



News of Friends of Grasslands

Supporting native grassy ecosystems

May-June 2008

ISSN 1832-6315

Program

SAT 24 MAY (8.30am - 1pm) **Seeking to influence - community advocacy**, a workshop at Havelock House, Turner. The workshop is for FOG members and others, to improve understanding of, support for and participation in advocacy activities. This is part of a series of activities to build the capacity of members. See details on page 2. Workshop fee is \$10. Morning tea will be provided. More information on page 2. Please contact Janet (details on back page) to register your interest in attending as numbers are limited.

SAT 21 JUNE (1.30 to 3.30pm) **FOG's winter Grassland Tour, Umbagog Reserve** This year's tour will be held in conjunction with Ginninderra Catchment Group and Umbagog Landcare Group. We

plan to meet at 1.20pm in the Kippax Place carpark next to the Kippax Health Centre behind the shopping centre, and then walk to the start of the reserve on the other side of Southern Cross Drive. We shall begin in the Blue Devil Grassland. On the tour you will learn about the ACT region's grasslands, what is being done to manage them, and what individuals and communities can do to manage and restore them. After the walk we shall adjourn to a nearby cafe to warm up and chat. It would assist if you let us know that you are coming in case of late minute changes. For information and registration, please contact Janet on 6251 8949 or janet.russell@fog.org.au.

In this issue

Program

News roundup

FOG submissions

Letter to FOG

Cultivation corner: growing Brachyscome and Calotis

FOG Advocacy

FOG soils workshop at Garuwanga, near Nimmitalbel

Scouts learning the landscape



individuals and communities can do to manage and restore them. After the walk we shall adjourn to a nearby cafe to warm up and chat. It would assist if you let us know that you are coming in case of late minute changes. For information and registration, please contact Janet on 6251 8949 or janet.russell@fog.org.au.

Images of grassy ecosystems

TOP: Kangaroo grassland exclusion fence at Maja Field Firing Range, ACT.

MIDDLE: Rainer Rehwinkel's grassland assessment workshop, Wild Cattle Creek, NSW, 4 Mar.

BOTTOM: Grassland sculpture on Gungahlin Drive Extension, ACT

News Roundup

Seeking to influence - a community advocacy workshop

Bernadette O'Leary

FOG is running a morning workshop at Havelock House, Turner, on Saturday 24 May (from 8.30am to 1pm). The objectives of the workshop are to improve FOG members' understanding of, support for and participation in advocacy, to develop others similarly and provide an opportunity to share experiences, and to strengthen future advocacy. The aims on the day will be to define and demystify advocacy, to learn about approaches, and to consider examples and future opportunities. The target audience is FOG members and members of other conservation groups with an interest or role in advocacy.

Further information will be provided to intending participants before the day, and two case studies will be presented on the day. Workshop fee is \$10. Morning tea will be provided. Please contact Bernadette O'Leary, bernadette.oleary@fog.org.au for further details, or Janet Russell janet.russell@fog.org.au to register. Numbers are limited to around twenty, so please register early.

Old Cooma Common

8 MARCH Eleven people (see photo) attended the FOG working bee at Old Cooma Common Grassland Reserve (OCCGR) and they were well equipped. Some 225 litres of herbicide were put out, many bags of verbascum heads were collected, and woody weeds were cut and daubed. Some disappointment was expressed, however, as following good winter, spring and early summer rains, there was an abundance of weeds, many of which were still present at day's end.

FOG first visited OCCGR on 10 October 1998 and applied for a grant which it received on 6 May

1999. The aim of the grant was to create a grassland reserve and to get the community and the Cooma-Monaro Shire Council involved. FOG has been successful in achieving these objectives but not to a sustainable level, as OCCGR is still somewhat weedy.

In our Jan-Feb 2006 newsletter, it was mentioned that the Comma



Monaro Council was establishing a committee, including FOG and community representatives, to manage the Common. FOG members have been actively involved in its deliberations since its establishment. Unfortunately, Jim Durrant, the Comma Monaro Weeds Officer, who was actively pushing ahead with establishment of management plans for the Common, has since moved on. However, it is hoped that the committee will soon develop an active strategy for managing the Common and FOG can play a supporting rather than a lead role.

Advocacy Group

Naarilla Hirsch

6 MARCH The advocacy group, which recently gained another new member, met, and a large part of the meeting was spent on planning the advocacy workshop and going through the action list of current issues requiring submissions or other input.

At the recent FOG AGM, the need

for specific policy statements was raised. The group decided to start with three: kangaroo management, Molonglo Valley development, and Majura and Jerrabomberra Valleys conservation/developments, to see if this approach is useful.

The group discussed roles within the group and how to share the work. One of the jobs the group undertakes

is to identify issues that FOG should consider making a submission on, commenting on or taking other action. Group members do regular web searches to find government calls for public submissions on the various issues of interest to FOG.

However, only some issues come to the group's attention this way. The group also relies on its networks for other information, but sometimes does not find out about them until there is little, if any, time to prepare a considered response. Often individual FOG members may become aware of a specific issue before the advocacy group.

The group would like any FOG member who becomes aware of an issue they believe FOG should comment on or respond to, to let Bernadette O'Leary (group leader coordinator) know. The advocacy group would then follow it up, with the member either continuing to be involved or leaving it up to the group and the FOG committee to address the issue, as it wishes.

Pasture monitoring at Scottsdale

17 MARCH Nine FOG members joined Peter Saunders, who has the grazing management contract at Scottsdale, to set a monitoring system to measure changes in the pasture composition on Scottsdale which is the property owned by Bush Heritage and forms the linchpin of *Kosciuszko to Coast* of which FOG is a member.

Peter is raising healthy cattle on the African lovegrass pastures (ALG) at Scottsdale. These pastures were previously natural temperate grasslands (NTG) and small patches of NTG can still be seen among the ALG. From his careful management to date, the pastures are healthy, and the underlying soils should be improving. The question is: can this management lead to the eventual establishment of native pastures or even grasslands? By measuring changes over time it will be possible to observe vegetation changes. A more detailed account of the monitoring project will be provided at a later date.

Hall Cemetery

5 APRIL Nine people attended FOG's first working bee at Hall Cemetery. The cemetery represents one of the most diverse remaining areas of yellow box/red gum grassy woodland. Much of the site has been cleared of trees, but it contains the characteristic understorey species of the defined

endangered woodland community.

The working bee was organised following several visits to the site and discussions on and off site with En-



vironment ACT to devise a management plan to remove unwanted eucalyptus regeneration from the grassland areas which is seen as a particular threat to the Tarengo leek orchid, and general weeding and restoration of the grassland and adjoining woodland areas. The site is a good one for FOG to manage as it is relatively small, and provides an opportunity to learn about many aspects of grassy woodlands and their management.

Three grassy nominations

6 MAY The Department of Water, Heritage and the Arts, under the EPBC Act, is seeking comments on the nomination for listing of various grassy ecosystem communities by 6 May. The first nomination is the *Forest Red Gum Grassy Woodland of Gippsland, Victoria* and the *Central Gippsland Plains Grassland of the South East Coastal Plain Bioregion* to be listed as critically endangered ecological communities. The second and third to be listed as endangered are *Native Grassland on Basalt and Alluvium of the Brigalow Belt North Bioregion and the Claude River Downs* and *Native Grassland on Basalt and Alluvium of the Brigalow Belt South, Nandewar, New England Tablelands and Northern Sydney Basin Bioregions*. For further information see <http://www.environment.gov.au/biodiversity/threatened/nominations-comment.html>.

FOG C&C group

At the time of writing, FOG's Cultivation and Conservation Group had visited four Canberra members' gardens

to learn about the successes and failures of growing local native grasses and forbs, and to gain insight as to what works and why. More garden visits are planned. For more information contact Janet on janet.russell@for.org.au or 02 6251 8949.

FOG website

The FoG web site (www.fog.org.au) is now well established and attracting around 500 visits per month. If there is anything you'd like to contribute to the site, let us know: web-manager@fog.org.au.

Bradley's Hut

Geoff Robertson

30 JANUARY Margaret Ning and I visited Penelope Crawford's property, Bradley's Hut, on MacPherson Plain. MacPherson Plain has often featured in the newsletter - a long feature was included in Sept-Oct 2006 issue. The first photo shows the Plain which is largely surrounded by snowgum woodland.

Penny has always wanted to own land. 'I started saving for land when I left school at 14 and went to work'. 'I bought Bradley's Hut on Mc Phersons Plain about four years ago after caring full time for my Mum until she died.' Now she has time to paint and dream with her big black German shepherd, a RSPCA rescue dog, and a dingo. She was told that 'women are not tough enough to own Mountain land. But buy it I did and put a

Voluntary Conservation Agreement on it.'

Bradley's Hut (the hut) is an old mountain hut which Penny and her friends are renovating. It looks out onto the Plain. The walls of the hut are lined with Penny's paintings, which are charming and done in a naive style - the painting below captures the ancient indigenous spirits of the Plain.

Margaret, Penelope and I spend many hours wandering the Plain and later visited a bog and part of the surrounding woodland. The grassland on the Plain varied according to elevation with different poa grass varieties dominating in the wetter and boggy areas, while kangaroo grass and sometimes wallaby grass dominated the better drained sites. Flowers were plentiful: we saw pale everlasting, scaly button, copper-wire daisy, billy buttons, sticky everlasting, chamomile sunray, many differ-

ent fireweed and brachyscome, white and yellow buttercup, bulbine and vanilla lily, various plantain, and native caraway, several pea species, blue bell, ladies tresses and three species of leek orchid. On drier outcrops we saw many shrubs including hopbush, cassinia, guinea flower, and tea tree. The bog and wooded areas were also fascinating. Finally we saw two different greenhood orchid species to round out the day.

Ainslie community preschool

Geoff Robertson

11 MARCH I visited Ainslie Community Preschool and spoke to Sharon Craft (pictured below) who had previously informed me that the preschool had won a biodiversity grant which would enable the planting and managing of local grasses by the teachers and students. Sharon is keen to plant local native grasses to attract insects and birds so that the children can learn from them. She is



a believer in the children doing the planting so that they can learn from the experience. Last year the children participated in a planting exercise.

We discussed a range of ways the project might be approached. I suggested ways she could source garden design ideas and plant materials. I also suggested that she might use some additional shrubs and forbs, and that she follow up with Frogwatch and get some ideas on frogscapeing. I also mentioned FOG cultivation and conservation group which focuses on FOG members visiting each others' gardens and learning from each other. Sharon is interested in anyone who might be able to assist. Her contact details are Sharon.craft@ed.act.edu.au.

Newsletter available electronically

You can receive the newsletter in colour, electronically, instead of the paper copy. To arrange, contact Margaret, details back page.



River red gum site

5 APRIL A large contingent of weeders, organised by Clive Hurlstone and the Gudgenby Bush Regeneration Group, turned up to the river red gum site (see photo), just south of Tharwa, to remove weeds and to encourage a native grass understorey to return. Some FOG members assisted. FOG became aware of the site when Peter Ormay approached FOG to seek support for community work at the site. FOG members visited the site on 18 February and 1 April.

This is an iconic site as it contains the ACT's only known naturally occurring river red gum (*Eucalyptus camaldulensis*). The nearest population is about 50k away. While it is remotely possible that the tree was planted by early settlers, based on the available evidence it seems highly unlikely.

The tree was originally observed and identified by eucalyptus expert Ian Brooker who says that the river reds are readily identified by their yellow seed, and their near relative, Blakley's red gum, has black seed. There are a few juvenile river reds at the site and they can be distinguished from juvenile Blakeley, also present, by their narrower leaves – juvenile Blakeley leaves are more round.

There are many woody weeds, a healthy population of African lovegrass, and several other nasties at the site. However, there is a large population of wallaby grasses and other native grasses and forbs which will be encouraged to replace the exotics.

A cautionary tale

Artur Baumhammer

The last newsletter's piece on a cautionary tale by Jackie Miles about the toxicity of St John's wort caught my attention. During our

travels to Canberra, along the highway, all hillsides were covered in yellow and purple: St John's wort and Paterson's curse. I consulted my limited library, the *Illustrated Herb Encyclopaedia* by Kathi Neville. Quote - *Hypericum perforatum* - St John's wort: oil content increases with some moisture. Constituents: essential oil includes *hypericin*, *pseudo-hypericin*, *flavonoids*, *procyanidins* and *tannin* (8% to 9%). Medical: St John wort is a potent an-



tiviral and antibacterial; there are over 50 constituents; it is supposed to repair nerve damage, reducing pain and inflammation. No quantities mentioned. Under 'consideration' it states 'St John's wort was placed on the "unsafe herb list" by the FDA in 1997, because animals that digested it developed poisoning, phototoxic reaction, when exposed to the sun. In Russia it is even known as zverboi (beastkiller). However, no cases of human poisoning exist. So I dug further - if animals become sensitive and poisoned, why not humans? Well Jackie! I hope you are well now?

The following is an extract from *Weeds: An Illustrated Botanical Guide to the Weeds of Australia* by B.A.Auld and R.W.Medd. Distribution and importance: *H. perforatum* is wide spread throughout south-eastern Australia as a weed of pastures. It can cause photosensitisation in stock as well as nervous disorders

and, in humans, contact dermatitis. Well Jackie, for years I wondered why I pass out at pain and/or needles? Only after 70 years did a cardiologist explain, "Artur, your Vaso-Vagal (Nerve) induced *Brady cardia* does it all for you." Therefore, I assume that all your symptoms' description is alarming as all the constituents previously mentioned, give different people different reactions. I now wear a *Medic-Alert Medallion*.

There are further four species: *H. androsaemum*, *H. moserianum*, *H. gramineum* and *H. japonicum*. Nature moves in strange ways sometimes, doesn't it!?

Frogwatch report

Rachelle McConville is leaving her ACT Frogwatch position and will be missed for her charm, dedication, enthusiasm and contribution to our understanding of the region's frogs. As her final contribution, she published the 2007 Frogwatch Report and a poster of ACT frogs.

In 2007 a total of eight frog species were detected calling across the ACT and region during the Census period. These species included: spotted grass frog (*Limnodynastes tasmaniensis*), plains froglet (*Crinia parinsignifera*), common eastern froglet (*Crinia signifera*), Peron's tree frog (*Litoria peronii*), eastern banjo frog or pobblebonk (*Limnodynastes dumerilii*), brown-striped frog (*Limnodynastes peronii*), whistling tree frog (*Litoria verreauxii*), and smooth toadlet (*Uperoleia laevigata*). All these species have been detected in previous surveys. In previous years one or two individuals of spotted burrowing frog (*Neobatrachus sudelli*) and green and golden bell frog (*Litoria aurea*) have been detected, but were not found in 2007. This result was not surprising considering the conditions in October 2007, and the likely distribution and behaviour of these species.

Hotspots downgraded

Ray Maino, Coordinator of the Threatened Species Network, and President of the Victorian Volcanic Plains Biosphere Inc. is disappointed that \$6m has been returned to Federal coffers, owing to monies targeted for property purchases being unspent. This means monies that may have been spent on property purchase on the Victorian Volcanic Plain will now not go ahead.

Ray points out that British environmental scientist Professor Norman Myers warned in 2006, like many others since, the extinction of species is a greater threat than global warming. Myers has also said extinctions are most likely to occur in "biodiversity hotspots", such as the Victorian Volcanic Plain, and special efforts are needed to stem the rate of extinctions.

Ray is concerned that many of the ecosystems have been reduced to dangerous levels, e.g. grasslands (< 1%) and grassy woodlands (< 4%). Ray considers that there are few, if any, pristine examples of grasslands of any size to be preserved but any that are should be so preserved. He believes that only preserving the pristine examples will not be enough. Ray argues it is now widely accepted that at least fifteen percent of the original extent of any ecosystem must be reserved to ensure sustainability (CAR reserve criteria). As there are insufficient pristine examples, poorer quality examples must be reserved and managed for recovery. According to Ray, the feasibility of this has been demonstrated by Dr. Colin Hocking and others, including concerned landowners.

Ray has worked hard to save endangered grasslands and other threatened ecosystems north and west of Melbourne. An article on his efforts on grassy ecosystems in the Port Phillip and Westernport

Catchment appeared in the May-June 2005 newsletter.

Community support officer

Jeff White has been appointed as a Community Support Officer for the Murrumbidgee Catchment Management Authority based in the Queanbeyan Office. Part of his role is to work with other CMA staff as well as the Upper Murrumbidgee Landcare Network (UMLC) to support landcare activities. He will also be working with landcare groups in this area and with individual landholders in an effort to facilitate projects and information transfer. The gathering and distribution of information to the appropriate groups and community members is important to keep the communication lines between landholders, the CMA and the UMLC open and operating. Jeff may be contacted jeff.white@cma.nsw.gov.au or phone 6128 3378 / 0428 863 760.

Kangaroos at Belconnen

Editor

The sorry story of kangaroos overgrazing the Belconnen Naval Station and the threat that this poses to the threatened grassland community and three threatened species continues without resolution. Several reports are mentioned below. Also see letter page 8.

No to translocation

4 MARCH Rosslyn Beeby (Canberra Times) reported that the ACT Government has refused to grant a licence for roos living at the Lawson Naval Station to be translocated to NSW. Rosslyn Beeby stated that this will mean that the Defence Department will now be forced to proceed with a cull.

Cooper report released

6 MARCH The Commissioner for Sustainability and Environment released her *Report on Belconnen Naval Station (BNTS) Site as part of the investigation into ACT Lowlands Grasslands*.

The report, based on a report by scientists Andrew Baird, Michael Link, Sue McIntyre and David Morgan,

recommended that in order to protect the natural temperate grassland at the site and threatened species, golden sun moth, perunga grasshopper and Ginninderra peppercress, there needed to be an immediate cull of 400 of the 600 kangaroos at the site and that in the longer term kangaroo numbers needs to be managed using fertility control. The cull was seen as the most humane method of control, translocation was dismissed as a viable option.

The recommendations also mentioned the need for a formal Memorandum of Understanding between the Department of Defence and the ACT Government (TAMS) for the long-term management of this and other grasslands.

This is the first of two reports that the Commissioner is preparing. As reported in the last newsletter by Bernadette O'Leary, FOG has made two submissions to the Commissioner, one on the Belconnen Naval Station and the other on broader grassland management issues.

Defence calls off cull

1 APRIL Rosslyn Beeby (Canberra Times) reports the calling off of the cull, with the Department of Defence now determined to go ahead with its original plans to relocate the animals to NSW. Defence said the trial relocation would "deliver scientific evidence relating to translocation, assist the protection of endangered ecological communities and threatened species, and inform debate on humane management of eastern grey kangaroos."

Defence said that with the cooperation of the ACT Government and "key experts" to support a pilot program, it would identify "a sustainable and responsible approach" to land management. "Pending the ACT Government's response to the Defence proposal, the cull of kangaroos at Belconnen will be placed on hold." If the ACT Government refuses to support the pilot program, the Federal Government would "pursue its own business" in relation to Commonwealth land.

ACT black gum

Grasscover

18 FEBRUARY At the request of Peter Ormay, FOG visited Felled Timbers, an ACT rural property. Lynton Bond (Chair, Molongo Catchment) and Mary Appleby (STGE CMN) were also present. From the fence line (see photo) we could see two and possibly three populations of black gum (*Eucalyptus aggregata*). The main population was a largish group of trees, while the other (one or two) population(s) seemed to be a single tree. Peter said that some ten years ago, the trees in the larger population were regenerating. Looking through the binoculars on the day, the site looked weedy and there seemed little evidence of regeneration.

An adjacent road site that we then visited was the verge between Felled Timbers and the Kings Highway where a unique association of black gum, snow gum/white sallee (*E. pauciflora*) and black sallee (*E. stellulata*) occur. This is the only occurrence of black gum in the ACT and the only known site where these three species grow together. Black gum seems to grow in the margins between wet areas and grasslands. The lower areas of the Felled Trees property would seem to have been natural grassland. Looking across the fence there were patches of native grass. Just over the fence from the three tree species site was a natural grassland dominated by weeping grass (*Microleana stipoides*) with several other native grasses and forbs present.

Peter would like to see the tree populations on the property weeded

and protected from grazing so that regeneration can occur. He would also like to see the roadside weeded, particularly to remove phalaris, so as to encourage regeneration to take place there. We noted one reasonable sized black gum sapling growing on the road side. FOG is canvassing what might be done at this site.



Grazing and biodiversity in native pastures

19 MARCH About 70 farmers and land managers attended the field day in Boorowa, organised by Geoff Minchin of the Lachlan Catchment Management Authority to learn about rotational grazing and electric fencing designs and the latest research findings by Jacqui Stol and Josh Dorrrough on native pastures, grazing and biodiversity. Jacqui and Josh talked about several recent research findings from CSIRO and DSE Victoria researchers working on the *Biodiversity and Native Pastures* project. Jacqui also gave a presentation on these findings at the K2C Open Day at Ingelara on 12 April.

This research has so far shown that native pasture paddocks can have significant native plant, bird and reptile diversity, and research so far has found that unfertilised, lightly grazed native pastures can support a high

diversity of plant species from shrubs to wildflowers, including orchids, and tussock grasses. Scientific research to date does not yet support any particular grazing regime as being better for native biodiversity. However results show that the long-term intensity of grazing (stocking rate), is important as the best diversity occurs under low stocking rates.

Rotational grazing can have significant benefits for a farm manager through greater control over stock densities and distributions, enhanced flexibility and a better ability to plan the future. It can help managers determine carrying capacities, and predict the potential for overgrazing. Other research has shown that in the long term, rotational grazing can

increase perennial grass cover, although the research does not yet show greater biodiversity benefits.

If there is a greater variety of management strategies there are more native plant and animal species likely to occur. This can happen through retaining large lightly stocked paddocks, some ungrazed pastures and more heavily stocked and fertilized native pastures. It also might include having rotationally grazed and set-stocked paddocks among farms and within farms, and changing the season and duration of rest from year to year.

For more information or a copy of the grazing and biodiversity management guidelines booklet when published (mid 2008), contact Josh Dorrrough (Josh.Dorrrough@csiro.au) or Jacqui Stol (Jacqui.Stol@csiro.au, ph. 02 6242 1625)

FOG submissions

Bernadette O'Leary

I've included summary information below. Copies of submissions are available on the FOG website at www.fog.org.au.

EPBC related FOG was extended an opportunity to provide comment on a draft management plan on the **Narrabundah Long Stay Caravan Park swap site**, further to earlier comments to both ACT and Australian governments on this proposed development. Comments addressed cumulative threats to grassland earless dragon (GED) habitat in the Jer-rabomberra Valley (and more broadly), absence of offsets, specific mitigation measures proposed (i.e. adequacy of fencing), preventing weediness, fire fuel management, maintaining and enhancing adjacent habitat. FOG restated its opposition to the proposed land swap.

FOG provided comment to the NSW National Parks and Wildlife Service on **Turallo Nature Reserve draft plan of management**. Comments addressed issues such as reserve context, fire management and biomass reduction generally.

FOG also provided comment on the **Canberra International Airport preliminary Draft Master Plan 2008 (DPM)**. While FOG recognised CIA's emphasis on 'environmental management', we expressed concern about biodiversity management, specifically the conservation of natural temperate grassland (NTG) and associated threatened species, particularly the GED. FOG noted that the airport contains an NTG remnant listed in ACT Action Plan 28 as a 'core conservation site', and the importance of this remnant together with another at the adjacent Majura Training Area. At their eastern edge, these adjoin another threatened ecological community (yellow box-red gum grassy wood-

land) in one of the few remaining examples of this natural concurrence in the ACT.

FOG stated its view that these remnants should be conserved intact, and managed primarily for conservation in the long term. Further comments addressed the proposed major road (on the northern edge of the airport site) and runway extension, the value of recent mapping, lack of proposed offsets, adaptive management, retention of threatened species on habitat, continuing development and loss of NTG values. FOG restated management suggestions it has made to CIA over many years, questioned how various management documents work together and suggested reporting on their effectiveness. Finally, FOG suggested that formal processes - such as finalisation of the DMP - should wait until the Commissioner for Sustainability and the Environment has reported on the grassland management inquiry.

Note: articles on FOG's current approach to advocacy, and a related workshop in May, are included elsewhere in this newsletter.

Letter to FOG

FOG's support for cull
Brett Clifton

You are being used by the ACT Government to achieve its own ends. Your implicit support for the imminent culling of the kangaroos at the old Belconnen Naval Transmission Site has played right into their hands. Did you really think that, once the kangaroos on the site have been eradicated, that the ACT Government will allow the site to be set aside as a wilderness reserve for moths and grasshoppers!

Take a look at the map - it's not going to happen! Within two to three years they will find another excuse to carve it up - perhaps it will be perceived to be a fire risk. With few kangaroos on site to keep the grasses under control, this is quite conceivable. Once this happens, they send in the slashers, knock down the fences, and auction

it off to developers. If this cull proceeds, and it looks like it might happen as early as this weekend, then it will be a dark day for us all, and Canberra Day will become a national day of mourning for a long time to come. Sady, it is probably already too late to withdraw your support. Maxine Cooper and Jon Stanhope have already taken from you what they needed.

Brett describes himself as another friend of the grasslands, but especially of the most graceful of the species that are dependent on them - the ones that are about to be slaughtered. Date received 7 March.

FOG's reply - FOG has had an interest in the management of the Belconnen Naval Station over many years, and takes very seriously the impact of kangaroo grazing at the site which threatens a remnant of lowland native grassland, an endangered ecological community. FOG's view, based on observation and scientific advice, is that immediate action is needed to reduce kangaroo numbers at the site, and that culling is the most appropriate approach of the alternatives considered.

FOG has and continues to advocate for protection of the remnant as a grassland reserve with buffers, when development of the suburb of Lawson goes ahead. FOG is somewhat confident of that outcome as the ACT's own conservation strategy (Action Plan 27 on lowland native grassland conservation) identifies the remnant as a core conservation site i.e. having high botanical significance, key habitat for threatened species and being of good size.

FOG e-Bulletin

The FOG e-Bulletin comes about once a month and advertises events and provides news to members and supporters of FOG. If you don't receive it, we don't have your correct email address. If you have any item you want to include in future issues of our e-Bulletin, contact Tony Lawson tlawson@home.com.au or 6161 9430.

Cultivation Corner: Growing *Brachyscome* and *Calotis* - Janet Russell

In this article, I want to discuss the experience that we have had with growing these two genera that belong to the *Asteraceae* family. The plants all grow on the Southern Tablelands.

The first native daisies we tried to grow were *Brachyscome*. These did quite well in the cultivated areas of the garden but did not seem to thrive when they were placed in the less hospitable areas where plants were expected to survive without too much attention. Some horticultural specimens can be showy although they seem to decline in vigour over time. In their natural environment, many of these daisies tend to be small specimens with few flowers. We have had a few good years out of plants such as *B. multifida* and various non-local species although they now need replacing. This is except one *B. multifida* which I dug up from the garden and put in a pot. It is now quite rejuvenated and I shall plant it in the garden again.

Looking back we were more interested then in horticultural specimens that would earn their keep and if they did not put on a sufficient show we removed them. The *Calotis* all fitted into this category, I am afraid. Today, while there are areas of the garden still given over to that kind of gardening, we are also adopting a more *laissez-faire* attitude to other parts of the garden where we want a more natural environment.

We have tried growing *B. ciliaris*, *B. spathulata*, *B. diversifolia*, *B. aculeata*, *B. graminea*, *B. rigidula*, and *B. balsatica*, *Calotis anthemoides*, *C. cuneifolia* and *C. scabiosifolia*. These plants were all

on drippers. The *B. spathulata* did not do well at all in the season that they were planted and they died during the following winter. In fact all our *Brachyscomes* that have died, died during winter. I tried *B. ciliaris* in a number of places and finally



found a place for it where it did quite well for a couple of years. We planted *B. rigidula* which has an attractive pale blue flower in spring 2002 and it has flowered every year since. Ours is rather a sprawling specimen although I understand that there are different forms.

Because of the diversity of native plants, cultivation information is not often available. *Brachyscomes* are apparently easy to propagate by cut-

tings and I have had some success with a hybrid species that we bought. There is some helpful information on a Tasmanian website called Understorey Network at <http://www.understorey-network.org.au/family-index.html> This site has the plants organised by family and shows the flowering time, seed collecting time, dormancy of seed and other notes about propagation. It may be that the information is not always absolutely appropriate for Canberra, however, generally there is very little detailed information available about propagating individual species and this is a wonderful resource. The ANBG also has notes on cultivation of some species but this does not include these daisies, or at least not at this time.

If you wish to have a look at any of the daisies mentioned (including often a view of a herbarium specimen) with a view to identifying them, the website at <http://plantnet.rbgsyd.nsw.gov.au/floraonline.htm> is extremely useful. I also find that a photo of most plants can be found on the ANBG website if they are not shown in the resources that you have.

I have learned a lot since I started growing native plants. When I started, there was the impetus to fill up an empty garden and sometime the preparation work was not done as well as it might have been. I am now rather inclined to go back to try growing these daisies again. I am also looking for species that self-propagate or finding ways to assist them to do this because the original plants reduce in vigour over time and/or have a reasonably short life.

Photos:

Calotis scabiosifolia and *Brachyscome* sp.

FOG Advocacy - Geoff Robertson

Aim of advocacy

FOG has always had a strong role in advocacy on behalf of grassy ecosystems and more broadly on related biodiversity issues. FOG advocacy reflects aims stated in its strategic plan, including ensuring that remnants are mapped and suitably protected either in reserves and/or with appropriate conservation management. Advocacy often responds to imminent threats from the juggernaut of urban development or other destructive change in land use.

Strategies

FOG's advocacy strategies have included the following.

- Making submissions to government and relevant others. FOG has made many submissions over the years, but efforts have increased recently.
- Participating in, or working with, like-minded groups to achieve mutual objectives. For example, FOG has been an active member of the Conservation Council of the South East Region and Canberra, especially its Biodiversity Working Group, and is also a member of the Limestone Plains Group, ACT Parkcare, the Recovery Team for Natural Temperate Grasslands of the Southern Tablelands of NSW and the ACT, and a NSW interagency group on grassy ecosystems.
- Providing support for other groups undertaking advocacy, education, research or on-ground work associated with grassy ecosystem conservation. FOG has provided many letters of support for projects which will provide good grassy ecosystem outcomes.
- Participating in consultations with government and other agencies and organisations, to provide advice on grassy ecosystems and related matters. FOG is invited to attend many formal and informal consultations in the ACT and NSW, and to provide advice. FOG also initiates meetings with agencies as appropriate.
- Publicising FOG advocacy work to members through the newsletter/e-Bulletin and at meetings, and more broadly through public media, and reporting to other groups and agencies. Selected FOG submissions are included on FOG's website.
- Providing training relevant to grassy ecosystem conservation. FOG is planning a workshop on advocacy in mid-2008.
- Ensuring that its advocacy work is based on good science and respect for those who may not share FOG's views. FOG continually attempts to keep up to date through conducting workshops, attending conferences, reviewing and publicising the latest relevant literature (through the newsletter), and consulting with and inviting participation from experts.

Tasks

To be effective in advocacy, FOG has identified the following tasks.

- Monitoring activity and keeping an eye out (e.g. trawling relevant internet sites) for processes that may require a submission, or provide an opportunity. This can be hit and miss, and some matters that FOG should have addressed have slipped under the radar.
- Deciding carefully on what to respond to, taking into account matters such as:
 - relevance - e.g. key remnants are of prime concern,
 - the likely outcome,
 - whether we have expertise and resources to respond,
 - scientific grounds, and
 - broader biodiversity issues - to support related groups (e.g. ornithologists, herpetologists).
- Keeping up with what related groups are doing.
- Identifying the person(s) who have the skills and discipline to prepare or help with a response.
- Looking for themes and broader strategies or alternative approaches.
- Coordinating, pulling together, seeking comment and editing/finalising the submission.

Organisation

Advocacy is challenging, as it is often reactive and time based. Each issue may represent a different challenge and it requires collaboration, including with other groups. FOG's record has been good on the whole, but as a small volunteer group there have been missed opportunities. Until recently, the FOG committee, which only meets every two months, attempted to deal with advocacy issues through committee and by email. Since late 2007, an advocacy group - with committee and other members - works independently and reports to committee. Bernadette O'Leary coordinates the advocacy group. The challenge facing the group is to identify tasks, assign roles and keep up with opportunities.

Feedback

FOG receives many compliments and positive feedback from FOG members and stakeholders for its advocacy work which does have some positive influence on decisions made. Its greatest contribution is probably through showing we care, and providing information and strategies to assist others achieve better outcomes for biodiversity.

FOG soils workshop at Garuwanga, near Nimmitabel

Andy Russell

12 JANUARY FOG's soils workshop was a follow up to a Department of Primary Industries' (DPI) course, *Benchmarking and understanding soil chemistry* that Geoff Robertson and Bernadette O'Leary attended in 2007. As part of that course which involved theory and field work they collected and had analysed eight sets of soil samples from Geoff's Nimmitabel property. While the DPI course was planned for the agricultural and pastoral purposes Geoff and Bernadette were keen to observe if there were lessons that could be applied to conservation management. For each site, twenty samples were collected with separate samples from 0-10cm and 10-20cm depths.

Following a welcome from Geoff, those attending the workshop introduced themselves saying a little about their interests and background. Bernadette presented an introduction to the theory of soil science covering such elements as landscape, climate, topography, geology, vegetation and land capability with some detail. Though this started from basics it was beneficial when we came to looking at analysis later in the day.

The next part of the workshop was to view these sites, so out we headed in a small convoy. We noted the herbage at each site:

- Site 1 was a degraded spear grass, *Austrostipa falcata*, area with minor clovers, sorrel and minimal amount of kangaroo grass, *Themeda australis*.
- Site 2 was a river tussock, *Poa labillardieri*, drainage line containing woodruff, *Asperula conferta*, and sedges. Weeping grass, *Microlaena stipoides*, was growing nearby.
- Site 3 was a weeping grass-dominated site, along with hares foot cover, *Trifolium arvense*, and some kangaroo grass (see photo).

- Site 4 was a snow gum woodland.
- Site 5 was a kangaroo grass-dominated site.
- Site 6 was a flood plain, dominated by river tussock.
- Site 7, '1080', was an old sheep camp on a hillside, containing mainly verbascum, thistle, vulpia and barley grass
- Site 8 was a snow grass, *Poa sieberiana*, site with granite tors nearby and an ancient *Acacia melanoxylon*.



After a break for lunch Geoff described the soils at Garuwanga saying that they were generally granite soils, being quite variable, generally with low to moderate fertility having sandy top soil over clay subsoils. There was a low water holding capacity in surface soils. They were erosion prone and prone to winter water logging. Alluvial soils were also present. They were generally located along water courses and these had more natural fertility, were often deep soils and had flood and erosion risk due to their location. Soil texture and colour is shown in Table 1.

TABLE 1	Stipa g'land S1	Drainage line S2	Microlaena g'land S3	Snow Gum W'land S4	Themeda Grassland S5	Flood plain S6	1080 slope S7	Snow grass S8
Soil Texture - Top	Sandy Loam	Clay loam	Sandy clay loam	Sandy clay loam	Silty loam	Clay loam	Sandy clay loam	Loamy sand
- Sub soil	Sandy loam	Clay loam	Sandy clay loam	Sandy clay loam	Sandy clay loam	Clay loam	Sandy clay loam	Sandy clay loam
Soil colour - Top	Brown	Brown	Brown	Yellow-brown	Brown	Brown	Brown	Yellow-brown
- Sub-soil	Yellow brown	Brown	Yellow brown	Yellow brown	Yellow brown	Grey brown	Yellow brown	Yellow brown

Soil acidity is shown in Table 2.

- **pH** is measured in two scales, (CaCl₂ and water) and has a scale of 0 to 14 (from acid to alkaline, 7 = neutral) The CaCl₂ scale is more reliable and 0.8 lower than the pH(water) test. The ideal level for plant growth is between growth 5.5 and 8. Problem acid soils are below 5.
- **Aluminium** is regarded as toxic to plants. 5% is regarded as low, 5%-15% as medium and greater than 15% as high. Ranges from 0-20% are common.
- **Cation Exchange capacity (CEC)** is the capacity for soil to hold elements for later release. CEC below 6 indicates light soil. CEC is also a measure of nutrient status.
- **Na%** is salinity. Less than 2% is low, 2 to 5% medium and above 6% high.

Soil nutrients Key non-organic nutrients include nitrogen (no measure available), phosphorous, potassium, sulphur, calcium and magnesium. Results are shown in Table 3. Others are important but were not measured.

- Phosphorous is important for root growth. Soils

at Garuwanga (except “1080”) are phosphorous deficient.

- Sulphur is vital in proteins especially for wool growth. Less than 5 is low.
- Potassium (K) is required for photosynthesis. Deficiencies could occur where K values are less than 0.4meq/100g
- Calcium is required for root and overall plant growth. It is not clear what the measure is, but the “ideal range” is 65 to 85%, while the common range is 45 to 85%.
- Magnesium is required for plant growth. It is not clear what the measure is, but the ideal range is 10 to 15%, while the common range is 5 to 50%. Too much (greater than 30%) can be a problem.
- Organic matter % in cropping soils is less than 1%. Otherwise it is in the region of 2 to 3%, sometimes as high as 8%. Organic carbon below 2% is low.

Continued page 13.

TABLE 2	S1	S2	S3	S4	S5	S6	S7	S8	Average
pH(CaCl ₂) - Top soil	4.8	5.2	4.5	4.2	4.7	4.9	5.1	4.8	4.8
- Sub soil	4.7	4.9	4.8	4.2	5.0	4.9	4.8	4.9	4.8
pH (Water) -Top soil	5.7	6.1	5.5	5.2	5.8	5.8	6.0	5.8	5.7
- Sub soil	5.8	6.0	5.9	5.3	6.1	5.9	5.8	6.1	5.9
Aluminium - Top soil	1.8	1.8	6.9	55.1	3.8	1.1	1.3	3.1	6.86
- Sub soil	5.4	2.3	8.9	61.5	5.2	1.3	2.3	4.4	11.36
CEC Meq/100g—Top soil	5.58	5.64	2.90	3.42	2.89	9.44	7.33	3.26	5.12
- Sub soil	2.57	4.36	2.11	2.28	1.93	7.86	4.31	2.25	3.46
Na% - Top soil	0.43	1.20	0.93	1.70	0.69	0.74	0.26	0.61	0.82
- Sub soil	0.78	1.50	1.30	2.10	1.00	0.89	0.46	0.89	1.12

TABLE 3	S1	S2	S3	S4	S5	S6	S7	S8	Average
Phosphorous (Colwell) P (mg/kg)	17.0	16.0	23.0	5.4	12.0	8.4	70.0	15.0	20.9
Target Colwell P (mg/kg)	25(SL)	50 (CL)	35?(SCL)	35? (SCL)	35?(silty L)	50(CL)	35? (SCL)	10?(LS)	
Sulphur KCl-40 (mg/kg)	2.5	3.9	2.8	2.6	1.3	3.2	4.5	2.1	2.9
Potassium (meq/100g)	0.45	0.37	0.19	0.28	0.20	0.37	0.56	0.20	0.33
Calcium %	73	69	72	41	76	74	77	72	69
Magnesium	16	21	13	14	12	20	12	14	15
Organic carbon %	2.4	2.1	1.3	1.6	1.2	2.8	2.0	1.4	1.9
Carbon matter%= OC 1.7	4.1	3.6	2.2	2.7	2.0	4.8	3.4	2.4	3.1

Scouts learning the landscape - Nicky Dickson

The Learning the Land project involves a combination of increasing awareness of local environmental issues and aesthetic appreciation of the local landscape. This project is supported by the ACT government in the form of an ACT Environment grant and was aimed primarily at interested youth members of the ACT Scouting organisation and secondarily to the general public via a series of exhibitions. FOG made a substantial contribution during the residential component of the project carried out on 15 and 16 March.

The rationale for the project was to provide an opportunity via the expertise of local environmental community groups to educate the youth members about the nature and issues facing some of the local ecosystems of the Canberra region, particularly the Cotter area. The ACT scouts camp site, Camp Cottermouth, is located in this area and is a site where the scouts have the opportunity to camp and live simply, outdoors, for a period of time.

The project aimed to enhance the educative experience by requesting the presenter to not only discuss the issues but increase the participant's knowledge by active participation and examination of aspects of the ecosystem discussed. This process was further reinforced by the opportunity to look anew at the landscape via the process of art making each afternoon. During these art workshops the scouts were guided by experienced art tutors to look anew at the natural world around them and translate this into a series of images using a variety of techniques.

The educational issues that the youth members covered included a presentation from Geoff Robertson (FOG) which detailed some of Australia's unique geographical features; varieties of local grasslands and the flora and fauna present in these areas; threats to these ecosystems and an outdoor examination of grass varieties that may be found at Camp Cottermouth. At Casuarina Sands Stephen Skinner (Waterwatch) discussed factors influencing water quality of local rivers and how this is monitored. The participants then had the opportunity to practise these water quality tests and look at the variety of tiny aquatic life in the Cotter River. On Sunday morning, Hayden Burgess (Greening Australia) led the scouts on a pine wilding removal exercise. He discussed the necessity of this exercise within the revegetation project that was being done in one of Canberra's

water catchments areas, particularly in the context of future bushfires.

The tasks set in the afternoon art workshops were designed to encourage the youth members to examine both macro and micro features of the local environment in a novel manner and translate what they saw into an image. The drawing workshop involved the participants collecting natural objects they could find in the vicinity and using



the outline or shadow, construct a drawing on canvas using pencil and pastel. The print workshop created two works, one involved the participants using viewfinders constructed for the workshop to isolate a distant view and then translate this into a dry-point etching on perspex which was printed; the other work was a collage that the youth needed to construct from the differ-

ing textures within found natural materials.

Some youth members found these exercises challenging, but they all enjoyed the project and worked solidly to produce several pieces of work. These 'art works' will be on display at the Belconnen Arts Centre, 2-20 June, and the Tuggeranong Arts Centre, 27 November-9 December. These exhibitions have been organised to not only show the artistic response of the youth members together with a photographic record of the weekend's activities but also to display promotional and educational information from the different community groups involved.

FOG is invited to be part of both of these activities which hopefully will be a great opportunity for wide public engagement on the issues that FOG is seeking to promote.

From page 12

Conclusions

DPI testing is designed for agriculture and pastoral purposes and not for conservation management. Nevertheless, the tests produced some interesting results. Some sites may be nutrient deficient such as S3 (Microlaena), S5 (Themeda), S4 (Woodland) and S8 (Snowgrass). Soils at Garuwanga were generally poor from a farming perspective - some areas were almost pure sand. The soil workshop has increased knowledge of the ecology of areas like Garuwanga.

Address: Friends of Grasslands Inc., PO Box 987, Civic Square ACT 2608, **Or:** correspondence@fog.org.au

Web: www.fog.org.au

Web manager: webmanager@fog.org.au

General enquiries: Geoff (02 6241 4065), Janet (02 6251 8949), or info@fog.org.au.

Activities (to enquire about, register for, or suggest): Janet (02 6251 8949) or activities@fog.org.au

Membership & n'sletter despatch: membership@fog.org.au

Newsletter editor: newsletter@fog.org.au

E-bulletin editor: ebuletin@fog.org.au

Committee matters: committee@fog.org.au

Advocacy: advocacy@fog.org.au

Committee

President: vacant

Vice presidents: geoff.robertson@fog.org.au, and vacant

Secretary: bernadette.oleary@fog.org.au

Treasurer: sandra.hand@fog.org.au

Imm. Past Pres. kim.pullen@fog.org.au

Committee: david.eddy@fog.org.au

sarah.hnatiuk@fog.org.au

stephen.horn@fog.org.au

tony.lawson@fog.org.au

margaret.ning@fog.org.au

janet.russell@fog.org.au

benjamin.whitworth@fog.org.au

Public officer: andrew.russell@fog.org.au

Friends of Grasslands newsletter

Do you want to subscribe to the newsletter? It comes out six times a year, and you can obtain it by joining FOG. You do not need to be an active member - some who join often have many commitments and only wish to receive the newsletter.

However, if you own or lease a property, are a member of a landcare or parkcare group, or actively interested in grassland and woodland conservation or revegetation, we hope we have something to offer you. We may assist by visiting sites and identifying native species and harmful weeds. We can suggest conservation and revegetation goals as well as management options, help document the site, and sometimes support applications for assistance, etc.

Of course you may wish to increase your own understanding of grasslands and woodlands, plant identification skills, etc. and so take a more active interest in our activities. Most activities are free and we also try to arrange transport (or car pool) to activities.

If you are already a member, why not encourage friends to join, or make a gift of membership to someone else? We will also send a complimentary newsletter to anyone who wants to know more about us.

How to join Friends of Grasslands

Send us details of your name, address, telephone, fax, and e-mail, etc. You might also indicate your interests in grassland issues. Membership is \$20 for an individual or family; \$5 for students, unemployed or pensioners; and \$50 for corporations or organisations - the latter can request two newsletters be sent. Please make cheques payable to Friends of Grasslands Inc.

If you would like any further information about membership please contact Margaret Ning, or if you would like to discuss FOG issues contact Janet Russell or Geoff Robertson. Contact details are given in the boxes above. For newsletter and e-bulletin matters contact Geoff Robertson or Tony Lawson, respectively. We look forward to hearing from you.

Friends of Grasslands Inc
PO Box 987
Civic Square ACT 2608