News of Friends of Grasslands

Supporting native grassy ecosystems

September-October 2007

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Program

FRI NIGHT to SUN 28-30 SEPT **Weekend Eco-Tour of the Eastern Riverina** This trip will visit various grassy ecosystem sites around Henty (Saturday) and Wagga (Sunday) and like most FOG field trips will be an opportunity to learn from experts about grassy ecosystems, to have fun and get to know other FOG members. More information was given in the last newsletter. To register, or for further information, please contact Janet on 6251 8949 or email fogcanberra@yahoo.com.au.

THURS-FRI 11 to 12 OCT **Post-Stipa Conference Field Trip**, FOG and Stipa Native Grasses Association are organising this trip around Mudgee and Wellington NSW and it will be an opportunity to learn from experts about grassy ecosystems, and to hear more about Stipa approaches. More information was given in the last newsletter. Note that you do not need to attend the Stipa Conference to be part of this tour. To register, or for further information, please contact Janet on 6251 8949 or email fogcanberra@yahoo.com.au.

SAT 20 OCT 2 to 4pm. **Visit to Belconnen Naval Station,** Lawson ACT. This is yet to be confirmed.

For remainder of the 2007 program, see page 2.

Of special interest

SUN TO WED 7-10 OCT **Fifth Stipa Native Grasses Association Conference : *native grasses for a thirsty landscape, Mudgee NSW.*** As usual this is an opportunity to learn about native grasses and grassy ecosystem conservation and to catch up with some more distant FOG members. The brochure for the conference is being distributed with this newsletter. Please let your friends and colleagues know about it. Also note that some information on the FOG-Stipa post conference field trip is also included in the brochure.

THURS TO FRI 22-23 NOV ANPC Canberra Workshop ***Identifying plants of grassy ecosystems of the ACT region***. See item on page 3. Registration fees for this workshop have yet to be determined, but registration will open soon. Catering, transport and support materials will be included in the fee. Contact the ANPC office, anpc@anpc.asn.au or 02-6250 9509 and keep an eye on the website (http://www.anpc.asn.au).

SUNDAY two weeks before Election Day - **Walk Against Warming** is organised by the Conservation Council and will be held the Sunday two weeks before the federal election. If you want to help organise this event contact the Conservation Council, www.consact.org.au. If you want to know what politicians are up to on climate change please take a look at www.thebigswitch.org .

David Tongway at the down-to-earth workshop, (story next issue) Paul Cheeseman and Laurie Adams at the winter grassland field-trip, and Brian Wild and Jean Geue at the winter slide afternoon.

News Roundup

SEAACT
Kim Pullen

22 JUNE The Science Educators' Association ACT (SEAACT) celebrated its 30th annual schools Science Fair in June. FOG has been a co-sponsor of this event for several years now, and as FOG president I was on hand at the prize-giving ceremony on the evening of 22 June to help with prize presentations. The quality of the entries was outstanding and bodes well for future science in Australia.

Limestone Plains Group
Isobel Crawford

In July 2007, a group of Canberra biologists and ecologists formed the 'Limestone Plains Group' to lobby for the effective long-term management and conservation of local grassy ecosystems. The name refers to the term formerly used to describe the grassy plains often found in the valleys in the Canberra region. Native grasslands and box-gum woodlands attracted the early explorers and supported the sheep grazing industry that followed.

The group includes scientists from the Australian National University, the University of Canberra and CSIRO, and consultants, all with a wide range of relevant experience in biological surveys, botany, invertebrates, reptiles, mammals, veterinary treatment of kangaroos, and threatened species conservation and management. Supporting community groups include FOG, National Parks Association, Canberra Ornithologists Group, Field Naturalists Association, ACT Herpetological Association, Australian Native Plants Society and the Conservation Council.

The group was formed in response to the current debate on how to conserve two of the best quality patches of *natural temperate grassland* in the ACT, at the Belconnen Naval Transmitting Station and the Majura Training Area. These grasslands are also habitat for six listed threatened plant and animal species: Ginninderra peppercress, button wrinklewort, perunga grasshopper, golden sun moth, striped legless lizard and grassland earless dragon.

Overgrazing by eastern grey kangaroos is seen as the principal cause of damage to these grasslands at present. Culling was initially accepted as the solution by both the ACT Government and the Department of Defence. Pressure from an animal rights group, Queanbeyan Wildcare, on Defence led to a temporary reversal of this decision, announced on 5 July 2007.

For Belconnen, in June 2007, in response to an invitation from Defence, Wildcare had proposed instead to translocate to NSW 50-100 kangaroos in vehicles the size of a Mazda van, costed at $350,000, and sterilise 200, costed at $80,000. This work was to be done over a period of 194 working days (28-39 weeks). Payment to Wildcare for project management was additional.

The Wildcare proposal for Belconnen was poorly thought out. In March 2007, the kangaroo population was estimated by ACT Government researchers to have been about 500. Wildcare proposed to reduce it by 100, rather than to 100, which is what is needed to reduce the grazing pressure so that the grassland can begin to recover this spring.

No alternative to culling was offered for Majura. There the kangaroo density is about half that of Belconnen, but the population is far larger (about 9,000), and less than half of the vegetation is grassland. The Majura population of grassland earless dragons has crashed to a level where the possibility of extinction is likely. It is one of only two populations left of this endangered grassland specialist in the ACT region. At present, we are awaiting the results of a tour of Belconnen by four scientists selected by Defence to provide additional advice on managing the Belconnen population of captive kangaroos.

The Limestone Plains Group looks forward to helping to develop better methods for resolving such wildlife management issues in the future.

FOG e-Bulletin

The FOG e-Bulletin aims to advertise events and provide some news to members and supporters of FOG as the need arises. If you are not receiving the bulletin, it means that we don't have a proper e-mail address for you. This can be fixed by sending your e-mail address to Margaret Ning (contact details back page).

FOG on Radio 2XX

Geoff Robertson, FOG Vice President, is a regular speaker on the *Radio Landcare Program,* each Tuesday morning at 9am on community radio 2XX (Canberra, 98.3fm). Geoff's next session is 4 September.

More diary dates 2007

Please place the following dates (subject to change) in your diary. For more details, contact Geoff Robertson (see back page).

WED 7 NOV 12:30 to 1:15pm **St Mark's Grassland**, ACT

SAT 10 NOV 9:30 to 3:30pm **Working bee at Old Cooma Common Grassland Reserve**

WED 21 NOV 5 to 6pm **Tarengo leek orchid** Hall Cemetery, ACT

SAT 8 DEC 9 to 5pm **Nungar Plain**, north of Adaminaby NSW.

In this issue

A2A and K2C

The Alps to Atherton (A2A) conservation connectivity initiative, announced before the last NSW State Election, will span 2,800km along eastern Australia (see map), to allow plants and animals to move into new habitats as the continent's climate changes. The key aim is to link existing reserves and provide funding and incentives to private landholders to protect and restore ecological links. The NSW Environment Trust has allocated $7m over three years, and a section headed by Ian Pulsford, Department of Environment and Climate Change (DECC), based at Queanbeyan, has been established to coordinate the project. As Bernadette O'Leary points out on page 5**,** FOG responded to a request from DECC to support this project.

One of two key pilot projects under A2A is Kosciuszko to Coast (K2C) landscape connectivity project. Since 2005, FOG has committed support to the K2C project along with other partners including Greening Australia Capital Region, Molonglo Catchment Group, DECC, Nature Conservation Trust of NSW, Upper Murrumbidgee Catchment Coordinating Committee, and Upper Murrumbidgee Landcare Committee. K2C is now putting its strategy and work plans in place to start delivering incentives on the ground.

Lauren Van Dyke has been appointed as the facilitator and an office is being established at the Bush Heritage *Scottsdale* property, just north of Bredbo, which will act as the first link in a vital landscape lifeline for species and habitat survival. Owen Whittaker will take over from Lauren as Scottsdale's manager. Lauren's contact details are barefoothorses@gmail.com**,** 02 6454 4388, 0411 402 978.

New England endangered community

FOG recently received a copy of the guidelines to assist landholders to identify remnant ribbon-gum, mountain gum, and snow gum forest of the New England bioregion, an endangered ecological community. Less than 15 percent of the original community survives. The community is an

open woodland/forest and occurs at an elevation of between 700-1500m, mostly on deep basalt soils. The tree layer is usually 20-30m tall, the shrub layer is sparse and the ground layer is dominated by (river) tussock, snow and kangaroo grasses and forbs. If you would like an emailed copy of this colourful brochure, which contains additional information, contact fogcanberra@yahoo.com.au.

ACT plant ID workshop
Sally Stephens

Hi, campers. The next ANPC Workshop will be held in Canberra, Thursday 22 - Friday 23 November on identifying plants of grassy ecosystems of the ACT region.

The workshop's objectives are to improve skills in identifying plants of grassy ecosystems of the ACT region, and to learn to recognise species which indicate quality or conservation significance of the site. This workshop is for anyone wanting to identify local plants in the field. Most people will be from the ACT and surrounding region, though others will be welcome. Numbers will be limited by the number of skilled tutors available. The workshop will be on two consecutive days, mostly field-based: day 1 for beginners and those less experienced, and day 2 for those with more experience. Participants can register for one or both days. Some day 1 participants may wish to further develop their skills by also registering for day 2. Tutors skilled in plant identification are being sourced from across the ACT and local region. Workshop participants will break into groups and will move between habitats and tutors during the day.

The following groups are generously providing in-kind support: the Centre for Plant Biodiversity Research, the Australian National Botanic Gardens, NSW Department of Environment and Climate Change, ACT Government (Parks, Conservation and Lands), Greening Australia (Capital Region), and FOG. The workshop is also supported by the following community-focused groups: the Southern Tablelands Grassy Ecosystem Conservation Management Network (CMN), Ginninderra Catchment Group, Southern ACT Catchment Group, Molonglo Catchment Group, Southern Tablelands Ecosystems Park (STEP), and Monaro Grasslands Conservation CMN. Registration for this workshop will open soon. Registration fees have yet to be determined. Catering, transport and support materials will be included in the fee. Contact the ANPC office, anpc@anpc.asn.au or 02-6250 9509 and keep an eye on the website (http://www.anpc.asn.au).

Trigger Plant Grassland for sale

FOG has reported on the trigger plant grassland on many occasions, and now part of it is for sale. The grassland is part of a rural block with house, river frontage and more. The asking price is $190k. The block contains 70-80 acres, including the weed free grassland, and fronts onto the Tuross River. Approximately half the property is paddock and half is bush, and it is next to Wadbilliga National Park (with access). The house is three bedrooms with outer walls of western red cedar, and features of the recently painted house include: large loft with stair access, slow combustion oven with water heater attached, sauna, power, telephone, and covered caravan with annex - has power. The location is just over 100 minutes from Tuggeranong. The last 20kms is high quality, council dirt road - no need for 4WD. For more info, contact Michael on 02 62944098 or 0421097492.

Green and golden bell frog

The *Frogwatch October 2006* report for the ACT region was released earlier this year and for anyone interested in frogs in the Canberra region this is a must read. This easy to read but highly factual report contains photos of all local frogs and maps of where they may be found, including for the first time some observations near Nimmitabel.

Following the severe drought, not unexpectedly, frog numbers dropped dramatically. No frogs were detected calling at one-third of Frogwatch sites, compared to eight percent in 2005. However, the good news is the recording of a single green and golden bell frog *(Litoria aurea)*, photo by John Wombey below, the first recorded in the survey. This threatened species was previously only known from one site in the Southern Tablelands – now it appears that it has a second site.

Frogwatch is also promoting a leaflet called *Creating a Frog Friendly Habitat* which is designed to make backyards, school grounds or rural properties more frog friendly.

Forgwatch will shortly be advertising the 2007 Frogwatch Census. For more information contact Rachelle, waterwatch@ginninderralandcare.org.au, or find Frogwatch on the new Ginninderra Catchment site, www.ginninderralandcare.org.au, or phone (02) 6278 3309.

Far South Coast CMN

JULY 2007 A copy of the first newsletter of the Far South Coast CMN (supporting landholders with native vegetation) fell into our hands recently. FOG members may wish to follow this up, especially if they live in that area.

The lead story was by well-known FOG member Jackie Miles on vegetation flux, a short and excellent account of ecological processes. The newsletter also included an introduction by the newsletter editors and facilitators, Dan and Vickie Williamson, a report of a grassy forest walk led by Jackie, articles on plant identification and the long-nose potoroo, and much more.

For more information contact the FSCCMN, Don and Vicki Williamson, PO Box 816, Bega NSW 2550, 02 6249 5558, info@fsccmn.com.au, www.fsccmn.com.au.

Newsletter electronically

The *News of Friends of Grasslands* is available electronically. If you want to receive it in this form, instead of by post, you can contact Margaret Ning (details back page) and she will facilitate the change. An advantage of this is that you receive the newsletter in colour. However, the file is around one meg or more.

Grasses and ecosystem services

13 JULY The *NewScientist.com news service* reported that vital ecosystem functions, such as sequestering carbon dioxide and purifying water, depend on a larger number of species than previously thought. That means we may have underestimated the environmental impact of biodiversity losses.

Andy Hector and Robert Bagchi of the University of Zurich, Switzerland, analysed data on the ecosystem services provided by grass species. They then devised a method to identify how many species were needed to provide increasing numbers of services.As more ecosystem services were added, greater numbers of species were required to support an entire ecosystem. "We may have underestimated the effects of biodiversity," Hector says. "Our analysis encourages thinking about ecosystems as a whole, rather than focusing on individual services in isolation."

Lower Molonglo Valley Mapping
Keith Joliffe

10 AUGUST CANBERRA A partnership has been established between community volunteers and Hawker College, aimed at distributing a computerized map of the Lower Molonglo Valley. This modest project, referred to as the "Blindspot project", aims partly at making existing data on grasslands, woodlands and riparian areas easily accessible to the general public. Personnel from Parks, Conservation and Lands (ACT Government) are providing initial advice on the practicalities.

The layered displays already available on the ACT Government's web page *ACT Locate* might be adapted to give a simplified view at the localized Lower Molonglo Valley level. Expert advisers will be asked to examine the draft map, probably some time around November 2007, and to suggest any corrections, amendments or additions.

Those with detailed local knowledge of grasses in the Lower Molonglo Valley are especially needed. FOG has agreed to assist if it can. For more information, please contact me, on 02 4473 8519, 02 6254 6156 or 0427 546 156, or email: keith.joliffe@bigpond.com.

Keith is Blindspot Project Volunteer Community Facilitator.

7th ANPC Conference

The 7th Australian Network for Plant Conservation National Conference is planned for April 2008. The theme will be **t**ackling threatening processes in plant conservation (title to be finalised). The dates and venue are Monday 21 - Thursday 24 April 2008, Mulgoa NSW (near Penrith, western Sydney). Further details will be circulated and also posted on the ANPC website (http://www.anpc.asn.au) as the conference evolves.

Chilean needlegrass in Gungahlin

FOG is moving ahead with the Chilean needlegrass project in Gungahlin. So far nine FOG members have been involved. If you want to spend an hour or two and find out what this project is about and to learn some practical information about this weed issue contact Margaret Ning: (margaretning@iprimus.com.au or phone 02 6241 4065 or 0427 788 304).

FOG submissions

Bernadette O'Leary

FOG has continued to be busy writing submissions and letters in recent months, and I've included summary information below. Full details of all submissions are available via fogcanberra@yahoo.com.au, and they will eventually be included on the website.

Pink-tailed worm-lizard

FOG and the ACT Herpetological Association initiated a joint nomination to the ACT Flora and Fauna Committee to list the pink-tailed worm-lizard *(Aprasia parapulchella)*, which currently has *special protection status*, as a *vulnerable* species. Reasons for the nomination included: serious decline in quality and quantity of habitat (because habitat, namely rocky sites, is a sub-component of an endangered ecological community, *natural temperate grassland);* habitat response to the 2003 wildfires and development pressures; and fragmented distribution over a small range of occurrences.

A2A initiative

FOG responded to a request from the NSW Department of Environment and Climate Change (Parks and Wildlife) for support for the Alps to Atherton (A2A) initiative in NSW, which 'aims to achieve landscape conservation connectivity for more than 2,800km along the Great Eastern Ranges'. FOG noted that its interests include the areas covered, specifically conservation of grassy ecosystems of various sorts across that range, and agreed to continue to collaborate. The sorts of activities FOG could pursue include community education, and survey and management support for landholders.

EPBC submissions

FOG provided comments in response to public notification of three referrals under the EPBC Act.

The first is the proposal to develop a site in Yarralumla for a diplomatic mission. The site includes remnant *natural temperate grassland*, an endangered ecological community, and FOG believes the development will have significant impact on the golden sun moth *(Synemon plana)*, a *critically endangered* species under EPBC. Habitat value of the site and actual occurrence of moths were argued, and FOG suggested further assessment prior to any development, and preferably retaining the remnants and protecting them as part of, or adjacent to, any reduced site development.

A decision has since been made under EPBC ACT that the proposal is not a *controlled action* (i.e. further assessment will not occur) as the 'loss of the grassland and moth habitat area is not likely to have a significant impact'.

The second is a proposal to prepare 39 sites in three southern Nature Reserves within Canberra Nature Park (Cooleman Ridge, Tuggeranong Hill, Urambi Hills) as an Inner Asset Protection Zone for future slashing to reduce fire risk to adjacent property. FOG commented on the basis of the occurrence of remnants of the Box - Red Gum Grassy Woodland and Derived Native Grassland, listed as 'critically endangered', and actual/potential habitat for the pink-tailed worm-lizard *(Aprasia parapulchella)* listed as *vulnerable*, on or adjacent to proposed work areas. FOG also commented on the scope and type of proposed works, e.g. vegetation clearing, rock removal, and mitigation/rehabilitation proposed.

A decision has since been made under EPBC that the proposal is not a *controlled action* (i.e. further assessment will not occur) as 'significant impacts .. are not likely' because of past disturbance, the perceived lack of importance of the potential habitat and the mitigation proposed.

The third is a proposal to provide services to land for the purposes of a caravan park and camping ground at Symonston, and the issue of a lease to a developer. FOG's comments were based on the possible occurrence of a population of the grassland earless dragon *(Tympanocryptis pinguicolla)*, which is listed as an endangered species, and the possible destruction of both members of a population of the species and its habitat. Although FOG does not support the proposed works and subsequent developments, if they were to be allowed FOG stated that the area should be minimal, that as much habitat is conserved as possible, and that a regime of effective management is put in place.

Montane peatlands and swamps

FOG also wrote to the NSW Minister for Climate Change, Environment and Water, supporting the work of the High Country Conservation Alliance, as presented to FOG members at the slide show in June, to conserve the montane peatlands and swamps of the Bago Plateau, which have been identified as endangered ecological communities in NSW. HCCA has identified twelve peatlands and swamps and related management issues: disturbance includes trampling, channelling, relatively rapid draining, dehydration, vegetation decline and encroachment of grass, and suggests a management approach to conserve the wetlands, including prevention of impacts by cattle and horses, along with some remedial works.

PAs on Canberra Nature Park

Further to comments on the second EPBC referral above, FOG responded to notification of three Preliminary Assessments for site preparation (37 sites) of the IAPZs of three southern CNP Nature Reserves (NRs): Cooleman Ridge, Tuggeranong Hill, Urambi Hills. Preparation activities will involve 'removing dispersed rock, stumps and dead vegetative debris and clearing native vegetation, largely regrowth, and levelling uneven ground'.

Again, FOG comments were on the basis of occurrence of remnants of the Yellow Box - Red Gum Grassy Woodland, an endangered community, and actual/potential habitat for the pink-tailed worm-lizard *(Aprasia parapulchella)* a 'special protection status' species, on or adjacent to proposed work areas. Comments addressed: the conservation tenure of the NRs; the need to integrate fire risk management with ecological conservation; site quality and likely impacts on threatened species/community; the need to limit area of works; potential for erosion, and the approach to managing site works, mitigation and rehabilitation.

Letters to CT

FOG also wrote two letters to the Editor of *The Canberra Times*. One in re-

sponse to an article by Rosslyn Beeby on kangaroo culling (7 July) was published on 18 July. The other was in response to a letter (1 August), and stressed the real concern about impacts on threatened species by development.

Informing you

Earth alive
Rosemary Blemings

If you were unable to attend Jo Slattery's talk to the recent ANPS meeting, an alternative is to look at Mary White's *Earth Alive! from Microbes to a Living Planet.* By the way, it is available through the AST Library Service.

Mary was speaker, to a capacity crowd, at the Griffin Centre, in the very early days of my SGAP/ANPS membership. She has written a four part "saga" on the evolution of the Australian environment based on her expertise as a paleobotanist. In 2003's *Earth Alive!* she explores the essential role of microbes and numerous invertebrates in creating and maintaining life on earth as well as the viability of soils and the organisms that depend directly on them. Since such interconnections sustain the environment and its habitats, successful understanding of the soil's webs of life are as vital as understanding hydrology and the plants we 'work with'.

Stunning photographs of Australian landforms, landscapes, flora and fauna are a feature of all of Mary's books and are enormous value in themselves. *Earth Alive!* also shows fascinating electron-microscope images of outstanding beauty, bringing the 'invisible world' into her explanations.

Offsets and land clearance
Alan Ford

Land clearance continues to be a major problem in Australia and the question of offsets for clearance is still a major issue.

In *Ecological Management and Restoration*, Vol 8 Nr 1, Phillip Gibbons and David Lindenmayer argue that offsets will only contribute to no net loss if:

- clearing is restricted to vegetation that is simplified enough so that its functions can be restored elsewhere with confidence, or clearing is restricted to vegetation that is unlikely to persist and is not practicable to restore irrespective of clearing,
- any temporary loss in habitat between clearing and the maturation of an offset, or differences between the habitat lost from clearing and gained through an offset, does not represent significant risk to a species, population or ecosystem process,
- there will be gains of sufficient magnitude on the offset site to compensate for losses from clearing,
- best practice adaptive management is applied to offsets,
- offsets are in place for at least the same duration as the impacts from clearing, and
- there is adequate compliance.

They argued that land clearing with offsets outside these parameters is inconsistent with no net loss.

Despite the criticism that there is a significant level of gain that is required to compensate for loss or the time lag between losses and gains, the authors conclude that offsetting is a valid policy instrument while governments permit clearance of native vegetation.

On a Winter's Day

Bernadette O'Leary

SATURDAY 14 JULY Twelve determined FOG members turned up on a cold afternoon to stand around in an exposed grassland! - Mulangarri Nature Reserve. We thought that the signposting of the reserve at the entrance could be made a little more obvious.

Geoff Robertson started by showing members three FOG posters about grassland values. Members then walked through the Reserve looking at species present and discussing management issues. Moving from the first paddock to the second, we thought that the vegetation became increasingly less exotic with fewer pasture species. In the second paddock the group participated in an exercise based on the approach used by Murrumbidgee Catchment Management Authority in property vegetation planning, using worksheets. Vegetation cover was estimated (using 50 points at 1m apart along a transect) at around 75%, with grasses at 78%, forbs at 14% and weeds at 8% of the vegetation present. The makeup of vegetation (in a 50m x 20m plot) in species classes 'native ground cover (grasses)', 'native ground cover (other)' and 'exotic plants' was also assessed. Ten native grass species, 21 native forb species and 10 exotic species, as well as some *Eucalyptus melliodora* (regrowth) were recorded.

Grasses included *Bothriochloa macra, Austrodanthonia carphoides(?), A. laevis, Enneapogon nigricans, Microlaena stipoides, Panicum effusum, Poa labillardieri, Poa sieberiana, austrostipa scabra, Themeda triandra.* The forbs included: *Acaena ovina, Asperula conferta, Carex breviculmis, Chrysocephalum apiculatum, C semipapposum, Convolvulus erubescens, Cymbonatus lawsonianus, Desmodium varians, Epilobium billardierianum, Eryngium ovinum, Goodenia pinnatafida, Hydrocotyle laxiflora, Juncus* sp., *Leptorhynchos squamatus, Lomandra* sp., *Plantago varia, Rumex* sp., *Scleranthus fascicularis, Solenogyne dominii, Vittadenia muelleri, and Wahlenbergia* sp. Weeds included *Acetosella vulgaris, Cerastium glomeratum, Cirsium vulgare, Erodium* spp., *Hypochaeris radicans, Plantago lanceolata, Tragopogon* sp., and *Trifolium* spp.

Various issues were raised in discussing management of the Reserve. What are the management objectives for the Reserve?

- Is the vegetation structure being managed with an emphasis on keeping the grassland structure, to optimise habitat/food for the threatened species striped legless lizard, a grassland specialist? Although a mob of around thirty eastern grey kangaroos were seen, members noted that the Reserve looked to be in better condition than the recently highly publicised Defence sites.
- Would it be appropriate to protect some tree regrowth to retain woodland structure, as the original vegetation would likely have been a mix of woodland and grassland, and that is an important story to tell apart from the conservation objectives; quite a few of the old trees are dying or in poor condition with minimal or no regeneration.
- What is the stocking regime for the site, and how does it relate to regeneration and recreation objectives? Palatable grasses such as Microlaena were closely grazed. We observed a high density of sheep scats under some of the mature trees; and stock grazing is also a management issue in terms of high soil nutrients and weeds.
- Some firewood harvesting was observed to have occurred in the first paddock.
- Has the Reserve been prepared for fire management using the current Inner Asset Protection Zone slashing policy? Would it be possible for the buffer to be provided adjacent to the Reserve i.e. outside the reserved area?
- Is vehicle use causing compaction and erosion?
- What is the policy for weed spraying? There is evidence of recent spraying of serrated tussock (both within and adjacent to the Reserve), but not of *Phalaris* sp. or other grassy weeds. Has the Reserve been 'improved' with pasture grasses in the past, e.g. rye species? Another pasture species prevalent in the first two paddocks was sub clover.
- The group observed an erosion site in the corner of one paddock that appears active. What is the current management intention regarding this area, and could FoG express an interest in site work, perhaps using David Tongway's training and 'natural sequence' approaches?

These and other questions continued until after the field trip when we decamped to a local cafe to thaw out.

What FOG Members Have Been Doing, Part I

Margaret Ning

Sorry readers, but I have had to split this article and Part II will appear next time, editor.

SATURDAY 16 JUNE MUGGA MUGGA. Twenty eight of us came together on a cold winter's afternoon with an air of anticipation for the varied presentations at the FOG Slide Afternoon. We know our members have been very active over the past year, and four presentations were going to give us a window onto some of their activities. From landscape function analysis at Old Cooma Common Grassland Reserve (OCCGR), to an introduction to interactive DVDs as a plant ID tool, to the heights of montane peatlands and swamps, or way over to the west with an extended trip to the Pilbara. We knew we were in for a treat.

David Tongway – landscape function analysis

First up was David Tongway *reading the landscape at the Old Cooma Common Grassland Reserve (OCCGR).* David (photographed at Old Cooma Common) is concerned with how a landscape works, and how it can be rapidly assessed using soil surface indicators. A healthy landscape is one where vital resources, rain water, topsoil, organic matter and seeds, tend to be retained on site and are only slowly lost beyond the ecosystem boundaries. David collects data on two scales: the hillscape (tens of metres) and patch/inter-patch scale (centimetres). Output can be in terms of numbers and/or descriptions.

OCCGR is now a dense perennial grassland which enables it to retain a lot of resources. There is virtually no grazing

and few signs of current erosion, although there is the potential for vehicle tracks to lead to thinned out plants, broken up litter and soil compaction, making faster run-off and erosion possible. There is one old erosion gully with signs of accelerated erosion, but, fortunately, it is in the late stages of self repair. David explained that this gully would never have gone below a critical threshold. He also suggested that the many basalt rocks on the Common may have minimised erosion.

Bare soil and inter-patch areas are few and far between on OCCGR. David's tests showed that it has stable surface soil which won't release many particles to erosion. He told us that a possible argument against hazard reduction burning is that soil particles float off as the crust breaks down. Burning that is too hot can also lead to soil sterilisation. On OCCGR the soil expands and contracts but is still fairly stable and in excellent functional state. David thinks that some soil stabilisation could be carried out on the Common for educational purposes, that spraying the weeds there can be done without any erosion risk and that limited grazing to reduce biomass would be ok with careful monitoring.

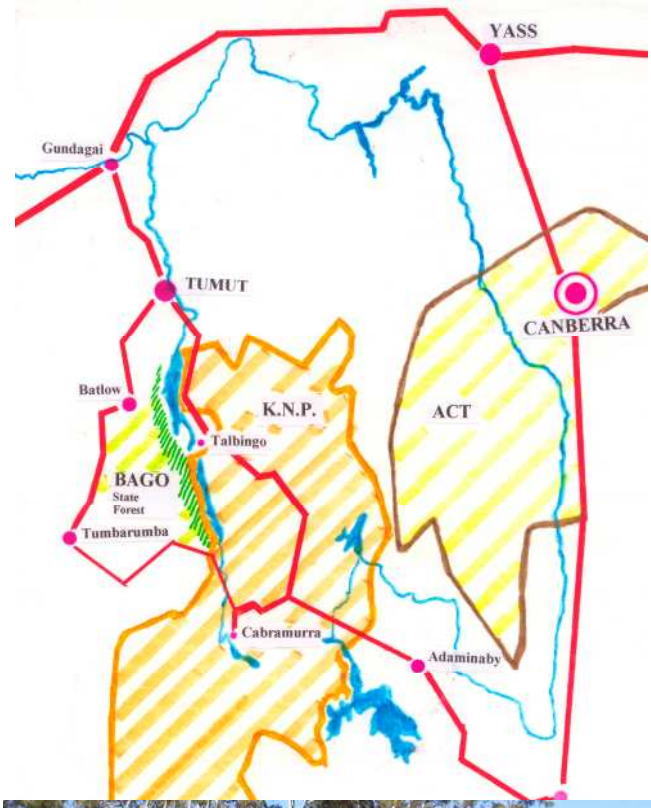
Brian Wild and Jim Kelton - Montane Peatlands and Swamps (MP&S) of the Bago Plateau

Brian and Jim's first photos showed us that Bago Plateau was located on the edge of Kosciuszko National Park (see drawing), and some of the plant associations in the sphagnum/carex communities in the montane peatlands and swamps (MP&S) in that area. The original characteristics of MP&S are slow gradient drainage lines with dispersed moisture, no marked channels/streams, and distinctive vegetation in association with sphagnum moss, which ultimately are peat forming. Subsequent photos documented the change from the relatively intact condition outlined above, to a transformed condition following trampling, compaction, channelling, relatively rapid draining, dehydration, vegetation decline and encroachment of grasses.

In Bago State Forest, grazing is allowed by permit, and cattle damage/trampling between the sphagnum hummocks leads to the following changes:

- the moisture becomes centralised rather than being in its normal dispersed state in the soil and plants,
- water starts to stream,
- edges break away,
- vegetation is removed by the grazing process (including eating, compaction and trampling),
- banks begin to erode,
- salt licks may be put out by graziers, and
- the ultimate result is one broad channel, transformed into a water course, which vehicles and animals can continue to degrade.

Brian and Jim told us about one area that has changed from about two metres in width to its present 20-30m width. Of the Bago State Forest sites that Brian and Jim have visited, all twelve suffer from the impact of grazing, trampling and degradation to a considerable extent. Some were degraded beyond repair unless all grazing is terminated and extensive



At the end of their presentation, Brian contrasted the pristine wetland (top photo) with a degraded one (bottom) photo. Map and photos supplied by Brian and Jim.

rehabilitation is undertaken, while others could be rehabilitated with little effort and expense if all grazing was stopped.

Other damaging processes in the area include:

- brumbies, which also have a detrimental affect on the areas, although Brian suggested they at least travel in a straight line whereas cattle are all over the shop,
- burning, which generally destroys the sphagnum, and the peat can continue burning for years,
- the present drought, the damaging effects of which have been particularly noticeable on the sphagnum from September to November 2006, and
- global warming, in so far as temperatures in peaty soils in original condition do not vary between day and night, but once the transformation has occurred, it is much colder/icy at night.

Brian and Jim believe that it is pointless declaring MP&S as endangered economic communities if appropriate steps are not taken to prevent obviously damaging and threatening processes, notably grazing, trampling, and inappropriate fire regimes, all of which can be halted by relatively simple cost-effective measures.

A walk with Tom Baker

Geoff Robertson

SATURDAY 11 AUGUST I met Tom Baker and Rosemary, Jane and David in the Spotlight carpark in Queanbeyan at 9am for our tour to a ridge between the Queanbeyan River and Jumping Creek, just south of the Greenleigh Estate. The aim of the tour was to re-assess a major source of sediment discharge into the Queanbeyan River, caused by off-road vehicles. The Queanbeyan Landcare Group, which is a member of FOG, is endeavouring to persuade the Queanbeyan Council to work with the property owners to remedy the situation.

Any time spent with Tom is a pleasurable experience. He has been actively involved with all things natural around Queanbeyan for many years and his knowledge of natural sciences in that region is stunning, if not a little overwhelming. Tom attended the last National Landcare Awards in 2006 as the ACT Region Landcarer of the Year. Queanbeyan Landcare was also nominated for the National Bushcare Award for the conservation work on Gale Grassy Box Woodland.

As the five of us were all packed in his vehicle, he decided to delight us with a mini tour and commentary on the natural resource management issues and rural/urban development taking place around Queanbeyan. Newsletters readers might recall that Tom wrote an article in our Sept-Oct 2006 issue on the *Queanbeyan Growth Inquiry* which recorded his and others' efforts to influence strategic planning in Queanbeyan. He mentioned that he was pleased with the planning outcome which had limited development until 2030 to Googong and Tralee, as part of the forthcoming Regional Settlement Strategy.

Our tour included a drive through some recently developed areas. Greenleigh Estate's large rural style blocks with town water, have covenants limiting disturbance and landscaping to the immediate vicinity of the house. Greenleigh is adjacent to the biologically rich Eastern Escarpment. Tom said that on the whole he was pleased with the Greenleigh outcome as it meant that the woodland/dry forest largely kept its conservation value. Over one hundred native bird species had been recorded in the Estate adjacent to the Queanbeyan River. The success of the Estate was due to many "greenies" being purchasers of this land and being keen to ensure it maintained its character. He showed us a spot where a koala had recently been observed. The route of the Edwin Land Parkway, lying to the east and south of Greenleigh, will be an issue if this is ever funded.

When we arrived at the ridge, Tom explained the historical land use, geology, and recent history of this area, which

Tom overlooking revegetation work at Buttles Creek.

was private land which the owner was keen to develop to a limited extent. The ridge area would be protected from development but the lower areas around Jumping Creek might be developed at some stage in future. While some of the area comes into the Freeway easement, he thought that the freeway would never be built. The views were stunning and it was dominated by native grasses on the higher slope, although weeds were somewhat out of control. There was evidence that St John wort, lambs ear, tree of heaven and serrated tussock had been controlled in some of the areas we walked through. On the fringe, he showed us how a number of grevillea hybrids had escaped and were gradu-

ally expanding over the landscape – a future environmental weed problem. This was also pink tail worm lizard territory. Tom said that he had not been to this area for several years. He showed us the site of the erosion and sediment discharge, which is becoming more incised and prominent, and increasingly discolouring the Queanbeyan River City Pond.

On the way back to the car park, to drop off the others, Tom showed us the second source of sediment discharge – the 'Brickworks' development site on Bywong Creek, which is yet to be rehabilitated on the north side. Tom takes this all very philosophically. He has achieved so much for conservation, but realises you can't win all the battles.

We were diverted from the main cause of our trip, which I will get to presently, to look at some of the work of revegetation undertaken by Queanbeyan Landcare. We visited Buttles Creek, behind the Bowling Centre, which seven years ago was a crack willow (*Salix fragilis*) stronghold with the odd native tree present. Queanbeyan Landcare, Greencorps teams and Council removed the willows, distributed deep mulch on site and planted local native trees, shrubs, and grasses. It was hard to believe that things had grown so well in seven years, although not much had actually naturalised, except for acacias, cassinias and patches of kangaroo and river tussock grasses. The water held by the area had also greatly increased, with recent frog surveys showing seven species.

Finally we headed towards Letchworth and The Populars, on opposite sides of Lanyon Drive, both high quality areas of native grassland and box woodland and important habitat for grassland earless dragon and other threatened grassland fauna, as well as the threatened button wrinklewort. The owner of the privately owned Poplars, David Larcombe, had hoped that much of the more degraded Populars farmland would become an urban area while allowing the better quality conservation areas to become nature reserves. The reserves have never eventuated because of the stagnation of the development process, halted by the controversial aircraft noise issue. We looked over the fence of the Poplars at a lovely native grass patch, but what we had come to see were the large areas being overtaken by serrated tussock, African lovegrass and St Johns wort. Why is this important large area of grassland being so neglected?

The important grassland at the Poplars being overrun by serrated tussock.

We crossed Lanyon Drive to look over the north side fence at Letchworth, also a quality natural temperate grassland and threatened species site. This area, now owned and managed by National Parks, also has management issues, according to Tom, but he is pleased with the focused way, Parks is tackling these problems. While Letchworth was probably originally of lower conservation quality than the Populars, weeds were under control. A third grassland site, Tomsitt Reserve, south of Tomsitt Drive from the Populars, is being somewhat hammered by kangaroos. Tom said that kangaroos had been culled in this area a few years back – perhaps this is why grass cover was generally good compared to some areas in the ACT. Tom said that while Queanbeyan Landcare tackles many issues, it does not have the resources to pursue a better outcome for the Poplars at this stage.

Tom also helps run *Radio Landcare* which can be heard on Sundays 8am on QBN FM 96.7 and Tuesdays 9am on 2XX 98.3fm community radio.

Important research into wild dogs

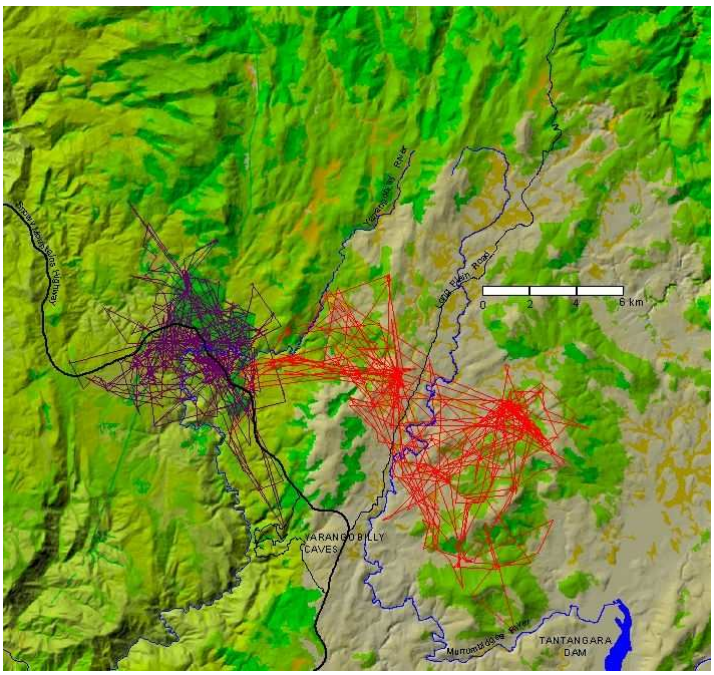
Grasscover

14 MAY NSW National Parks and Wildlife Service (NPWS) released a report on a two and a half year study by NPWS scientist, Dr Andrew Claridge, who organised capturing almost thirty wild dogs which have been collared with satellite tracking devices that monitored their every movement for up to 18 months. The NPWS press release said that "some of the long hidden secrets on where wild dogs live and travel have been unmasked."

The program called *Dogs in Space* has been funded by NSW NPWS assisted by the Australian Alps Liaison Committee (comprising the Australian Alps National Parks; NPWS, Parks Victoria and Environment ACT). The report said that wild dogs were tracked in the 200,000 hectare Morton National Park west of Nowra, Kosciuszko National Park, Namadgi National Park which covers two-thirds of the ACT, the South East Forest and Coopracambra National Parks which straddle the NSW - Victorian border and two areas within Victoria's Alpine National Park.

Dr Claridge said that the results of the study were very illuminating. "We have established quite clearly that most wild dogs have large home ranges. They travel constantly within these areas and do not tend to stray too far from their home range, some of which are entirely within the park boundary. Significantly, he found that there are not

large numbers of wild dogs within the heart of these parks. In fact, quite the opposite. We actually struggled to trap dogs for this study in the middle of each of the parks. Wild dog activity appears to be most intense in areas where there is forest habitat adjoining areas where the greatest food resources are found. The heart of national parks are generally more rugged lands which do not support the same variety and abundance of grazing animals as elswhere. In



other words, while these rugged and more densely forested areas will support wild dogs, they will not support as many because the food resources are much leaner than in other areas."

"This information is very important," he said, "because it tells us that we should continue to focus wild dog control measures in those areas where the forested bushland habitat of dogs adjoins more open country containing greater food resources. The challenge, he concluded, is to protect farming interests at this interface using a broad range of control methods such as aerial and ground baiting and trapping."

NPWS Director (Southern), Alistair Henchman, said "NPWS now maintains a very intense and focused wild dog control program working closely with the Rural Lands Protection Board (RLPB) and landholders." He said that "wherever there is bush adjoining farmland we have wild dog control measures in place and as a consequence we are seeing significant reductions in stock losses due to wild dog attacks in most areas. This latest research forms part of a concerted campaign over the past five years which has involved research into wild dogs and the impact of aerial baiting for wild dogs on the endangered tiger quoll. There have been major improvements in trapping and baiting techniques and we have reintroduced aerial baiting in some areas while developing new synthetic wild dog lures, trialling of llamas as guard animals and trialling of a new poison delivery device known as the M-44 ejector."

"Considerable effort and resources have also gone into developing cooperative wild dog management plans right across the south east of NSW where NPWS is now spending close to a million dollars a year on wild dog control. "Perhaps the greatest lesson we have learnt from this research and our efforts in recent times is that the wild dog problem is a shared one where the greatest successes have come through cooperation," Mr Henchman said.

According to Geoff Robertson (former President of Friends of Grasslands and the Conservation Council) this is an important piece of research but if we substitute the word 'dingo' for 'wild dog' we might bring about a somewhat different response. Geoff said that as an amateur ecologist and now a director on the Cooma RLPB he has been following the wild dog debate from both sides of the national park fence.

From his understanding wild dogs in our large national parks are essentially dingoes, without getting into the argument of racial purity. He said "In NSW wild dogs are a pest animal but are protected in core areas of national parks (in NSW and ACT), which also have no-go areas for these animals around the edge of the parks adjoining the rural areas, and a transition zone between the core areas and no-go areas. In the no-go areas animals are destroyed. This management strategy has been developed by some able local scientists. While dingoes are only recent arrivals in Australia (4,000-5,000) years, and are still viewed by many as interlopers, they probably replaced several species of thylacine and quoll." Geoff believes it is recognised that they perform an important ecological function, keeping kangaroo numbers in check for example. Geoff considers the NSW and ACT management strategy is a good one which recognises the importance of these animals, while at the same time protecting our grazing areas. Any research that helps us to understand the behaviour of these animals can only assist our understanding of these magnificant creatures and their management, Geoff said.

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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 Bernadette O'Leary, Kim Pullen, Janet Russell or Geoff Robertson. Contact details are given in the box above. We look forward to hearing from you.

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