



News of Friends of Grasslands

Supporting native grassy ecosystems

November -December 2009

ISSN 1832-6315

Program

Please register for FOG activities with the **FOG contact** who can assist with directions and possibly car pooling. By registering you assist FOG to organise any catering and provide you with other information you may need.

SAT 7 NOV 9am-noon Hall Cemetery working bee. Enquiries: Andy Russell (6251 8949 or andy.russell@fog.org.au).

SAT 14 NOV 9.30am-3pm Old Cooma Common working bee. Enquiries: Margaret Ning (6241 4065 or margaret.ning@fog.org.au).

SAT 21 NOV 10am to noon A stroll through Stirling Ridge with Adam Muylt. See page 2 for detail.

SAT 28 NOV 2.30 pm Visit to Michael Beddingfield's garden in Conder. More detail on page 2.

SAT 5 DEC, 9am to 4pm, FOG-ANU Fenner School Working Bee, Stirling Ridge. Please let Jamie know if you are willing to lead a weeding team, help set up monitoring points, or run the registration or barbeque, or just volunteer for weeding. Lunch provided. More on page 2.

It is membership renewal time

A membership renewal form for 2010 is enclosed. Please complete it carefully. You may pay by cheque, money order or EFT. Annual rates are only \$20 for families/individuals, \$5 for students/concessions, and \$50 for organisations. Donations, while not tax deductible, are very welcome. The form is also on our website (www.fog.org.au). For any queries contact Margaret on 02 6241 4065 or margaret.ning@fog.org.au.

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Common fringe-lily: more than just a pretty flower, it has medicinal qualities



PHOTOS: A Royal visit, story starts page 9.

Some upcoming FOG events

Hall Cemetery working bee

Sat 7 Nov 9am-noon

This is the second cemetery working bee for 2009. We shall continue to remove regenerating eucalypts, which are threatening orchids in the grassland areas, and woody weeds (cutting and daubing) in the woodland paddocks. Please bring gloves and tools. Morning tea will be provided. The cemetery is on Wallaroo Road about 200m from the Barton Highway. See cover page for contact details.

OCCGR working bee

Sat 14 Nov 9.30am-3pm.

Attending a working bee at Old Cooma Common Grassland Reserve provides a great opportunity to visit a good example of one of the most interesting and diverse basalt grasslands on the Southern Tablelands. You will see expansive views of the Monaro landscape, develop skills, and catch up with other FOG members.

OCCGR is located off the southern end of Polo Flat Road, Cooma, and has been established by FOG and Cooma Monaro Shire Council. It is fascinating to visit any time. It contains two threatened and one rare plant species. There are some tasks not using chemicals. At lunchtime FOG is putting on a barbecue. Petrol costs of 15 cents a kilometre can also be paid. See cover page for contact details.

A Stirling stroll

Sat 21 Nov, 10am-noon

Adam Muyt, has for many years been committed to the preservation and management of our grassy woodland remnants and is very familiar with Stirling Ridge, a spectacular woodland site, and home to the endangered button wrinklewort. Adam will provide a thorough but simple understanding of the woodlands, the plants, and their best management.

We will meet on Alexandrina

Drive across from the Canberra Yacht Club (car park on Mariner Place), Yarralumla. This is also by the lake-side bike track. You should bring appropriate clothing, hats, water and a sense of fun.

To let Adam know that you are coming and to give us a sense of the numbers, please contact Adam, adam.muyt@yahoo.com.au or 02 6251 2195, after hours.

Visit to Michael B's garden

Sat 28 Nov 2.30pm

FOG's Conservation and Cultivation Group is visiting Michael Bedingfield's garden in Conder. Michael has been experimenting with recreating natural grassy ecosystems in his garden.

Michael has a variety of grasses and flowering plants growing in a semi-wild or natural state in sections of the garden. There are also a few flowering plants that do well in a typical garden bed, some local shrubs and trees, and some interesting patches of "natural lawn", and a mosaic of native grasses and forbs that survive mowing and grow alongside the introduced grasses. As a special treat, Michael will also have on display his many drawings and photographs of local flora. Afternoon tea will be served to the visitors.

To visit the garden, register your interest with Janet Russell on 6251 8949 or janet.russell@fog.org.au.

FOG-Fenner working bee

Sat 5 Dec 9.30am to 3.30pm

The FOG-Fenner Group is organising its last working bee for 2009 at Stirling Ridge (Sat 5 Dec). Stirling Ridge, a spectacular woodland site, is home to the endangered button wrinklewort. The main problems here are woody weeds (blackberry, Cootamundra wattle and exotic trees) and blue periwinkle.

FOG-Fenner School Group was established earlier this year to involve ANU students and other volunteers

in restoring these two important ACT grassy ecosystem sites, Yarramundi Reach and Stirling Ridge, which are managed by the National Capital Authority (NCA). NCA welcomed FOG's involvement, and is sponsoring equipment and lunches. The NCA employed a well known grassland ecologist to prepare management plans to facilitate the restoration of these sites and is organising larger tasks, not suitable for volunteers, to be undertaken.

Jamie, FOG's energetic coordinator, needs volunteers to lead weeding teams, set up monitoring points, run the registration or barbecue, or just assist in any weeding tasks. Working bees provide a great opportunity to learn about these sites and to improve skills and to enjoy good company and food.

We will meet across Alexandrina Drive from the Canberra Yacht Club (car park on Mariner Place), Yarralumla. This is also by the lake-side bike track. Volunteers, please bring old, long sleeved clothing, a water bottle and sun protection. Barbecue lunch provided. Enquiries: Jamie Pittock (jamie.pittock@fog.org.au or 0407 265 131).

FOG e-Bulletin

The FOG e-Bulletin contains the latest information on FOG on happenings and more. It contains no pictures so that its size is minimal.

If you haven't been receiving it, and you want to, please provide Margaret with your e-mail address at <membership@fog.org.au>. Also let Margaret know of address changes.

FOG website

The FOG website (www.fog.org.au) is now well established and attracting over 2,000 visits per month. If there is anything you'd like to contribute to the site, let us know: web-manager@fog.org.au.

News Roundup

Yarramundi Reach

SAT13 SEPT The FOG-Fenner Group held its third working bee, and the second at Yarramundi Reach. About 26 people attended throughout the day, including nine volunteers from the National Student Leadership Forum, a Christian based organisation.

The grasslands were looking good thanks to the grass being cut in autumn and earlier weeding efforts to remove woody weeds. The mowing had invigorated the kangaroo grass and encouraged forbs to grow, including bulbine lily and blue devil in some abundance, and the occasional early Nancy. However, the Chilean needle grass (CNG) is quite extensive throughout the grassland.

A serious assault was made on CNG and other weeds in the grassland areas, using backpack spraying. Woody weeds, included unwanted native trees, in the planted forest area and along the watercourse, were greatly depleted using the cut and daub method.

While a large area of CNG was sprayed, extensive areas remain. The forested areas and creek areas that were weeded are now looking much cleaner, which should assist the native grasses and forbs to establish more firmly.

Jamie did an excellent job organising the event and put on a superb lunch. He was ably assisted by Margaret Ning who organised most of the herbicide activity.

The students from the Leadership Forum came from all over Oz, including Cairns and Perth, and were eager to learn what we were doing,

and the whys and hows. They were a very impressive group of individuals.

Thanks to all who participated.



Barbara Payne and Al Gabb, removing woody weeds from the watercourse and Jamie Pittock spraying CNG.

FOG advocacy workshop Naarilla Hirsch

12 AUGUST Six FOG members attended the advocacy workshop. The first topic for discussion was the draft database on grassland sites,

educational activities. The document consists of some general principles, followed by information assembled at the regional (Ginninderra, Molonglo and Southern Catchments) and sometimes sub-regional (within Ginninderra, Belconnen and Gungahlin) level. After some discussion of issues such as the resources needed to develop and maintain the document, and the overlap with recommendation 31 from the Commissioner for Sustainability and the Environment's (CSE's) *Report on ACT Lowland Grassland Investigation*, those present felt that the concept was worth taking further.

The second topic was the CSE's *Report on ACT Lowland Grassland Investigation*, with recommendations 15 and 21, and also 22-26, being identified as high priority. FOG's role was seen to be prioritising, lobbying, monitoring, and helping stakeholders such as rural lessees and Parkcare groups. It was agreed that FOG should prepare a letter supporting the CSE's recommendations, including acknowledgment of the actions the NCA has already undertaken, and indicating those areas where FOG would like to be involved.

FOG's standard words to address the mitigation impacts of construction work (as prepared by Bernadette O'Leary) were reviewed and added to, but the discussion centred around the principles of offsets. A report on this will be included in a future newsletter.

The last topic discussed was that of Yarramundi Reach and Stirling Ridge. Jamie Pittock presented three advocacy goals for these sites: to get the areas rezoned for conservation, to have proper management of the sites, and to sort out the relationship between the NCA's different land and environment policies and plans, and relationship to the EPBC act. FOG's planned activities are part of the second of these goals.

Mugga tour

Grasscover

13 SEPT Fourteen people attended a *landscape walk with FOG* at Mugga-Mugga led by Geoff Robertson on what was a cold Saturday afternoon. Geoff talked about the landscapes visible from Mugga which cover large parts of southern Canberra. He took us back to pre-European times describing the vegetation communities, including the extensive grasslands and grassy woodlands, and occasional dry forest and wetter areas, still partly in evidence.

He asked us to imagine how Indigenous people would have navigated the landscape, kept in contact, and used the resources of the grasslands and woodlands for their food, health, tools and housing needs. Then he asked us to imagine how European settlers would have used the land, and the dispossession that took place. To early Europeans, in non-drought times, the natives grasses and forbs offered an excellent livelihood. Using the FOG posters, he showed some of the treasured fauna and flora that our grasslands contained.

Then it was walking time and while the remnant grassland at Mugga is not the highest quality, early Nancy, blue devil, short-flowered mat rush, common everlasting, and a number of grass species, including barbwire grass, were present.

GSM progress

At the end of September, FOG's golden sun moth (GSM) group put in an interim report on the GSM project to the WWF-Australia, which funded FOG's GSM project. The group has since been finalising a detailed report on the project, holding discussions with the ACT government on future FOG involvement in GSM monitoring, and designing procedures suitable for future monitoring. It is hoped that some testing of these procedures will occur this summer.

From the NT

Andrew Zelnik

Lots of botanising could be done up here (Northern Territory) except I don't have the time or expertise. However, outside the El Sherana former uranium mine site (in Kakadu National Park) about 17km up the road from Coronation Hill in Sickness Country (yes that's right THE Coronation Hill) there was a nice patch of very tall (up to my chest) themeda growing along the fence line - see attached photo which you might want to pop into the FOG newsletter. Anticipating getting back to Canberra by Xmas if not sooner.

Threat to Melbourne's grasslands

Wendy Moore

The proposed expansions to the Urban Growth Boundary (UGB) is a major threat to the grasslands to the north and west of Melbourne. Areas between Cranbourne and Pakenham are also impacted by this proposal. This proposal could see Melbourne's sprawl extended by 46,000 ha.

Basalt plains grasslands once covered a significant portion of Victoria from Merri Creek west to Portland and the South Australian border. Less than one percent of the original grasslands remain, and these remnants are often severely degraded. The extended UG area also contains important remnants of Red Gum Grassy Woodland - recently EPBC listed as a threatened community. Significant populations of flora and fauna depend on these grasslands and woodlands. The ancient red gums estimated to be 200-400 years old provide nesting hollows for many species.

The Merri Creek Valley contains significant remnants of these communities. This proposal involves opening up most of the surviving non-urbanised areas to development. The development will extend almost to Wallan which is also undergoing a



southward development push. At least 35 percent of the area will be handed over for housing and industrial development plus an enormous new freeway. Many other areas shown as 'constrained' for development are the site of current and proposed quarrying operations (then later landfill) and buffer zones for these. Apart from stream buffers of unspecified width there is little suggestion of even high quality remnant grasslands or grassy woodlands being reserved or protected. Similarly significant remnant grasslands to the west of Melbourne are also to be lost to development.

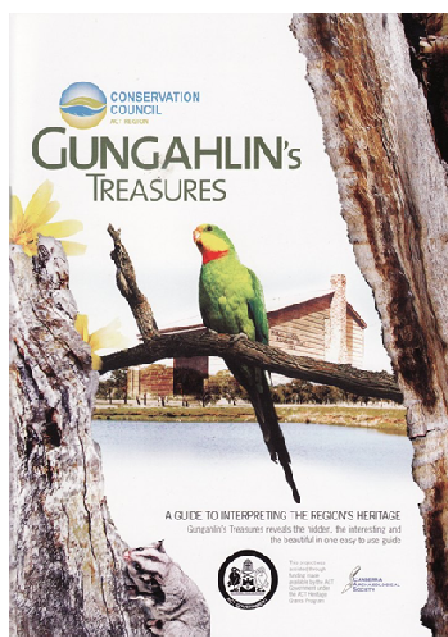
This sprawling development threatens many species. Many birds will be impacted through extensive loss of habitat and the fragmentation of movement paths of migratory and nomadic birds like robins and honeyeaters.

Landcare award

Maryke Booth won the Australian Government Individual Landcarer Award for the ACT region. In announcing her award, Esther Duffy, ACT Landcare Coordinator, stated that Maryke has generously dedicated her time, knowledge, skills, experience and enthusiasm to landcare in the ACT region for more than nine years. Her dedication to the environment is seen not only in her voluntary commitment to a number of groups and organising environmental field days but also in the operation of her own business. FOG can fully endorse this statement. Congratulations Maryke.

Gungahlin's Treasurers

The Conservation Council ACT Region recently published a delightful booklet *Gungahlin's Treasures, a guide to interpreting the region's heritage*. This is a forty page treasure in itself, bringing together in an easy-to-read format lots of colourful and informative pictures and diagrams of Gungahlin's natural and cultural history. As Gungahlin is a hotspot for the Australian Capital Territory's natural temperate grasslands and yellow box red gum woodlands,



these two threatened communities, as well as associated common and rare fauna and flora, receive much attention.

This booklet is free and as it contains much information of interest to FOG members, we suggest that you obtain a copy. In the booklet, FOG is acknowledged for its contribution.

Excellent environment report

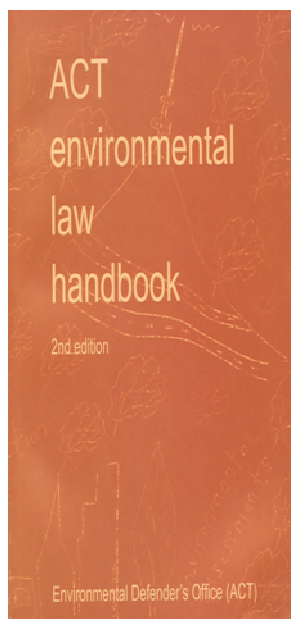
Geoff Robertson

16 SEPT Today the Office of the Commissioner of Sustainability and the Environment released its annual report for 2008-09 which shows that while the Office is small it is highly effective at handling relatively small matters, but extremely important to those involved, medium and major mat-

ters. It also provides many insights on how to undertake successful advocacy work. FOG has been following and promoting the work of the Office, particularly in relation to the *ACT lowland native grass investigation*. In related work, FOG particularly applauds the Commissioner's efforts to stop the northern road through the airport, which will be highly destructive to natural temperate grasslands located there, and to re-route the proposed road to Kowen, a future satellite urban development in Canberra. The proposed route would also be highly destructive to threatened natural temperate grassland and box woodland.

People often ask how one goes about advocacy work. Two obvious answers are to become informed and take initiative. Reading the annual report is an excellent way of becoming aware of local environment issues and following the types of initiatives mentioned in the report, is a good way to be active.

To read the report see: http://www.envcomm.act.gov.au/__data/assets/pdf_file/0005/166784/OCSE_Annual_Report_2008-09_web.pdf



ACT law handbook

The *ACT environmental law handbook* (2nd edition), published by the Environmental Defenders Office (EDO) (ACT) is designed to be an easy-to-read guide and resource to environmental and planning law in the Australian

Capital Territory (ACT) for the ACT community, developers, planners, legal practitioners, environmental groups and anyone involved in the planning and development process.

The handbook includes information on ACT legal framework (K Miller), ACT planning (J Pitts and K Miller), development approval (K Miller and R Smith), environmental impact assessment (D Plant and K Miller), biodiversity conservation (H Jaireth and G Robertson), protecting trees (R Griffiths), public land (R Griffiths), water (K Miller), heritage (S Brown), environmental harm (J Pitts) and sustainability (J Prest).

The cost is \$15 (\$10 for members), postage extra. For more information contact (02) 6247 9420, email edoact@edo.org.au, or website www.edo.org.au/edoact.

FOG has long been a member of EDO which has assisted FOG on many occasions. The cost of individual EDO membership is only \$5. FOG is proud to have contributed to the second edition of the *handbook*.

Swainsona recta

Matthew Frawley

27 SEPT I defied the weather and went out on Sunday and took this



photo from the special area (Coolman Ridge). There are a lot of them in flower and they look amazing! It was a real buzz to see them in flower for the first time.

Anne I'ons has reported to FOG that these beautiful flowers have been covered with branches, etc, to keep the roos away!

Native grasses in cemeteries

18 and 25 SEPT Several FOG members participated in visits to mid-west cemeteries organised by Mid-Western Regional Council (Environment Committee), Industry and Investment NSW and the Central West Catchment Management Authority. The two field days were part of the *Conserving native grasses in rural cemeteries project*. The cemeteries visited were Ulan (see photo), Wollar, Ilford, and Tannabutta, each containing excellent areas of secondary grasslands.

The aim of the project was to create a greater understanding of cemeteries as harbingers of grassy ecosystem remnants and to encourage community participation in their care. Cemeteries are often home to a collection of native grasses, trees, shrubs and herbs that are not often seen on surrounding rural properties. At each cemetery, there were mown areas and unmown areas. Interestingly due to the different management arrangements, the mown and unmown areas were equally interesting, sometimes with different plant composition.

If you have any questions on this project, please contact Council's Environment Officer, Shireen Murphy, on 02 6378 2850, or the Mudgee District Agronomist, Jenene Kidston, on 0427 401 652.

Check out Evergraze *Geoff Robertson*

While FOG's prime focus is on the identification, protection, management and recovery of native grassland and grassy woodland, it has always supported the efforts of good agricultural practice that improve ecological function, including the use of native perennial pastures, i.e. pastures dominated by native grasses. An interesting



website in this respect is the Evergraze site (www.evergraze.com.au).

A simple perusal will show much material on recovering native pasture, especially on upper slopes. There is a strong theme on how to manipulate pastures through rotational grazing so that upper slopes dominated by weeds and exotic annual grasses may be replaced by native perennial grasses. Dr. Jim Virgona (Charles Stuart University) believes that the combination of fertilizer inputs and rotational grazing should increase productivity while maintaining native perennials.

Meredith Mitchell, native grass specialist, Department of Primary Industry, Victoria, has two features on the site, one of which is on establishing native pastures on the hillsides. Here she argues that three ducks need to be in line. The first duck is to have native seed in the seed bank. Good summer rains last year allowed native grasses to grow and seed and now there is plentiful seed in the soil (the seed bank). The second duck is have areas (open space) for native grasses to establish (spring grazing will open up areas for new native summer grasses to establish). The third duck is good rainfall this summer into autumn. As she points out, native grasses establish periodically.

The second feature is a short piece launching the new Evergraze brochure on identifying native grasses. She mentions that we have 1300 different native grass species. The presentation features weeping grass, wallaby grass (there are 24 species) and kangaroo grass. Both presentations are well worth watching.

The site also contains their latest newsletter. The lead article is by Gill Fry summarising Andrew Campbell's, former head of Land and Water Australia and a Director of the Future Farm Industries CRC, presentation to the 50th Annual Grassland Conference. Andrew claims that agriculture in southern Australia is 'sleep walking off a cliff and it is time to wake up!' 'Climate, water, energy and food are converging as never before. Agriculture now, will not be good enough in the future,' he said. Andrew predicted there will be severe oil shortages before 2020 and we will need to double food production by 2050. At the same time, we have an increasing population demanding more food, using more energy and using more water. We need a third agricultural revolution, which demands real leadership... We need creative thinking, like the Ever-Graze mission to radically outperform what we have now. We need to consider systems such as closed loop farming system where we reuse and recycle water, energy, nutrients and carbon. We should be producing renewable bioenergy. We must understand and use soil microbial activity. And we require urban food production, recycling of waste streams and urban water and nutrients'. Healthy environments, healthy farming systems, healthy foods and healthy people are intricately entwined.

Andrew has a seven point plan for renovating agriculture: 1. Rejuvenate Landcare and re-engage the community, 2. Reinforce the regional catchment model, 3. Rewire environment information systems, 4. Revolutionise agricultural research and extension, 5. Reform drought policy, 6. Reunite carbon, water, energy, food, farming and fire, and 7. Redesign the Agricultural Institute. He challenged the audience, as he concluded by quoting Phillip Adams. "The future is not some place we are going to, but one we are creating. The paths to it are made, not found".

FOG advocacy

Naarilla Hirsch

The following is a summary of FOG's submissions in August and September, which may be found on FOG's website www.fog.org.au. For reasons of space, the summary does not report on the submission to Chief Minister on the Native Grassland Investigation and a submission in May on the National Heritage Plan. These submissions are also on the website.

August submissions

Submission on the environmental impact statement (EIS) for the proposed Majura Parkway. FOG recognised the need for an upgraded road through the Majura Valley to reduce traffic congestion in central Canberra and allow for through-traffic to move freely between north and south ACT. FOG welcomed the removal from the proposal of a future link to Kowen, since this 'northern road' proposal would have a highly significant impact on arguably the most extensive natural temperate grassland site in Australia.

The preferred option for alignment of the proposed Majura Parkway has endeavoured to protect as much biodiversity as possible, with only one area of concern relating to the removal of an area of the endangered yellow box – red gum grassy woodland (YBRGGW) and of old-growth trees south of the pine plantation. Here, FOG urged that consideration be given to an alternative alignment that would reduce the numbers of trees to be removed, and the fragmentation of the remnant.

In September, comments were called on the proposed Majura Parkway under the Environment Protection and Biodiversity Conservation 1999 (EPBC) Act. A change since the draft EIS, which FOG welcomed, was that around 2km in the central section will be moved up to 80m to the east of the proposed previous alignment to

avoid a direct impact on known grassland earless dragon (GED) habitat and potential striped legless lizard and golden sun moth habitat.

FOG supported the ***Bush on the Boundary Submission*** about planning for an upgraded road along the general alignment of the current old Gundaroo Road, in particular the section of road that will pass through the Mulligan's Flat Nature Reserve. Concerns included a significant break in connectivity between the two parts of the Reserve, weed invasion from the disturbed roadsides and destruction of a largely intact roadside conservation area.

Submission on Wright and Coombs suburbs FOG commented on the ACT Planning and Land Authority's (ACTPLA) proposal to proceed with the new suburbs of Wright and Coombs – the first of the proposed development in the Molonglo Valley, under the EPBC Act. The northern edge of Coombs will squash up against high quality pink-tailed worm lizard (PTWL) habitat, which lies in the undisturbed banks of the Molonglo River in this area. FOG is very concerned about the threat this poses for the PTWL, which last year was listed as vulnerable under both the *Environment Protection and Biodiversity Act (EPBC Act)* and the *ACT Nature Conservation Act*.

ACTPLA submitted that neither suburb is a direct threat to PTWL habitat, but acknowledged that the development poses significant threats to the PTWL, through processes such as removal of rocks, invasion of weeds and modification of habitat through tree planting. ACTPLA recognised that a number of actions needed to be undertaken to secure PTWL habitat, such as buffers between the urban area and the habitat, cat containment, conservation management for the area, and fencing. FOG strongly supported these actions, but felt that the submission did not give a commitment to an implementation plan, nor is any funding source mentioned. In FOG's view, neither development should proceed until there is a much stronger commitment to actual PTWL conserva-

September submissions

Clarrie Hermes Extension Submission Concerning ACTPLA's Clarrie Hermes Drive Extension in Gungahlin FOG expressed concern about lack of integration in planning of biodiversity and other land uses, before making a number of specific comments. A particular concern is the removal of 5.2ha of YBRGGW and bisection of the remaining woodland, thus reducing its value and hampering flow of flora and fauna. The YBRGGW being lost is potential habitat for the swift parrot, superb parrot and regent honeyeater. Should the road proceed, FOG supported the recommendations to minimise the negative impact of the development, and the call for biodiversity offsets and rehabilitation of nearby areas. FOG considers that the exact offsets should be clearly established before any work on the construction commences, and that the offsets should be aimed at arresting the decline and fragmentation, and securing and restoring of areas of YBRGGW.

The draft ***ACT Strategic Bushfire Management Plan*** has been out for public comment. While this is a general document, FOG was uncertain as to whether or not there will be an opportunity to comment on detailed fire management plans for specific areas, and so took the opportunity to provide some comments on the Plan. FOG recognised that reduction of fuel loads around urban areas is a necessary part of the ACT bushfire management strategy, but had some concerns about the impact of such activities on high conservation areas if poorly managed. Concerns included timing of fuel reduction activities, transfer of weeds from one area to another by slashing when equipment is not cleaned properly, introduction of weeds to high quality areas by fire and other equipment, and disturbance to vegetation by construction of more fire breaks and trails. FOG noted that repeated control burning results in artificial

Continued next page

selection within and between plant communities favouring rapidly growing, short lived plants such as weeds. If control burning is essential, then a micro-mosaic burn is preferable over large scale hit-and-miss practices, to allow invertebrates to repopulate from unburnt refuges afterwards.

In commenting on the *Environmental Impact Statement for the proposed Murrumbidgee to Goo-gong water transfer pipeline and associated works*, FOG concentrated on grassland issues along the pipeline route. FOG noted that a number of measures have been or are proposed to minimise the impact on environmentally sensitive areas. FOG supported the proposed mitigation measures and asked that they be included in development contracts to ensure that they are implemented fully, and asked that vehicles should remain solely within the construction easement and on roads, and that work in weed-infested areas should be scheduled when weeds are not carrying seed. There needs to be commitment to cleaning of service vehicle and weed control in the long term, as well as during the construction phase.

One major concern of FOG's was to ensure that the rehabilitation strategy is effective and includes longer term monitoring of the affected areas. Another major FOG concern was fragmentation of grassland and grassy woodland habitat in the Williamsdale/Angle Crossing area, given the number of development proposals happening in this area of the ACT. FOG considered that there needs to be an integrated approach to planning infrastructure in this area to ensure biodiversity of the grassy ecosystems in the area is maintained, and that this should be developed prior to the water transfer project commencing. Also, the offset and rehabilitation plans should be agreed to by the community, then finalized, before any construction work commences on the project.

Cultivation Corner:

Linum marginale, a nondescript flax - Janet Russell

I have been curious about early identification of plant species and decided to check out *Linum marginale* (native flax) on the *Australian Plant Name Index* (APNI) site of the ANBG. I found that the botanist and explorer Allan Cunningham's recording of native flax was included in a collection of early scientific papers edited by Barron Field and published in 1825, and titled, *Geographical Memoirs on New South Wales*. Google books has digitised this book and the Latin description of *Linum marginale* by Cunningham appears at page 357. The only comment in English was 'Forest land interior'.

There is also a digital copy of the book, *Early Explorers in Australia* by Ida Lee that contains transcribed text of Cunningham's journal. I found this at www.gutenberg.net.au/ebooks. Cunningham camped on the banks of the Cudgong River on his way to Bathurst and recorded *Linum marginale* on a list of plants that he found within a mile radius of his camp. It appeared under the heading *Grasses and herbage useful to the farmer* and against which he noted the words, 'nondescript flax'.

I don't share Mr Cunningham's opinion as I think it is a delightful plant. Native flax, a member of the *Linaceae* family, is a slender perennial plant growing to about 60cm with terminal blue flowers. Each individual flower lasts only a few days but the flowers are in clusters and the plants continue to flower on and off until late summer. From a cultivation perspective, it may be nicer if they had a floriferous burst but the season would be very short. I understand that

this flowering strategy maximises the window of opportunity for pollination where seasonal factors could advance or delay the breeding times of its pollinators. It was one of our more successful seed sowings from the propagating workshop put on by Ingrid Adler last September. Andy and I planted out fifteen specimens in May and they began to flower at the end of August.



The seed capsules are spherical and develop quickly once the petals drop. They dry to a light tan colour, are papery and contain up to ten seeds. I have a few seeds which I collected from a plant we put in two years ago. Beth Gott who spoke about aboriginal foods at the recent Australian Native Plants Society conference in Geelong advised us to pick the capsules while they were still green because the seeds burst out when they are ready. This explains the paucity of my seed harvesting results. Ingrid did not do any pre-preparation of the seed (which she sourced) and germination started within a month. The seed does have a dormancy period of six months apparently, but seed viability, according to some sources, remains good for some years.

For those who still like the idea of the cottage-style garden, a massed planting of native flax would be a cheerful substitute for exotic species that occupy a similar niche. I would like to plant more in our grassland garden but I am also hoping for a natural increase in the population.

The Royal visit Geoff Robertson

SATURDAY 5 SEPTEMBER After an exciting day of plant identification, FOG members sat around the dining table or were sprawled on the lounge chairs at Weemalah Cottage, located at the northern end of Royal National Park.

Question: what was the most exciting experience today? Answers were varied – leek orchid, bedfordia, Gymea lily, waratah, rose boronia, banksia robur, creek crossing, and copper-tailed skink were among the answers. No grass was mentioned.



While FOG's primary concern is with grassy ecosystems, FOG members had enjoyed a day exploring Sydney's Royal National

Park. According to our host, Michael Treanor, 'the Royal', as he referred to the Royal National Park, after Yellowstone, was the world's second national park and Australia's first, established in 1879.

FOG's visit to the Royal had been at the invitation of Michael Treanor, long time FOG member, former FOG vice president, and now its area manager. Not only did he make FOG members feel welcome and provided an excellent trip and facilities, but he also had invited Alan Fairley, well known author of Sydney plant books, to accompany us.

The southern contingent, Janet, Andy, Heather, Naarilla, Stephen, Margaret and I arrived at Weemalah on the Friday evening after driving through the park, observing the heath in amazing flower and seeing the occasional Gymea lily (*Doryanthes excels*), those amazing large flashes of red petals standing on long stalks several metres above the ground. Weemalah Cottage was delightful and had a wonderful view overlooking the south west arm of Port Hacking Bay, although the view did not become apparent until the next morning.

On Saturday morning, the group was joined by Sydney-siders, Jan, Barbara and Maureen who were keen to compare the vegetation on the south and north sides of Sydney. Michael, his wife Huyen, and Alan joined us for morning tea, and then Michael provided a brief history of the park, the vegetation communities, various management issues, and the plan for the day. He also introduced Alan, with whom Michael had planned the program.

Then people car pooled and the journey began. However, within a few hundred metres, two wonderful waratahs

(*Telopea speciosissima*) were spotted by Michael and so the vehicles stopped and everyone jumped out to take photos. Alan pointed out the other plants that were around, including one or two rare and



threatened species. Botanising had begun, and many people huddled around Alan to add to their knowledge of Royal's rich array of plants.

The first planned stop was the Chinaman's Helipad on Bertram Stephens Drive. After negotiating car parking on the side of the road, not an easy task, we walked down the track towards the helipad, seeing many unique plants, and listening to Alan tell fascinating stories about the many plant species, and subtle differences within species. Beyond the helipad, the heath, landscapes, rocky out-



crops, variety of colour, and mosaic of different plants were spectacular. The day was sunny, with excellent weather. Michael said that this was not the heath at its best, but it would be hard to surpass what we saw. Again there were several rare species present - Alan showed us each of these, and then focussed on the different characteristics of sedges and other forbs present.

Photos: Waratah, Michael Treanor, Margaret Ning and Alan Fairley, copper-tailed skink (next page), and a scene in Heathcote National Park (page 11). More photos on cover page.

Next the group drove the Curra Moor Trail. Along the trail, we had many stops to look at plants and even to check out a bearded dragon. A small area that had been scraped was home to an almost metre high leek-orchid, not surprisingly called tall leek-orchid (*Prasophyllum elatum*), and each person lined up to take a photo or two. At the end of Curra Moors Trail we turned left at Curra Moors Track. The road became a challenge for non four-wheel-drive vehicles, which occasionally scraped on the rollovers, and negotiated the creek



crossings hesitantly. Then, in sight of the coast, we left our cars and carried our lunches to a site with a creek and waterfall in one direction and the magnificent Eagle Head rock formation directly in front. I quickly became fascinated by a copper tailed-skink (*Ctenotus taeniolatus*). This was the first time I have had a good sighting of this species. After lunch we took a quick walk along the rock ledge to check out the waterfall where water drops many tens of metres into the ocean, stunning sandstone scenery, seemingly painted in many colours in the red-brown and orange spectrum, and some communities of plants growing in very restricted circumstances.

Returning to the cars, we backtracked somewhat, again stopping often to see plants – this time Christmas bells (*Blandfordia nobilis*) was seen in flower. Then we stopped at Curra Moors, a large swamp, where much was coming into flower. Like so much of the Royal, there are just so many different geological situations which facilitate many different vegetation communities, each with its own suite of plants, which is what makes it such a biodiversity hotspot. Again, Alan was interpreting the vegetation and pointing out a number of rare species. At the edge of the Moor on our way out, we saw a clump of *Banksia robur* as well as another species of endemic banksia.

Next we ventured further south, and travelled down Garie Road to Garie Beach. This took me back to my late adolescence/early twenties, as I was part of a group that often went walking in these parts of the Royal. From there we walked along a somewhat dangerous track at the foot of a steep cliff with warning signs about falling rocks, until we reached Little Garie and then onto Thelma Head. Michael explained the history of the community of cabins that have been allowed to stay under restricted conditions, when the Park was extended to include this area. Interestingly, as in the past,

all supplies had to be hauled in by hand as there was no road access. While reluctant to return, we retraced our steps to the cars, walking along the beach as dusk approached and the fisher people assembled along the picturesque beach with many signs of life and colour.

Following in convoy, some of the group radioed to Michael (yes, we had walkie talkies with us which is a good communication device on FOG trips), in the lead ranger car to “Show us your red light Michael” and for a short period the red light was flashing – to some the highlight for the day. After relaxing at Weemalah Cottage for a short period, we went out to dinner, which was an enjoyable way to end the day. Sitting across the table from Alan was an excellent opportunity to prise from him his life history and how he taught himself about the plants of the Sydney region and found time to publish so much - a lifetime’s contribution to Australia natural and social history.

Next morning, our first stop was Wattamolla, an enchanting area with so much natural beauty coming together in one spot. We were taken to the sandstone waterfall which empties water from a series of creeks perched on the plateau into the picturesque Wattamolla Lagoon surrounded by an equally stunning but different beach tucked behind Providential Head. Michael related the history of the area and then we took a short walk through the tall heath with many stunning flowering shrubs and herbs.

The next stop was a walk along Forest Path but only after we ventured down a trail along which we saw a number of different orchid species. Forest Path is part of the walking trails through the rain forest areas of the Royal, yet another completely different vegetation community. Unfortunately the area had been selectively logged in the early 20th century, at a time when the park managers needed funding to manage the park, but some large cedars (*Toona australis*) remained, reminding us what the area would once have looked like - even more stunning than now.

It was nearing lunchtime so we drove to a delightful bakery on the southern edge of the Park. Before going there we stopped to look at the view of the South Coast stretching for many hundreds of kilometres. It was also an opportunity to walk a little way along Coast Track, which is the southern end of a walk one can do through the Royal along the length of the coastline. A short way in, one could observe the beautiful heath and mallee communities of the Park stretching along the magnificent cliff coastline in the direction of Sydney.

After lunch we wended our way to Heathcote National Park. This is generally more inaccessible but we were allowed to drive in past lock gates. A lasting image is of the vehicles crossing a somewhat difficult creek. I watched Janet’s face turn from a tense look of concern to one of glee as she successfully achieved this task. In the park we had a delightful walk in sandstone country with its rich variety of heath plants, many in flower.

Travelling with Alan in his car, I was able to ask many questions about the many species of peas in the area and how one could tell them apart. He was full of fascinating information.

Each person on the trip will take away a different set of knowledge and experience, but the common images will be of the many landscapes, vegetation communities, species and niches that make up the Royal, the charming and enthusiastic area manager, Michael Treanor, and the delightful, patient, and thoroughly informative Alan Fairley.



For me, I am always fascinated by exploring any vegetation community with its associated flora and fauna, and finding out why it exists in a particular landscape context. This helps me to understand why grassy ecosystems, FOG's main concern, occupy the place and perform the functions they do. While Michael is a close friend whose company is always enjoyable, he is also an example of what a professional ranger should aspire to be. He is passionate about biodiversity, and eager to learn and teach about his patch. He attempts to see his patch through the eyes of a wide range of people (who may have little knowledge or care for biodiversity), reaching out to all stakeholders to get them to work together for the protection and management of our natural and cultural heritage.

Part of this approach is to engage the best scientists. Therefore it is little wonder that Michael has sought to involve Alan Fairley, an extraordinary individual, who has made it his life's work to learn about Sydney's natural and cultural heritage and to share it so willingly with others. Alan is a close advisor on various Royal management issues.

FOG's experience is much richer, and a very big thanks to National Parks, Michael, Alan and all who participated.

Alan Fairley's Sydney

FOG often, very fortunately, attracts celebrities to its cause and functions. On our Royal visit we were accompanied by Alan Fairley, co-author of the authoritative *Native Plants of Greater Sydney* (new edition out soon), and more recently *Seldom Seen, Rare Plants of Greater Sydney*, both truly fascinating, easy to read, very informative books with superb photos and illustrations. They provide an excellent way to learn about plants and each provides much useful information background drawing on a rich botanic and cultural knowledge. These books make ideal gifts. Alan has written thirty books, starting as an author of bush walkers' guides and graduating to become an expert on Sydney region flora, and incorporating another of his fascinations, Sydney history.

Some exciting Royal sightings

Stephen Douglas

The first stop of the day was some low open heathland beyond a clearing used as a helipad. The rare and threatened flora at the site included *Darwinia diminuta*, and both *Tetratheca neglecta* and *T. shiresii*. The higher sections of the site showed superb examples of the lateritic soils on which many of Sydney rare and threatened plants occur. Later in the day we encountered a large stand of the endangered *Eucalyptus camfieldii*, a small mallee with heart-shaped or round juvenile leaves, and thick, waxy adult foliage. Unfortunately, several plants had been killed and others damaged by earlier trail maintenance work.

On Sunday we were introduced to *Grevillea longifolia* (a very large plant with serrated leaves and a large red 'toothbrush' flower). The birdlife attracted to the clumps of flowering *G. longifolia* was impressive. Whilst the Sydney region contains numerous grevillea species, many of them nearly or completely endemic, *G. longifolia* is one of a relative few with the 'toothbrush', as opposed to the 'spider' form of flowers.

The last informal stop on Sunday afternoon was a shaly ridge on the coast. The uncommon and regionally rare *Acacia stricta* was evident on and just beyond the road verge, and a plant previously unknown from Royal was found, *Chorizema parviflorum*. This species is the only member of chorizema found in eastern Australia; most occur in WA. It is recognised as very rare and in decline in Greater Sydney, in large part because its prime habitats are relatively arable or otherwise 'developable'. The newly discovered population in Royal NP is one of only two from this part of south-eastern Sydney, with the other record from Austinmer being regarded as apparently extinct. The population of this plant in the two local government areas south of Royal is officially listed as endangered under the NSW Threatened Species Act.

FOG's work with NCA Jamie Pittock

In spring, FOG has undertaken work parties at Yarramundi Reach (19 September) and Stirling Ridge (17 October) - a further work party is planned (5 December). Also, a public nature walk led by Adam Muyt is scheduled at Stirling Ridge (21 November). FOG project leader, Jamie Pittock, explains FOG's involvement with these sites.

Yarramundi Reach and Stirling Ridge

The National Capital Authority (NCA) directly manages a number of small and medium sized grassland sites in central Canberra on behalf of the Federal Government. While relatively small, these sites are significant as they contain populations of threatened species, and are in prominent locations where conservation of grassy ecosystems may be promoted.

Yarramundi Reach is 22 ha of grassland on the north west shore of Lake Burley Griffin, has had populations of threatened species recorded on it in the past, but is now threatened by herbaceous weed invasion. There is still an option for the site to be developed for National Museum facilities. Stirling Ridge (Park) on the southern shore of the lake is grassy woodland and contains a large population of button wrinklewort. It is threatened by woody and herbaceous weed invasion. A road easement bisects the site and some lands are zoned for the construction of a new Lodge. There are two smaller sites: Guilfoyle St Grassland Yarralumla contains a large population of button wrinklewort and is zoned for embassy development, and Lady Denman Drive Yarralumla which is a small area of open space.

In late 2008 FOG agreed to assist the NCA to enhance management of Yarramundi Reach and Stirling Ridge. Following the ACT Commissioner for Sustainability and Environment's investigation, and FOG's interest, the new NCA management commissioned Sarah Sharp to complete a management plan for the sites in 2009. FOG is now helping the NCA to implement the management plan.

FOG's engagement

FOG is undertaking strategic work to assist the NCA to manage the sites where we can add particular expertise, such as with community awareness and with fine-scale weeding. We cannot replace the NCA as managers of the sites, with the extensive weeding and other works required, but we can help enhance the biodiversity conservation results. Ultimately, the two large sites could be promoted as the Federal Government's showcases for grassy ecosystem conservation. Our work has four components.

Management

FOG's on-ground site management involves fine-scale

weeding to maintain the best areas of habitat to show what can be achieved for conservation. Our on-ground works also enhance local knowledge and community ownership, which helps FOG become a better advocate for these sites. The sites are threatened by extensive weed infestations, and consequently we are promoting major government investment in management.

Designation for conservation

The land tenures of these sites are fragmented and a number of development proposals may threaten areas of high conservation value, including a road easement, embassy development, proposed new Lodge and Museum storage facility. FOG is seeking to have the National Capital Plan amended to offer these sites the highest possible level of protection.

Policy coordination

Many different ACT and Federal Government policies apply to these sites. FOG will promote the harmonisation of these measures, for example, to seek to map the distribution of the grassy ecosystems and species on operational maps, such as fire plans, to inform decisions on proposed activities. Coordination with the ACT Government is essential to harmonise management of adjacent lands and access management expertise. FOG supports the establishment of a new and effective grassland management coordination mechanism as recommended in the ACT Commissioner for Sustainability and Environment's review.

Community awareness

Ultimately, the sites will only be protected if there are sufficient group of people in the community who value these sites for nature conservation. FOG plans to involve local residents in work parties at the southern sites. Public introductory walks are planned and FOG is advocating for the sites to be actively sign posted, to prevent accidental damage and to promote site values.

Through strategic on-ground work and advocacy, FOG expects to help the Federal Government to better conserve these significant grassland sites in central Canberra.

FOG Membership - to join or renew

FOG membership entitles you to receive our newsletter and e-Bulletin, to attend FOG's many and diverse activities, and much more. **The cost is small:** \$20 for individuals and families, \$5 for students/concessions and \$50 for organisations. Membership is due on 1 January each year.

Membership forms are available on our website: www.fog.org.au and you may pay by cheque or electronically. While donations are not tax deductible, they are always very welcome.

Inquiries: 02 6241 4065 or margaret.ning@fog.org.au

Common fringe-lily: more than just a pretty flower, it has medicinal qualities

Michael Bedingfield

When I visit the bookshop at the Australian National Botanical Gardens, I find a number of books on plants that are regarded as weeds. On the other hand, if I look at books on medicinal herbs, I find many of the same plants mentioned. One group of people regard these plants as a problem, and would like to get rid of them from our environment, or at least reduce their numbers. The other group regard them as a blessing, and may cultivate them for use as medicine. For example, some weed-conscious people don't like great mullein, also known as Aaron's rod (*Verbascum thapsus*). They think it is horrible and ugly and despise it. Yet I know a herbalist who has one growing in her home garden. She thinks it's wonderful and beautiful and loves it! I must say I find it hard to sympathize with her viewpoint. Such are the contrasts of life in a democratic, multi-cultural society.

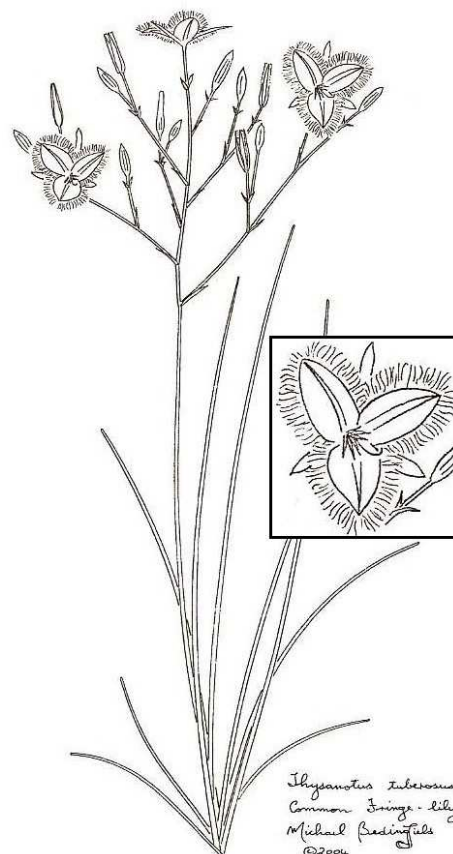
Great mullein is said to be useful for infections of the lungs and throat, and the nose and ear passages. I have found it very useful for sinusitis. There are quite a few other exotic weed species that are locally naturalized and are used for herbal medicine. Some of them are Californian poppy (*Eschscholtzia californica*), dandelion (*Taraxacum officinale*), evening primrose (*Oenothera striata*), stinging nettle (*Urtica spp*), yellow dock (*Rumex crispus*), St John's wort (*Hypericum perforatum*), storksbill (*Erodium cicutarium*), yarrow (*Achillea millefolium*) and horehound (*Marrubium vulgare*). A good reference on this is *Medicinal Plants of the Mountain West* (referring to the mountains of western USA), by Michael Moore (not the former ACT politician).

After that weedy introduction I'd like to talk about a local plant which is not a weed, but is both medicinal *and* native, and pleasant to the eye. Ian White has made a serious attempt to find a range of healing herbs from among our native plants, and there is growing interest in them for use in herbal medicine. One of the remedies presented in his book *Australian Bush Flower Essences* is our common fringe-lily, which he and others also call fringed violet. Ian says this plant can be used for treating emotional, mental and other health problems resulting from severe distress, shock or trauma.

The common fringe-lily is a perennial plant with tuberous roots, which were used as food by the Kooris. From these roots a number of grass-like leaves come forth in spring, which are up to 20 cm long. From within this basal tuft of leaves rise the slender, branched, flower stems, which can be up to about 40 cm tall. Flowering occurs in the warmer months, but more likely in October and November in the local area. The flowers are quite spectacular and up to three cm across. They have three petals which are mauve or purple in colour, with a fringe of delicate hairs. The three sepals are of the same colour but not fringed. Like some other local lilies, the flowers last for only one day. They can be elusive because they may open only briefly and under suitable weather conditions which aren't well documented. I have seen a patch of them in full flower on a warm, humid and mostly cloudy day. When the growing season finishes, the seeds set, the plant withers, and life contracts back into the root to await another year.

The place to find this lily is mainly in grassy woodlands, but it also occurs in open forests and other grassy habitats. It is more likely to be found on sites that are damp and relatively undisturbed. Perhaps it was more common in the past, but being sensitive to site disturbance, it contradicts its common name and is, in fact, uncommon. Nonetheless, it is widespread in our region, and occurs on the tablelands, slopes, coast and plains of NSW, as well as in all other states except Tasmania.

The botanical name is *Thysanotus tuberosus*, and is pronounced thie-san-OH-tus tew-ber-OH-sus. *Thysanotus* means "fringed" and *tuberosus* means "having tubers". There are 32 species of fringe-lilies in Australia, but most of them are restricted to WA. We have another local species in the twining fringe-lily (*T. patersonii*). This plant is almost leafless, and is usually found winding around grass-stems for support. Its flowers are the same colour and shape as the common fringe-lily, but only up to 15 mm across. It occurs in all states, though it too is uncommon in our region. The drawing shows the *Thysanotus tuberosus* plant at half size, and a single flower at normal size. Common fringe-lily - an impressive flower with therapeutic value.



FOG groups and projects

Activities organises FOG field trips, talks, workshops, on-ground works, support to other groups, property visits, and the FOG calendar. Inquiries: activities@fog.org.au.

Advocacy prepares submissions and advocates for grassy ecosystem issues. It holds occasional meetings and workshops. Inquiries: advocacy@fog.org.au.

African love grass (ALG) monitoring holds monitoring days at the Bush Heritage property at Scottsdale. Inquiries: linda.spinaze@fog.org.au.

Committee & correspondence The Committee organises, coordinates and monitors FOG activities. Members are Geoff Robertson (Pres.), Isobel Crawford (Vice Pres), Al Gabb (Sec.), Sandra Hand (Treas), Kim Pullen (Imm. Past Pres), David Eddy, Stephen Horn, Tony Lawson, Bernadette O'Leary, Margaret Ning, Sarah Sharp, and Benjamin Whitworth. Andy Russell is public officer. Inquiries/correspondence: committee@fog.org.au. Postal address: FOG, PO Box 987, Civic Square, ACT 2608.

Communication produces *News of Friends of Grasslands* and *FOG e-Bulletin*. Inquiries: geoff.robertson@fog.org.au (newsletter), and tony.lawson@fog.org.au (e-Bulletin).

Cultivation and Conservation encourages growing of local grasses and wild flowers to learn about their horticulture and ecology, and produces *Cultivation Corner*. Inquiries: janet.russell@fog.org.au.

FOG ANU Fenner School, with the National Capital Authority, holds regular working bees at Yarramundi Reach (grasslands) and Stirling Ridge (woodlands). Inquiries: jamie.pittock@fog.org.au.

Financial matters, excluding membership, contact sandra.hand@fog.org.au or Sandra on 02 4846 1096.

Grassland Flora FOG is now responsible for sales of *Grassland Flora*. Inquiries: booksales@fog.org.au.

General inquiries Contact info@fog.org.au, Geoff Robertson (6241 4065) or Janet Russell (6251 8949).

Golden sun moth In 2008-09, FOG conducted a major survey of GSM in Canberra region. Inquiries: geoff.robertson@fog.org.au.

Hall Cemetery, with ACT Government, holds regular working bees to protect the Hall leek orchid and generally restore the site. Inquiries: andy.russell@fog.org.au.

Media spokesperson Geoff Robertson (6241 4065). FOG is a regular contributor on Radio Landcare, Tues 9-10am on (2XX, Canberra 98.3FM).

Membership and newsletter despatch See Membership box (page 12). Newsletter despatch is fourth Tuesday of Feb, Apr, June, Aug, Oct. To help, contact margaret.ning@fog.org.au.

Old Cooma Common (OCC) with Cooma Monaro Shire Council manages the OCC Grassland Reserve. Working bees are held twice yearly. Inquiries: margaret.ning@fog.org.au or david.eddy@fog.org.au.

Southern Tablelands Ecosystems Park (STEP) FOG helped establish STEP (at Canberra's International Arboretum), a regional botanic gardens and recovery centre to showcase local ecosystems, especially native grasses and forbs. Inquiries: limestone@grapevine.com.au.

Woodland Flora is planning the production of *Woodland Flora*, the sequel of the popular *Grassland Flora*. Inquiries: sarah.sharp@fog.org.au.

Website (www.fog.org.au) full of FOG information, back issues of *News of Friends of Grasslands*, and program details. Inquiries: webmanager@fog.org.au.