



News of Friends of Grasslands

Supporting native grassy ecosystems

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January–February 2017

FOG is invited to ACT ParkCare and Landcare's Christmas Party

Friends of Grasslands members are invited to join in the ACT ParkCare and Landcare Christmas party on **Tuesday 20 December, 5.30 pm til 8 pm** at Jerrabomberra Wetlands Office, Dairy Road, Fyshwick.

Take: 'Thinking caps for trivia quiz and prizes'.

RSVP: to communityprograms@act.gov.au or by phone to Phil Selmes on 02 6205 7384, by Friday 16 December.

Parks & Conservation Service (PCS) wants to engage with the broader community active in NRM via this evening of networking, so when you accept this invitation tell them the group you are with, e.g. FOG.

Donations to FOG

Donations to support FOG are most welcome, and are used in a range of ways to support FOG activities and projects.

During 2016 FOG has become a Registered Environmental Organisation. Therefore, in most cases, donations made to FOG are now tax-deductible.

In a new initiative, the FOG committee has decided to use the tax-deductible donations to fund a number of small project grants (see page 2). It is intended to make up to \$5000-worth of grants each year with the total number of grants dependent on available funding.

The committee hopes this combination of tax-deductibility and targeted projects will be an even greater incentive to our members and others to support FOG and the work enabled by these grants.

If you have enquiries about tax-deductible donations please contact treasurer@fog.org.au



A family of Little Whip Snakes attending the Open Garden weekend at Turallo Nature Reserve recently. See page 6.

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Snakes Alive!

Live displays & feeding demonstrations: snakes, lizards, frogs, turtles and crocodiles.

Monday 16 January – Sunday 22 January 2017

10 am – 4 pm daily, Australian National Botanic Gardens

Tickets and details available via

<http://www.actha.org.au/snakesalive.html>

New & renewing members

We welcome these new members:
Susannah Power, of Page ACT, and
Karen Butler and Peter Treyde, of Carwoola NSW.

Thank you to all the members who have already renewed for 2017 (and in some cases for several years ahead). Thank you also for the generous donations you have sent. They are much appreciated and will be put to good use.

If you have recently received a notice for renewal, and haven't yet renewed, we remind you that membership payments are due on 1 January.



Chrysolina sp. beetles helping remove St Johns Wort at Yarramundi Grassland on 26 November, by stripping the leaves off the plant.
Photo: John Fitz Gerald

News from the FOG Committee

Nominations for the 2017 committee: Please start thinking about whom you might nominate for the FOG committee for 2017. The AGM will be on the third Tuesday of March, as usual (21 March). Several current members of Committee are planning to step down at the AGM. Please nominate yourself if you would like to be more involved in FOG; the committee works best if it has a diversity of people and skills to guide it.

‘Loss of Hollow-bearing Trees’ nomination: FOG committee is supporting a nomination to the ACT Scientific Committee for protection of hollow-bearing trees in ACT. ‘Loss of hollow-bearing trees’ is already listed as a key threatening process under NSW legislation for that state, and in Victoria the ‘Loss of hollow-bearing trees from Victorian native forests’ is listed as a potentially threatening process under the *Flora and Fauna Guarantee Act 1988*. The nomination for ACT has been prepared by members of the Conservation Council’s Biodiversity Working Group, including representatives from FOG.

FOG Public Fund and small grants: As shown in the box on this page, FOG’s success in becoming a Registered Environmental Organisation this year has led to new opportunities for grassland protection, restoration and communication. *Do spread the word!*

APCC11: Several FOG members attended the 11th Australasian Plant Conservation Conference in November, and we expect an article about the conference in the next newsletter. Geoff Robertson, speaking as an individual rather than for FOG, gave a paper titled ‘New approaches to plant conservation challenges. Conservation for people and nature, benefiting both. Reflecting on FOG’s experience, learning & vision’. It will be published with other conference papers in the magazine of the Australian Network for Plant Conservation Inc., at a later date.

Books available from FOG via booksales@fog.org.au

- *Grassland Flora, a field guide for the Southern Tablelands (NSW & ACT)*. Eddy, Mallinson, Rehwinkel & Sharp, 2011.
- *Woodland Flora, a field guide for the Southern Tablelands (NSW & ACT)*. Sharp, Rehwinkel, Mallinson & Eddy, 2015.
- *Land of Sweeping Plains: Managing and restoring the native grasslands of south-eastern Australia*. Williams, Marshall & Morgan (Eds), 2015. (3 copies available)
- *Grassy Ecosystems Management Kit* (only postage).

Two other book titles, plus cards, t-shirts and brochures (grassland plants, lizards & frogs, etc.) are also available, by emailing booksales@fog.org.au, and by visiting FOG display stalls at various events.

Small project grants 2017

Starting in 2017, FOG is offering a small number of grants of \$500–\$1500 each to promote investment in our understanding and management of grassy ecosystems.

A grant might enable the recipient to undertake a small project or add to a bigger project. Projects might include publications, research, education, on-ground work, advocacy, publicity and training. Projects which leverage additional resources will also be favoured.

FOG will publicise the projects it funds, and may offer practical in-kind support. The recipient will need to keep FOG informed of progress, such as by writing about it for the FOG newsletter, giving talks to FOG, leading FOG visits to your sites, etc.

To apply for a grant, and keep paperwork to a minimum, please send FOG a short written application explaining the nature of your proposed project. We recommend that you contact the sub-committee (via email to grants@fog.org.au) to ensure your idea fits with FOG’s objectives before you start your application. You don’t have to be a FOG member to apply.

Closing date for the initial round of grants: 17 Feb 2017.

FOG advocacy

Naarilla Hirsch

November

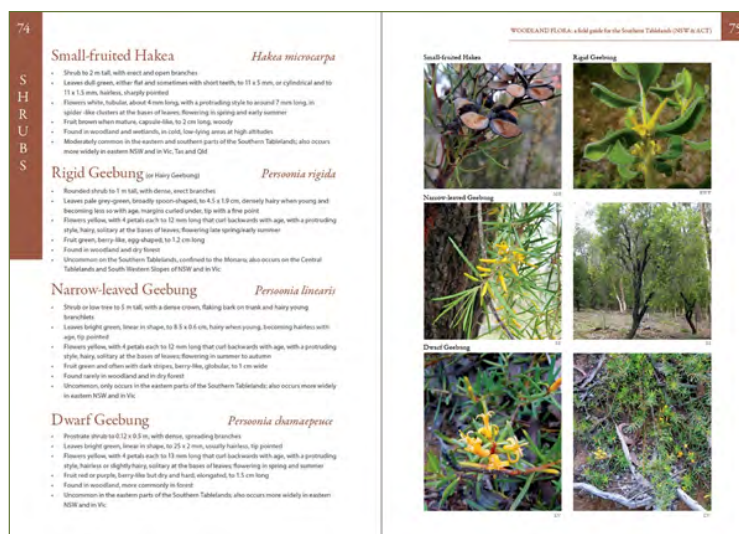
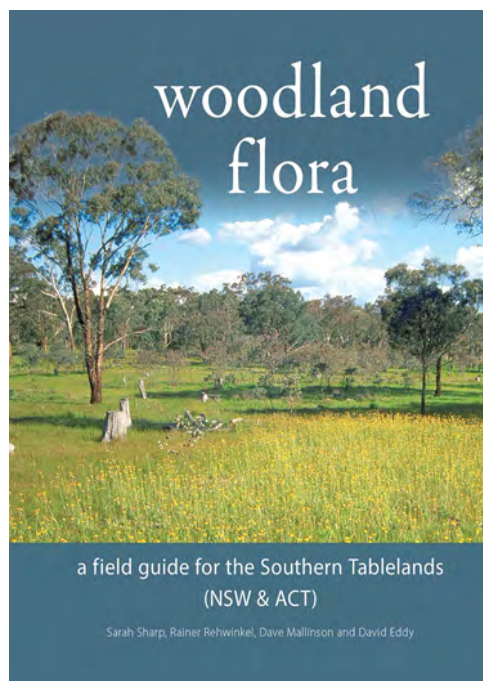
1. The NSW Department of Planning and Environment is reviewing the Environmental Impact Assessment process for State significant projects in NSW, and asked for public comment. FOG’s comments related to the difficulty in finding out about projects impacting on grassy ecosystems before they reach the Commonwealth’s EPBC referral process, and also the need for support of monitoring, auditing and reporting of compliance.

2. The ACT Government has released the ‘Draft Action Plan – Pink-tailed Worm-lizard – *Aprasia parapulchella* 2016’ for public comment. In its submission, FOG suggested that it is highly likely that the optimal habitat for the Pink-tailed Worm-lizard (PTWL) is critically endangered Natural Temperate Grassland of the South-Eastern Highlands, or mosaics of the same within forest or shrubland, and that the action plan be amended to reflect this. In particular, PTWL habitat is likely to be the vegetation association ‘r8: Kangaroo Grass – Purple Wire-grass – Wattle Mat-rush dry tussock grassland’ (Rocky Natural Grassland). FOG also commented that, as well as excluding plantings of trees and tall shrubs in habitat and buffer areas, natural regeneration of trees and denser shrubs may need to be thinned or removed to maintain the open rocky grassland habitat required for the species.

The full text of FOG submissions appears on our website.

Extra note: The NSW Biodiversity Conservation Bill and NSW Local Land Services Amendment Bill were passed in mid-November. (See *News of FOG* September–October 2016 p. 5 for notes on our submission.) It seems that essentially no information from submissions has been incorporated. We are told the NSW Government will continue to engage with stakeholders and the community as they prepare to implement the new scheme from mid-2017. The Bills are at <https://www.parliament.nsw.gov.au/bills/pages/current-bills.aspx>

Advertisement: *Woodland Flora* for Christmas?



Have you thought of giving *Woodland Flora* as a Christmas gift?

Woodland Flora is a field guide covering 444 plant species found in woodlands in the Southern Tablelands of NSW and ACT. The book not only has a clear and simple style and layout which make it easy-to-use, it also covers the majority of plant species encountered in these environments. Many of these native trees, shrubs, climbers and herbaceous species (including grasses, forbs, sedges, rushes and orchids), and invasive introduced species also occur in other habitats and regions and interstate.

Each species is identified by its common names and scientific names (including former names). Every page has descriptions of the features of each species, together with one or more photos to help identify each of the species. The descriptions – which are written in plain English so that no botanical knowledge is required to understand them – include the species' form (habit), leaves, flowers, fruit, habitat, and status (abundance and distribution). For some species there is also other information about interesting aspects or about management.

Woodland Flora has been prepared using a high level of professional integrity. All descriptions have been checked against herbarium specimens and detailed references and the authors' extensive knowledge of species within woodlands in Southern Tablelands. This field guide is a companion to the *Grassland Flora* field guide, and is of value to students of botany and ecology at senior school and university, as well as conservation volunteers, conservation rangers and field staff, field naturalists and the general public.

'I believe that *Woodland Flora* is a "must purchase" for anyone who wants to obtain a good understanding of woodlands and their plants.' (Geoff Robertson, November 2016)

***Woodland Flora, a field guide for the Southern Tablelands (NSW & ACT)* (2015)**
by Sarah Sharp, Rainer Rehwinkel, Dave Mallinson and David Eddy,
is published by FOG.

Members can still buy this lovely book for \$20 per copy instead of the standard \$25 each.

Contact booksales@fog.org.au, or use the order form on the website at http://fog.org.au/woodland_flora.htm or for urgent orders you can phone 0402 576 412.

Snippets

Buffel Grass – a threat to native biodiversity in arid Australia

The initiative to keep the Great Victoria Desert free of Buffel Grass *Cenchrus ciliaris* is looking for supporters. To see why, visit <http://tendeserts.org/buffel-free-gvd/>.

Desert mice may help control woody weeds

<https://theconversation.com/tiny-desert-mice-could-help-save-australian-grasslands-from-invasion-68573?>

Around the NSW–SA border, the Dusky Hopping Mouse has been found to eat significant amounts of woody shrub seeds. Small mammals were more common where shrubs were sparse.

New book on grasses

Grasses of the NSW slopes and adjacent plains, published by NSW DPI, is a new book focusing on the widespread and common species among more than 450 native and exotic grasses known in the NSW slopes and plains area. It is available from <http://www.tocal.nsw.edu.au/publications/list/field-crops-and-pastures/grasses-of-the-nsw-slopes>

Bruce Pascoe: *Dark Emu Black Seeds: agriculture or accident?*

Review by Libby Keen

'For those of us concerned with native grasslands this book provides a window into the possible pre-contact dynamics of areas we visit.'

Bruce Pascoe is an established Aboriginal teacher and writer whose latest book, *Dark Emu Black Seeds: agriculture or accident?*, was chosen as 'Book of the Year' in the 2016 NSW Premier's Literary Awards.

In his Introduction Bruce Pascoe states that his aim is 'to give rise to the possibility of an alternative view of pre-colonial Aboriginal society'. Drawing on records left by some of the first European observers, and on recent ecological and archaeological studies, he offers an alternative to the perpetuated notion that Aboriginal people had survived solely on hunting, fishing and gathering in an opportunistic way – namely, that they were actively managing the land and its flora and fauna to maintain resources through the seasons.

Although the first pastoralists marvelled at the richness of parts of the country, and the abundance of foods they saw gathered, they were not to know that its fertility was the result of millennia of careful management; nor that by setting their feet on it and those of their sheep, and by dispossessing its managers, they quickly began to destroy it.

Because the effects of ignorance and neglect were so rapid, and because evidence for Aboriginal technologies was ignored or misunderstood at the time, the records Pascoe has gathered are tantalisingly scarce and merit attention. In eight chapters he cites evidence that some Aboriginal people were using sophisticated tools and technologies to maintain plant and animal foods, catch fish, store grain and build domestic dwellings; and that highly-evolved systems of cosmology and social order underpinned and guided their uses of the land.

In the first chapter on management of vegetation, and in the later chapter on Aboriginal use of fire, he details some of the practices noted by early observers – for example the way women harvested yam tubers in a way that preserved the fertility and friability of grassland soil; or how people collected and stored grass seed, or followed a regime of mosaic burning that encouraged macropods to graze certain areas and left trees to grow on less fertile soils – and much more.

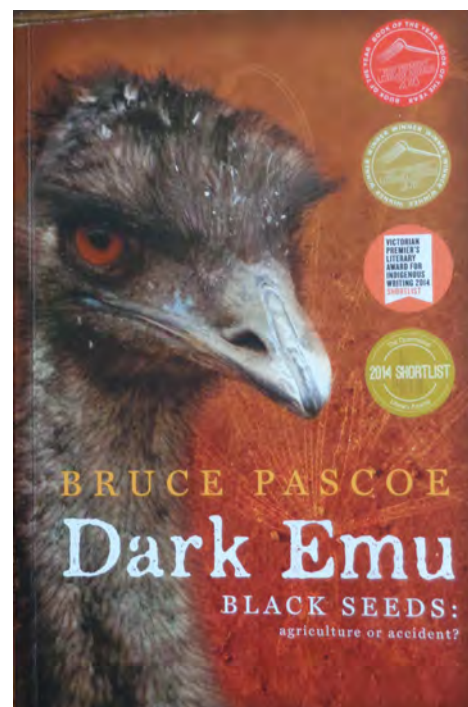
Pascoe ends on a note of hope that joint cultural enterprises (such as the Eden Local Aboriginal Land Council's projects associated with the Bundian Way) may help to reclaim ancient cultural property and promote understanding and healing.

For those of us concerned with native grasslands this book provides a window into the possible pre-contact dynamics of areas we visit.

Pascoe is persuasive that forms of agriculture and a degree of settlement could have existed in certain areas, but he also leads us to consider that there are many ecosystems, climates and seasonal patterns across the continent and that Aboriginal people have survived and organised their societies productively with great skill and deep knowledge of particular environments. Maybe the assumed divide between 'hunter-gathering' and 'farming' can be more permeable than we tend to think.

Dark Emu Black Seeds is a thought-provoking and confronting but nevertheless very rewarding read – **strongly recommended**.

Libby Keen
A member of FOG



Dark Emu Black Seeds: agriculture or accident?

By Bruce Pascoe.

ISBN 9781922142436 (paperback).

Published by
Magabala Books Aboriginal
Corporation, Broome, Western
Australia.

www.magabala.com.

Email: sales@magabala.com.

Snippet

Ginninderra grassland restoration project, ACT

FOG members Dr Ken Hodgkinson and Ginninderra Catchment Group Inc., with volunteer helpers, have planted hundreds of native forbs into their Ginninderra Creek catchment grassland project plots this winter and spring. The plantings are a follow-up to their autumn-burn grassland restoration treatments in April 2016 (which were outlined in *News of FOG*). See <http://ginninderraproject.com.au/news> (1 December 2016) for more information.

Snippet: The environment on Commonwealth land

EIANZ is organising a forum about protecting the environment on Commonwealth land, on 3 May 2017 at the Australian National University. See <https://eianz.org/events/event/protecting-the-environment-on-commonwealth-land>

FOG expects to give one or two of the talks.

FOG activities reports

Scottsdale monitoring 2016

On Wednesday 2 November, eight of us set off to Scottsdale, less than two weeks after the challengingly cold visit to the grassland restoration sites in late October (see last newsletter). In contrast, this day had beautiful weather – mild and sunny.

Our task was to record plant types occurring along a 50 m tape laid out straight between two permanent marker posts. At each 10 cm mark we recorded what was directly beneath the tape. Choices were African Lovegrass (ALG), Serrated Tussock, native plants, litter, bare ground, cryptogams, or exotic species. We did this in two groups at nine places across the property. A team of three or four worked well, with two to lay out the tape and two or three to spot and record the plants. Although I (Ann Milligan) am still learning to recognise species reliably, the spotting task seems quite straightforward for anyone who knows what is native and what is exotic.

It was a day full of interest, visiting varied parts of the property, all within the 300 ha that were farmed before Bush Heritage Australia bought it (see *News of FOG* November–December). To reach one site we had to walk across a small creek, and if Red-bellied Black Snakes were watching they kept themselves hidden.

The purpose of FOG's annual monitoring has been to track the effectiveness of Bush Heritage's various ALG management strategies. This has been the ninth year of monitoring and may be the last for a while: that decision has yet to be made.

When and if Linda Spinaze calls for volunteers next year, be aware that this is an easy and pleasant day (weather permitting), so long as the four main experts (Linda, Sarah Sharp, John Fitz Gerald, Margaret Ning) are there. If Linda is swamped by offers of help, she will be selective in signing people on because only around 8 or 9 people are needed, but better that too many offer than too few!

Thanks to Phil Palmer, manager of Scottsdale, for not only welcoming us but also providing a tasty lunch.



Above top: The whole group did the first site, to recall the methods to be used. *Above:* Margaret and John at the site across the creek.

Below top: Jamie holding the wildflower walk in thrall. *Photo:* Paul Archer. *Bottom:* Blue Devil seen on the walk. *Photo:* Peter McGhie.

Stirling Park Wildflower Walk – 13 November

Around a dozen of us 'braved' cold spring winds and afternoon sunshine to walk through Stirling Park's wildflowers on Sunday 13 November. Led by Jamie Pittock and Peter McGhie, we took an easy and very interesting voyage along the main path, into the paddock uphill from Fitzgerald St and then down and across the northern face of the park towards the sewer chimney paddock, splitting into a faster and a slower group along the way.

The rain has stimulated so many species to flower, and although the Hoary Sunrays (*Leucochrysum albicans*) were past their best, many other species put on a tantalising floral display. For instance, there were *Lotus australis* (Austral trefoil), *Pimelea curviflora* (Curved Rice Flower), *Bracteantha viscosa* (Sticky Everlasting Daisy), *Chrysocephalum apiculatum* (Yellow Buttons) and *C. semipapposum* (Clustered Everlasting), *Eryngium ovium* (Blue Devil), *Dianella* sp., *Pomaderris betulina* (Birch Pomaderris) and *Schoenus apogon* (Common Bog-sedge), to name a few.

Thank you to Jamie and to Peter McGhie for organising this year's episode of the annual walk, and to the several knowledgeable FOG members who came along to help lead the sub-groups.



Ann Milligan

... Activities reports continued next page

FOG activities reports continued from page 5

Turallo NR Open Garden 26 & 27 November

For this two-day Open Garden walk and talk at Turallo Nature Reserve near Bungendore NSW, I was joined by volunteers from Friends of Grasslands: Margaret Ning, Margaret Strong, Kris Nash and Isobel Crawford, and by Tom Baker representing Canberra's Open Garden Scheme, and by NSW NPWS Ranger Susannah Power to speak about reserve management. I led two walks each day to show participants the beauties of the reserve. Apart from the spectacular Smooth Riceflower and Scaly Buttons (pictured at right), there were many other species out. They included Golden Everlastings, Bulbine Lilies, Creamy Candles, Woodruffs, Variable Plantains, Chocolate Lilies and the first tinges of cobalt on some unopened Blue Devil heads. My highlight was seeing some Little Whip Snakes, a NSW vulnerable species (see page 1). Thanks to Tom Baker for initiating this Open Garden event.

Rainer Rehwinkel

More progress at Stirling Park

The 21 stalwarts at the 30 October workparty undertook a range of tasks including planting 20 *Cassinias* on the sewer chimney paddock. They are intended to gradually increase the cover on the paddock to suppress weeds such as St John's Wort and Fleabane, while the planted eucalypts, *Acacia* and *Bursaria* are developing critical mass. It is not a short-term project but the coverage of *Cassinia* now on the top of the ridge where the Tasmanian blue gums were removed demonstrates how this shrub spreads and suppresses weed growth.

The 27 November workparty was largely devoted to the arm-wrestle with St John's Wort (SJW) which has flourished this wet spring. Where SJW is accessible in Stirling Park the NCA has been employing contractors to spray it. The workparty also dealt with *Verbascum* and Mustard Weed which are also very prominent this season, and continued to 'search and destroy' woody weeds. Given the large number of hectares and the various ways in which seeds are spread (it can't all be blamed on birds), this aspect of FOG's and the NCA's tasks here will require continuing effort.

Jamie Pittock & Peter McGhie



Smooth Riceflower (left); Scaly Buttons (right). *Photos: Rainer Rehwinkel*

Hall Cemetery woodland

Weather held off well enough (significant rain the night before) for a small team to get stuck into the weeds on 12 November. Unfortunately a huge amount remains to be done in the two 2017 summer work mornings. Many thanks to those who contributed time and effort throughout 2016.

The good season continues, so swathes of exotic grass now dominate the groundcover of the Cemetery woodland. In some areas the ecological burn and the high rainfall have encouraged small plants like the Bulbine Lilies and Blue Grass Lilies, Milkmaids and Small Loosestrife into excellent flowering, though they are mostly buried deep in tall grass. Blue Devils are at last showing colour. On the other hand, the Lerp damage on the Blakely's Red Gums is high again this year, and some of the trees are really struggling.

Now, the final episode in the *Bursaria* saga:- most of the plants died, as foreshadowed in the last newsletter. Some extra information has come from John Briggs at the North Watson Woodland, about 10 km away at the base of Mt Majura in the ACT. The volunteer group there also planted *Bursarias* to build up shrub layer, around the same time as we put them into Hall woodland. They chose to plant them in and near gully lines in the hope this would future drought-proof them. They grew and flowered well but, in this particularly wet 2016, they have lost all of them, and conclude waterlogging to be the culprit. So it seems that *Bursaria* is a fussy shrub that needs the right site and long intervals between fires. We now know better for the next planting!

John Fitz Gerald



John whippet-snipping near the roadside fence at a still-wet Hall Cemetery woodland

FOG trip to Delegate and the Bundian Way: 5-6 November

Kris Nash, Margaret Ning, Helen Macartney & Ann Milligan

A large party from FOG spent a fine and cold-windy first weekend in November with FOG member John Blay at Delegate in southern NSW. We were there to have a look at the Bundian Way, described in John's book *On Track: Searching out the Bundian Way*.

We walked along parts of this centuries old Indigenous track, and drove along other parts. All the while, John generously shared with us his research findings into both Indigenous and European history of this region near the Victorian border, part of which lies within Kosciuszko National Park. We visited several of the original campgrounds where one can still find artefacts.

On Saturday morning almost the whole party met outside the pub at 10 am. After a short visit to the Bundian Way art exhibition, with its richly coloured artworks, photos, and information, we set off to the Settlers Hut just outside the town. Lined with old newspapers (draught excluders?) this slab hut would have been a cosy home for short people. Here (top photo, right) John told us how recent and non-recent European history has woven itself onto the top of the traditional Indigenous grounds and tracks. This was the overall theme for the whole weekend of adventure.

Next we stopped at the former government-managed Aboriginal Reserve, in use from 1892 to 1957. Now a sheep paddock, this ground and adjacent creek had previously been a traditional camping ground along the Bundian Way. John said the Chinese market gardens were on the other side of the creek, and the two cultures would meet in the middle to trade goods.

Across the road is McKay TSR, where we spent quite a while exploring the sparse wildflowers and gnarled old Snow Gums and Candlebarks on this large area of gently rolling hills (2nd photo, right). There were Moth Orchids, Billy Buttons, Scrambled Eggs, Golden Weathergrass (*Hypoxis hygrometrica*) and *Bossiaea* sp., among the Kangaroo Grass and exotic grasses. Then, after lunch back in town at the park, we set off on the road to Merambego.

At another former traditional campground, now a TSR in patchy condition, we searched for any yam-bearing plants but found few: some Early Nancy and Bulbine Lilies on the hill and a small patch of Vanilla Lilies nearer the creek, and *Bossiaea* sp. as well as *Cymbonotus* sp. Next stop was another former campground beside Sandy Creek (one of several creeks by that name!). This again yielded a few forbs in the relatively less disturbed patches: some Early Nancy, *Craspedia*, *Ajuga*, *Dichondra*, Vanilla Lilies and Onion Orchids, among thick *Themeda* and *Poa* – and no Yam Daisies, but some very healthy looking thistles!! John told us the campsites were about 12 km apart – the distance a family can walk in a day; a fast group could manage 24 km in a day and someone in a hurry could make 36 km!

Next John took us up a steep rise to look across the valley wilderness (3rd photo, right) – the Byadbo Wilderness – to Mt Kosciuszko (Targangal) itself, snowcapped. It felt a bit like looking across to 'Mordor' – same wildness! Moving farther into the Kosciuszko National Park we next visited a permanent spring where the hillside was alive with Greenhood Orchids and there were numerous other plant species of interest – and wombat holes and wallabies. Our group found Adders Tongue *Ophioglossum lusitanicum* and a *Leucopogon* on the hill across the creek. There were fairly regularly spaced flat patches along the creek, within clearings – so it was easy to imagine Aboriginal families camped in various spots along the bottom of the very steep hill near the several small water holes up the creek (4th photo, right).



Wilderness, McGuigan's Pass. Photo: Helen Macartney.



...continued next page

Delegate and the Bundian Way, continued from page 7

Late Saturday afternoon we visited a set of old sheepyards at Merambego Station, made from tree trunks (photo, right), where we found several forbs among Paterson's Curse, and the tail of a snake (which quickly whisked away) beside the creek. This too used to be a traditional campground. Many of the timber posts were burnt into very artistic shapes. On a small rise nearby, there were numerous *Wurmbea*, *Drosera peltata*, Greenhoods, *Triptilodiscus pygmaeus* and small mushrooms above mostly *Microlaena*.

Dinner at the pub, for 30 people, was excellent, and John afterwards gave us a short illustrated talk about the Way.

After meeting next morning at 8 am, and sorting out (mostly) those who would continue and those who had to go home for commitments, off we went again. First stop was the view to Targangal again, where the snow gleamed in the morning sun as if nearby, though miles away. After a short interlude at another former campground, we left most of the 2-wheel drives back at the old yards area. This time we were watched by a herd of brumbies on one side of the valley and a team of emus on the other. A few kilometres later, we abandoned the 4-wheel drives also and set off into the Byadbo Wilderness on foot. As we climbed the first slope, John showed us another patch of artefacts – flakes from a fine-grained dark rock – beside the track.

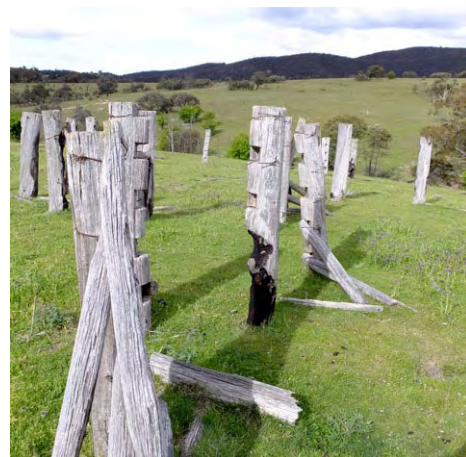
Over the steep ridge, a short glade with a grassy path under *Acacia mearnsii* enticed us in (photo, right). Some of us tried the sap from the wattle – like a flavourless toffee but not unpleasant – which used to be eaten by traditional travellers, John said. Soon, the *Acacias* petered out and the path became a narrow foot track through open woodland, across and down (and up) the hillside. The going was not particularly hard, though the ground surface was loose and stony and the track was narrow. The ancient peoples probably knew how to manoeuvre through the rugged landscape with minimal effort! We were in a beautiful enclosed valley with a small creek at the base and steep sides. There were many interesting forbs and shrubs. More orchids and much else (including *Polyscias sambucifolia*, *Persoonia rigida*, *Olearea lirata*, *Prostanthera rotundifolia*, *Olearea iodochroa*, *Grevillea lanigera*, *Omphacomaria acerba*, *Pomaderris angustifolia*, another species like a *Phebalium* which may have been *Pomaderris pallida*, *Ranunculus sessiliflorus*, *Geranium molle*). A patch of Yam Daisies were an alpine species, John said, not the one with a tuber.

In this wild but intimate valley we were sheltered from the cold wind we had dressed for, and it became rather hot. At midday John pointed out a steeper downward section ahead, then another creek crossing before reaching the spot he had chosen for lunch. Beyond that would be the end point – a very old mine used for a mineral not properly recorded (molybdenum, or probably gold). Several of us pulled out here, and more stopped after lunch. Only the hardest walkers reached the mine.

This final bit of the trail led up and over a small spur which had great views of a bend in the river. There was a stand of unusual eucalypts, yet to be identified, that had some features of peppermint gums (coarse bark, buds, leaves) but were small mallees in habit, with stripping bark on the upper branches. John was most intrigued by this. The mine was a small hole, mounded with rocky scree which had fallen into the hole. The site was a river flat encroached by shrubs.

All our subgroups eventually emerged from the wilderness and arrived back at Delegate, where the shop's ice creams were welcome before we all set off home.

Thank you, John, for giving us a fascinating glimpse of the terrain you have walked through, solo, over so many years, to research and re-establish this important piece of Aboriginal history. From a grassland perspective, it is exciting to think that species currently surviving along this track and its campgrounds may in time benefit from



Old yards. Photo: Helen Macartney



John Blay emerging from the wilderness through the glade portal along the Bundian Way track. Photo: Kris Nash. Klaus Hueneke said: 'When John spoke ... it seemed as though he became the embodiment of numerous spirits from an ancient past as well as a white man elder opening our ears and eyes'.



In the wild valley. Photo: Helen Macartney

the conservation and management of these 390 kilometres, bringing to life the immense historical and indigenous value of 'the Bundian Way'.

Close-up

Drosera peltata (by a non-prey observer)

John Fitz Gerald

The rainy cool months recently resulted in huge numbers of carnivorous sundew plants in the genus *Drosera*. I'm told swathes of them were seen during FOG's trip to Central Tablelands cemeteries in October. Locally, the small Pale Sundew, *Drosera peltata*, flourished at the very wet Hall Cemetery (photo 1) and elsewhere.

The little plant thrives in open spaces in grassy areas, so the cemetery block at Hall is an ideal site. With the sun low in the sky, glorious patches of glistening green-gold could be seen from tens of metres away where masses of this tiny plant grew at the cemetery.

Wikipedia, the free encyclopaedia, suggests this tuberous sundew has a huge distribution, from southern Australia up to Cape York, New Zealand, India and across most of South East Asia. *Droseras* in general lure and capture insects via stalked mucilaginous glands on their leaves (photo 1 and middle left of photo 2). Enzymes secreted from sessile glands release nutrients contained in the insect bodies, and the nutrient mixture can then be absorbed through the leaves and used by the plant.

Drosera peltata is characterised by hairy sepals on its calyx (top of photo 2) and produces a small white flower, sometimes tinged pink. The plant grows actively in wet cool winters and dries back to its tuber in summer. Photo 3 shows blackened dried stems and finished flowers with calyx segments that have folded back revealing papery sacs containing numbers of tiny seeds. Pock-mark patterns on the black seeds show clearly when examined microscopically (photo 4). Again according to Wikipedia, *D. peltata* is apparently one of the easiest *Drosera* species to cultivate.

Micrographs 3 and 4 were recorded courtesy of the Seedbank at the Australian National Botanic Gardens and are ©ANBG. Scale bars in photos 3 and 4 are 1 mm and 0.2 mm long respectively.

All these photos were taken by John Fitz Gerald. Photos 1 and 2 are the 1st and 2nd images above. Micrographs 3 and 4 are left and right respectively, below.



FOG members support The Victorian Volcanic Plains (VVP) Group bid for UNESCO Biosphere Reserve

Cathy Robertson

An adventurous band of FOG members participated in a 'Spring on the Victorian Volcanic Plains' (VVP) field trip held at Camperdown Victoria over a weekend in mid-November 2016. The FOG members on the trip were Michael Treanor (FOG VP 2000–03) and Huyen Treanor and their children Mallee and Darwinia, Di Chambers (VP after Michael) and current active members Andy and Janet Russell, Geoff Robertson, Margaret Ning, Ashton Robinson and Cathy Robertson.

Michael Treanor had tipped us off about this event (it was in *News of FOG* September–October) which was organised by the Victorian Volcanic Plains Biosphere Committee (VVPBC), a group of people working towards establishing a UNESCO Biosphere Reserve over the VVP. Our host was Stuart McCallum, the Hon. Secretary of the committee, who welcomed us at the Camperdown Commercial hotel for a pub dinner, meet and greet on the Friday night. Greening Australia, VicRoads and officers of the Corangamite Catchment Management Authority, Parks Victoria and local land owners Alan and Fiona Morris of Gnotuk Homestead, above Lake Gnotuk, all contributed to ensure our Tour program had expert field guides and speakers and knowledgeable hosts.

The VVP Tour presentations and site visits featured the VVP critically endangered grasslands and grassy woodlands. The VVP group is seeking to secure their protection by creating the VVP UNESCO Biosphere Reserve. They are close to having enough members to be able to progress to the next stage but just need a few more, so they are currently undertaking a membership and community engagement drive. Individuals from our group decided to become members at the end of the Tour (membership form is available online; see box on page 12 ^A).

Our program included on-site visits to 13 revegetation projects on public land, lake sides, roadsides and private property, and two after-dinner lectures and several enjoyable social activities. Janet Russell dubbed it 'a heroic program' both because of the weather (which was foggy, chilly, wet, wild and windy) and the distances travelled to the sites, often on very rough tracks, and because of the number and scale of the restoration projects we visited. Thirty-five people from the ACT and Victoria squeezed into a cavalcade of 11 vehicles, with Margaret Ning in the last vehicle on a two-way radio, shepherding vehicles along 200 km over two long days.

The tour featured VVP ecology and topography: we marvelled at the maars, ephemeral freshwater and salt-water lakes, Ramsar-listed wetlands, stony rises, stony shrublands, grasslands and grassy woodlands. However, we also sadly observed that the main vegetation of this region is vast monoculture cropland interspersed with cleared weed-infested pastures for cattle and sheep grazing. And it was disappointing that many of the restoration project sites had been later spoiled by overgrazing, chemical fertilisers, stocking of the lakes with salmon, and outbreaks of green algae caused by septic tank inflows and other damaging nutrients such as fertilisers.



Stuart McCallum warmly welcoming delegates to 'Spring on the VVP' tour.
Photo: Cathy Robertson



One stop on the Victorian Volcanic Plains tour, which Janet Russell called 'a heroic program' partly because of the weather.
Photo: Geoff Robertson



The group at Corangamite salt lakes, at the crossing.
Photo: Cathy Robertson

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The Victorian Volcanic Plains Group bid for UNESCO Biosphere Reserve, continued from p.10

There were also some magnificent roadside areas with abundant grassland flora and fauna. The best quality sites we visited were along the roadsides at Lower Darlington Road and the Cressy Grassland on the Hamilton Highway managed by VicRoads. Our group gave some valuable assistance to our expert guides by identifying some of the more elusive forbs such as the *Podolepis jaceoides*, *Diuris punctata* and *Stipa* sp. at the various sites we visited. We saw many wetland birds and a great variety of wildflowers and grasses.

The western plains of Victoria are among the world's greatest basalt plains. The volcanic activity over millions of years has shaped the landscape which is generally flat except for the volcanic cones. These volcanic cones, at some time in the past, spouted out the lava which then formed the stones covering the plains. The youngest eruption points are less than 10,000 years old. The volcanic cone our tour group spotted frequently was Mount Elephant, which is known locally as the lighthouse of the Western District.

The pre-white settlement VVP landscape and its vegetation can be extrapolated from:

- the work of Eugene von Guérard (1811–1901), arguably Australia's, and certainly Victoria's, most important colonial landscape painter. His representations of the crater lakes of Victoria's volcanic Western District hold important environmental significance today; and
- the *Camperdown Chronicle* whose records are stored in the National Library of Australia's Trove collection. The *Chronicle* has provided valuable eye-witness accounts of the vegetation of the grasslands and woodlands of the region.

Our tour group also remarked on the extensive network of dry stone walls, which have been recognised and protected by the Corangamite Dry Stone Walls Heritage Trail program. The walls were constructed after the gold rushes in the 1870s from local volcanic stones, to keep out rabbits.

Arguably, the VVP candidacy has every chance of achieving UNESCO Biosphere status. Biosphere reserves are nominated by national governments and remain under the sovereign jurisdiction of the states where they are located. Their status is internationally recognised.

Biosphere Reserve status is a land-sustainability initiative which includes protected areas of characteristic ecosystems and surrounding lands that are managed for conservation and sustainable use. With people as an integral component, the land is managed for objectives ranging from complete protection to intensive yet sustainable production; provides a regional centre for monitoring, research, education and training on natural and managed ecosystems; is a place where government decision-makers, scientists, managers and local people cooperate in developing a model program for managing land and water to meet human needs while conserving natural processes and biological resources; and is a symbol of voluntary cooperation to conserve and use resources for the wellbeing of people everywhere.

After-dinner talks and other notes

Rodney White, Program Manager Grassy Ecosystems Greening Australia (Victoria)

In his after-dinner presentation Rodney spoke about the need for active management of grasslands (including use of scalping and fire) to make room for wildflowers. He recommended the book *Land of Sweeping Plains*⁸ to us as a good synthesis of the scientific literature in a readily accessible style including the practical experience held by policy makers, farmers, community activists and on-ground grassland



One of the magnificent sites we visited on the VVP tour.
Photo: Geoff Robertson

VVP in a snapshot

VVP Bioregion covers more than 2.3 million hectares (22,000 km² or 10.36% of Victoria) with

- two Environmental Protection Biodiversity & Conservation (EPBC) listed ecological communities – Grasslands and Grassy Woodlands, and
- eight nationally threatened animal species.

Less than 1% of Grasslands and Grassy Woodlands remain on the VVP.

It is a significant and important area for Aboriginal people.

<https://www.greeningaustralia.org.au/project/victorian-volcanic-plains>



VVP tour group viewing Lake Gnotuk.
Photo: Cathy Robertson

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The Victorian Volcanic Plains Group bid for UNESCO Biosphere Reserve, continued from p.11

managers. It aims to provide all involved in grassland management and restoration with the technical information necessary to conserve and enhance native grasslands. He sketched the techniques and stakeholders that been involved with the grassland sites we were to visit on the following day. He indicated that Greening Australia was urgently targeting the need to change farm practices to achieve successful seeding of wildflowers and grasslands and provide habitat for native fauna. Rodney explained that:

‘Native Seed Production is the critical component of any restoration project and given that there is very little remnant vegetation remaining across the VVP, seed production and distribution are vital for successful landscape-level projects. Other vital elements are a low nutrient harsh environment with no weed load and the use of cool fires to germinate wildflower seeds.’

Rodney praised Greening Australia’s leadership in developing the capacity for grass and wildflower seed production, including seed production for many threatened species such as the Button Wrinklewort (*Rutidosia leptorhynchoides*) and Hoary Sunray (*Leucochrysum albicans* var. *tricolor*). Rodney also outlined Greening Australia’s successful framework for working with a variety of partners including landholders, Catchment Management Authorities and local government across the VVP, emphasising that without such a framework it would not be possible to grow seed to make restoration ideas a reality.

Rodney particularly acknowledged the support given by VicRoads who manage some of the best remaining patches of grasslands on the Victorian Volcanic Plains. He said they had been involved in Greening Australia’s Grassy Groundcover Recovery Project from the beginning. For the last nine years, Greening Australia has helped VicRoads restore significant patches of roadside vegetation as well as increase populations of a number of nationally threatened plant species, including the Hoary Sunray and the Button Wrinklewort. This partnership has been ground-breaking for increasing the capacity and effectiveness of native grassland recovery and revegetation planning and implementation in the future.

The second presentation was by Anthony Casanova on the impact of cropping on seasonal herbaceous wetlands.

Notes related to the VVP tour

Relevant to our tour, I’ve found the comments below on related websites. The first quote is by Rod White, from *Plains Facts*^c, and the second is by Dave Franklin, Program Manager, VVP CMN, who argues that the horticulture of grasslands is most important, and that not enough seed is being generated to allow for the planning of landscape level projects.

‘Greening Australia with financial support from Sunshine Foundation ... have embarked on an ambitious project to restore over 1000 hectares of grassy ecosystem vegetation across the Victorian Volcanic Plains over the next 10 years. ... a great deal has been achieved, including ... dramatically increased seed production capabilities across the VVP, including expansion of in-ground seed production capacity at David Franklin’s facility in Chatsworth.’

‘Over the past 3 years, we’ve done some seed growing and direct seeding work with the duplication of the Western Highway between Ballarat and Beaufort. We sowed 4 ha there this year. I grew some plants for seed here in the nursery in boxes, but I was also going up there each year in summer and collecting local seed to do the job. A lot of these jobs are limited by the amount of seed you can collect, and you need to do some forward-planning for a couple of years to be able to restore a few hectares.’^d

To support regeneration of grasslands and grassy landscapes, Dave suggests there is a need to: (1) develop the technology to support efficient seed production and distribution for landscape-level grassland-management projects, (2) match supply with demand for native seed, and (3) increase productivity by involving landowners in seed production crops.

^a For VVP Biosphere brochure & membership form, visit: <https://victorianvolcanicplainscmn.wordpress.com/2016/03/22/what-is-a-biosphere/>

Membership form and brochure are linked to this blog post (‘What is a biosphere’ 22 March 2016).

^b *Land of Sweeping Plains: Managing and Restoring the Native Grasslands of South-eastern Australia*. Nicholas Williams, Adrian Marshall, John Morgan (eds), April 2015. **Available from FOG as a book**, or via <http://www.publish.csiro.au/book/7219/#sthash.SimPubfW.dpuf> as a book or ebook.

^c *Plains Facts* edition 18 Autumn 2016. https://victorianvolcanicplainscmn.files.wordpress.com/2016/07/plainsfacts_autumn2016_v3_online.pdf

^d <https://thebushlander.wordpress.com/2016/03/>



Fiona Morris (centre) explaining her Gnotuk Homestead garden, with Huyen Treanor (left) and Di Chambers (right). *Photo: Cathy Robertson*

Long-standing FOG members may be interested to know that Michael Treanor has now joined the VVP Biosphere committee.

Overall

I found this tour inspiring because of the aspirations of the groups involved in the Biosphere Project and the energy and optimism being generated by them to overcome the very daunting barriers to its success. I feel sure they will succeed and hope more of our FOG members can support them (see the box above for a link^a to the blog with membership details).

Cathy Robertson
A member of FOG since 2002

A letter to FOG about QuestaGame

Dear fellow FOG members

Are you aware that you can upload your photos of flora and fauna to the Atlas of Living Australia while playing 'QuestaGame' in friendly competition with players across the region, Australia and the world?

QuestaGame is a mobile game that gets players outdoors to discover and help preserve life on this planet. If you've not heard of it before, see <https://questagame.com> to read about it, and <http://portal.questagame.com> to get the app. Photos accompanied by GPS data can be uploaded wherever there is wifi.

QuestaGame can create a FOG 'clan' and register FOG as an endorsed organisation with FOG members accredited as ID experts. Experts work with the 'Bio-expertise Engine' that has been developed with QuestaGame (see <http://bee.questagame.com>). Experts are asked to contribute a few hours each month in return for payment of \$100 that you can nominate to be paid to FOG, thus mitigating the monthly clan fee (around \$9). FOG could then have access to the FOG clan data, across sites, dates and species for example, which may be useful for monitoring and evaluation purposes. The product brochure is below (zoom in).

If you are interested in more information, please contact me at kathrynswells29@gmail.com.

Kathryn Wells
Director, Business Development
QuestaGame

The Purpose
Goals: make players notice biodiversity by training their eyes, monitor species, collect verifiable data. Users: land owners, ecologists, organisations, school students, and members of the wider community. Teams: multi-player game – players can work in teams, compete as clans and in different territories.

The People
The Experts: 85+ Experts, 8 countries. As sightings come in they are sent off to the relevant category experts for identification. Experts identify the specimens in a confident (and fun) and submit back to QuestaGame.

Your Community Your Biodiversity
QuestaGame is a fun mobile gaming app that engages your community in discovering, learning about, and mapping your local biodiversity.

The Co-founders are the Executive Team
Andrew is an IT entrepreneur, founder of global customer intelligence networks and online media outlets. Publisher of the: Marmite, Communications Science, Columbia University, UK.
Brendan is a crowd-sourcing technology, gamification, mobile, online training, and multiple system hub. Marmite, Physics, Columbia University, UK. PhD candidate. Citizen Science and Computer Systems.
Director, Business Development
Pioneer has been in innovative digital projects for social good. Major foundation: Nature Grasslands Project INC 2012-15. Australian Income: Australia.gov.au 2012-15, Smart Tool, NSW Chief Scientist 2012-15.

Integration with client websites, content and data configurations
Data reporting and custom development services available. Please see Services Offerings and download our Prospectus at www.questagame.com. Contact: admin@questagame.com

Our Vision
QuestaGame is committed to biodiversity sustainability. It believes that mobile technologies, gaming mechanics, citizen science and collective intelligence systems play a critical role in getting people outdoors to learn about, monitor and help conserve local biodiversity.

Real-time interactive data
QuestaGame can track view and position what has been sighted and uploaded as it is discovered in your territory. Large custom data analytics are negotiable.

Quests, clans & territories
Any individual can download the app for free to a mobile Apple or Android device.
You win points based on sightings' relevance within that territory, winning in game prizes.
Progress through the game to earn virtual gold to purchase virtual items.
You can go on your own or join other quests, or choose to compete with other players.
As well, you can set up your own clans.
Sightings are verified quickly and accurately.
All results verified by experts.

Competitions
QuestaGame can set up a real territory for competitions and any group of people.
QuestaGame can set up a clan – for example, each LandCare group or school or Special Event.
Users self-register with the clan.
All sightings are verified for accurate results.

Project Partners
• Auckland Botanic Gardens, NZ
• Inish Breckinley Park
• Macquarie University, NSW
• Manukau Trust, NZ
• NSW Office of Environment and Heritage
• Royal Botanic Gardens, Melbourne & Sydney
• University of Melbourne
• Werribee National Park, NSW, and
• World Wildlife Fund for Nature, Australia

Awards
• Best Innovation Australia 2014
• The ACT Innovation Award 2015
• Purvis Environmental Award 2015
• Nature Innovation Foundation Award 2014

Useful to Science
All data is verified and uploaded to biodiversity databases – to the Atlas of Living Australia (ALA) as well as contributing sightings with GBIF and iNaturalist.

Awards
QuestaGame contributes more expert-verified photographic sightings to the ALA than any other source.

Data & analytics = knowledge

A visual feast of native Rock Lilies

Klaus Huenneke

On 27 October, in the company of the caring and down-to-earth Yass Valley Landcare Group, and the naturalist Rainer Rehwinkel and a superb bird imitator from Greening Australia, I had the pleasure of stepping, snaking and stumbling up a narrow, rocky track along the Yass River (turn right at the last roundabout). The Yass River was no more a creek but a turbulent cascade of thick brown soup with piles of flood debris from four recent floods sometimes three metres tall, ten metres long and five metres deep. The earth was thickly matted and sprouting with the weeds of white man's 200 unstoppable, all conquering, years. Surely nothing native could survive here.

Then lo and behold, after passing some cliffs, the first signs – a splash of waving yellow here and there, on high, amongst the rocks. Someone called, 'must be Bulbine Lily'. A little further, the cliffs opened onto a precipitous slope of riotous, floral abundance right up into the sky. Spying hundreds of nodding, arching, deep-yellow flower heads, thick as thieves, jostling for a bit of light, we were, for a moment, quite spellbound. This was an Australia rarely seen by urban dwellers.

Rainer came to the rescue: 'not Bulbine Lily but Rock Lily' (*Bulbine glauca*). New to me but not to him. 'A rare species, possibly endangered and very vulnerable, used to be abundant across the local area'. I looked it up in *Woodland Flora*, the new encyclopaedic bible by Sarah Sharp and others. 'Tufted, perennial forb with unbranched flower stems, leaves onion-like', they wrote in language more scientific than mine. That's it. I checked in the beautifully presented *Ngunnawal Plant Use* but they only had Bulbine Lily. 'Eaten roasted and rich in calcium and iron, harvested with digging sticks', it said. Probably true for both species. I must try them – yum, yum.

Field Guide to Butterflies of the ACT

by Suzi Bond with Steve Holliday & John Stein

This new guide is being launched on 13 December at the Australian National Botanic Gardens, Canberra. It is available at the Botanical Bookshop and from National Parks Association.

Yarramundi Grassland workparty report

A small determined team weeding at Yarramundi Grassland on 26 November.
Photo: Tony Robinson and John Fitz Gerald



Cultivation corner

Highlights from The Pottery

Janet Russell

Cultivation Corner articles are Janet's observations on grassland species in ACT, now from an apartment instead of a suburban block.

This is a further episode of life on the ninth floor in Canberra, and The Pottery is the name I use to describe our collection of pots. Almost everything we have in pots is flowering now.

One great surprise was to find the Tuggeranong Lignum, *Muehlenbeckia tuggeranong*, flowering a few weeks ago. This is one of those endangered unprepossessing plants that you could easily pass by without noticing. I have felt rather guilty about not taking better care of it. We have let a flush of self-sown Rock Isotome, *Isotoma axillaris*, flourish in the pot (which is not very large) as well as one surviving Flannel Flower, *Actinotus helianthi*, that similarly found its way into the pot. After reading about the habitat of the Lignum, however, I think it might be quite at home.

The plant was declared an endangered species on 7 August 1998 under ACT legislation and is also recognised as endangered under Commonwealth legislation. The Recovery Plan for the species describes its habitat:

M. tuggeranong is found in a highly disturbed riparian shrubby woodland association, heavily invaded by exotic weeds. The tree layer is largely remnant. The species is found on almost bare rock, or tangled amongst other vegetation...

The original specimens found were six male plants and one female plant all at one site. A single male plant was found later at another site. The plants can be readily propagated by cuttings. The likelihood of any natural increase is low due to the lack of genetic diversity in the population. A friend gave us a plant and she understood it to be a male plant.

I was taking photos of the flowers with an attachment to my iPhone that has a 14x macro lens. The depth of field is so small it was difficult to capture a flower in focus particularly because it only takes a breath of wind to move the slight wiry branches. The flowers are only 4–5 mm in diameter and are a creamy-green colour. I broke off a small branch and placed it on some white paper to photograph. My photo of a female flower (not well focused, centre right) accords with the diagram in the Recovery Plan but also with what look like fine stamens with no anthers. In the Recovery Plan they describe the plants as usually unisexual and rarely hermaphrodite which would explain the presence of only a few female flowers. Male flowers have six petals (top right) and the female has five. I did not see what looks like a small red fruit, shown on the photo below, until choosing and editing the photos. There look to be five petals and the stamens are similar but appear shorter in this photo. This fruit has been nipped in the bud. I shall watch to see if any more appear.

I also had a look at the flowers under my microscope and I saw some of the anthers were split and there was a yellow dusting of pollen over the flower. While examining them a tiny centipede-like creature slithered through my field of vision and disappeared. I could not find it again.

The species apparently survives fire – after the 2003 fires all the plants were found to be shooting from the base. This makes me feel optimistic about re-potting the plant. The Flannel Flower is going to be the weak link – they do not like having their roots disturbed. Another project to do come Autumn.



Flowers of *Muehlenbeckia tuggeranong*: male (above) and female (below). Both flowers are 4–5 mm in diameter.



Below: A female flower with fruit. The flower is 4–5 mm in diameter. All photos by Janet Russell.



Red-rumped Parrot, *Psephotus haematonotus*, an adaptable survivor in a changing world

Michael Bedingfield

Everything is always changing. Nothing remains the same. This is true in all aspects of life, of society, the weather, the stars and planets, and the tools we use in our daily activities. It is also true in nature, and being able to adapt to change is a crucial part of the survival of a species over the longer term.

In my childhood home in a small country town in the early 1950s the most sophisticated piece of electronic equipment was a radio, which would be able to pick up stations from Cooma and Bega. We had an electric jug and some rooms had electric lights but in others we still needed a kerosene lamp at night. All cooking was done on a wood stove, and on winter nights we gathered near the open fire. As I grew up the situation gradually changed but that rustic simplicity is in profound contrast with today's modern city life. Now there are a bewildering number of electronic and electric tools, toys and devices available and we have become quite dependent on them, especially for communication with one another. Many people have become so caught up in this technology revolution that they get stressed from a digital overload and it affects their health and state of mind. So now we can go on holiday or retreat to have a 'digital detox' to overcome technology burnout. Common aspects of these getaways include escaping from those digital devices and simplifying our lives or just getting back to nature. It is a growing trend and there are plenty of Internet references to see.

The natural world where **Red-rumped Parrots** live has also had a lot of change since the arrival of Europeans on Australia's shores. They are sometimes called Grass Parrots and it is common to see couples or small flocks feeding on the ground. They like open country that is lightly timbered with a grassy understorey and not too far from water. The species has benefited from land clearing which has extended their range. They are comfortable on grazed farmland and in urban parks and gardens. They prefer to feed on grass seeds and leaves, but will also feed on the seeds, flowers and leaves of other plants. They are medium-size parrots, about 27 cm long. The male is various shades of bright green, with yellow underparts and a distinctive bright red rump (side view photo). The female's colour is much duller, being mostly olive green or grey-green with a green rump (back-view photo). Juvenile colours are similar to the female's. These plumage colours help them to blend into the surroundings when feeding. Their voice is not loud and consists of high-pitched whistles and chattering. These birds are sedentary and are distributed across south-eastern Australia, being less common on the coast and in Victoria and absent from Tasmania.

Mating couples stay together for life and they like to nest in a tree hollow like many other parrots. The female incubates the eggs and is so protective of them that she is very reluctant to move even when there is danger. The male brings her food regularly during the day. The young fledge after about 30 days but will remain with the parents for some months, acquiring adult plumage after about four months. The family often joins a flock after fledging. The parents continue their close association when not breeding and when the flock takes to the trees to roost the two will find each other and begin mutual preening.

While the natural habitat of the Red-rumped Parrot has changed significantly in the last two hundred years the species has continued to flourish. They have adjusted to living in our modern industrialised country, but are quite oblivious to advances in technology that affect us so much. In his book *The sacred balance: Rediscovering our place in nature*, David Suzuki explains that we are strongly connected to the earth and the animals and plants in a very primal way, and that engaging with the natural world enriches our lives and enhances our health. In the pre-industrial world our



Photos © Michael Bedingfield 2016

senses were tuned into the landscape, the weather, the plants and animals around us, and the movements of the sun and moon. But nowadays we have an urban lifestyle and we turn to digital screens, websites and mobile phones, which sometimes deliver a deluge of images and words. This has separated us from nature's nourishing qualities and its unspoken wisdom. We can't avoid the reality of our rapidly changing modern technology, but we need to keep returning to nature for our own well-being.

References:

<http://www.birdsinbackyards.net/species/Psephotus-haematonotus>

<http://digitaldetox.org/camp-grounded/>

Readers Digest complete book of Australian birds. Numerous authors, 1979.

David Suzuki, *The sacred balance: Rediscovering our place in nature*. Allen & Unwin, 1999.

Contacts for Friends of Grasslands Inc. groups and projects

Refer to the website www.fog.org.au for more information

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Newsletters & e-bulletins: sent out in alternate months
through the year. Contributions are welcome, to
newsletter@fog.org.au or ebulletin@fog.org.au

Website, www.fog.org.au: webmanager@fog.org.au

Promoting wider knowledge of grassy landscapes

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Yarramundi Reach & Stirling Park jamie.pittock@fog.org.au

Old Cooma Common, NSW margaret.ning@fog.org.au

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Activities: activities@fog.org.au

Media contact: Kim Pullen (mob: 0400 447 958)



To all FOG's members, friends and colleagues caring for grasslands,
thank you for your contributions to, and support of, FOG during 2016

&

Best wishes for the season and the new year.

DATES for 2017 so far

FOG AGM: Tuesday 21 March at the Conservation Council office, Barry Drive, Civic, ACT.

Stirling Park workparties: 26 February, 1 April, 30 April, 28 May, 27 August, 29 October, 26 November.

Hall Cemetery woodland workparties: 4 March, 8 April.

Yarramundi Grassland workparties: 24 September, 26 November.

Annual wildflower walk at Stirling Park: 12 November.

Friends of Grasslands Inc.
PO Box 440
Jamison Centre ACT 2614