

# News of Friends of Grasslands

Supporting native grassy ecosystems

May-June 2007

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## Program

SUN 20 MAY 10:30am to 3:30pm. **Introduction to Natural Sequence Farming, Jillamatong, near Braidwood** If you want to know more about the theory and practice of *natural sequence farming*, the brainchild of Peter Andrews, this activity is a must. Our host Martin Royds is President, Upper Shoalhaven Chapter, of the newly launched Natural Sequence Association. Cost is \$12, lunch is included, and booking is essential. For more information see news item *natural sequence farming*, page 2. Contact Janet Russell (details back page) for inquiries, car pooling, registration and payment.

SAT 16 JUNE 2-4:30pm **What have FOG members been up to?** For our slide afternoon this year we have a varied and informative program. It will include *Monitoring and protecting montane peatlands and swamps in the Riverina Highlands* (Brian Wild and Jim Kelton – also see story page 4), *Landscape function analysis of Old Cooma Common* (David Tongway), *Using interactive keys to identify plants* (Dave Mallinson, Janet Russell and Margaret Ning), and *Spinifex and gorges - the grassy ecosystems of the Pilbara* (Rainer Rehwinkel). Venue: Mugga Mugga Education Centre, Narrabundah Lane, Symonston ACT (opposite the Therapeutic Goods Administration Centre). Free event, afternoon tea provided. For catering purposes it would help if you let Janet (contact details back page) know that you are coming.

SAT 30 JUNE 8.45am -4.30pm. **A Down To Earth Workshop** with David Tongway. FOG and Royalla Landcare are combining to host this workshop on reading the landscape. Cost \$20 per person - this includes course material, welcome tea and coffee, morning tea and lunch. Venue: Leanne & Mark Barrett, 37 Shearer Drive, Royalla NSW. To register please send your details and cheque to: Royalla Landcare Inc, PO Box 1573, Fyshwick ACT 2609. Please advise any special dietary requirements. RSVP by 8th June (don't delay, numbers are limited). For inquiries contact RoyallaLandcare@bigpond.com or phone Maryke Booth 6280 4128 (work). For more information see *A Down To Earth Workshop* on page 3.

For remainder of the 2007 program, see page 2.



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- Scottsdale and Ingelara
- *Perunga ochracea*: a vulnerable grasshopper species of our region

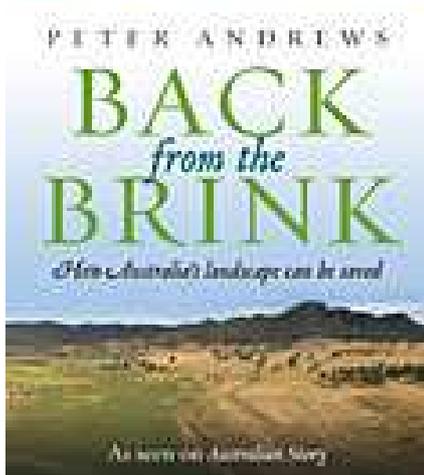
Images from Scottsdale and Ingelara: grassland with view at Scottsdale, Tobias talking to FOG visitors at Ingelara, and a natural temperate grassland remnant at Scottsdale.

## News Roundup

### Natural Sequence Farming

Geoff Robertson

Most FOG members will be aware of the almost instant fame of Peter Andrew following his appearance on the ABC's *Australian Story*. ABC Books have released a paperback *Back from the Brink* which describes his motivation and provides an overall description of his Natural Sequence Farming process. The essential concept is to store the water where it falls naturally and to allow its gradual release, rather than lose it through run off and evaporation. It all makes much sense – it is



what natural ecosystems have been doing since time immemorial. Referring to Peter and his property, Wentworth Group scientist, John Williams has said "he's got streams and chains of ponds and much higher biodiversity and ecological value than before. ...you've got an agricultural benefit at the same time as you've got an ecological benefit."

Now, if you haven't noticed already, chapters of the Natural Sequence Association are forming around us. These are dedicated to implementing Peter Andrew's ideas. FOG is arranging for a visit to Jillamatong (20 May – see program on cover page) to see how Natural Sequence Farming techniques are applied in practice. While these practices are a great boon for farmers wanting more production from their

land, they should also greatly assist us in thinking and planning for conservation and recovery of our wetlands and grasslands.

Jillamatong is a 455ha cattle property predominantly covered in native pastures (see photo). On a previous visit to Jillamatong, I was very impressed with the appearance of the property, its general management approach, its lack of weeds, and the quality of its native pasture/grassland. There is a lot to see and the landscapes are fantastic.

### FOG survey

In case you have forgotten, please complete the FOG survey questionnaire and post it to us asap. We have received 78 responses so far (pretty good eh!). The results of the survey (to be published in the next newsletter) will provide valuable input into FOG's August workshop on its future directions. If you have lost the form and need another form, contact Geoff (details back page).

### Award to Garth Dixon

Rosemary Blemings

Australian Day celebrations had a special depth in 2007 as we welcomed news that Garth Dixon (long-time FOG member) had received an OAM for *services to conservation and the environment*. The citation emphasised his long-standing contribution to the preservation of native vegetation in the South East Region of NSW. For many years we have had enthusiastic support from Garth and Ros which often included interpretative visits to their properties. Warriwillah, near Michelago, was the site of specific replanting of local species and an arboretum. Quite recently, Garth published a practical guide to replanting with local species. It's based on practical principles, keen observation and plants being able to survive the establishment phase with only rainfall. Thank you Garth for sharing so much



bush-lore, your love of flora and fauna, and the art and spirituality of the land. Congratulations.

*Reprinted from Field Natters, Field Naturalists' Association of Canberra, March 2007.*

### More diary dates 2007

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

SAT 14 JUL 2 to 4pm **Understanding Canberra's grasslands**. FOG's winter afternoon will be to visit to Mulangarri, ACT.

SAT 25 AUG 1:30 to 5pm **Workshop on FOG's future directions** Mugga Mugga Education Centre.

Fri night to Sunday 28 to 30 SEPT **Eastern Riverina grassy ecosystems tour**.

THURS-FRI 11 to 12 OCT **Post-Stipa Conference Field Trip**, Mudgee and Wellington NSW.

SAT 20 OCT 2 to 4pm. **Visit to Belconnen Naval Station**, Lawson ACT.

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**.

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

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

## FOG AGM

24 FEB A yearly highlight of the FOG calendar is the AGM, always marked by good sense, good humour, good food and a good time, and 2007 was no exception.

Re-elected president, Kim Pullen, outlined FOG's achievements for 2006 (published in our last newsletter) and Sandra reported on a successful financial outcome for the year.

The major change for the committee was the election of Bernadette O'Leary as secretary who has since taken up many tasks with alacrity and has settled in quickly. Retiring secretary, Janet Russell, had established a good model for Bernadette, keeping FOG responding to the many issues that come to its attention, and keeping the whole administrative load under control. Janet will continue to be active on a number of fronts, including general enquiries, correspondence, and FOG's program.

Diek von Brehrens finally stood down from the committee – Dierk, a former vice president, has been a tower of strength over many years. At the end of the evening, new committee member, Stephen Horn demonstrated his early interest in things botanical by showing his childhood herbarium (pretty impressive).

Geoff Robertson presented a 25 minute slide show capturing FOG's activities for 2006, reminding members of some enjoyable times, and demonstrating the wealth of FOG's contribution to public education on grassy ecosystems.

If you missed the 2007 AGM, try to get there next year.

## Car pooling for FOG activities

On many FOG trips we attempt to arrange car pooling. At times this has involved a fair amount of work for someone trying to match up people.

In future, for any appropriate activity, we will create a car pooling list, and list the people (name, suburb, phone number, and email) who are prepared to offer/want a lift. We will then email this list to those on it and allow them to contact one another.



AGM: Middle - Kim and Janet working their way through the agenda, and bottom - Stephen, Janet, Christine, Roger and Andy.

## A Down To Earth Workshop

Maryke Booth

I am pleased that FOG and Royalla Landcare have snared David Tonway to present this workshop (details are on the cover page). I was very impressed with David's presentation and field study at the recent ANPC's *From the Ground Up Workshop*.

According to Geoff Robertson, this is the second workshop that David has presented for FOG. The earlier workshop was in April 2002. That workshop has been very influential in the development of FOG's thinking and approach to conservation. According to Geoff, the concept of landscape function is hard to understand until David does his magic and demonstrates how one can understand and measure how the landscape is functioning. His concepts and measurements are a boon for farmers and conservation managers alike.

The beauty of David's techniques is that they can be applied anywhere in the world, and David's services are sought throughout many continents. David gave a wonderful presentation on his work on desert ecosystems (FOG Newsletter, Sept-Oct 2004). Geoff also reported on a visit that David, he and I made to Old Cooma Common in December 2006. In respect of that occasion Geoff said "It was very exciting to wander around OCC and see it through David's eyes." (FOG newsletter, Jan-Feb 2007). David will talk on this at the slide afternoon on 16 June.

According to David, you don't need to be a scientist to learn how to

- Estimate the functional status, trend and condition of grazed lands,
- Identify the proximity of the functional status to critical thresholds for self-sustainability, and assess the role of threatening processes,
- Propose appropriate rehabilitation approaches in rangelands or remnant woodlands,
- Assess the progress of rehabilitation on other lands.

Reading the Landscape (RTL) is a field-based monitoring procedure, using rapidly assessed simple visual indicators, to assess how well a landscape is working as a biophysical system. It is based on recent research findings and can be applied to a very wide variety of landscape types and many land uses. Its author, and workshop presenter, David Tongway is a Fellow, CSIRO Sustainable Ecosystems and Visiting Fellow, School of Resources, Environment & Society, ANU Canberra.

The RTL course will cover:

- A Powerpoint explanation of the development of RTL as a concept,
- Field instruction in the methodology of RTL, with active participation,
- Instruction in vegetation assessment in an extended functional context,
- Data reduction and tabulation software use,
- Instruction in the use of an interpretive framework, and
- Discussion of report writing using RTL data.

The instruction is provided by the originator of the approach, and a free "after-course email service" is provided. Materials provided include:

- Field notes and field data collection sheets,
- An interactive manual on CD, describing the methodology with text, diagrams and photo standards, and
- Excel templates for data entry and tabulation.

You need to provide a clipboard, and if available a laptop computer with Microsoft Office 2000 or later (not essential).

### **Montane peatlands and swamps**

Brian Wild reports that the High Country Conservation Alliance (HCCA) approached the department of Conservation (DEC) on numerous occasions to see what it proposed to do to protect the montane peatlands and swamps, an endangered ecological community (EEC) in Bago State Forest. DEC then requested them to pro-

vide locations of some of these sites. Brian and Jim Kelton subsequently located twelve sites and provided details of the locations, record sheets and photos to DEC. They will be reporting on this at the FOG slide show (see cover page) and providing an introduction to the general characteristics of montane peatlands and swamps, and showing the progressive deterioration of this EEC, mainly due to cattle grazing, additional damage by brumbies, fossicking, and inappropriate control burning.

### **Murrumbateman Cemetery survey**

26 FEBRUARY FOG received a thank you from Rainer Rehwinkel who said "I just wanted to express my gratitude for the sterling job that FOG members did in the survey of Murrumbateman Cemetery last October. I have just had the pleasure of entering the data, and may I say that the level of professionalism shown in the presentation of the data was superb. These data will be of great importance in guiding the future management of the cemetery. Thank you very much for a job well done!"

The survey was undertaken on 26 October 2006 and was reported on in the Jan-Feb newsletter (page 3).

FOG president Kim Pullen, commenting on Rainer's thanks, said "may I add my congratulations to those who undertook the survey - this is the kind of work that has earned FOG the status and credibility that it has."

### **HCCA successes**

14 FEBRUARY Jim Kelton, HCCA secretary, reported a number of successes. Earlier FOG newsletters have recorded the history of HCCA and the amazing biodiversity to be found on Brandy Marys. HCCA was formed about three years ago primarily to lobby for the establishment of a conservation agreement over Brandy Marys Bago State Forest Crown Leases to prevent logging of some 900 hectares of high conservation montane old growth forests contained within the leases. The Brandy Marys leases are located in the high country adjacent to the western edge of Kosciuszko National Park (approx 30km north-west of Kiandra and approx

40km east of Tumbarumba, approx a six hour drive south west of Sydney). At the time HCCA was established the Keltons (the lessees) had been lobbying for two years against the state government's proposal to log the leases. The intervention by HCCA was timely as the Keltons were quickly running out of energy.

HCCA believes the battle for the leases appears to have been won, as at the end of 2006 Forests NSW representatives agreed to allow more than 98 percent of the leases to remain unlogged under the terms of a permanent Voluntary Conservation Agreement which is currently being negotiated. The remaining approximately two percent of the leases are not of any great ecological or cultural heritage significance and are a small price to pay to ensure the bulk of the leases is protected in perpetuity, not to mention to ensure the protection of the more than one hundred known Aboriginal sites contained within the leases.

HCCA has also been instrumental in having DEC conduct an assessment of the extremely damaging effects of cattle grazing on one of our high country state forests, Bago State Forest, hopefully with implications for the management of all montane state forests in NSW. A special concern has been the impact of grazing on montane wetlands.

HCCA has been successful in bringing to the attention of the state government obvious short-comings in Aboriginal heritage assessment and management within the South West Slopes region's state forests. Aboriginal heritage assessment practices are currently under review between DEC and Forests NSW.

HCCA has a number of other projects under way including the development of a nomination of the yellow-bellied gliders in Bago State Forest as an endangered species, and ongoing lobbying and public awareness press releases regarding important high country conservation issues. For more information contact Jim via email (jim.kelton@westne-t.com.au) or Dr Brian Wild (02) 6947 9010 or Jim on (02) 6948 3927.

### OCCGR working bee

24 MARCH many of the FOG regulars – David, Jim W, Coral, Max, Sarah, Warren, Bob, June, Margaret and Geoff turned up to the working bee. Jim Darrant, senior weeds officer from Cooma Monaro Shire Council, and his son Reagan were also there.



While it threatened rain, it held off most of the morning and the group divided up doing St John wort and great mullein. David and Geoff, with later help from Max, tackled a large and tangled pyracantha with many well-established suckers on the fence.

Lunch was held in the usual spot in town, but then there was a cloud burst, and the troops decided to abandon the

rest of the day. Still it was necessary to return to the site, pack up, etc.

With reluctance, the pyracantha was left partly standing.

### Weed attack on OCCGR

Jim Williamson

THURS 5 APRIL In recent years FOG members have focussed on controlling the spread of woody weeds at Old Cooma Common Grassland Reserve in their effort to protect the endangered native species which are present on the site, including the Monaro Golden Daisy (*Rutidosia leiolepis*) and Hoary Sunray (*Leucochrysum albicans* var. *tricolour*), and to allow other native species to compete with the weeds.

Unfortunately, as a result of focussing mainly on the woody weeds for many years, the reserve has become heavily infested with a number of other serious weeds including St Johns wort (*Hypericum perforatum*), great mullein (*Verbascum thapsus*), and vipers bugloss (*Echium vulgare*). Recently, FOG's regular bi-annual working bee (24 March this year), was truncated at lunch time due to inclement weather, but on the day it was observed that the timing was otherwise ideal for an all out offensive against the St John's wort, as recent high soil moisture levels would hopefully ensure a high kill rate. On 5 April Margaret Ning and I,

as FOG volunteers, conducted a serious attack on the St Johns wort on the Common.

As much as possible of the reserve was boom sprayed with Starane, a herbicide registered for control of St Johns wort. While time didn't allow the entire area to be covered, most of the worst infestations were sprayed and the hope is that there will be a significant decrease in the number of plants next year. One very large ser-rated tussock (*Nassella trichotoma*) was also discovered and removed with a mattock.

The reserve is a valuable ecosystem in terms of endangered species on the Monaro and without ongoing weed control, the area is at risk of serious degradation. Cooma Monaro Shire Council has been very supportive of FOG's efforts and has cooperated with us to enable the spraying program to proceed. It is hoped that grant funds will assist with weed control on the reserve in future.

Council and FOG are working on a management plan for the reserve which may include chemical and grazing methods to control the weeds. New volunteers are always needed, so we hope to see you there at the next working bee!



Photos: Reagan and Coral ready to roll. Margaret approaches the pyracantha. Jim geared up for boom spraying.

### Molongo Valley development

FOG has published serious concerns about proposed development in the Molongo Valley (see Jan-Feb newsletter) and in issue five of its e-bulletin. FOG would like to thank those who have re-published these concerns and drawn them to the attention of members of the government.

### **Red Hill Regenerators' concerns**

The Red Hill Regenerators Parkcare Group, which has been existence for nineteen years, is very concerned with fire fuel reduction activities on Red Hill in recent years. Spokesperson Michael Mulvaney recently told FOG that fire reduction activity has resulted in the removal of young eucalypt seedlings and saplings and the removal of significant plants. He said that the works had significantly reduced the Red Hill populations of native tick bush (*Indigofera adesmiifolia*), a regionally rare plant, and hop bush (*Dodonaea viscosa*), an uncommon plant, and rare on Red Hill.

Michael added that slashing has destroyed all plants of the native wild mint (*Mentha diemenica*) known on Red Hill, and the only occurrence of a dianella species, tentatively identified as a woodland variety of *Dianella tarda*. Wild mint is probably now extinct on Red Hill, but there is still hope that the *Dianella* may re-sprout from a cut base, but a recent search did not see any signs of a recovering plant. Slashing has also affected populations of several other species, placing at risk their long-term local occurrence. These species include blue devil (*Eryngium ovinum*), barbed wire grass (*Cymbopogon refractus*), Queensland blue grass (*Dicanthium sericeum*) and austral trefoil (*Lotus australis*).

The group has found that recent fire trail widening and grading activities on Red Hill resulted in the loss of plants of button wrinklewort (*Rutidosis leptorhynchoides* - listed as endangered by the Commonwealth and ACT) and of the regionally rare Swanson's silky pea (*Swainsona sericea*), which is listed as threatened in NSW. Previously, care had been taken to ensure that the area of new disturbance in trail maintenance activities did not extend beyond the existing trail surface.

In spring 2006, the group was contacted about a burn to be undertaken in a matter of days, adjacent to Tamar Street. The group was not supportive of the burn, as it is one of the few areas of high quality native understorey not recently grazed by cattle, and the major location on Red Hill of several

grazing sensitive plants. These include chocolate lily (*Dichopogon fimbriatus*), rats tail grass (*Sporobolus creber*) and wild sorghum (*Sorghum leiocladum*). The concern with a spring burn is that these and other native species are in flower or early seed set. According to the group, the Tamar Street area is dominated by kangaroo, poa and wallaby grasses and there was no rapid fuel growth in early spring. Perguna grasshopper, an ACT threatened species, may also occur at this site. The group suggested targeted control of a few patches of the exotic grasses, but a burn occurred. Michael stated "A one-off burn is unlikely to have a significant impact but repeated burns are likely to result in species loss."

According to Michael, "the Red Hill Regenerators has spent tens of thousands of hours (in partnership with Environment ACT) at the site and much of Red Hill has been restored from an environment dominated by weeds to a woodland of national significance largely dominated by native species. In terms of size, plant diversity and numbers of rare and threatened species supported, Red Hill is amongst Australia's most significant temperate woodland remnants. It is of national significance to the conservation of yellow box/red gum grassy woodland, which is listed as endangered both nationally and in the ACT. Unfortunately, fire management activities of the last two to three years have basically ignored the knowledge of Red Hill Regenerators and treated Red Hill as just another piece of bush." The group is also concerned that certain management actions are causing weeds to increase. The group is taking up the issue with the ACT Rural Fire Services.

In FOG's view, small patches of significant plants, habitat, and/or remnants need to be identified and given special management. They should be protected either against inappropriate fire or mowing regimes.

### **Scheme not ready: UNE**

22 FEBRUARY *the Land* (Page 14) reports in its *Making News* that grassland could provide a more effective carbon sink than trees, but University of New England (UNE) researchers,

backing calls for a carbon credit scheme, say the scientific and economic know-how is not yet ready for the widespread use of such a scheme. More detailed work was needed on the levels of carbon absorbed by trees and grasses.

Dr Wal Whalley, an honorary fellow in botany at UNE, said carbon trading wouldn't "lock up the forests", in fact modern grazing could rapidly increase organic matter levels in soils.

There was also little real indication on how trade in carbon credits would operate.

### **New Ministry in NSW**

2 APRIL NSW Morris Iemma appointed newly elected Phil Koperberg to head up the new Ministry for Climate Change, Environment and Water. The old Department of Natural Resources was abolished and responsibility for native vegetation, water, and catchment management authorities was passed to the new Minister who also received exclusive control of marine parks and aquatic threatened species, previously under the Minister for Primary Industries.

According to a communication released by Andrew Cox, National Parks Australia Executive Officer, "these changes follow constant criticism from environment groups over the last decade that saw the old arrangements fail the environment due to interdepartmental conflict, agency capture by vested industry interests and lack of enforcement of native vegetation, catchment management, and marine and freshwater conservation legislation. The landmark improvements will ensure that there is a much closer alignment between the objectives of the legislation and the role of the Minister. It will also ensure that there is a strong and independent regulator and environmental manager, without any conflict of interest that occurred in the past when the minister also represented industry interests. The change also mirrors Federal and Victorian state government arrangements, assisting inter-governmental cooperation. They will assist in achievement of natural resources targets prominently outlined in the State Plan."

## Blundells Flat

12 APRIL FOG members who have continued their interest in Blundell's Flat have loosely called themselves Friends of Blundells Flat and have started to lobby for more attention to some issues at the site. On 12 April, five of them visited Blundell's along with ranger Steve Alegria who explained what was happening at the site and Lower Cotter more generally. [Photo: Mark, Jenny, Sarah and Margaret with Steve in the middle.]

The FoBF were very impressed with the work and plans on erosion control, woody weed removal (mostly big trees and blackberry), stopping damage from trail bikes, and general plans for restoring the area. The group was very impressed by the natural vegetation recovery throughout the area.

## Hooded robins in ACT

DECEMBER 2006 *Canberra Bird Notes*, published by the Canberra Ornithologist Group, contains an article by Jenny Bounds on the occurrence and abundance of hooded robins in the largest woodland corridor in the ACT, namely Hall to Newline. It draws largely on information from the COG Woodland Project and COG databases.

It would appear that there are only four to six hooded robin territories in Mulligans Flat and Goorooyaroo complex, one or two territories in Kinlyside near Hall (although, no recent sightings), and possibly two to three territories in the Majura Field Firing Range. It is not clear why hooded robins are so sparse in such areas, and they have disappeared from previous haunts such as Black Mountain and Mount Mugga Mugga. Jenny speculates that "maybe the 'extinction debt', the final outcome of land clearance and fragmentation and other factors which reduces some bird populations to small, isolated groups and eventual extinction, is almost played out with respect to this remaining woodland

corridor. Have hooded robins been reduced to such low numbers in the corridor and are they only able to persist as breeding groups in the most optimal habitat patches within the largest



woodland complexes?" Even in the survey sites, hooded robin presence is small and variable. Jenny points out that brown tree creepers have already disappeared from most of the corridor. Proposed government/ANU research, she states, might assist.

## Bats prefer woodland structures

25 JANUARY Joanne Finlay (The Land page 5) describes a study of bats which suggests that new approaches are required for revegetation and it should not be assumed that simply planting native trees improves biodiversity.

NSW Department of Primary Industry (DPI) forest researcher, Dr. Brad Law, says that eucalypts are primarily planted on farms to stem land degradation and improve agricultural productivity. It is often assumed that this will assist conservation and biodiversity but this isn't necessarily true according to Brad Law. Very few Australian studies have actually investigated the use of native revegetation by native fauna and the importance of factors such as size, age or mix of trees, or where they are located.

Brad Law's study on how bats use eucalyptus plantings in south-eastern Australia was part of a larger study of terrestrial vertebrates by the Forest Biodiversity group at NSW DPI. Undertaken across 120 sites, the bat study found many species were just as likely

to fly through paddocks as they were through revegetation sites. Most bat species need space to navigate and their preference is open woodland, but old, large plantings are a close second.

The reasons is probably not the age or height of trees but the fact that tree stands in older plantings are generally patchy – the gaps have been caused of trees dying through drought or use by cattle. Of course old trees are needed as well to provide hollows for roosting bats during the day. Dr Law said that most bats dislike clutter (dense vegetation) in the landscape.

The article goes into more detail about bat habitat requirements and what might be done to improve plantings from a biodiversity perspective.

For more information, contact Dr Brad Law ([bradl@sf.nsw.gov.au](mailto:bradl@sf.nsw.gov.au)), or 02 9872 0111.

## Stanhope - Min for Environment

13 APRIL Chief Minister Jon Stanhope announced new administrative arrangements for the ACT government to allow a whole-of-government approach to crucial issues of environmental, social and economic sustainability. A suite of related policy areas covering the environment, sustainability and energy and water policy will be brought together within the Territory and Municipal Services Department, but answerable to the Chief Minister. Also the Chief Minister will take responsibility for the Land Development Agency, including land release and the Affordable Housing Action Plan.

Under new arrangements, the Department of Planning is switched from Simon Corbell to Andrew Barr, although transport policy (e.g. future provision of car parking, public transport strategy, detailed exploration of future transport corridors and decisions on other road networks, pathways and cycle ways), previously with planning, goes to John Hargreaves as the Minister for Transport, who loses responsibility for the environment.

## **Riparian Strategy launch** *Grasscover*

13 APRIL Minister John Hargreaves, in his last public act as ACT environment minister launched *Action Plan 29, Ribbons of Life, ACT Aquatic Species and Riparian Zone Conservation Strategy*, in the pleasant ambiance of the Cotter River (see photo).

This is the third in a trilogy of major recovery plans for threatened communities, and associated vegetation communities and rare and threatened species. The other two plans are those on grasslands and woodlands.

FOG reported on the draft *Action Plan* in its May-June 2006 newsletter, and subsequently made a submission.

This document is a major source of information and sets out a good and workable strategy on the ACT riparian zones. It is a must read for persons seriously-concerned with conserving ACT biodiversity.

## **Willows workshop** *Margaret Ning*

THURS 1 MAR, COOMA It had been a long time between willows workshops, and I must confess that my main aim in attending this one was to glean information on how to stem inject a couple of unwanted willows on our property. After all, willows are one of Australia's twenty weeds of national significance, so there is no place for any on Garuwanga!

The workshop was held in the Cooma Council building, and was over subscribed with around 25 attendees from Cooma, Canberra and surrounding areas. It was the twenty-eighth that Sophie Wadley, the facilitator from the Victorian Department of Primary Industries, had presented – it was a very professional operation!!

Workshop topics included: discussion of the willow problem on a national, state and local level; basic willow ID; willow sawfly; willow management and control; and willow mapping. I can only say that all topics were both informative and interesting and the day sped by.

Sophie reminded us of all the detrimental affects of willows, including



their highly invasive nature and negative impacts on hydrology and biodiversity, etc. They infest thousands of kilometres of waterways in south-east Australia and it is estimated that \$30m is spent annually on their control and attempted eradication.

Her session on basic willow identification was extremely well put together with a collection of different willow specimens that we identified in a team format that encouraged much interaction and co-operation.

Another confession! I had not heard of the willow sawfly until I attended this workshop. The sawfly is from the northern hemisphere and it has been in Australia since 2004, and possibly as early as 2000. It cannot be regarded as a bio control as it has not been deliberately introduced for the purpose of willow control, but it is extremely widespread now and its larva eats willow leaves to the point of tree defoliation. It is possible that several defoliation events in a season may kill some trees.

Willows are too widespread to eradicate. Their management may be affected by willow sawfly but this is something that only time will tell. We have been encouraged to complete the 'willow and willow sawfly assessment forms' we received in our resource kit, the data from which will help set priorities for future management.

Why map? You cannot manage what you do not know, and mapping will also help set priorities for management. We were shown 1:25,000 maps for all areas of the Cooma region, and were invited to mark all areas of wil-

low infestation that we were aware of. Our own willows are now a mark on a map.

We were all given a National Willows Program Resource Kit which reinforced much of what was presented at the workshop. The contents of the half dozen Willow Resource Sheets included:

- Developing willow management priorities,
- Willow Identification – an essential skill for successful willow management,
- Willow sawfly larva,
- Willow and willow sawfly assessment form,
- Willow infestation classes, and
- Willow impact and management survey.

So, I came away none the wiser as to how to dispatch our two willows, although I have reason to believe that another willows workshop with that sort of focus may not be too far beyond the horizon.

## **FOG submissions**

FOG has been very active making submissions in recent months. It wrote to Senator Humphries, expressing its concerns over the Airports Amendments Bill which will allow the easing of environmental procedures associated with airport development. FOG fears that this may negatively affect the significant natural temperate grasslands and a number of threatened species such as the grassland earless dragon, golden sun moth, and perunga grasshopper that are found on and around the Airport. FOG urged the Senator to make enquiries about its concerns and ensure that further removal of areas of natural temperate grassland and threatened species habitat is prohibited, or at least subject to effective environmental impact assessment including public scrutiny under the EPBC Act.

FOG made a submission on the draft Murrumbateman Bush Cemetery Landscape Development Plan pointing out that the Cemetery has superb woodlands and secondary grasslands, and despite the drought put on a won-

derful wildflower display during spring. Its submission also referred to the cemetery being an important woodland bird refuge, e.g. for the superb parrot, and habitat for other threatened wildlife e.g. the golden sun moth. It advocated that local native plants should be used in landscaping, and site works (e.g. the pathway) should avoid the less disturbed native vegetation on site. Landscaping and planting should avoid detracting from its naturalness, and should be sensitive to the site's significance. Species selection and site works should be overseen by DEC as the NSW agency with responsibility for protecting significant remnant vegetation.

FOG also made a submission on the draft Jerrabomberra Wetland Management Plan. It emphasised the need for a long term vision for restoration with native vegetation, including use of grassy ecosystem species, as appropriate, to complement the wetlands, and to enhance habitat values for a range of species. FOG noted that this will be a long term goal and that significant removal/replacement of exotic vegetation is appropriate and will be required. There is potential for Jerrabomberra Wetlands to be restored towards its original landscape and vegetation condition, including creating rare waterbird habitat. Any restoration should be informed by the current work by TAMS (Sarah Sharp) on ACT vegetation classification.

FOG wrote to Minister John Hargreaves on the proposed caravan park development at Symonston, the proposed development in the Molonglo Valley (supporting the Conservation Council and raising concerns about pink-tailed worm lizard habitat), the management of urban grassland and grassy woodland remnants, and progress on implementation of Action Plans. This was a follow up to a FOG letter written to the ACT Government before Christmas and discussions with the ACT Government (see *clarification of ACT issues*).

Copies of these submissions are available from fogcanberra@yahoo.com.au.

### Brindabella midge orchid

#### Grasscover

26 MAY 2006 While this news is a little dated FOG members will be interested to learn that the Brindabella leak orchid (*Corunastylis ectopa*) has been listed as an endangered species in the ACT. This orchid grows singly. Its solitary leaf is cylindrical, 10-25cm long by 0.15-0.3cm wide and dark green to reddish at the base. The leaf encloses the flowering stem for most of its length. The inflorescence is 15-



30 cm tall, bearing 15-35 flowers in a densely crowded spike 2-4 cm in length. The flowers are 5-5.5mm in diameter and are either green and reddish purple or wholly reddish purple. It is endemic to the ACT and is known from a single site only in the Brindabella Range. It grows on a steep slope with a northerly aspect in a tall forest (*Eucalyptus robertsonii*). Its geographic distribution is very restricted and therefore is declared as endangered.

The species is a seasonal perennial, shooting from a dormant underground tuber after summer rain. In the absence of rain at the appropriate season the plants remain dormant. The buds develop rapidly and flowering is in progress about six weeks after the initialising rain event, typically from late January to March. Germinating seed

require interaction with a mycorrhizal fungal host. After setting seed the aerial portion of the plant withers and tubers remain dormant over the subsequent season until the next substantial summer rain. A management plan is being prepared and there is strong interest in finding any other possible populations. The illustration of the species was prepared for Environment ACT by Lesley Wallington.

### Clarification of ACT issues

2 MARCH Under *FOG submissions* in our previous newsletter, there was a summary of a letter sent to the ACT government on a raft of issues. This was followed up on 2 March with a meeting of representatives of the Parks, Conservation and Lands Branch (PLBC) to discuss the matters raised in the letter. The meeting included officers from Planning, Design and Research, and Parks and Reserves sections. FOG President Kim Pullen, described the meeting as very productive, clarified some matters and provided detail of progress on others. FOG will continue to follow up on the matters discussed with PCLB. Progress on the outcomes will be reported on in future newsletters.

## Letters to FOG

### Scottsdale

#### Richard Harding

I'm just writing to let you know how much Theresa and I enjoyed the tours of Ingelara and Scottsdale and to thank you and the others involved very much for organising it. We were charmed by the friendliness of the group and by the fungi we found on the first stop to the Murrumbidgee, and by the Swamp Harrier we saw. Sausages were great and those salads made the lunch excellent.

### Response on behalf of Bob Debus

Thank you for your letter of 10 January to the Minister for the Environment, the Hon Bob DebusMP, concerning vandalism that occurred at the Nunnock Swamp area in the South East Forest National Park. Pleased be assured that both the Minister and DEC are aware of the issues that you

have raised, and they share your concerns.

In response to the damage caused in this area, DEC is installing a series of vertical log bollards along sections of Cattlemans Link Trail and Robinsons Track that pass through sensitive areas. The barriers will constrain vehicle movements to within formed tracks. Warning signs will be erected to send a clear message that hunting and driving on the grasslands is prohibited and that penalties apply. DEC increased its patrols in this area over the summer, involving the local police where necessary. DEC is also arranging to use hidden surveillance cameras as part of its strategy to combat vandalism in the park.

You may be interested to learn that DEC has established the *Friends of Alexanders Hut* – a group of dedicated individuals who help with monitoring the surrounding grasslands.

I am please to advise that planning has been completed for the establishment of an additional walking track, linked with the Nunnock Swamp Walking Track, to provide additional recreation and education opportunities in the area. Interpretative material will be provided at strategic locations to encourage appreciation of the area's significant conservation values and to educate visitors about the need to keep within the formed tracks.

**Thanks FOG**  
*Wal Whalley*

Thank you so much for the congratulatory article in the latest FOG Newsletter. I find it all rather overwhelming and there are lots of people who have done far more than I have over the years without this recognition. The people who should really get the credit are my post graduate students who have done all the work over the years.

FOG is one of the groups who have been very important in raising the profile of native grasses and grasslands in Australia and the work it has done has been critical. You should also be recognised and congratulated.

It is groups like FOG that have been instrumental in raising the profile of native grasses and grasslands in the community so that Australians at large are beginning to realise the intrinsic value of the 1,000 odd species of native gasses we inherited. Their commercial value is also being recognised in a number of ways.

More recently, we are coming to realise that grasslands can be managed for landscape improvement - not sustainability, that is not good enough - but improvement, including substantially increased rates of carbon sequestration. I believe that improved management of grasslands and the grassland component of woodlands, is the key to halting accelerating global warming.

## *Scottsdale and Ingelara*

*Grasscover*

**SATURDAY 10 MARCH** We pulled over from the Monaro Highway just south of Johnson Drive at 8:30am and several cars were already present with people starting to mill around. The weather was a little coolish but the skies were clear with the promise of perfect weather for FOG's visit to Ingelara and Scottsdale. Around 9am, all those booked for the day had arrived and the cars made their way to our first stop, Ingelara.

Ingelara is a property about ten kilometres north of Scottsdale, itself several kilometres north of Bredbo. Ingelara has been recently purchased by Pete Bottomley and Virginia Osborne, and Tobias and Beatrice Koenig. They are holistic farmers and are trialling bio-dynamic techniques, focusing on re-building soil and encouraging the establishment of perennial native grasses. Unfortunately, they are starting with a property that has been heavily modified and grazed and is largely dominated by African lovegrass (ALG). Our hosts took us to several sites on the property and Tobias explained their vision and techniques. With recent rains, Ingelara was well vegetated with exotic herbs and grasses and the animals were healthy. Tobias pointed out that, with recent de-stocking, they were unable to take advantage of the recent pasture growth, and even worse was the concern that, with limited stock, changing the composition of the vegetation was hampered as the ALG was currently producing seed.

The vision is to demonstrate what can be done to rebuild soils and develop sustainable production and income. En-

couraging the soils to build humus and biota allows them to become more productive naturally and lays the basis for both productivity and healthy vegetation. Tobias was very informed on alternative farming techniques and, as he demonstrated, the soils on the lower slopes were healthy, although those on the steeper areas were not building so quickly. As Tobias pointed out, much of their pasture had responded well to rain, whereas neighbours' pastures, based on more traditional grazing management, hadn't. Control of unwelcome species was a matter of manipulating grazing using short-term cell grazing techniques. Unfortunately, with a limited number of animals, in many parts of the property there were insufficient cattle to eat the ALG and thus prevent it from setting seed. After these site visits, we took time out for a pleasant morning tea at Ingelara and then the group made their way to Scottsdale.

What is the link between Ingelara and grassland recovery, you might ask? The answer is maybe none. On the other hand, Ingelara is trialling methods that hopefully lead to better soils and better pastures. These pastures should be healthier, more variable in terms of structure and species, have better ecological function and provide both food and habitat for smaller native animals, including bird species. They will also provide the opportunity for grassland plant species to colonise. This might need assistance through seeding with native grasses and forbs. This is in fact the vision for Scottsdale, and the link between Ingelara and Scottsdale - although one difference in approach is the use of herbicides at Scottsdale, but not at Ingelara.

Cars arriving at Scottsdale found their way to parking spots around the woolshed, which is a reasonably large structure that was to prove a good venue for lunch and afternoon tea. Scottsdale is a 1300ha grassy ecosystem property north of Bredbo, which was purchased by Bush Heritage Australia (BHA) in early December 2006, as part of the Kosciuszko to Coast (K2C) project of which FOG is an active member.

Lauren Van Dyke talked a little about Scottsdale, the vegetation structure and Bush Heritage's plans for the property. Then we jumped into various vehicles for a slow drive through the lowland areas on our way to the Murrumbidgee River, which forms the western boundary of the property, stopping once to take a closer look at the vegetation. The property had been pushed hard as a rural property and the lowland areas are now dominated by ALG and to a lesser extent, serrated tussock, although there were patches of tall spear grass and remnants of natural temperate grassland. The creek lines had been highly eroded but, as we later saw were well covered by a variety of grasses and sedges. As we saw after lunch, the lower hill areas were still natural temperate grasslands, and the upper slopes had patches of yellow box/apple box grassy woodland (also patches of these woodlands were found in the low areas), and dry forest communities dominated by broad leaf peppermint (*Eucalyptus dives*) and scribbly gum (*E. rossii*).

Margaret and Maryke had stayed behind and so when the mob returned to the woolshed, there was a wonderful spread of salads (provided by Maryke), several kinds of sausages, onions, breads, sauces, coffee, tea, and juice, etc. – some commented that it was an unexpected sumptuous feast.

After lunch, a long line of vehicles headed towards the railway line, on the eastern side of the property, and after a little debate the group broke into those who went to see the railway tunnel and those who visited the remnant grassland. The remnant grassland was dominated by kangaroo grass, which had largely survived because it was on a very rocky area that had not been ploughed. It was very patchy with any disturbed areas being overrun by ALG. While not the right time of year for flowering, a number of forbs were present including many plants of vanilla glycine (*Glycine tabacina*), austral-bear's ear, New Holland-daisy (*Vittadinia sp.*), Australian bindweed (*Convolvulus erubescens*), and a patch of adder's tongue (*Ophioglossum lusitanicum*), a cryptic grassland fern. The grasses included red leg, nine awned, wire, wheat, barbed wire and wallaby grasses. A strange structure was found at the grassland knoll – was it a grave, an oven or perhaps some child made structure – the jury couldn't make up its mind. Those who visited the tunnel also reported having a good time wandering through the long tunnel (and dreaming of bygone days) and also meandering around some remnant grassland vegetation.

It was not until well after three o'clock that the vehicles headed up into the higher parts of Scottsdale. An electric fence had to be negotiated and a mob of cattle made this a little tricky but several people jumped out of the vehicles organising the lowering of the fence and keeping the cattle away from it. It was decided to drive to the first plateau and



Photos: Lauren with June and Bob Wilkinson, the Murrumbidgee at Scottsdale (photo Anne l'ons), silver-leaved mountain gum and adder's tongue.

then walk to the higher area where the quest for the rest of the day had become to reach the patch of silver-leaved mountain gum (*E. pulverulenta*). Lauren in the first vehicle, with four people in the cab and three in the tray, negotiated the first stage of the fire trail, and despite her concern that all the vehicles might not make it, they did successfully. This was no mean achievement as most vehicles carried three to four people and the road was steep and heavily rutted. Egged on by that success, it was decided to drive up the more difficult trail to the higher elevation. Finally, each vehicle, including a Subaru Outback, appeared out of the forest and each driver beamed with a sense of achievement.

As people alighted from the vehicles they made their way to the silver-leaved mountain gum, which is one of several isolated pockets of this mallee-form of eucalyptus to be found in the Southern Tablelands. The description in Costerman's *Native Trees and Shrubs of South-eastern Australia* states that "it is vividly glaucous, straggly or mallee-like; very localised in the Western Blue Mountains and between Bredbo and the Snowy River; all leaves are opposite, sessile, plus/minus rounded, buds and fruits in threes." Yep that fitted. Much discussion followed about why such remnants had hung on. Interestingly, taller, but still not that large, eucalyptus such as broad leaf peppermint and scribbly gum poked their way through the low canopy. The ground storey was dominated by red-anther wallaby grass on poor soil. The views from there were fantastic as we were able to see the landscapes and the woodland vegetation.

People were not eager to leave the heights and started wandering across the secondary spear grass grassland in many directions to check out both the vegetation and the landscapes. There was ample evidence of past tree clearing. The grass was green and short, following recent rains and cropping by kangaroo grazing, and the inter tussock spaces were extensive. Finally, a large group gathered around as Margaret and Roger pointed out and discussed a patch of adder's tongue.

Finally, the mob reassembled into the vehicles making their way back down from the higher slopes, stopping once to discuss the identity of the trees. Then it was one final but not too long a stop to again take in the landscape views. Slowly the cars made their way back to the shearing shed, after negotiating the gates, cattle, and electric fences. There was another round of tea drinking and Roger and Jenny thanked Lauren and talked of the challenges and

possibilities that lay ahead for Scottsdale. Finally our car rolled out of the gate at 6.15am.

Thirty-eight people had taken part in the day, many taking away new insights. A big thanks to Ingelara and Scottsdale for their hospitality and insights, and all the best for future endeavours.

Scottsdale was officially launched on 27 March and over eighty people, including a fair sprinkling of media, were present.

### Postscript

David Eddy

I've been looking up all the info I can find at home on *Eucalyptus pulverulenta*. It seems an intriguing species. My various books describe it as: a small straggly tree - small twisted tree - tree or mallee to 10m tall. Bark smooth, grey or bronze - often pale brown or coppery. Silver-grey stem clasping foliage - adult leaves glaucous and dull, broad lanceolate to elliptic. Glaucous buds in threes. Often mature in the juvenile leaf phase but intermediate and occasionally adult leaves develop on the older plants. Rare and scattered, in small stands almost in the understorey of grassy woodland on poor soil. Found from Bathurst to Bombala.



I suspect it's a species that appears in a variety of forms. The form I found near the Snowy River sounds like a tall tree form with adult or intermediate leaves. The form we saw at 'Scottsdale' was the more typical form though I still think some of the trees on the lower slopes were the same species in the tree form. Perhaps this is a response to different growing conditions?

I also remembered

that I found some good (tree form) specimens of this species at the Burhop's 'Koolambah' on Jerangle Road. They were quite close to the house and should be easy to find. They stood out like 'dog's ears' with their coloured bark and glaucous foliage. I think I collected some seed from these.



Photos: Tom Baker, one of the speakers at the launch of Scottsdale, and the official launch.

## *Perunga ochracea*

*a vulnerable grasshopper species of our region*

Roger Farrow

Grasshoppers are one of the most conspicuous components of our native grasslands. The flashing yellow wings of the yellow-winged locust flying up from kangaroo grasses and the infestations of wingless grasshopper moving into our gardens are familiar sights to most of us. There are about 45 species of grasshopper recorded from the ACT and they are found in a variety of grassland habitat from the lowlands to the subalpine, and from natural grassland to secondary grasslands, woodlands, swamps and heathlands and most of these species are widespread in south east Australia. The native grasslands contain the largest number of species but only one of these is restricted to the local natural temperate grassland in the ACT and surrounding areas. This is *Perunga ochracea* originally described by Dr Y. Sjostedt in 1921. It has no common name so we simply call it Perunga. I've not been able to find the original of the generic name but there are an amazing 1200 citations at Google most of which refer to a Scandinavian enchantress or dragon. Ochraceus means ochre-coloured but this must apply to the dry specimen which Sjostedt studied rather than the fresh specimens which are grey and green. It was first described from the Wagga Wagga district but current and past records suggest that it is restricted to an area of about 100x150km centred on the ACT. Many older records have not been confirmed in recent times.

*Perunga* is a large, stout, heavily-sculptured grasshopper with reduced wings so that it cannot fly but it is a strong jumper propelled by powerful hind legs covering distances of more than a meter. The adult is found during spring and early summer in tussock grassland dominated by spear grasses (*Stipa* sp.) and wallaby grasses (*Danthonia* spp.) and is most abundant in the Jerabombera Valley. It feeds on a range of forbs found in these grasslands. It has a winter active life cycle with summer-dormant eggs hatching in autumn, the nymphal stages developing over winter and the adults emerging in spring. The males are much smaller than the females. *Perunga* occurs in a range of colour forms from grey to bright green and combinations of grey and green. There is a conspicuous and diagnostic whitish "X" on the thorax. The tarsi are blue while the tibial spines are yellow. *Perunga* belongs to the largest subfamily of grasshoppers in Australia, the *Cantantopinae*, which are characterised by a prosternal process (a knob between the first pair of legs) and do not generally stridulate, although they have auditory organs. *Perunga* could be confused with the

smaller *Fipurga crassa* which lacks the "cross" on the thorax.

Because it is wingless it does not migrate or disperse as readily as winged species although the extent of dispersal is



Both images are of females. Photos supplied by Roger.

not known but individuals may only move less than 100m in their lifetime. Because the remaining natural temperate grasslands of the ACT are threatened by urban development and weed invasion, especially by African lovegrass, *Perunga* is considered a vulnerable species. Many of the older records come from native grasslands that no longer exist due to their replacement with sown exotic pastures and crops. It also appears to have declined in recent years in native grasslands in the ACT but it is not known whether this is due to an irreversible decline in its environmental requirements or part of cyclical changes in numbers.

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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 Kim Pullen, Bernadette O'Leary, Janet Russell or Geoff Robertson. Contact details are given in the box above. Our email address is fogcanberra@yahoo.com.au.

We look forward to hearing from you.

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