen, impressive shows of Creamy Candles, Cut-leaved Goodenia *Goodenia pinnatifida*, Sun Orchid, silver Common Everlasting, Golden Moth, Chocolate Lily, Onion Orchid, Bulbine Lily, Scaly Button *Leptorhynchos squamatus*, Pink Bindweed *Convolvulus angustissimus*, Bluebell *Wahlenbergia* sp., and one that set the onlookers chattering, Clover Glycine *Glycine latrobeana*.

If it wasn't flowering it didn't get a geurnsey in my list above, but there were some other interesting species present, viz., the obviously larger leaves of *Drosera whittakeri*, and occasional Blue Devil.

Obvious grasses included Wallaby Grass, Kangaroo Grass, Plumegrass *Dichelachne* sp. and Blown Grass *Lachnagrostis filiformis*.

A weed that was surprisingly all over the common was Bartsia *Parentucellia latifolia*, and there wasn't, it looked like, a square metre that didn't have at least one of the red-purple plants. The South African feral orchid was once again present.

Finally, at a roadside stop where Paul Gibson Roy has been working for a few years, we saw very impressive looking results from plantings put in a mere two years ago, and a bare adjacent patch which was only planted a couple of weeks ago. We mused as to whether some species were planted or fortuitously there?

Then we drove to our evening resting place at the Mount Elephant Hotel for a rather posh and filling meal of falling-apart roast lamb and tiramisu. For some there was a hotel room, but for three of us it was a change of status as we retired to our tent behind the hotel.

Native Blackthorn & Fiddler Beetle continued from page 13.

Camponotus consobrinus sometimes comes along and may be seen attending to the scale insects. On one occasion I also saw several Black-headed Bull Ants Myrmecia nigriceps waiting around to ambush the sugar ants. They were capturing the smaller ants in their large jaws and carrying them off to their nest.

All the species mentioned here can be viewed on Canberra Nature Map. You can find them by keying in the species name to the "Quick Search" box. The Native Blackthorn is ecologically important and I have found it to be an interesting subject to investigate. When I take a closer look I am sometimes surprised at what I find. *References:*

 $\frac{https://bie.ala.org.au/species/http://id.biodiversity.org.au/node/apni/7743730}{}$

https://bie.ala.org.au/species/ urn:lsid:biodiversity.org.au:afd.taxon:16e5246e-995a-4b8e-893 0-c1196bbb78da

https://australianmuseum.net.au/learn/animals/insects/punctate-flower-chafer-beetle/

Other grassy news continued from page 9.

Drone survey for CNG

In response to a FOG query about an ACT Chilean needle grass drone survey in remote areas (Steve Taylor, Facebook 20 Nov), Ranger Pat Harvey replied "we stitch images together on the computer after doing a grid based survey, capturing 100s to 1000s of images, then we use machine learning to identify areas of interest, or manually look for different colours of green." Fascinating.

Golden Sun Moth in Haig Park

Golden Sun Moth appear to have had a good season this year and unexpected turned up in an OzPollinators wild pollinator count in Haig Park. FOG is following this up.

Claims that Roundup is carcinogenic

FOG, as a user of Round-up (glyphosate), is following the claim that it is carcinogenic. Ted William claims that such claims are simply "misinformation about one of the safest herbicides ever produced" His article is worth a read.

(see https://slate.com/technology/2019/10/glyphosate-does-not-cause-cancer-saves-native-plants.html? fbclid=lwAR3rkNp_Nrob1sqH0jEBIhMzuW-L12go0JI6nix-CGuQEcZrf35SAeVPKgo.)

IAE Award to Kyle Hemmings

In our last issue we ran an item on Kyle Hemmings and his FOG supported project. It was also mentioned that he received the award for the best 'Flashtalk' at the recent international Ecology and Management of Alien Plant Invasions conference in Prague. On 6 Dec, Kyle received the Institute of Applied Ecology (University of Canberra) Award for his "outstanding service to the student community". His citation was truely impressive.

Soil moisture sensors

Dr Richard Stirzaker's (CSIRO) recent presentation on measuring soil moisture may have potential lessons for grassy conservationists. Irrigators need to know exactly when to turn taps on and off. Dr Stirzaker and his team have developed low cost soil moisture sensors, linked to mobile phones, that are being used in several African countries. Sensors placed at different soil levels provide real-time information to indicate the moisture content of the soil. This information allows irrigators to provide just the right amount of water to crops. Sensor data are transferred to a database in Canberra. The system may one day be used in Australia as well. If you are interested in this gadget for your own garden, the sensors can be bought on the VIA website. (source: (Arnold Dekker, in Sutton Chatter)

In this issue -

FOG celebrates 25 years (p1)

Advocacy - Naarilla Hirsch (p7)

Upcoming events (pp 1,2 & 3)

Roundup of FOG events: Yarramundi Grassland Demo Reveg Wrap-up (p3), Frogmore Cemetery - Alan Ford (p4), Bioblitz with young rangers (p4), Fire and koalas prevent FOG trip (p4), Stirling Park in drought (p5), Thoughts about Deua weekend - Libby Keen (p5), Stirling Park wildlife spotlighting walk - Andrew Zelnik (p6) Scottsdale monitoring - Linda Spinaze (p6) and Farewell to York Park (p7).

Other FOG news: Hall Cemetery - John Fitz Gerald (p8), Franklin Grassland becomes a reserve (p8) and info@fog (p8).

Other grassy news: ACT Woodland Strategy released (p8), Rainer Rehwinkel a winner (p9), Cameron Archer - the Magic Valley (p9), Monaro lovegrass strategy (p9), Grassland spring flowering (p9), Drone survey for CNG (p15), Golden Sun Moth in Haig Park (p15), Claims that Roundup is carcinogenic (p15), IAE Award to Kyle Hemmings (p15) and Soil moisture sensors (p15).

Features: Special thanks to Ann Milligan (p2), Victorian Volcanic Plains - Margaret Ning (p10), Close-up: A culmination of carexes - John Fitz Gerald (p12), Native Blackthorn & Fiddler Beetle - Michael Bedingfield (p13), and Royalla Wander and identifying Native Picris - Margaret Ning (p14).

For more on FOG, see

Our webpage: www.fog.org.au.

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