News of Friends of Grasslands

Supporting native grassy ecosystems

January & February 2023

ISSN 1832-6315

Events

Sat 21 Jan 10.30-3pm

Krawaree property wander

Register: margaret.ning@fog.org.au

Work Parties

Budjan Galindji (Franklin Grassland)

25 Jan, 1 & 22 Feb

Wednesdays 8.30-11.30am

Register: margaret.ning@fog.org.au

Top Hut TSR (near Cooma)

Jan 2023

Date and time to be finalized – please register interest.

Register: margaret.ning@fog.org.au

Gurubung Dhaura (Stirling Park)

22 Jan & 12 Feb

Sundays 9am -12.30pm

Register: jamie.pittock@fog.org.au

The latest updates are found on our website at Calendar

From the President …

18 Dec 2022

In the last newsletter I promoted the crucial work that FOG is undertaking to conserve the grassy ecosystem flora and fauna that we love. This focussed on our rear-guard efforts to conserve significant biodiverse grassy ecosystem sites from development proposals that should have been rejected on first sight. These include the appalling proposed northern road at Canberra Airport and the Defence Housing Authority's development plan for North Lawson.

Since then, FOG and the Conservation Council have held productive meetings with a number of our federal members of parliament to seek redress. We await decisions that will determine the fate of a number of species, including the Canberra Grassland Earless Dragon.

As I write, the federal Minister for the Environment, Tanya Plibersek, along with senators Hanson-Young and Pocock, are representing Australia in Toronto in negotiations of the Conference of Contracting Parties to the Convention on Biological Diversity. The government is commended for committing to the proposed target of conserving ecosystems on 30% of all lands and seas by 2030. As only around 1% of natural temperate grasslands and 5% of grassy woodlands remain, this should mean that all remaining habitat will be conserved. But the devil is in the detail. There is not yet an explicit commitment for these nature reserves to be representative of the full range of ecosystems, including grasslands.

Mugga Mugga cottage walk. Photo by Anne Brake

Earlier in December, Minister Plibersek released the government response to the review of the Environment Protection and Biodiversity Conservation (EPBC) Act (see Geoff Robertson's detailed article). The government response is welcome in committing to "a planning document for each nationally listed threatened species and ecological community" and mapping "Areas of High Environmental Value, where development will largely be prohibited [including ...] critical habitat for threatened species".

The conservation of grassy ecosystems is, however, the acid test of whether our failing state and federal laws and environment programs can be adequately reformed to truly protect biodiversity. This is because grassland species and ecosystems have been more extensively destroyed compared to nearly any other biodiversity in Australia. It is because grassy ecosystems are subject to unrelenting threats that are often hard to regulate and manage, ranging from over-grazing to farm chemical application to urban mowing. Grasslands require active management to control the plague of invading weeds, to undertake ecological burns, and defend sites against ignorance (such as wayward tree planting). The rampant destruction of grasslands in south-east NSW highlights (as evidenced by the Jam Land case) the difficulty of delineating and protecting grassland biodiversity.

Should the mooted environmental law reforms be adopted by parliament, FOG may play critical roles in implementing them. The critical habitats for protection of threatened flora and fauna and ecosystems will need to be defined. We can help define the 'no development' zones in the proposed regional plans.

In 1999, I was involved in negotiations to establish the current EPBC Act. While this law has flaws, it also has little-used powers to protect biodiversity. This should remind us that while we need powerful environmental laws, they will only be as effective as we generate the political will to implement them and appropriate funding to do so.

FOG's advocacy work needs to evolve from reactive responses to development proposals to focus more on proactive laws and programs that protect grassy ecosystems. This is one of the reasons that the FOG Committee in December decided to focus our advocacy funds on strategic and proactive projects in the ACT and NSW. Thanks to FOG donors, for the past six months FOG has employed Aaron Midson part time as our Project Officer. Aaron has undertaken excellent advocacy work but will be leaving FOG's employ to undertake his PhD research in 2023. From next year the Committee has decided not to have a Project Officer, and instead fund discrete projects, for example, for better conservation of grassy ecosystems on NSW travelling stock reserves.

I thank Aaron for his great contribution to FOG's work. I thank you for your crucial support in 2022. Now, 2023 will be crucial for conservation of grasslands with decisions due on major developments, the ACT planning system, a NSW state election and reform proposed to Federal environmental laws. FOG needs your ongoing support in the coming year.

Prof. Jamie Pittock

Advocacy Report

Sarah Sharp

Submissions

Whitlam DA 202240629, Whitlam Section 34 Block 10, Estate Development Plan Whitlam Stage 4, 6/10/22

FoG disagrees with plans to build and thus impact upon 3 ha of the heritage area to the east of Kama Reserve; disturbance of this buffer will impact existing conservation values, including old trees and Pink-tailed Worm-lizard habitat. Our disagreement is unlikely to change any decisions, however. We recommend that a good indicative plan is followed relating to mitigation actions for this zone, and in particular that it is implemented by experienced ecological managers.

Fyshwick S38 B11, 11/10/22

Friends of Grasslands supports the development application as long as the actions outlined in the Environmental Report by Umwelt (Supp_202240586_Ecological_Impact-01) are complied with.

EPBC listing of four species of GED, 14/10/22

FOG agrees that the Grassland Earless Dragon (GED) should be split into four species, each listed as critically endangered, with the Canberra GED being unique to the ACT and surrounding region. The Commonwealth department is urged to reinstate the recovery team/s.

Blocks 4, 5 S38 Campbell – Site development, 24/10/22

No direct loss of natural temperate grassland (NTG) is expected to occur at this location, however, off-site disturbance during and after construction is likely to occur without adherence to protocols such as cat containment; fencing-off of the

grassland and woodland; sympathetic landscaping within the development; a strategy for long-term management of the area of NTG.

Draft 'Caring for Dhawura Ngunnawal' – A natural resource plan for the ACT 2022-2042,

Major recommendations:

- Define the vision to recognise the importance of natural biota;
- Recognise the context of national resource management (NRM) with respect to land tenure and agencies, to ensure leased and unleased and reserved and unreserved lands are treated equally;
- Strengthen relationship to Commonwealth Matters of National Environmental Significance;
- Establish progressive output and outcome targets;
- Implement a biodiversity network;
- Recognise trade-offs between trees and grassy ecosystems;
- Further enable community volunteers;
- Enhance the emphasis on control of environmental weeds

Inquiry into the ACT Planning Bill 2022, 22/11/22

FoG was represented by Sarah Sharp at a public hearing to give evidence on the Bill on 6 December. She reiterated FoG's concerns expressed in response to the Planning System Review and Reform Project submitted in June 2022. These are summarised as:

- Lack of a stated goal to strengthen the relationship with the natural landscape;
- Issue of consistency with government strategies and legislation;
- Need for protections across tenure;
- Need for strategic and spatial planning to include wildlife habitat within sub-divisions;
- Need for recognition of matters of local significance to be identified under the ACT Nature Conservation Act as well as Matters of National Environmental Significance;
- Need for referral to the Conservator of Flora and Fauna for all protected matters;
- Need to strengthen efforts to avoid, mitigate and apply offsets.

DV380, DV384 Red Hill Golf Course, 25/11/22

Draft variations were supported to include S66 B7, B8 into the Red Hill Nature Reserve and for future development of a retirement village in S56 part B1, as long as the Plan's intent and woodland conservation are implemented.

Issues

Northern Road, Majura Valley

A team of FoG advocacy members and others continue to advocate for reconsideration of previous decisions. Environment Minister Tanya Plibersek has responded to correspondence expressing the concerns of FoG and the EPBC about the potential listing of four species of Grassland Earless Dragon.

Senate estimates questions for DHA and finance, in relation to the 2022-09-07 North Lawson DHA development proposal FoG submission, 7/11/22, were about:

- Profit from developing High Conservation Value (HCV) land;
- Deciding to develop High Conservation Value;
- Paying for the land;
- Defence Housing Australia profit for commercial development.

Tree plantings and the urban forest

FoG made a presentation at the Biodiversity Conservation Forum on 16/11/22 on the misapplication of tree planting, and on measures to achieve biodiversity outcomes.

Double-barred Finch, in the family of Grass Finches but not a “True Finch”.

Michael Bedingfield

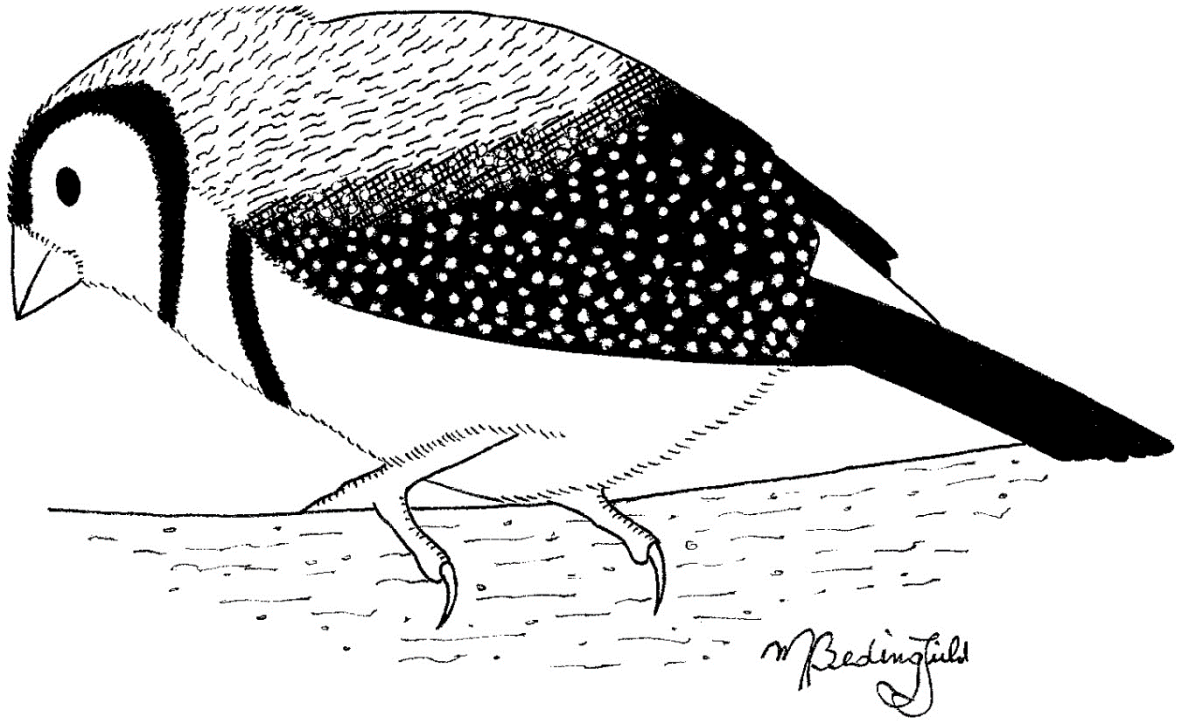
Double-barred Finches belong to the family Estrildidae which is for Grass Finches. Other species of this family that occur in the Canberra region are the Red-browed Finch *Neochmia temporalis* and the Diamond Firetail S*tagonopleura guttata*. Even though the word Finch is commonly used in their names Grass Finches are not closely related to the True Finches which are in the family Fringillidae. True Finches don’t occur naturally in Australia but the family includes the introduced European Goldfinch *Carduelis carduelis*.

Birds of the Grass Finch family are gregarious and often live in colonies. They are ground-feeding seed eaters and build their nests from grass with a dome-shaped structure. They have short, thick, pointed bills and a wide variety of colourful plumage. They generally prefer habitats with an open grassy understorey and trees or shrubs present for nesting and shelter, such as savannah grassland, grassy woodland or grasslands, always with water nearby. Most species of Grass Finches occur in warmer climates such as the tropics.

The colour and markings of Double-barred Finches make them very easy to identify. They are brownish grey above, buffy white below and the wings are black with white spots. The face and throat are white and bordered with a band of black. This gives the face an owl like appearance and the bird is sometimes called the Owl Finch or Owl-faced Finch. There is another band of black across the upper breast giving the distinct double-bar look. The birds have a conical bill with a small body length from bill to tail tip of only 11cm. Males and females are similar and juveniles are duller in colour with the two bands being less distinct. The call is a loud nasal “tiaat-tiaat” and a low “tat-tat”, and the song is of soft nasal-sounding notes. Their flight pattern is bouncing or undulating.

These birds are sedentary and in the Canberra region they are found in grassy woodlands. Locally they are uncommon, but they do breed here. They are gregarious and are usually seen in small flocks feeding on the ground. They collect seeds on the ground but are quite agile and will jump up to pull down grass seed-heads or the seeds from other low growing plants. They also eat insects but rarely catch them in the air. The breeding season is spring and summer in our region. The nest is almost spherical and built of grass stems with a short tunnel entrance on one side, lined with feathers and soft plant down. It is placed in a shrub or tree one to five metres above the ground and often near a wasps’ nest. The male has courtship displays involving the fluffing of feathers, moving the body from side to side while singing, or carrying a grass stem. Both parents attend to the duties of incubating and feeding the young. Fledging occurs about 19 days after hatching and the young depend on the parents for another two or three weeks.

Some of their other habits are interesting. Flock members will greet each other by bowing with twisted tails and rapidly opening and shutting their bills. When they are agitated they flick their tails in a semi-circle. Being very social they will perch very close together shoulder to shoulder on a branch in a row of up to six or so individuals.



The most commonly used scientific name for the Double-barred Finch is *Stizoptera bichenovii* but some sources give the name *Taeniopygia bichenovii.* The birds are widely distributed across the northern

parts of Australia and down the eastern side into Victoria. There are two subspecies. The local eastern form, which has a white rump, is called *S. b. bichenovii*. The western form that occurs in northern WA and NT has a black rump and the name is *S. b. annulosa*. Apart from grassy woodlands they will also inhabit dry scrublands, open forests and farmlands. They can also be found in arid country provided there is water nearby.

The Diamond Firetails mentioned above are uncommon in the Canberra region and have been declared vulnerable in NSW. But Red-browed Finches are common and are described as being of least concern. While uncommon in our region, Double-barred Finches have no threat to their future with the conservation status being defined as secure. I have provided a drawing of the bird that I did from the one occasion I was able to get a photograph. It is nice to know that the species is doing well despite the changes that have occurred to its natural habitat. Let's hope this continues for a long time.

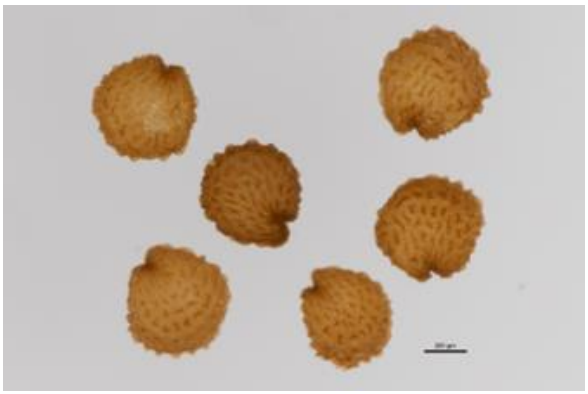
References: "Readers Digest Complete Book of Australian Birds" with numerous authors (1976) , https://www.birdlife.org.au/bird-profile/double-barred-finch , https://www.oiseaux-birds.com/card-double-barred-finch.html

Close Up – Wet Again

John Fitz Gerald

More rainfall records and floods along inland rivers, so I'm keeping the focus on plants favoured by this weather - I've chosen 3 weed species.

Sticky Mouse-eared Chickweed, *Cerastium glomeratum*. This diminutive annual plant is not a major worry in FOG's work sites, but does trouble many of us in our home gardens. I found a few large patches around Canberra's open and mown spaces a few months ago and these have now dried and shed seed. Each flower can produce many tiny rounded seeds - Pic 1.



Pic 1: Mouse-eared Chickweed *Cerastium glomeratum*

Vulpia species. While these low annual grasses with their one-sided and slender inflorescences are not seen by many as a pest, they are on the increase and are being ranked as potential serious invasives. Since growth this year of Vulpias has been enormous, I suggest we will be worrying more about them in coming seasons. The long wet spring and the low temperatures of early summer have been ideal for lush growth without the annuals' growing season concluding by curing of leaves and flowers by summer heat and dryness. That is just happening now but only after masses of plants have flowered prolifically. I've examined *Vulpia bromoides* (Squirrel-tail Fescue). After some counting, I calculate that 500 florets per large inflorescence is not unusual. Given that hundreds and thousands of plants grow in masses, the seed potential is huge. My image (Pic 2) shows a single floret at its base and 6 extracted seeds above. Each floret has a relatively long awn, a wedged callus, and a textured lemma and palea that enclose a single seed. The florets are thin, light and sharp so that after the spikelet breaks apart the seed can be transported by wind and water, or stick easily into clothes, socks and shoelaces. The seed is dispersed wrapped in its palea and awned lemma.

Pic 2: *Vulpia bromoides*. The awn has been cut off the floret at the right side of this image - awns are about twice as long as lemmas.

Yorkshire Fog, *Holcus lanatus*, is a mid-size perennial introduced pasture grass that ranks as a weed of moderate priority. Our region is showing way too many patches of the pink feathery flower heads on the top of the soft and velvety leaves, and these of course are now curing rapidly. The website Weeds of Australia and the book *Grasses of NSW Tablelands* provide the following: the grass is most invasive in damp sites - certainly fits with its successes this season. It can form dense swards that exclude other grasses and herbs, and large seed-banks that make it difficult to control. It produces feed of moderate quality for cattle, but this becomes unpalatable in drier settings and is inedible on and after flowering. It is distributed right through SE and SW corners of our continent and the Atlas of Living Australia (ALA) has over 25 thousand records for it (as a benchmark ALA has, for the iconic continent-wide *Eucalyptus camaldulensis*, about 46 thousand records). I collected some inflorescences and shook out a few seeds that are relatively

small compared to the large size of the flower heads. The shine on the seeds is actually from an outer membrane that peels away to expose the true seed - see Pic 3 with a single dull seed in the centre near the base.

Scale bars are located near the base of all three images - for Pic 1 the bar represents 0.2 mm, while for 2 and 3 the bar represents 1 mm. 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.

Pic 3: Yorkshire Fog, *Holcus lanatus*

References

Weeds of Australia
https://keyserver.lucidcentral.org/weeds/data/media/Html/index.htm

Atlas of Living Australia www.ala.gov.au

Grasses of the NSW Tablelands by Rose, Kidson, Rose and Edwards, NSW Dept of Primary Industries, 2013.

Building a Biodiversity Network Across the ACT

Proposal prepared by the Conservation Council Capital Region and Friends of Grasslands, November 2022

Contact: Sarah Sharp

As the 'bush capital', Canberra is fortunate to host a mosaic of natural areas in and around the city. Many of these natural areas are protected under the ACT's extensive reserve system. But this system does not adequately protect all the Territory's natural values, leaving many unprotected and at risk of mismanagement.

Notably, the reserve system is biased against low-lying ecosystems and small areas of natural vegetation. Indeed, 67% of the ACT's Natural Temperate Grassland remnants occur outside the reserve system despite their status as critically endangered[1]. Similarly, many threatened woodland remnants also occur outside the reserve system, including 80% of Box-Gum Woodland[2]. Many small but significant areas outside the reserve system occur along roadsides, in urban open space, in green corridors between houses, or in urban leases. While small in size, these sites can have environmental significance as they support threatened ecosystems, provide habitat for native species, and/or facilitate connectivity across the landscape. However, areas with conservation value that occur on tenures outside the reserve system are not primarily maintained for their natural values, which can put those values at risk.

To facilitate adequate protection of natural resources, a strategic system is required that facilitates conservation on and off reserves, to ensure that all remaining threatened species and communities in the ACT are properly managed and protected in perpetuity, consistent with the IUCN Protected Area Network. A Biodiversity Network that can act to support the protection and enhancement of natural values in the ACT would be designed to protect remnants of natural value that are not reserved, whereby these remnants, together with those in reserve, would be unified into a single management and (or) legal framework for protection and implementation of ecological management.

While nature reserves and national parks are important in that they provide a high level of protection against damage and loss, conservation can be achieved by applying conservation management across other land tenures, without compromising the land uses that may exist in those places. Establishing a Biodiversity Network would formalise the recognition and management of areas off reserve, and provide a framework by which those who are managing these Conservation Areas could be supported.

The aims of the Biodiversity Network would be to formalise conservation and management of biodiversity outcomes on multiple types of public and leased land by identifying them as Conservation Areas, through a combination of protection, restoration and reconnection compatible with other land management objectives. A Biodiversity Network would achieve this by:

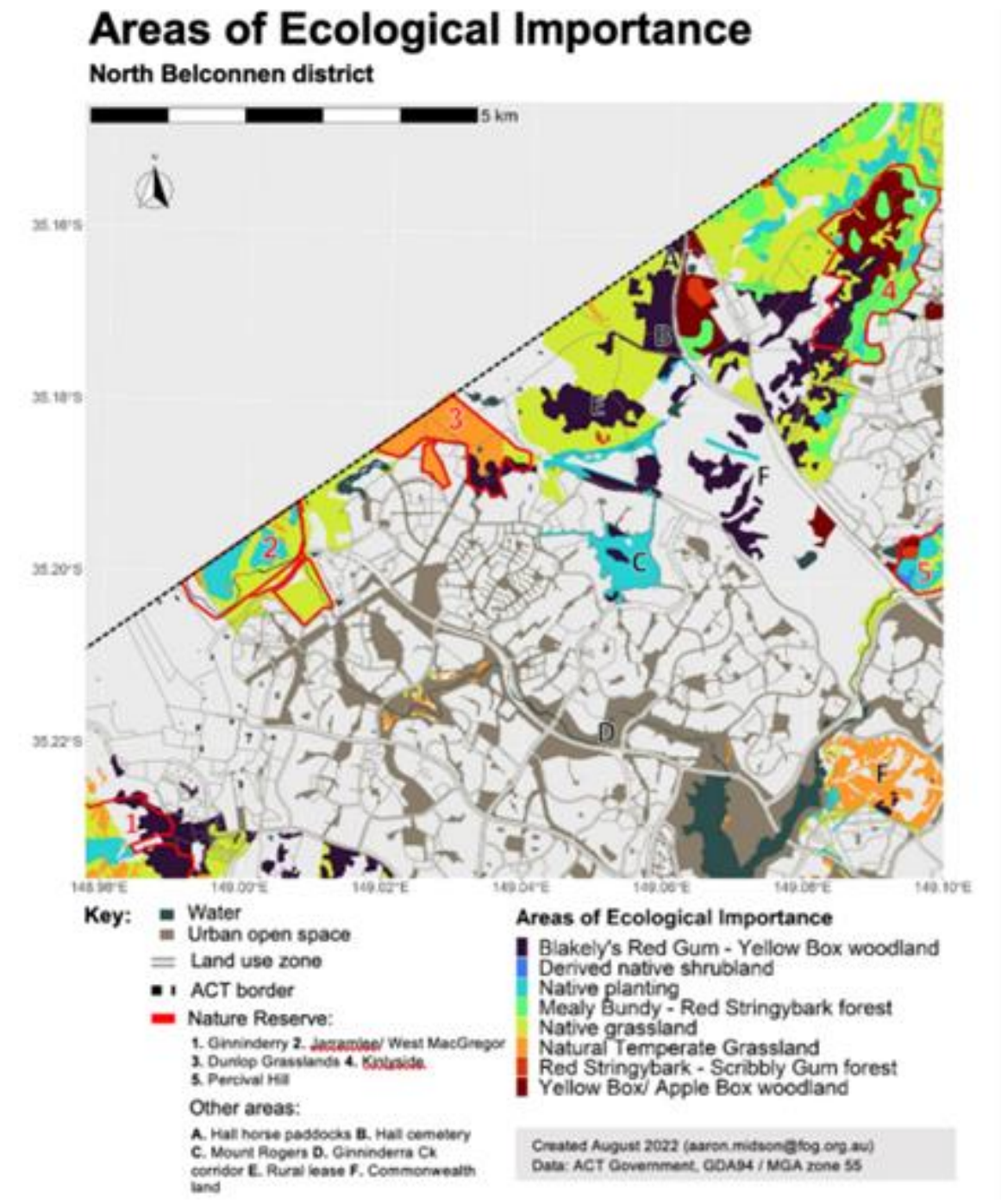
- Providing legislative protection to Matters of National Environmental Significance (MNES) that are not held in reserve[3];
- Protecting other natural attributes so that they do not become threatened;
- Increasing landscape habitat, biodiversity and connectivity;
- Implementing consistent and best practice ecological management coordinated across land tenures; and

- Better engaging, cooperating with and supporting land managers, community, special interest groups and associated management and research professions.

Downstream benefits would include climate resilience, increased human health and wellbeing, greater opportunities for fostering identity and connection to the natural landscape, improved natural functionality of the environment, and a basis for planning to prevent continuous loss of biodiversity.

Initially, the proposal is to establish the Biodiversity Network on ACT Territory land. FOG is also keen to follow up with Commonwealth departments to ensure similar measures are put in place for Commonwealth land.

A variety of options for applying Conservation Areas on ACT Territory land may be considered, depending on the particular land use and condition of areas. The proposed new Territory Plan for the ACT, in the context of the 2022 Planning Review, is a substantial opportunity to allocate conservation zones on unleased and leased urban and non-urban land, whilst allowing for other compatible land uses. This will ensure a certainty of management and protection over the long term. Opportunities should be given to regenerate degraded areas to improve conservation values outside existing remnants, focussing on areas that improve connectivity across the landscape. The map of the north-western edge of the Belconnen district demonstrates existing links across the landscape, across multiple tenures and on Commonwealth land, and provides the basis for the creation of Conservation Areas across multiple land uses.



References

1 ACT Government, Native Grassland Conservation Strategy and Action Plans, p16.

2 Calculations from ACT Government, Canberra Nature Park Reserve Management Plan, 2022

3 Environment Protection and Biodiversity Conservation Act 1999 (Cth), Part 3 Div 1.

2022 Grassy Ecosystem Grants Projects

Andrew Zelnik, FOG Supported Projects (FSP) Sub-committee

In case you were wondering, there wasn't space to fit in the descriptions of the successful 2022 applications in the previous bumper issue of the newsletter. Here they are for your reading pleasure!

1. Reintroducing grasses and wildflowers to stony knolls at Galgi Ngarrk Grasslands, Craigieburn VIC, $1,500.

Whittlesea Community Connections (WCC) is an independent not-for-profit community organisation based in the Melbourne suburb of Epping. It has a focus on engaging with community including new migrants and refugees, and people experiencing social isolation and marginalisation. In 2020, WCC partnered with Yarra Valley Water (YVW), Melbourne Polytechnic and the City of Whittlesea to establish Whittlesea Community Farm (WCF) at YVW's Aurora Treatment plant site in Wollert, on Wurundjeri Woi-wurrung land, adjacent to Galgi Ngarrk (Craigieburn) Grassland Nature Conservation Reserve. Parks Victoria indicates the ecological importance of Galgi Ngarrk's grassland as being one of the largest intact pieces of protected native grassland in the Melbourne region. It has threatened species including Golden Sun Moth, Growling Grass Frog, Striped Legless Lizard, and swollen wallaby grass *Amphibromus phithogastrus,* and the critically endangered Stony Knoll Grasslands ecological vegetation class (EVC) on a significant proportion of the reserve. WCC are setting up a seed production area (SPA) at WCF which will produce seed of grasses indigenous to the area, such as kangaroo grass *Themeda triandra*, weeping grass *Microlaena stipoides*, and wallaby grass *Rytidospema* species, to be used in direct seeding within the reserve. WCC's grant project is part of a larger project in partnership with Parks Victoria to increase seed stock for restoration in Galgi Ngarrk with the first phase of that project focussing on the 5.4ha stony knoll area of the grasslands. FOG's grant will constitute ~12% of a first phase project and will contribute to the purchase of plants (5 different key species), irrigation equipment and other materials and on-site training of volunteers by Seeding Victoria. This grant project is expected to be completed in late 2023/early 2024.

2. Aerial survey of Old Cooma Common employing a novel method (drone & AI) to detect Monaro Golden Daisy, Cooma, NSW, $1,500.

Snowy Monaro Regional Council's (SMRC) Biosecurity department has for the last three years been developing and successfully using a method to detect invasive plant species by combining Unmanned Aerial Vehicles (UAVs), aka drones, and computer Machine Learning (ML). They believe their method can be beneficial as a way of detecting threatened plant species in a grassland environment. Their project will test this by undertaking aerial surveys of Old Cooma Common Grassland Reserve (OCCGR) to capture imagery (still photos) that will then be analysed by SMRC's program to identify and geo-reference the presence of the Monaro golden daisy *Rutidosis leiolepis*, listed as Vulnerable (C'wlth, NSW), which occurs on this native grassland site. FOG has a long history of involvement with OCCGR. Our grant will contribute to operational costs for ground-truthing, calibration, two drone surveys, and data processing and analysis. The FSP team is aware that the high current biomass conditions on OCCGR are likely to prove challenging for this project. However, we consider the benefits of this innovative project will be: discovering the limits of the drone survey method for detecting the presence and abundance (or lack thereof) of MGD in current site conditions; seeing what management implications the results and findings have for OCCGR; and being able to assess the "proof of concept" of the method for wider use, for this and other threatened native grassy ecosystem plant species. This grant project is expected to be completed in the first quarter of 2023, weather permitting.

3. Construction of a Seed Production Area (SPA) for Grassy Ecosystem species, Deniliquin, NSW, $1,500.

Murray Local Land Services (MLLS) operates a restoration seedbank where they undertake native seed collection, cleaning and storage; management of a network of seed production areas (SPAs); and revegetation activities through direct seeding and production of tubestock. MLLS have found that collecting native grassy ecosystem seeds has been difficult due to short harvest windows, remote locations, and constraints on yields due to limited wild populations. They consider that efficacy and yields would increase by establishing an SPA for grasses and forbs at their Deniliquin Seed Bank facility because of its central role as an operational staging area for seed collection and direct seeding. The aim is to produce and increase the availability of genetic material for at-risk or difficult to harvest species from remnant native grasslands in the Murray/Riverina/South West Slopes areas. The SPA design incorporates 'self-watering' wicking beds that use capillary action to raise water upwards through the soil profile to the plants' roots. The beds will be constructed from half sections of Intermediate Bulk Containers (IBCs) i.e. watering cubes. This method has been successfully applied elsewhere – see Issue 138 *Renew* magazine (2017), "As simple as IBC: DIY wicking beds". The plant species selected, based on expected demand

for revegetation projects and likelihood of growing well in wicking beds, are anticipated to include Australian bindweed *Convolvulus angustissimus*, nodding chocolate lily *Arthropodium strictum*, wallaby grass *Rytidosperma* spp., and weeping grass *Microlaena stipoides*. FOG's grant will constitute just over 30% of budgeted project costs and will be for purchase of materials and manufacture of four wicking beds. This grant project is expected to be completed with seed harvest in late 2023/early 2024.

4. Inspiring conservation and wise management of Box Gum Grassy Woodlands in the Gunning area, Gunning NSW, $1,500.

Gunning District Landcare (GDL), based 45km west of Goulburn, is active in the Upper Lachlan region of the Southern Tablelands. It focusses on improving environmental awareness and conservation management outcomes in its region. Current projects include: improving the ecological values of Box Gum Woodland (BGW) remnants on private and public land; conserving the threatened Southern Pygmy Perch; supporting landholders with revegetation; organising environmentally-focussed education activities for local children; and promoting feral animal control. In line with this they have sought a grant from FOG to assist with a public seminar event to increase the ecological literacy of landholders, residents and local government staff in the Gunning region, in relation to native grassy ecosystems, BGW ecological values, and best-practice conservation management. This will directly support GDL's work in promoting environmentally sound land management practices. It will also assist with their latest on-ground project to conserve and rehabilitate a 2.2ha patch of BGW at the Gunning Showground. With the support of Council, they have recently received a substantive grant from the Australian Government for this project to undertake on-ground rehabilitation work and outreach. They anticipate there will also be interest in the public seminar further afield in the Goulburn and Yass areas. The FSP team recognises the strong need for this project, given the importance of BGW remnants in this highly-cleared agricultural landscape and the resourcing challenges for local NRM agencies in this area. The project also has the potential to increase GDL's volunteer base and widen the scope for further FOG outreach and networking in the local area. FOG's grant will contribute to seminar event costs e.g. venue hire and catering, and the preparation of printed educational and reference materials. This grant project is expected to be completed by June 2023.

Help still wanted

As advised in the previous update article we would appreciate help to run our grants program both in terms of administration and/or provision of ideas for improvement. All contributions will be gratefully received. If you would like to help out, please contact me at andrew.zelnik@fog.org.au.

Donations

FOG uses donations to fund various projects such as Top Hut TSR, and other on-ground projects such as the Grassy Ecosystem Grants. You can make a tax-deductible donation to the FOG Public Fund:

Direct debit: BSB 633 000, A/c 15343960 (Bendigo Bank).
Please include your name and notify our Treasurer(treasurer@fog.org.au) to receive your tax-deductible receipt

Or Cheque: payable to 'Friends of Grasslands Public Fund', mailed to Treasurer, Friends of Grasslands Inc., PO Box 440, Jamison Centre, ACT 2614. Include your name and postal address to receive your tax-deductible receipt

You can include your preference for use, if any, when you make your donation. By law the final decision on the use of tax-deductible donations to the FOG Public Fund rests with the FOG Public Fund Management Committee. Donations to the Public Fund of $2.00 or more are tax-deductible.

NPWS article on Top Hut TSR burn

Fire Breathing Dragons

It's not often rain is seen as the enemy on the frequently dry hills of the Monaro. But for the habitat of the Monaro Grassland Earless dragon, it's a double-edged sword. Particularly when the season causes so much grass even the local sheep can't eat enough of it. Now an exciting collaboration between South East Local Land Services, NPWS, Saving our Species and Friends of Grasslands are turning things around for the dragon.

The Endangered Monaro Grassland Earless Dragon (MGED, *Tympanocryptis osbornei*) relies on a patchwork habitat with short grassy tussocks and bare patches in between. This gives more living space for the dragons and the invertebrates that are important for their diet. However significant biomass from the last two wet years has meant a lack of open patches, known as inter-tussock space.

With a major destocking program on the Monaro during the recent drought, conservation grazing wasn't an available tool to reduce the grass load. Working with our colleagues at LLS and NPWS we were able to do an ecological burn at Top Hut travelling stock reserve at Dry Plain, north west of Cooma. This was a real team effort to allow the cool burn to trickle across the reserve.

It took the top off the frosted grass, creating that patchwork habitat dragons need when they awake from torpor (hibernation for reptiles). Well-managed sheep grazing will now be used as a tool to keep this mix of bare patches and tussocks. Here's hoping for a successful dragon breeding and monitoring season!

Check out a video of the burn here

Photo: Melanie Sim/DPE

Our Native Grasslands and the People Who Care for Them by Jenny Horsfield

Here is another extract from Jenny's book.

In Australia in the 1950s the national interest was seen as strongly tied to the grazing and cropping (and later, mining) industries. These industries had fuelled post-war prosperity and supported a growing population and lucrative export trade. In such a climate it was impossible for the public to examine the long-term environmental consequences of current land use. There were individual voices in science – Alec Costin and Maisie Fawcett were early examples – but Australia lacked that intellectual tradition, so well developed in America, where influential scientists, philosophers, poets and activists wrote widely about the earth and humanity's relationship to it. That tradition stretched from Henry David Thoreau in the mid-nineteenth century and included John Muir, whose writings and advocacy led to the founding of the national parks

movement in America in the late nineteenth century; Wendell Berry, a farmer, writer and activist whose contemporary writings include conversations about sustainable agriculture, healthy rural communities and environmental destruction; and Thomas Berry, an influential religious scholar who died in 2009. Especially in his later years, Thomas was a passionate advocate for restoring earth's habitats and biodiversity, arguing that humanity's destiny was intimately connected with 'the destiny of the earth'.

One American voice that was widely heard in Australia was that of Rachel Carson, whose book *Silent Spring*, published 60 years ago in 1962, exposed the terrible realities behind the universal embrace of pesticides and herbicides in America. Margaret Atwood has called it 'the most important environmental book of the twentieth century'.

Carson was already the most respected nature writer in America before *Silent Spring*. It was her last book, published not long before her death. Carson knew how to explain science to ordinary readers, while at the same time her writing was infused with a love for the natural world she wanted to protect.

While meeting furious resistance from big chemical companies and even government agencies and the scientists in their service, the book succeeded in the following decades in inspiring government legislation worldwide. DDT, for example, was banned in Australia in 1987.

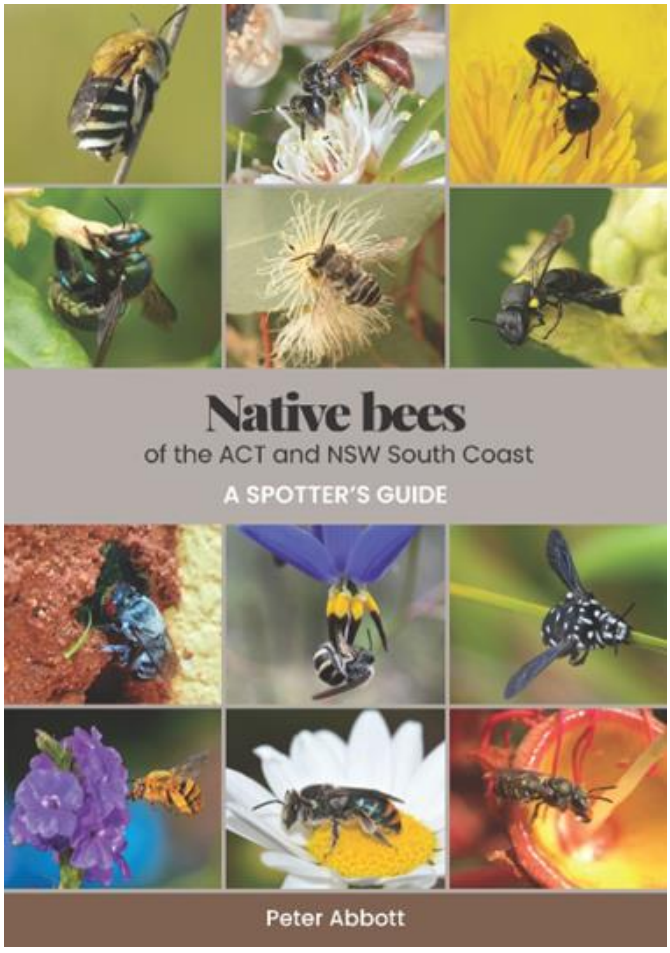
Rachel Carson was one of the first influential writers to question the notion of humanity in opposition to 'brute nature', with a mandate to tame and subdue it according to our needs, and to exploit nature's resources which were thought of as inexhaustible. In Australia, this outlook found typical expression in Prime Minister Menzies' words when he opened the Ord River scheme in 1963, proclaiming, 'This is more than just a dam – it is a symbol of man's conquest of nature'.

The dust storms of the 1930s caused many thoughtful people in Australia, outside of mainstream opinion, to begin looking closely at land practices and their damaging effect on the ancient soils of the continent.

One way or another, farmers would always be at the centre of this debate because soil was the basis of their livelihood.

Native bees of the ACT and NSW South Coast – A spotter's guide by Peter Abbott

This guidebook will introduce readers to the gentle art of spotting and identifying native bees. It highlights the many and varied native bees in the ACT and NSW South Coast region. It is highly illustrated and written in non-technical language to assist readers to become familiar with the local native bees. It also provides simple visual clues to assist in identifying the major bee groups and many individual species. The aim of the book is help everybody to become native bee spotters. It is available online and at local bookshops – for further information and details on availability, see www.nativebeesACT.net



Recent FoG Events

Mugga Mugga Cottage land walk

Sue Ross

On Saturday 8 October 2022, as part of the ACT Historic Places Bloom Festival, Geoff Robertson led a group around the endangered natural temperate grasslands within part of the Mugga Mugga Cottage land. This site provides an example of these once extensive grasslands that occupied 11 percent of southeast Australia. Sadly, only one percent remains. This is why places like Mugga Mugga are so very important.

The tour started by looking at the broad and wonderful view of the Limestone Plain that may be seen from Mugga Mugga. Ngunnawal people would have stood there to observe the then extensive grasslands, the surrounding woodland on the higher slopes, hills and the more distant mountains. They had names for each place and hill and used the rich biodiversity of the Limestone Plain to provide their food, fibre, medicine, tools and shelter to sustain them successfully for tens of thousands of years.

Geoff's approach really suited those who were relatively new to NTGs and those with a little more knowledge. All the participants enjoyed informative discussions about the plants at the many stops along the way.

ACT Historic Places have worked with Friends of Grasslands to develop a management plan for the site to protect what is left and encourage the native grasslands to come back into the area. There are also plans to work with Ngunnawal people and the Rural Fire Service to start cultural cool burns in the autumn as part of the long term management of the grasslands.

The rain held off and, although a bit early for some native plants' flowers, we saw grasses and forbs including red-leg grass *Bothriochloa macra*, early Nancy *Wurmbea dioica,* rock fern *Cheilanthes* sp., common everlasting *Chrysocephalum apiculatum*, wallaby grass *Rytidosperma* sp., kneed speargrass *Austrostipa bigeniculata*, Austral sunray *Triptilodiscus pygmaeus*, bears ear *Cymbonotus* sp. and sheeps burr *Acaena ovina*.

Photo by Anne Brake

Our thanks go to our host, Anne Brake, Assistant Director Visitor Engagement and Interpretation of the ACT Government's Historic Places at Mugga Mugga Cottage, who provided some local history and a lovely morning tea to finish a successful visit.

Jarramlee Nature Reserve - Friday 25 November

Margaret Ning and Geoff Robertson

On a beautifully fine afternoon, Ranger Craig Wainwright welcomed thirteen FOG members to his offset patch of Jarramlee Nature Reserve – part of Gooromon Grasslands. The Reserve is a 145-hectare protected area on the north-western border of the ACT, originally natural temperate grassland (NTG). The reserve extends from a small hill, Stony Knob, down to the minor floodplains of Ginninderra and Gooromon Ponds creeks. We first drove to an elevated area on the south-eastern part of the reserve from which we saw this extensive landscape, reminding us of the landscape that Robert Hoddle painted in the 1830s. Craig handed out a booklet on Gooromon Grasslands prepared especially for FOG. He summarised information in the booklet beginning with the traditional owners and moving on to the early settler families of Campbell, Southwell and Kilby, who grazed but generally didn't crop the land. Craig referred to the varieties of historical aerial photography he has used to understand the history of disturbance in the grasslands.

From our viewing point, Craig pointed to different management issues confronting him, and explained what he has been doing over the last three years there. He mentioned how different parts of the reserve fall under three different land management agencies. His primary focus is on achieving the targets set out in the *Gooromon Grasslands Operational Management Plan 2018-23*, which ends next year. Craig's booklet provides key information from the plan. We could see Ginninderra Creek below us, just beyond its confluence with Gooromon Ponds. It was highly eroded, the result of recent powerful flows. He discussed planned remedial work. Further across the creek was a huge area of Chilean Needle Grass (CNG), *Nassella neesiana*, which is now performing well as habitat for the endangered Golden Sun Moth (GSM)! Jarramlee is an offset for the suburb of Lawson where GSM habitat and natural temperate grassland (NTG) have been destroyed. The CNG GSM habitat is very robust, and Craig is confident he can maintain no net loss to GSM habitat in both the CNG-dominated habitat and native-grass GSM habitat. Some other issues for Craig have been that while he has removed a lot of blackberry over the years he has lost a lot of small birds. More shelter areas are planned, but take

time. Another is that decades ago the National Capital Development Commission made extensive tree plantings of inappropriate species - while they cannot be removed, there is some die-back, and any regeneration outside the woodlot areas can be removed, so there is a net reduction of trees occurring. Craig also pointed out the huge subsidence paddock recently remediated and seeded by Greening Australia (GA), visible from our vantage point.

Subsidence paddock – Photo A. Zelnick

Areas of NTG are a key focus of management. In 2017 vegetation mapping was done which identified the condition of NTG in the reserve. Large areas of the reserve, which are offsets for the Lawson development, are financed by offset finance. Offsets Section, within the ACT Environment, Planning and Sustainable Development Directorate, gives monitoring feedback, successful or otherwise, and their biomass scores. Craig greatly appreciates this information which assists in his adaptive management approach.

Craig has different strategies for different areas. He has opportunistic seeding/planting sites where there was blackberry previously but which are bare following treatment. Craig uses large fencing panels, more at home on building sites, to keep cattle out. Fences shield planting areas for six months and then they can be removed. ParkCare volunteers greatly help with Craig's plantings.

Cattle exclusion fencing - Photo A.Zelnick

Craig focuses on good NTG areas, employing strategic slashing, brush-cutting, pulling of St Johns Wort (SJW), *Hypericum perforatum*, etc. in those, and some forb and grass planting. One take-away is, don't plant Themeda unless it has a strong root system. Other matters of environmental significance include consideration of Pink Tailed Worm Lizard and Canberra Raspy Cricket habitat. Any habitat for threatened or rare species needs to be preserved. There's a strategic management plan for fire abatement, as the whole reserve is regarded as a very fire prone area of suburbia.

After around an hour of listening to Craig summarising his highly informative and fascinating management tasks and areas, it was back into the cars for a short drive to one of Craig's prize NTG patches, the Leptorhynchos beauty spot. I have never seen a more extensive area of Scaly Buttons, *Leptorhynchos squamatus,* interspersed with Kangaroo Grass. Lovely!!! After marvelling at the sight in front of us, we moved to another of Craig's lovely patches dominated by Tall Stipa, *Austrostipa bigeniculata*. Craig slashes SJW and Fog Grass, *Holcus lanatus* in mid spring before Stipa seed development. Flupropanate is the best chemical against African Love Grass, as nothing comes back for quite a while and allows for rehabilitation works in previous monoculture areas. Craig is very pleased with his strategy of using the last three years' La Niña conditions to plant Tall Sedge, *Carex appressa* and Juncus species along some of his lower-lying areas. He has also added some Vanilla Lilies, *Arthropodium milleflorum* and Billy Buttons, *Craspedia variabilis* in some places. One needs a lot of rain and holes to plant in. Strategy: find some cattle pugging, plop in a wet-area loving plant, and watch it grow!

Our last treat for the day was Copperhead Knoll, where we were made aware of the cultural sensitivities of the site. There were yet more Scaly Buttons and a large area of Five-awn Spear Grass, *Pentapogon quadrifidus*, a species we don't see very often.

Five-awn Spear Grass, *Pentapogon quadrifidus* *Photo A.Zelnick*

Unfortunately the Copperhead failed to make an appearance. Below us there was a large bend in Ginninderra Creek where the plastic bottles that fail to

make the turn when flood levels are up, end up in a heap in the paddock, adding another management task to Craig's long list. We were able to drive to all the sites Craig showed us, which was much appreciated, given the warm weather. And for us, we found out that we were the last group to be privileged to listen to one of Craig's Jarramlee interpretative tours, as he is in his last year before retiring. Thank you Craig, and especially for your booklet - a very insightful, informative and fascinating read.

Report on Scottsdale Monitoring 2022

Linda Spinaze

Our monitoring this year was delayed from November to 2nd December due to other monitoring commitments. However, we managed to choose a perfect day – sunny, warm, no rain nor wind.

FOG volunteers met at Scottsdale before 9am – Margaret Ning, Geoff Robertson and their friend from NY Sabina, Brigitta Wimmer, Andrew Zelnik, Peter Chandler and myself. The team was completed by Kim and Donna, Bush Heritage ecologists, and Matt Kent who spends a day each week volunteering on Scottsdale.

This time we were fortunate to be monitoring some sites up on the hill on the western part of Scottsdale. This involved a rough drive on the recently rain-affected tracks, but the views from the top were spectacular, so we were able to enjoy the fabulous views while we worked.

We divided into 2 groups, and each group had a 50m square site already marked out by Donna and Kim. Within this square we had to identify all the species that we could find, both native and exotic. While a few of us did this, Kim and Donna, with help from Marg and Matt, closely monitored 4 x 1m quadrants at each site. We were excited to find one faded sun-orchid (Thelymitra), the large-leaved Desmodium and a few non-flowering Swainsona.

A delicious sandwich and cake lunch was provided by Bush Heritage, and we enjoyed it with views to the east over Scottsdale. Returning to base late in the afternoon was quite exciting as we descended very steeply back to the valley floor.

Thanks to Phil Palmer (Scottsdale Manager), Kim and Donna for providing us with an enjoyable and informative day.

Corporate Visit to Budjan Galindji - Friday 18th November 2022

Fay Wareham

On a lovely sunny and dry day in late November, a Corporate group from NTT Global (Canberra Office) participated in a volunteer day at the Budjan Galindji grasslands at Franklin. NTT allows their employees three days a year to do paid volunteering. This year they have been working across the Ginninderra Catchment. Team Leader from NTT Ash (Aislinn De Rooy) and Kat (Kathryn McGlip) from Ginninderra Catchment Group along with Ranger Stephen Bruce and Geoff Robertson arranged an informative, active and interesting program for the day.

After introductions and scene setting from Kat, Geoff and Steve, the first part of the morning was spent at the Seed Nursery area near the intersection of Flemington Road and Christina Stead Street. The group spread huge loads of mulch on cleared areas and some weeded seedling beds. There was also a visit by Clair Gilligan and Dr. Chels Marshall who are currently exploring possible development of the Gungahlin Homestead Master Plan, and who expressed interest in grassland restoration and the seed gardens at Budjan Galindji. Chels gave an indigenous perspective on uses of native grasses.

After a morning tea, with fresh crumpets and toppings from a local café, we walked to the south-east corner of the site to see the revegetation area which is the current focus of the FoG Budjan Galindji Friends group. This area has had an environmental burn and much effort has also been put in by the Rangers and work crews to get rid of the blackberries. Lots of volunteer work plus the current wet season have resulted in remarkable new native plant growth. Many of the group were introduced, for the first time, to the delights of Blue Devils.

After lunch the group walked to a boggy area near the permanent dam to plant tube stock of suitable rushes and

grasses. This area was diagonally opposite the pre-lunch site. During the walk, as people looked at their step counters, there were some comments that they had already done so much more than 10,000 steps. Arriving at the site there was instruction on how to use the planting tools and remove the seedlings from the plastic containers. An informal, good-humoured competition arose to see how much tube stock could be got into the ground in the allotted time. Cooperative time and activity skills were exhibited and a record amount of tube stock was planted.

Congratulations and thanks must go to the enthusiastic and active volunteers from NTT who contributed to a most enjoyable day in good company. Thanks are also given to the planning team and other volunteers and visitors who put time and effort into presenting a great day in the grasslands.

Recent FOG event: Blue Gum Point & Attunga Point Work Party 20 November 2022

Paul Archer

Seven volunteers, replete with mattocks and other implements, convened on a blustery morning to plant an area cleared of weeds on the shores of Lake Burley Griffin. Around 100 grasses, comprising tussock grass *Poa labillardierei,* and spiny matt rush *Carex appressa*, were involved with Carex being reserved for the wetter ground (and there was plenty of that).

photo: P. Archer

This was a sensitive area adjacent to threatened button wrinkelwort *Rutidosis leptorrhyncoides* habitat. Other jobs included maintaining past plantings, weeding and collecting rubbish. A delicious morning tea was provided by Jamie and Pam.

Photo A. Zelnick

News Roundup

Changes to EPBC Act

Geoff Robertson

On 8 Dec, the Minister for the Environment, Tanya Plibersek, released the government's 50 page response to the Samuel's report, under the title, *Nature positive plan: better for the environment, better for business*. The response is very welcome, appearing to endorse the recommendations of the Samuel's review, which FOG more or less supports. Previous newsletters have explained various reviews of the *Environmental Protection and Biodiversity Act (EPBC)* and FOG's submissions on this matter. However, the response leaves the government lots of wriggle room and so it will be important to ensure the eventual law and regulations and structures created meet the aspirations expressed in the *Samuel's report* and the government's response. I was a little disappointed by the title of the response, which I believe should also have included the words "*better for people*".

The response has three broad headings. First, *Better environment and heritage outcomes,* mentions that the EPBC Act is not working; there needs to be a greater focus on outcomes and less on process; the creation of National Environment (Biodiversity) Standards (NES); conservation planning; real partnerships with First Nations people; and aligning a revised act with international commitments. All of these are hugely welcome.

Second, *Better, faster decision-making and clear priorities* links accreditation with NES; and mentions regional plans; changes to offsets; a nature repair market; and streamlined processes. While much of the thinking behind

these recommendations has merit, it is easy to imagine that the reality of what emerges may fall short of the aspiration, and care is needed to ensure this does not happen.

Third, *Accountability and trust,* mentions an independent environment protection agency, better data, more control over national parks by traditional owners, and closer working together by the Commonwealth with states and territories. All of these are highly desirable.

Implementations will not be quick - 2023 will be taken up with designing the legislation and developing the standards, what an independent EPA might look like, etc.

The agenda the government is setting is highly challenging. Many of the issues mentioned are not easily resolved. The government response is particularly welcome in committing to "a planning document for each nationally listed threatened species and ecological community" and mapping "Areas of High Environmental Value, where development will largely be prohibited [including ...] critical habitat for threatened species" through regional plans. Conserving grassy ecosystems will be the key test of these fine aspirations. Precisely mapping critical habitat of grassland threatened species and ecosystems is not easy. The rampant destruction of grasslands in NSW highlights the difficulty of delineating and protecting grassland biodiversity. FOG may play a role in assisting governments to define critical habitats for protection in the proposed regional plans.

It is also becoming even more apparent that nine years of government neglect of, and hostility to, biodiversity, has cost nature and us dearly. Many previous decisions should be reversed or at least deeply investigated. Even though the current EPBC is grossly inadequate, outrageous control actions such as those associated with Lawson north and the airport north road are proceeding - there are many similar examples in other regions. I wish that such proposals would be postponed and considered under the new legislation when it comes into operation.

There are many other matters mentioned in the government's response which I would encourage the reader to read. The response may be found here.

Airport northern road

Geoff Robertson

In the advocacy report in our last newsletter, mention was made of a letter to NCA (1 Sept), a letter to the Commonwealth Minister of the Environment (23 Sept) to suspend approval of the road, and meeting with department officials (29 Sept) and Minister Vassarotti's position on the north road. Elsewhere, more detail was given on the 20 Sept meeting, and the Minister for Environment's release of the *Threatened Species Action Plan: Towards Zero Extinctions* in which the Canberra grassland earless dragon (CGED) was placed on the priority list of 110 critically endangered species.

FOG has since written to the Minister, seeking "the Statement of Reasons" for the Department's decision of May 2020 approving the road. We have learnt that our various submissions are receiving much attention in the department. FOG member Matt Whitting also filed a FOI request with the department and received a number of documents on 7 December.

What the FOI papers suggest, but we need the statement of reasons to confirm, is that earlier route of the proposed road would have gone around, and not cut through the middle of and destroy CGED habitat. The earlier route was designed on advice of the GED recovery team (2009). It seems the 2020 route was a result of Defence not being willing to hand over land to allow the 2009 route. However, the May 2020 decisions seems not to have taken expert advice, which would have informed it that GED had now been split into four species and that CGED numbers had crashed since 2009. It would have also learnt that the airport population of CGED was genetically distinct from other CGED populations.

Also it would appear that the earlier road would have remained unsealed, whereas the 2020 road would be sealed. By way of background it appears that the former government preferred a sealed road for security and appearance reasons. The airport wants a north sealed road for the expansion of its cargo hub activities. The ACT government would like a second road for emergency purposes. However, no investigation seems to have taken place of suitable alternatives.

FOG is continuing to make stakeholders aware of the plight of CGED at the airport.

Victorian orchid's supposed extinction a case of mistaken identity

This is a tale of mistaken identity, a small, lemon-scented orchid which has been hiding in plain sight and an exciting re-discovery of *Prasophyllum morganii* after a good deal of exceptional sleuthing by scientists Bronwyn Ayre, Tobias Hayashi, Ryan Phillips of La Trobe University and Noushka Reiter of the National Botanic Gardens Victoria.

It begins with the mignonette leek orchid first being collected from a single population in the sub-alpine region of Victoria in 1929 then not seen again since 1933 despite extensive surveys by orchid enthusiasts.

Described in the 1930s as a small terrestrial herb with a single flowering stem "densely crowded with flowers", its only recorded population, consisting of fewer than 15 plants, was found on private land near Cobungra, Victoria.

Prasophyllum morganii, the mignonette leek orchid.
Credit:Tobias Hayashi

In 2020 following the devastating black summer bushfires of 2019-20, the federal government funded a $500,000 bushfire recovery project to survey key wilderness areas in East Gippsland, the alpine areas of NSW and Kangaroo Island for 14 species of nationally threatened orchids affected by the fires.

Scientists surveyed the populations, developed collections of seeds and also collected species of an orchid first found in the Kosciuszko National Park in 2000 and called the Kiandra leek orchid, or *Prasophyllum retroflexum*.

The scientists then measured 51 morphological traits on 14 field-collected and 13 herbarium specimens of *P. retroflexum*, and six historical herbarium collections of *P. morganii*. They also conducted a comparison of the types of both species with the field and herbarium specimens. Multivariate analyses were undertaken using 35 characters, and an ordination performed on range-standardised data. "We compared the floral characters – how wide they were, whether they had little bumps on them – it was weeks and weeks of measurements," said senior research scientist Noushka Reiter, from the Royal Botanic Gardens.

Results showed no morphological differences between specimens identified as *P. morganii* and *P. retroflexum*, and the scientists concluded they are conspecific.

This means the Kiandra leek orchid doesn't exist. The person who found those specimens and named them didn't realise they were actually the mignonette leek orchid which, though not extinct, is still critically endangered.

"It just shows it's really important to do that comparison work and to have that bank of specimens to compare with," said Dr Reiter. "It's not the kind of thing that happens often." Co-author Bronwyn Ayre said the discovery would not have been possible without specimens stored in the National Herbarium. "It was amazing to be able to compare flowers collected over 90 years ago, to ones we just collected ourselves," Dr Ayre said.

There is a small living population of fewer than 500 mignonette leek orchids now identified in Victoria and NSW. To help with the recovery of all 14 endangered orchids surveyed by the bushfire recovery program the scientists have collected seeds and are propagating them at the botanical gardens in Cranbourne.

All orchids rely on mycorrhizal fungi to germinate, so researchers have also isolated the specific mycorrhizal fungus for the mignonette leek orchid and learnt how to culture it in the laboratory to get the seeds to germinate.

Dr Bronwyn Ayre doing seed collection for the mignonette leek orchid. Credit:Tobias Hayashi.

This article is sourced from Miki Perkins in The Age https://www.theage.com.au/environment/conservation/victorian-orchid-s-supposed-extinction-a-case-of-mistaken-identity-20220331-p5a9lx.html and the Abstract at https://www.biotaxa.org/Phytotaxa/article/view/phytotaxa.528.2.1

Contact us

General inquiries: info@fog.org.au
Media inquiries: 0407 265 131 (Jamie Pittock)
alt. 0403 221 117 (Geoff Robertson)
Membership to join or renew, membership@fog.org.au
Events & work parties: Calendar.
Book order forms: Grassland & Woodland Floras.
Small grassy ecosystem grants: supportedprojects@fog.org.au
News of Friends of Grasslands: Latest & past issues. To submit articles & news items newsletter@fog.org.au
Events & notices bulletin: ebulletin@fog.org.au
Advocacy contact: advocacy@fog.org.au
Website matters: webmanager@fog.org.au
Projects, work parties & contacts:

- Hall Cemetery: john.fitzgerald@fog.org.au
- Scrivener's Hut, Gurubang Dhaura (Stirling) Park, Blue Gum Point & Yarramundi Grassland: jamie.pittock@fog.org.au.
- Budjan Galinji: *margaret.ning@fog.org.au*
- Travelling stock reserves & Old Cooma Common: margaret.ning@fog.org.au
- Scottsdale monitoring: linda.spinaze@fog.org.au
- Ginninderry scrape monitoring: john.fitzgerald@fog.org.au

Health & Safety: info@fog.org.au
Correspondence:

- Postal: PO Box 440, Jamison Centre, ACT 2614
- Email: secretary@fog.org.au

Payments & accounts: treasurer@fog.org.au
annual reports.
FoG committee, contact: secretary@fog.org.au