



News of Friends of Grasslands

Supporting native grassy ecosystems

January-February 2005

Program

SAT-SUN 29-30 JAN Sub-alpine grassland
Roger Farrow is organising FOG's visit to Long Plain and camp-out at BlueWaterholes camping ground on Friday and Saturday nights, but people may turn up on either Saturday or Sunday morning. We will visit sub-alpine frost hollows and limestone grassy ecosystem sites. To book, contact Roger (details back page).

SAT 26 FEB 4PM to 7:30PM. FOG's AGM, Mugga Mugga Short but enjoyable AGM followed by a traditional free barbeque. This is an important annual event for FOG to discuss its broad directions, elect a new committee, and to relax and enjoy the comfortable environs of Mugga. Venue: Mugga Mugga Education Centre, Narrabundah Lane, Symonston ACT (opposite the Therapeutic Goods Administration Centre).

A special article on FOG's 2005 program is included on page 3. Please read it and record dates in your calendar or diary.

Learn about grassy ecosystem reptiles. Take the family to the ACT Herpetological Association's annual display at the Australian National Botanic Gardens, 17 to 23 January 2005.

Membership renewal

We have only enclosed renewal forms for members who have not yet renewed. Of course, if you renewed only in the last week or so, we may not have everything up to date, so forgive us for putting in a form for you.

Many thanks to those who have already sent in their FOG membership renewal or waylaid me to pay it or indeed paid it while attending a FOG activity. A special thanks to those who also added a donation to their renewal amount, as it all helps to keep FOG such a viable organisation. *Margaret*

In this issue

- *FOG's tenth birthday*
- *FOG's 2005 program*
- *News roundup*
- *Exciting the young and the old about grassy ecosystems*
- *Slender tick trefoil, common yet inconspicuous - worth a closer look*



FOG's Tenth Birthday

Margaret Ning

13 NOV On an extremely overcast and threatening Saturday afternoon in mid-November, over thirty party-goers assembled in Bungendore for the first stage of our birthday celebration. In fact, our proposed visit to Turallo Nature Reserve was hijacked by the weather, and we reverted to Plan B, visiting the nearby Sweeney's TSR instead.

We already knew Sweeney's was looking great and anticipated it would be a little more sheltered than the more exposed Turallo. Swathes of *Calotis anthemoides* from our visit two weeks earlier had finished, but the huge patches of *Chrysocephalum apiculatum* still had a lot left in them. Their silver-grey colour contrasted wonderfully with the small, as yet un-flowering light green tussocks of kangaroo grass (*Themeda australis*). Patches of creamy candles (*Stackhousia monogyna*) added to the picture. Yet to have their day were myriad numbers of lemon beauty heads (*Calocephalus citrius*) which will be an absolute picture in late December/early January.

The cold weather was an ice breaker, and soon the mob was finding many fascinating plants, fungi, wetlands, etc.

We then adjourned to the Gib Street Café for part two of the birthday. We had the place exclusively to ourselves and the proprietors looked after us very well. There was a lot of mixing over the entrees and champagne and then a little more stability at tables for the main buffet.

A highlight was Geoff's wonderful slide show which condensed FOG's ten years into ten minutes. It incorporated the flowers, workshops, displays, etc, etc, and culminated in a photo of four FOG photographers in various prostrate positions (bottoms in the air) in a grassland



Photos: front page, diners – recognise them? This page: Michael Treanor and Christine McRae (top) and Winston Burhop and Paul Hodgkinson (middle). Next page: more diners, and middle right: Jean Geue and Sandra Hand.

which elicited the phrase of the evening (from someone who will probably now want to remain anonymous!!) of "Friends of Arselands". I hope this hasn't offended anybody, but I feel it was a moment of great hilarity worth sharing with all of you who have joined us on trips and seen similar scenes. The demon drink has a lot to answer for!



Another important part of the evening was the drawing of the lucky door prizes: a drawing of *Brachycome rigidula* by Michael Bedingfield and two FOG t-shirts. First prize of Michael's drawing went to Patrick Rahilly, who had travelled all the way from Wellington!!, and the t-shirts went to Michael Treanor visiting from Adelaide, and finally a more local winner, Michael Bedingfield. Just as well Michael didn't cause us any anxious moment by having his number drawn first!



FOG 2005 Program

Margaret Ning and Roger Farrow

The program for 2005 is taking shape but we are still looking for suggestions and/or fine tuning. By providing you with as much detail as we can, we hope that you will rush to find your calendar or diaries, and record dates that have been finalised. For any inquiries please contact either of us, our details are on back page. So far we have not programmed anything in August.

SAT 12 MARCH 9AM – 4PM FOG display at the Australian National Botanic Gardens This is an excellent way to learn about grassy ecosystems, and/or assist FOG. FOG will have on hand its posters, a selection of grasses and forbs, and other materials on grassy ecosystems. Members can help by advertising this activity, supplying plants and/or handouts, etc., and/or being on a roster for an hour or two. Contact Roger Farrow or Rosemary Blemings (details back page) if you can help.

SAT 26/SUN 27 MARCH Coastal sea grasses at Narrooma Where are Australia's richest grassy meadows found? Some would say in the warm tropical oceans into which Australia drifted some 45 million years ago after the break up of Gondwana. These grassy meadows are locked into the marine production system which produces seventy per cent of species found and eaten along our coast. Long before dry land grassy fields appeared, the marine meadows based on posidonia, zostera and halophila were driving estuarine ecosystems. These ancient grasslands still play their role from Byron Bay to Malacoota. The Saturday will be devoted to the study of these sea grasses, led by Alan Scrymgeour. If you own a

microscope, please bring it, or alternatively a good hand lens. Also small specimen jars would be useful. Some tramping through shallow water will be part of the day's activities and some work under cover will follow. The program for Sunday is still being considered. For those who wish to stay over on Friday and/or Saturday night in on-site cabins, please contact Margaret Ning. More details in next newsletter.

SAT 2 APRIL 9:30AM to 3:30PM Old Cooma Common Working Bee Targeting woody weeds (hawthorns and briars). Contact Margaret Ning.

SUN 10 APRIL 9AM to 2:00PM Greening Australia free bus tour and barbeque at Cotter Lori Gould or Susie Wilson will show FOG members the restoration work being undertaken around Pierces and Dry Creeks following the January 2003 fire. It is planned to visit Holden's Creek, Mount McDonald, and possibly a private lease, and GA will provide plant lists for each site. Meeting point Kubura Place, Aranda at 9am, or along the way. To book, contact Margaret Ning.

SAT 21 MAY 9:00AM to 3:00PM FOG and Field Naturalists Grassland fungi workshop with Heino Lepp. Heino will provide a short indoor introduction giving the basics of what fungi are and what they do, as well as something about knowledge of Australian fungi. He then plans to look for some fungi in the open, with some discussion about the habitats and ecology of those we see. If we see a reasonable variety of species it would be useful

to collect samples, for permanent herbarium storage. Grassland fungi are not well documented in Australia. Heino will give some guidance on how to collect (responsibly) and write up a collection for later scientific study. It's not difficult. He strongly advises participants to bring a 10x hand lens or a magnifying glass. If you are interested in participating in collecting specimens, bring a small knife as well. For more fungi information see <http://www.anbg.gov.au/fun-gi/> Venue: Mugga-Mugga Education Centre, Narrabundah Lane, Symonston ACT (opposite Therapeutic Goods Administration). Lunch provided. Enquiries Geoff Robertson or Benj Whitworth (details back page). To register send payment of \$10 to FOG, PO Box 44, Majors Creek NSW 2622.

SAT 18 JUNE 1:30 to 4:00PM
Winter ACT grassland tour with David Eddy.

SAT 30 JULY 2:00 to 4:30PM
FOG winter slide afternoon Two presentations, American Prairies and Reptiles of the Southern Tablelands with Geoff Robertson. Venue: Mugga Mugga Education Centre, Narrabundah Lane, Symonston ACT (opposite the Therapeutic Goods Administration Centre). Afternoon tea provided.

SAT 17 SEPTEMBER 9:30AM to 3:30PM **Old Cooma Common Working Bee**. Woody weed and St John's wort removal. This is an interesting time to see Old Cooma Common at winter's end. Contact Margaret Ning.

THURS-SAT 13 to 15 OCTOBER **FOG grassy ecosystem tour of SA** Following the Stipa Fourth Native Grasses Conference in Burra (see advertisement), Michael Treanor is organising FOG members to visit some of SA's best grassy ecosystem sites.

SAT 22 OCTOBER 10am to noon **Boorowa TSR**. This TSR is an outstanding grassland one hour from Canberra. It is one of three sites of the Tarengo leek orchid. It also has creamy candles (*Stackhousia monogyna*) which is supposed to smell absolutely special during the night time. We shall check this out!! Enquiries Margaret Ning.

SUN MORNING 7:30AM 23 OCT **Canberra Ornithologists Group and FOG, Jerrabomberra Grassland Re-**

serve to study birds and plants. This is a grassland reserve and we may see some early spring flowers. We might be lucky to see singing bushlark in addition to Richard's pip-it and introduced skylark, as well as grassland earless dragon. For COG members this will be a rare visit to this type of vegetation. Meeting place to be advised.

SAT 12 NOV 2:00pm **Mugga Mugga grassland walk** – not a FOG activity but FOG members will lead this walk.

SAT 12 NOV 2:00pm to 4:40PM **Workshop on basic grassy ecosystem ecology and plant identification** Many newer members of FOG have asked for a workshop on this topic which will explain what grasslands and woodlands are; why they occur; the different types of grasslands (poa, tall and short themedra, danthonia and stipa) and woodlands (box and snow gum) in the region; their importance as habitat; what is being done to protect, manage and restore them; and where some of the best exam-

Stipa Fourth Native Grasses Conference

*Grasslands for production and conservation:
both sides of the fence*
11-13 October 2005
Burra SA

The sub themes are: where we have come from, where we are now, healthy landscapes - healthy profits, healthy landscapes - healthy biodiversity, establishment of healthy grasses, and healthy systems - a burning issue.

Inquiries: Sue Rahilly, suerahilly@bigpond.com.

ples are. Thumbnail sketches will be provided on some of the threatened plant and animal species. The second part of the workshop will provide basic information on how to identify common (and some not so common) grassy ecosystem plants (plant ID for beginners). The aim is to have a FOG kit for new members (which older members may also find useful). Venue: Mugga-Mugga Education Centre, Narrabundah Lane, Symonston ACT (opposite Therapeutic Goods Administration). Afternoon tea provided. Enquiries Geoff Robertson.

SAT-SUN 20-21 NOVEMBER **Canberra Ornithologists Group and FOG, Camp-out at Garuwanga, Bells Road, near Nimmitabel**, for bird watching and/or plant recognition. COG catering rules apply, ie people provide their own breakfast and lunch, and bring something to share for dinner. Modern kitchen facilities available. Enquiries Margaret Ning.

SAT 10 DECEMBER 10am to noon **Revisit Boorowa TSR** to see what a difference two months makes. We hope to see the mauve double-tail orchid.

News Roundup

Braidwood orchids

Margaret Ning

SATURDAY 23 OCTOBER FOG set out for a property off the Tarago Rd which I had had the privilege to visit a year ago when the drought had not yet bitten quite so hard. The

property has a very impressive orchid list of 66 species, including some that are threatened, and over 20 of us were hoping that we would still be able to savour a few special sightings. The property is around 400 acres and rises above much of the surrounding

area, and their eucalypts include scribbly gum (*E. rossii*), yellow box (*E. melliodora*), brittle gum (*E. mannifera*), broad-leaf peppermint (*E. dives*), silvertop ash (*E. sieberi*), swamp gum (*E. ovata*), manna gum

(*E. viminalis*) and apple box (*E. bridgesiana*).

Bungendore hotspots

Graham Parton

valley floors from north of Lake George through to Burra. Many dai-

Photos: visit to Tarago Road property (top) and visit to Turallo Cemetery, one of the Bungendore hotspots (bottom).



We were fortunate to see a total of eleven orchid species in flower that day. They included a couple of sun orchid species (*Thelymitra ixiooides* and *T. carnea*), a couple of donkey orchid species (*Diuris aequalis* and *D. punctata*), two bird orchid species (*Chiloglottis trapezioides* and *formicifera*), one greenhood (*Pterostylis pedunculata*) and four members of the old caladenia genus (*Petalochilus mentiens*, *P. carneus*, *Stegostyla gracilis* and *Arachnorchis phaeoclavia*).

Thanks go to Helen and Paul for allowing us to visit their orchid haven (heaven), and especially to Paul for the 5.30am reconnoitre to check out where the flowering orchids were!

SATURDAY 30 OCTOBER Over 20 people, mostly FOG members, descended on Bungendore for a day of touring the local biodiversity hotspots. In a venture that had been planned a year earlier when spring flowers were in full bloom, they were taken around four sites all within ten km of Bungendore and all containing rare species of plants and animals in sites containing endangered ecological communities.

First stop was the newly created Turallo Nature Reserve along the Hoskinstown Road. From the distance it looks like a fairly innocuous paddock of long brown grass, but this is almost all that is left of the type of grassland that once covered all of the

sies and other plants were at their best including the golden moths orchid. Survey traps for reptiles were sighted but we stayed well clear of those. Because of the prolonged drought the flowering is later this year, and the display will be even more spectacular during November.

From there the group moved further down the road to the Six Mile Travelling Stock Reserve, naturally enough located six miles from Bungendore. There over a ridgeline were four different ecological communities. Along the top of the ridge is a dry forest of scribbly gums and broad-leaved pepper mint, while down on the warm westerly side this gives way to yellow box woodland. On the cooler



eastern side the trees are predominantly snow gums, while below on the floor of the valley is a natural grassland dominated by kangaroo grass. Each of these communities hosts its own collection of wildlife and plants.

After lunch at a variety of local eateries the group moved on to Sweeney's Reserve along the Tarago Road to find a bush setting similar to what must have greeted the first white people when they arrived. On the ground among the predominantly yellow box and snow gum woodlands was a wide variety of flowering

we're often doing just the sort of thing that destroys these unique features. For example, we gather fallen timber for firewood, but this same timber is both habitat and food for many small animals, which in turn become food for the larger animals. We collect rocks from where they provide habitat and take them into the suburbs to make our gardens look like rocky habitat. Our travelling stock reserves are now under pressure for more constant grazing, where they used to be used almost exclusively by travelling stock for short bursts at a time. Now, most animals

Cooma Common. The weather was perfect for weeding.

The FOG-established Old Cooma Common Grassland Reserve has its share of weeds, including hawthorn, briar rose, a small tree plantation, African lovegrass, St John's wort, vipers bugloss, verbascum, poppies, and more. Over the years the focus has been on the woody weeds, lovegrass, and wort, and while FOG has gained the upper hand, these are fighting back. Much of the day concentrated on their removal by whatever means was to hand – spot spraying, cutting and dabbing, and digging



ground layer species. Also on the site were remnants of large trees; some felled naturally by borers, others felled more recently by a chainsaw.

The final stop for the day was Brooks Hill Reserve on the road to Queanbeyan for an example of a typical dry forest. The red box, scribbly gum and peppermints host a wide variety of bird-life, including the speckled warbler, the diamond firetail, rufous whistler and many more. Part of this reserve had been the site of a controlled fire nearly two months earlier and the group was able to inspect the regeneration process at work.

Perhaps the most startling thing about the day was the enormous variety of species so close to the town, and the fact that most of us who live in these rural communities have no real awareness of this rich biodiversity just on our doorstep. What's worse,

The gang at Old Cooma Common working bee

are transported by truck rather than herded along country roads, and in the process we accelerate the decline of these precious areas.

By conducting this tour, hopefully the first of many, Friends of Grasslands has highlighted the potential for a conservation based eco-tourism industry that brings dividends to the local community.

Old Cooma Common Groundcover

SATURDAY 11 DECEMBER Despite the heavy downpour of rain which took place the previous day, (leading to many calls to cancel the Saturday activity), and the threat of another downpour, a record 16 FOG members turned out to weed Old

out. Some attended to removing unsightly weeds which marred otherwise good patches. Some effort was also made against the vipers. The fence which had been cut some two years ago, was finally repaired.

All were well rewarded to see the reserve at its best. For those who are not so familiar with the reserve, it consists of several hilly areas overlooking the town. The soils are black basalt, and many loose and embedded rocks are there to trip up or allow the ground to slide under the feet of the unwary visitor. There is no water source for grazing kangaroos, the grasses are long but there is much inter-tussock space and the area has high biodiversity.

The colourful flower show was just fantastic in many places and the Monaro golden daisy and the hoary sunray (both threatened daisies) seem

to be spreading. Some members saw the rare anchor plant for the first time.

June Wilkinson who is familiar with grassland earless dragon (GED) on her property saw what she said could only be a GED but was not fast enough to catch it for a positive ID. For my part I was rewarded by seeing a largish brown snake.

Monaro Grasslands Mail

The spring issue of *Monaro Grasslands Mail*, the newsletter of the Monaro Grasslands Conservation Management Network (CMN) has now arrived in people's letter boxes, with articles on the Adaminaby Golf Course, harvesting kangaroo grass, poa tussocks and snow grasses, managing native grasses with fire, Rosenberg's goanna, and African lovegrass.

CMN members, between them, manage 17000ha of grassy ecosystems, including 6000ha of native grasslands. The network has 120 members with 49 private landholders.

This colourful and informative newsletter is a great read on grassy ecosystem issues. For further information contact coordinator David Eddy on 6242 8484.

Down by the Riverside Groundcover

27 NOVEMBER My library on the vegetation of the Southern Tablelands continues to grow. This time I acquired a copy of *Down by the Riverside, a field and management guide to the native plants in and about the rivers of the Goulburn District, NSW*, authored by Rodney Falconer and published by the Goulburn Field Naturalists, launched on 27 November. This 160 page book cost \$40 and is great value.

The author's photos are truly excellent, illustrating many features of plants and their flowers that are necessary for identification purposes. For many plants two pages are used to describe the plant, its location, notes about how to grow it, information on similar species, and five or six fantastic photos. However, the author often smuggles into these two-page sets in-

formation and photos on similar species which enables many more plants to be included.

The book has an excellent introduction so that the reader can come away knowing the vegetation structure and other fascinating information. With



Rodney Falconer speaking at the launch of his book.

an economy of words the author describes the country surveyed, and page v provides a very useful table showing the vegetation communities.

One interesting but alarming fact to emerge is that in 2003 a 42k survey of riverside was carried out by Goulburn City Council. It found that only one percent could be considered bushland, and that native plants could only be found in less than three percent of the riverside. Several native species were only recorded as a single plant. "What was possibly the last trailing blue devil *Eryngium vesiculosum* was trampled and destroyed by horses almost immediately after its discovery in 2003."

Rodney, this is an excellent contribution to the understanding of vegetation in south east NSW and we hope it is widely read and studied.

Reclaiming Mt Taylor' vegetation Anne I'Ons

Mt Taylor, the second highest peak in Canberra, was a devastated, eroded, bald hill in the 1960s according to local long-term residents. Tree planting programs (mainly with out-sourced species) occurred in the three decades to 1984. The mountain was fenced, ditched and road bound with the Kambah development in 1975. Farm-

ing activities ceased at this time. Various unofficial walking tracks and the summit road were used by the public; the remaining original vegetation such as old eucalypts and allocasuarinas, plus an unknown understorey slowly began to recover.

I first used Mount Taylor as a running track in 1981; its beaten, eroded nature is a strong memory. Since the Mount Taylor Parkcare Group's inception in 1989, we have come to appreciate the enormous diversity of native plants on all aspects, but particularly the south-west sides.

The fire event of 2003 has stimulated and revealed species never seen before, and created a profusion of flowering unequalled in all previous years. Over sixty species have flowered this spring, and many more are coming out. The intense flowering in small, relatively undamaged areas shows that grazing did not wipe out everything: the stony nature of much of the ground, with sparse grass cover has favoured the spread of the shrubs and herbaceous material, and probably was not favoured by the sheep or cattle.

The ACTEW line cuts a sharp division between the floristically rich stony hill sides and the flatter lower slopes, which have mostly native grasses, with a much reduced shrub/herbaceous content. Further away, bordering the Tuggeranong Parkway and Waldock Street, the scene is degraded old pasture type vegetation, subject to severe weed infestation. There are pockets of floristic magnificence on the south-east side too.

The group has noted the return and spread of many grasses, *Austrodanthonia* sp., *Cymbopogon refractus*, *Poa* spp., *Themeda australis*, and many others (in fact Taylor has 36 identified native grass species) and the diminishing areas of *Phalaris aquatica* and oat grass (*Avena barbata*). The woody/understorey recovery has been emphasised with the return of the bird population: an astonishing bonus, 24 species nesting or with young at foot this spring.

Weed removal has accounted for over 43 thousand woody weeds and thousands of soft weeds; minor tree and shrub planting have occurred over the last 15 years; but the future for the native biodiversity is clouded by the invasion of St John's wort and Pater-son's curse.

There are many areas of high conservation value in southern Canberra on all the hills, and we hope that we can all combine to get these places registered and cared for by legisla-tion to protect them in the com- ing years.

I have walked Black Mountain many times recently: the recent careful burns can only benefit a tired, old and unproductive veg- etation: a few years ago it would have been unthinkable to make this statement, but the fires of 2003 have shown us re- newal and hope for the future, and hopefully a change in atti- tude to the management of our vegetation.

FAB frost hollow to forest art competition *Hanna Jaireth*

Some readers may have seen Han- na's and Mary Falconer's photo in a recent Chronicle promoting the art competition.

Friends of Aranda Bushland is inviting original artwork entries represent something about the environment along the frost hol- low to forest walk. Entries close on 1 March and can be any two dimensional visual art, includ- ing painting, drawing, photography, multimedia, etc. but no larger than A4 size. The four categories include lower and upper primary school stu- dents, secondary school students and an open category.

The competition is being co-funded by the ACT Environment Grants Program through funds provided for the Frost Hollow to Forest Education Kit project. Further information competition is available on the FoAB website: www.friendsofarandabush- land.org.au, or contact me on 6251 7438, 0415 144283 or Mary Falconer 6251 1345.

Plants of the ACT

Geoff Robertson

As many of you know I have been carrying around and using Andrew Paget's draft CD on *Plants of the ACT*. Andrew has been preoccupied after his move from Canberra but by popular demand, he has now finished this amazing project, an attempt to provide a complete set of photos of the indigenous and introduced plants of the ACT. (See advertisement)

PLANTS OF THE ACT

A Guide to the Indigenous and Naturalised Vascular Plants of the ACT excluding Jervis Bay

2 CD-ROM SET

- Over 4000 full-colour photographs of 1300 species of the 1350 species found in the ACT
- Information on how to identify each plant species, and how to tell it apart from similar species
- Information by field botanist with 20 years experience
- Requires 1.2GB hard drive space to download to your computer

Full Licence \$150 (student and quantity discounts avail – ask us). Send payment made out to 'Wildwood Flora', Wildwood, 367 Koppin Yarratt Road, Upper Lans- downe NSW 2430

While it may seem expensive at \$150, it is a major reference for any- one with a serious interest in ACT plants and should be widely pur- chased by landcare and parkcare groups and natural resource managers who need to know the vegetation they are managing. As someone who has constantly made use of this tool for several years, I would highly rec- ommend it.

Dear Friends

Audrey Jones

The following letter accompanied a membership renewal cheque. Thanks Audrey for your support over many years

I have just finished reading the Nov/Dec Newsletter and as usual was rewarded with good accounts of ac- tivities, news, field days and the many visits to areas beyond ACT that members write about so well. I was very sorry to hear of Ros Dixon's death.

What comes through each time is the professionalism of you all, the deep concern of all for the environment, the joy in the challenges that you come across, and the pleasure of belonging to such a worthwhile organisation.

Keep up the good work.

Can windfarms cope with storms? *Geoff Robertson*

FOG has received a number of calls from community groups and local residents concerned about the possible impact of windfarms dotting our landscapes. Various proposals are causing some stormy protests, but hopefully all points of view and the underlying facts can be properly debated and resolved.

Unfortunately, some sites chosen could result in further inroads into areas that until now have been ha- vens for native vegetation, includ- ing grasslands and woodlands.

In response to requests, I visited two areas, one near Mount Hol- land in the Tinderies (5 Decem- ber), and the other around Taralga with Jenny Bounds (10 Decem- ber).

FOG members would generally support the proposition that we have to put an end to the clearing of native vegetation, and in particular of natu- ral temperate grasslands, and grassy woodlands and forests. Unfortunately grasslands and woodlands are still seen as largely cleared areas. This is certainly true around Mount Holland and Taralga. Around Mount Holland, while some trees had been cleared in the areas I travelled through with my hosts, the area was high conservation quality snow gum woodlands, and patches of natural temperate grass- lands, as well as wetland and heath- lands. The plant list that we compiled grew quickly. Mountain golden moths orchid proliferated (two thou-

sand plants), and I was delighted to see the striking purple with flashes of whiter-than-white short-lipped leek orchid (*Prasophyllum brevilabre*).

Apart from clearing land to build wind towers, building access roads also means road widening through high quality vegetation. No formal proposal has been made to date, although I understand some landowners have signed contracts with the wind-farm industry.

An environmental impact statement (EIS) has been prepared by the proponents of the wind-farm around Taralga. These would occupy a number of ridges which are covered with forests, woodlands and grasslands.

One area of major concern is known as Turbine Row 6 which according to one local expert contains basalt tall open forest, box woodland (threatened), snow gum woodland, and elements of peppermint open forest, and candlebark open forest.

It quickly became apparent to me the so-called cleared areas were once basalt grasslands, and my companions and I saw a number of examples of these, some of which could be destroyed by the proposed development. However, as we could not go on to the land where construction might take place it is not certain that any grassland would be in the firing line.

The EIS has been widely criticised as grossly inadequate on biodiversity issues; a view I support. Unfortunately, many EIS can be similarly criticised because proper assessments of threats to native vegetation and species would be costly and not favour proponents.

Ravensworth TSR

Margaret Ning

Because inclement weather on the Monaro was making weedkilling a singularly frustrating task one day early in November, I took the opportunity to flit across from Nimmitabel

to the Bobundra area south of Cooma. I was to meet June Wilkinson at the Ravensworth TSR which is next to two properties owned and farmed by two of (Bob and) June's sons.

The area had had reasonable rain in October and that was all the encouragement some of the flora needed to commence its spring thing. Mauve and purple flowerers dominated (two Swainsona species (*monticola* and *sericea*), *Ajuga australis*, *Viola betonicifolia*, and *Brachycome rigidula*), followed closely by the yellows



I delighted to site the striking purple with flashes of whiter-than-white short-lipped leek orchid.

(*Craspedia variabilis*, *Leptorhynchos squamatus*, *Ranunculus lappaceus*, and *Chrysocephalum apiculatum*), a couple of whites (*Asperula conferta* and *Brachycome dentata*), a pink geranium, and the beautiful blue of an *Eryngium ovina*.

The more cryptic flowerers (*Luzula* sp, *Scleranthus diander*, and *Plantago varia*) were also doing their thing, and did not go unnoticed. We wandered over two different types of Monaro grassland – one was well grassed with not many rocks and relatively deep soil levels, and the other was that really lichen-covered struggling type of thin soil with *Dodonaea procumbens* clinging to it.

In contrast to other areas on the Monaro which have been grazed down to the dirt, and have been contributing tons of topsoil to huge dust storms on the Monaro over the last few months, the Wilkinson properties looked wonderful. They have been sensitively grazed throughout the drought and still have total ground cover by the grass and forbs.

To show their appreciation for this grazing treatment the flowers were appearing in large numbers as if the last couple of years had not happened. More generally, as a result of sympathetic grazing in the past decades, the Wilkinson properties contain many threatened and rare species, so it is always a particular delight to visit, as it is not any old native grassland, but an extremely high quality one with intermittent special delights amongst the more general pretty picture.

Two new orchids found

1 NOVEMBER Jim Kelton has reported that orchid specialist Peter Branwhite has found two new orchid species at Brandy Marys. They are *Caladenia* (aff) *carnea* and *Diuris pedunculata*. This brings to 29 the number of orchid species found at Brandy Marys, Jim and Mary Kelton's 2500 acre lease from Forests NSW, east of Tumarumba. Jim's list now includes seven leek orchids, four double-tailed or donkey orchids, three caladenia, five greenhoods, three sun orchids, and two potato orchids.

Two leek orchids (*P. bagoensis* and *P. aff sphacelatum*) have only been recorded at Brandy Marys. *P. aff alpestre* is believed to be endemic to the Bago State Forest, while *P. aff odoratum* has not been confirmed from elsewhere. *P. bagoensis* has received preliminary listing as endangered, and *P. canaliculatum* is currently being nominated for endangered species status.

Two species found in recent years (*Prasophyllum aff alpestre* and *P. aff sphacelatum*) remain un-described. Several other orchids found at Brandy Marys lease are candidates for

listing and/or remain un-described. However, orchids are one of a number of elements that give this area high conservation value. Other elements include a very large number of aboriginal sites, threatened fauna and a high biodiversity of plants.

Jim has been building a coalition to ensure that logging does not recommence. Late in 2003, the NSW Government placed a twelve month moratorium on further logging. That moratorium ran out recently.

No regard for economics

Comment, NSW Farmers View

Peter Comensoli

The Land, 11 NOV

With environmentalism entrenched as the religion of middle class atheists, it's time to apply some good, old-fashioned scepticism to some of its beliefs. For years the State's farmers have been reeling at the hands of a succession of laws enacted in the name of conservation but without any obvious regard for their economic impact.

Even the new Threatened Species Act enshrines the primacy of environment over economy. Future listings of spe-

cies as being threatened only show belated regard for any economic repercussions of the listing.

As a stone fruit grower, I continue to be amazed at how flying foxes, for example, can be listed as threatened when they exist in numbers capable of devastating multiple orchards on the eastern seaboard in one night.

We live in hope the new Catchment Management Authorities will inject a bit of pragmatism into the environmentalism surrounding land and water management.

Bushfire fighting (and bushfire prevention) even submits to environmentalism until fires reach disastrous proportions. Then expense is incurred in a mad scramble for survival.

Amid these struggles, one small project gives me reason for optimism. During the next few weeks researchers from the Australian Bureau of Agricultural and Resource Economics (ABARE) will visit some farmers nominated by the association in the North West to assess the economic impact of environmentalism on traditional farming.

ABARE will be looking to test whether farmers' sustainability is threatened by government-sponsored impositions designed to look after the environment.

We farmers often argue it's a bit hard to be green if you are in the red, or farmers are the best environmentalists of all because their bottom line depends on it. But laws often mistrust these long established truths of good farming.

Governments, often driven by the votes of the devotees of environmentalism, all too often legislate to catch the extremists in our midst but catch us all in the process. They blunder in on the richly diverse ecosystems that most farmers are proud to own and impose a one-side-fits-all "solution".

The economic impact of these imposts is far reaching. Farmers' capacity to employ labour is diminished, rural prosperity is cut down and the full range of a farmer's skill in balancing the need for today's profits on tomorrow's land is nobbled by interference of a Government that supposedly knows better.

Exciting the young and the old about grassy ecosystems

Geoff Robertson

Introduction

At the last meeting of the national recovery team for natural temperate grasslands of the Southern Tablelands (NSW and ACT), I outlined some work that Friends of Grasslands had been participating in along with the Southern Tablelands Ecosystems Park (STEP) in education, particularly directed at schools.

FOG has always been primarily an educational group attempting to excite young and old about the structure and diversity to be found in grassy ecosystems. FOG has been highly successful and now there are numerous people in this region at least, who know much about grasslands and grassy woodlands, their conservation values, and the many plants and animals found in them. However, success also means that a group like FOG must either seek new target audiences and/or provide a deeper explanation. That is we cannot necessarily repeat what has worked in the past. FOG working with STEP has been developing its education activities in several directions.

Science fair

Active FOG member, school librarian and teacher, Margaret Strong, has been an initiator of much of this work. She encouraged FOG to make a donation to the 2005 Science Fair which is conducted in ACT schools to encourage school students to undertake scientific projects. The projects will be displayed at Hughes Primary School where Margaret has been working. FOG has contributed \$300 and has flagged that it is ready to assist teachers and students with its expertise in grassy ecology. We hope to see many children across all ages produce entries on various local grassy ecosystem themes. Since initiating this endeavour, what has become obvious, is that not much is taught on local biodiversity in our schools, despite there being an eagerness to include such material in school curricular.

Hughes Primary School

In 2004 Margaret initiated a grassy ecosystem program at Hughes Primary School which has been willingly taken up by teachers and students. Year two and three students have studied several grasses, trees, lizards and birds in

grassy ecosystems. Using structured worksheets, students took one example of a grass, a tree and an animal and described how each looked, copied key words about each species, cut and pasted or drew pictures of species, and were encouraged to write short sentences about their subject. Year four and five students were introduced to seven grasses, thirty forbs, and two trees that grow in the Hughes yellow box red gum woodland. They were asked to prepare reports on the physical description of a grass and forb species of their choice, and provide hand drawn illustrations of their selected species from books and observations. They were also asked to provide notes about the selected species and had to pose a question which could only be answered by examining the plant at flowering stage.

This took much preparation but Margaret did her homework well, visiting the woodland and with a little assistance from Margaret Howitt and me identified the

plants in Hughes yellow box red gum woodland through their life cycle in spring. This plant list provided the basis for the plants to be studied by the students. She also produced laminated examples of many of the grasses. She set about encouraging the other teachers to participate in the program.

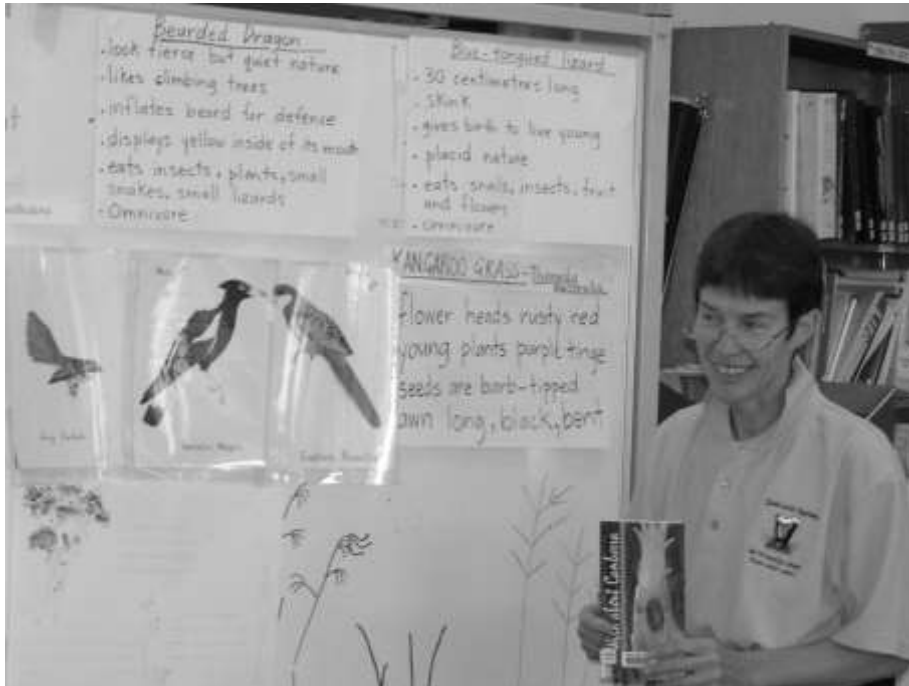
Margaret suggested that I might give a presentation to the teachers about teaching resources that could be used and we decided that I would use the FOG slides to provide a presentation. This occurred on 19 October but a day or so before the presentation Margaret mentioned to me that sixty students as well as eight teachers would be present. But thanks to her brilliant behind the scenes work, the presentation was a treat for all involved (this was reported in the last newsletter). The teachers visited the woodland twice after school. They were tremendously excited by the grasses and forbs, many of which were flowering, and learning to distinguish yellow box and Blakely's red gum. Referring to the grasses, one teacher said "they are actually quite nice looking". A particular favourite was the large number of flowering *Lomandra bracteata* that we discovered on 19 October.

The students were also taken to the woodland on at least two occasions. During the first visit they observed many forbs, but this was too early for the grasses. On 6 December my cousin Cathy Robertson and I joined the year four

and five students, this time to examine grasses in anthesis (flowering). Each student had at least one question he or she needed an answer to. Again this was challenging and fun, and while sometimes distracted, my small group who were studying purple wire grass, could readily at the end of the session identify tall and short spear grass, wallaby grass, kangaroo grass, blow away grass, common wheat grass, poa, and even a specimen of indigenous love grass – leading us to the conclusion that romance can be found in grasslands. Patches of scrambled eggs, blue devil, and

various daisies, including button wrinklewort (but that is another story), also added much interest.

Margaret reported to me that the program had gone very well and the students could easily understand the difference between 'native Australian plants' and lo-



Margaret Strong with material she has prepared. Next page talking to years 4 and 5

cal (indigenous) plants. She was relieved that they had learnt about local ecosystems so quickly and was delighted by the enthusiasm expressed at staff meetings.

To finish the project, Margaret was arranging to treat the student with yellow box honey at the end of term. To quote her "I didn't realise what a sticky situation I was getting into." I prefer to think that she has found the sweetener to discovering grassy ecosystems.

STEP/FOG initiatives

STEP and FOG have been working closely together, and in many ways STEP will hopefully take the FOG vision to a new level. STEP's long-term hope is to create a regional botanic garden, education and ecosystem recovery centre for the Southern Tablelands. Part of this work is to create a set of educational assets that can be used as educational tools or in extension work. A number of such resources are now available to further this work. These include:

- The FOG slides which show the different types of grassy ecosystems of the Southern Tablelands and some of their spectacular reptiles and flower species.
- Reptiles of the Southern Tablelands which presents a series of slides covering most local reptiles. This has been used in the ACT Herpetological Association annual display. (You can see this if you visit the Aus-

tralian National Botanic Gardens between 17 and 23 January 2005.)

- Daisies of the Southern Tablelands which illustrates the flower patterns of the 160 species of native daisies and provides an easy guide to their identification.

In addition numerous reference books and other materials can be referred to. Some of the material presented at the recent FOG-STEP leaf, feather, fur and scale workshop can also be adapted and turned into resource material. Work being developed by Roger Farrow on the eucalyptus of the ACT region, and his work with Pierre Cochard on local grasshoppers will also provide new resource material. A major resource that has just become available is Andrew's Paget's *Plants of the ACT* (see page 8). This material can with some effort be turned into sets of Power Point presentations or even a publication and used widely.

STEP demonstration garden

As mentioned in the last newsletter, STEP is well on the way to designing a demonstration garden at Birrigai. The establishment of the garden will illustrate key STEP concepts, linking plants and animals to local ecosystems,



build a support base, and facilitate the development of the expertise to develop and construct a more permanent garden. The development of a regional botanic garden has always been principally conceived as an education and research tool. So by establishing the demonstration garden at Birrigai School, which itself takes Canberra (and non ACT) students on a very short-term basis, many opportunities for school student learning about regional ecosystems open up.

The demonstration garden is being developed with interpretation of ecosystem science as a key element. Several features of the project will enhance learning opportunities. Plantings are being arranged to illustrate the different types of grasslands (river tussock, tall and short themeda, wallaby, and stipa grasslands) that exist in the area as well as examples of box woodland and riverine areas. Wetlands will also be developed which will illustrate wet-

land plants and also attract frogs. A colony of striped skinks (*Ctenotus robustus*) which live on site will help to open up the world of reptiles, while a host of woodland bird visitors will facilitate study of woodland birds. The site is linked to good and not so good remnant vegetation. Already plans are being developed to undertake wetland and dryland restoration work. Finally and very importantly, exploratory work is being undertaken to link Ngunnawal and non-indigenous culture to the project.

Many resources will need to be attracted for this project and many tentative offers of support have been made. Several involve local schools that have been collecting local seed and/or growing local plants for use in restoration work. One example is Lanyon High School which has been working with the Southern Catchment Group and Michael Bedingfield to develop plant material for use in local restoration work. This work also offers mutual learning opportunities about grassy ecosystem plants.

Resource kits

In late 2003, Environment ACT et al. produced a resource kit entitled *Grassy woodlands: natural habitats of the*

ACT which was reviewed in the January-February 2004 newsletter (page 7). It contains a teacher's resource book and a student workbook aimed at years four to six. Teachers I know who have used it speak very highly of it. There have been some discussions with the author about how this work might be taken further and more generally on how government education programs on biodiversity may be taken further. Nothing concrete has emerged thus far.

Regular FOG services

Regular FOG services remain important elements of FOG's attraction to its growing membership. These include its workshops, newsletter, its program, visits to members' properties, and other events. Each of these provides opportunities to learn about grassy ecosystems, plants and threatening processes.

Slender Tick Trefoil: common yet inconspicuous - worth a closer look

Michael Bedingfield

“There lives the dearest freshness deep down things” - so said nineteenth century English poet Gerard Manley Hopkins. It is this “dearest freshness” which inspires me and which I try to capture in my drawings. I see it most in nature and it is easier seen in the rare or the beautiful. But it is also present in the common or the ordinary, though sometimes I may have to look more carefully. The subject of the plant profile for this issue is both common and humble, and often inconspicuous. It is the slender tick trefoil, which is fairly small and easy to overlook. But sometimes without seeing it you find you have walked all over it, and its seeds are caught on your socks! As a result of my sock clearing, several plants have sprouted in my lawn.

This plant is perennial, and on the Southern Tablelands growth is produced from the dormant rootstock in the warmer months when there is sufficient rain. In hotter climates it can flower at most times of the year. Its growth is partly prostrate and partly erect, with stems of up to 50 mm long. The leaves are trifoliate, that is consisting of three leaflets, each up to 3 cm long. There is a resemblance to the glycine peas when they are not flowering or in fruit. A



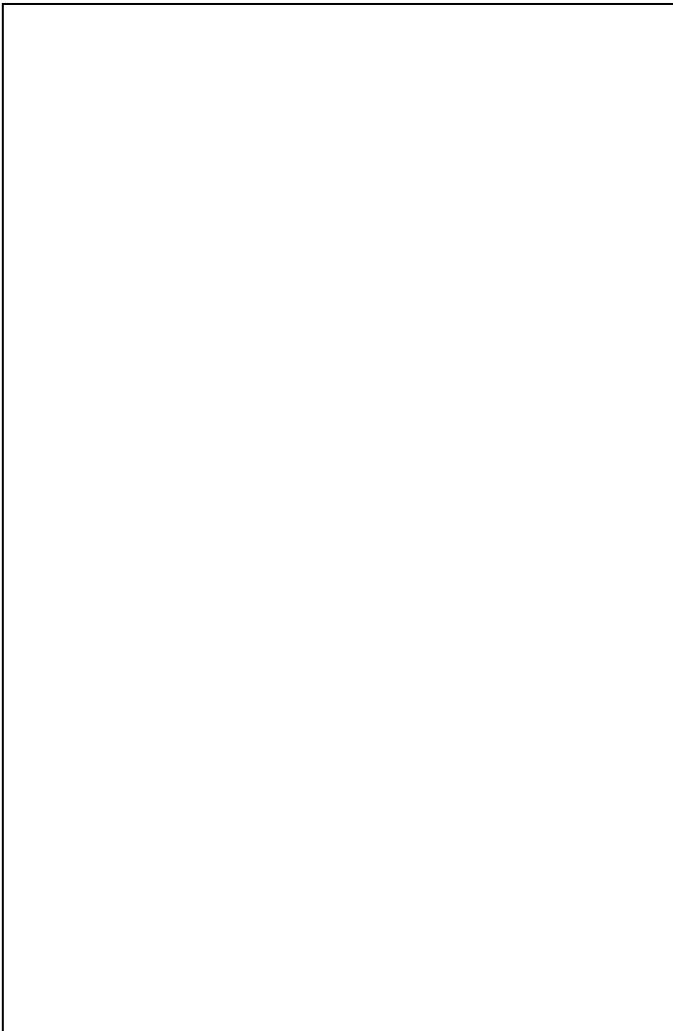
difference which distinguishes the slender tick trefoil is that its leaves have impressed veins which give a ‘bubbly’ look to the upper surface of the leaves.

The flowers are tiny peas, which are white to pale pink, on a loose raceme which is held erect on slender stems up to about 25 cm tall. The flowers are only 3 to 5 mm across and 4 to 5 mm long. They often don’t open widely and so they don’t stand out. The fruit is a pod up to 25 mm long, with seeds arranged end to end and appearing as small segments of a chain-like structure. When mature, the seeds break off individually or several at a time. They have tiny hairs or bristles on them, and this is how they cling to passers by, and when caught singly, look rather like a tick.

The scientific name for the slender tick trefoil is *Desmodium varians*. *Desmodium* comes from the Greek “desmodion” meaning “small chain”. *Desmodium varians* is widespread in our region, occurring also along the NSW coast, slopes and plains, as well as in Victoria, Tasmania and Queensland. For habitat it prefers woodland, grassland and dry eucalypt forest. There are a number of other *Desmodium* species occurring in NSW, all of which are much larger. The only one I know to occur in the ACT is *Desmodium brachypodum* (large tick trefoil) and it is uncommon. It grows to 60 cm tall, it is again trifoliate, with leaflets up to 7 cm long and 4 cm wide.

In my drawing of *Desmodium varians* I have tried to show the small elegance of these modest plants. The whole plant is shown at half size, and the flowers and fruit shown separately at full size.

Slender tick trefoil - it doesn’t attract attention, but is worth a closer look.



FRIENDS OF GRASSLANDS INC Web address: <http://www.geocities.com/friendsofgrasslands>

Supporting native grassy ecosystems

Address: PO Box 987, Civic Square ACT 2608

Your committee:

Vacant	President
Di Chambers	Vice President (Admin.)
Roger Farrow	Vice Program (Program)
Cathy Robertson	Secretary (Correspondence)
Sandra Hand	Treasurer
Rosemary Blemings	Committee
David Eddy	Committee
Geoff Hope	Committee
Margaret Ning	Committee (Membership)
Kim Pullen	Committee
Geoff Robertson	Committee (Newsletter)
Janet Russell	Committee (Minutes)
Stephen Selden	Committee
Benjamin Whitworth	Committee
Dierk von Behrens	Committee

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 activi-

ties 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 Di Chambers or Roger Farrow. Contact details are given in the box above. We look forward to hearing from you.

Friends of Grasslands Inc
PO Box 987
Civic Square ACT 2608