



# News of Friends of Grasslands

*Supporting native grassy ecosystems*

*January-February 2004*

## *Program*

**7 to 8 January - Tasmania Midlands Grasslands Tour** - Its possibly not too late to join us for FOG's two-day trip to see Tasmanian grasslands. Louise Gilfedder, who was at the Third Native Grasses Conference, will be leading us. On the first day we shall put aside a couple of hours to talk about grassland conservation in Tasmania and the mainland. For more information, talk to Margaret (details back page).

**Saturday 22 February, 4pm - FOG's Annual General Meeting, Mugga Mugga Education Centre.** Short but fun AGM followed by a traditional free barbecue (bring own drinks). This is an important annual event for FOG to discuss its broad direction, elect a new committee, and to relax and enjoy the wonderful environs of Mugga. So please put this in your diary now.

## *Membership renewal*

*Margaret Ning*

I was really encouraged by the goodly numbers of renewals that came in over the last couple of months, and I am daring to hope that similar numbers will send their renewals in response to this reminder. I find this time of the year a little daunting in respect of what needs to be done, and every promptly-despatched renewal makes life much simpler for me, so please pop yours in the mail when you get a free moment. We have included another renewal slip for those who have not yet renewed so that you will know if this affects you - you don't need to go searching for your chequebook to check the stubs! We have kept fees to their current low levels: \$20 for individuals and families, \$50 for corporate members and \$5 concession for those on social security benefits. Donations are welcome as the budget is tight. If you have any doubts about rejoining, remember we need your support. Many thanks to all of you who have already sent in their renewal.

## *Important notice*

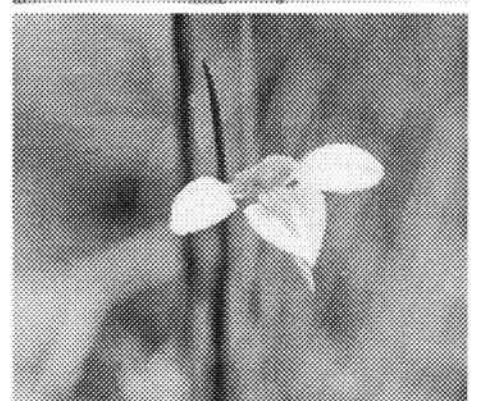
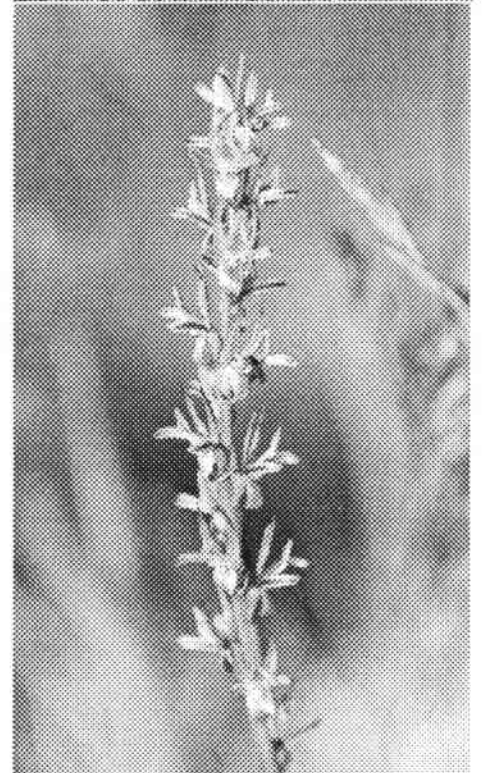
*Di Chambers, Vice President*

2004 will be a challenge for Friends of Grasslands as Geoff Robertson and Margaret Ning have decided to pull back somewhat, although still remain active members. Geoff will not renominate for President and Margaret wants to give up the responsibility for organising membership and activities. The committee has decided that it needs to find several people to take on a range of defined tasks and would like to hear from anyone who can assist in any way. Please contact me or Roger Farrow (details on back page) if you can be of any assistance. As another step, the committee decided that we should create a second vice president position while leaving the overall number of committee positions, including office holders, at sixteen. Hence the next notice to change the constitution.

## *Notice to change constitution*

The committee proposes at the Annual General Meeting (22 February) to amend the FOG constitution in Part III, Section 12, parts 1 and 2, to create a second vice president position and maintain the number of committee positions at 16. This will require amending:

- (2)(b) to read "two-vice presidents" and
- (1)(b) to read "11 ordinary committee members".



*Three of seven orchids seen on Sub-alpine weekend: A Bird Orchid, a Leek Orchid and a Golden Moth.*

## Stipa and FOG: Third Native Grasses Conference

*The Third National Native Grasses Conference: Sustainability and Beyond held in Cooma on 26, 27 and 28 November was a great success. We include several reports. More from the Land in our next issue.*

### *Beyond Sustainability*

Aristida

The conference began in Cooma on 26 November with a series of visits to two local properties and two travelling stock reserves.

The two days of papers began on 27 November with John Williams from CSIRO making it clear that the problems we face are: water extraction and water for river health; land clearing; biodiversity loss; soil nutrient depletion; soil acidification; soil structure decline; soil biodiversity decline; and dryland and irrigation salinisation.

John was followed by Andrew Campbell from Land and Water Australia who spoke of the need to manage whole landscapes, the need for farming systems which can be scaled up pretty quickly and shut down instantly, and that our thinking needed to be governed by the triple helix of landscapes, lifestyles and livelihoods. Some of the sessions are the subject of a brief summary below.

#### **Regional landscape management**

Neil McLeod from CSIRO began the session on regional landscape management by providing an exploration of the ecological design principles for sustainable landscape management and some practical issues with applying them.

Geoff Robertson said that unless we restored our ecosystems on a landscape scale we faced further loss of biodiversity and consequent problems, such as salinity, poor soils and poor water outcomes.

Kerry Pfeiffer from the South East

Catchment Management Board noted that in developing its programs the Board had endorsed the ideas put forward by McLeod and others that the landscape management objective is "optimise productivity (for economic and social sustainability) without compromising ecological sustainability, including the maintenance of a substantial portion of the flora and fauna." The Board is implementing the ideas put forward by McLeod and his colleagues.

*Request from Sarah Sharp for help: I am helping Mal Pryor (St Marks) to get a team of people together to cut and collect Themeda hay for laying in various areas that have been disturbed (outside the St Mark's grassland) and areas that have been sprayed out for weed control. It should take half a day and we plan the activity on 7 January (morning), or thereabouts. A warning, you will get covered in hay. Can volunteers contact me by e-mail sarah.sharp@act.gov.au.*

#### **On-farm conservation in productive systems**

George Taylor showed the benefits of a conservative stocking approach and the use of native pastures over a period of 35 years in the central west of NSW. Jann Williams showed that the Land Water and Wool program was beginning to demonstrate that by documenting the management practices of woolgrowers, it could be shown that profitable enterprises and high levels of native biodiversity can go hand in hand.

#### **Enhancing functionality**

Ken Hodgkinson began by pointing out that native grasses are adapted to infertile soils, drought tolerant, adapted to fire, supplement a unique biota, tolerant of periodic grazing and insect herbivory and provide significant ecosystem services. He pointed out that grassland services include water filtration, pest control, waste assimilation and the prevention of soil erosion. He thought that dysfunctional landscapes are 'leaky' and scarce resources are easily lost. He wanted more thought to be given to targeting maintenance of grassy ecosystems and to getting the market signals right.

Meredith Mitchell spoke about a project whose long term outcome is to lower

rates of salinisation, improve stream water qualities and lead to better managed native grass pastures across a large area of NSW and north east Victoria.

#### **Sustaining biodiversity in regional landscapes**

Wal Whalley argued that managing grasslands for animal production is usually contrasted with management for conservation outcomes but he suggested that the proper use of domestic animals in grassland management can be entirely consistent with conservation goals. He presented evidence concerning changes that may have occurred in the topsoil during the last 200 years and the effects of topsoil degradation. He suggested that animal management for building topsoil will enhance both animal production and the conservation of grasslands - it would be based on using large numbers of animals for short grazing periods followed by long periods of rest.

Nicky Bruce then spoke on the use of grazing to maintain the grassland element in Terrick Terrick NP in Victoria. She stressed the need for a flexible management approach, managing for heterogeneity at a landscape scale to maintain grassland mosaics and enable rapid on-ground responses to emerging problems.

#### **Socio-economic aspects**

Robyn Villiers Brown spoke on the changes in mind set that are needed to protect ecosystems and argued that although we have come a long way in recent times we still have a long way to go to convince people that some changes are necessary and that further legislation may be required to reach this goal.

Richard Taylor asked whether profitable agriculture and achieving good environmental outcomes could sit together. He argued that for farmers to fully maintain their resource base they needed to be economically viable. This means being highly productive, which in his environment at least, is not compatible with maintenance of the natural ecosystem. He did say that the low value agricultural land could be converted to conservation.

#### **A reflection**

I think that we have some way to go to get the population at large to recognise the value of biodiversity for its own sake

### *In this issue*

- Stipa and FOG Third Native Grasses Conference
- News roundup
- Plains-wanderer :habitat management
- Fascination with a Magnificent Spider
- Austral Bears-ear; a native 'broad-leaf'

and for its provision of ecosystem services. There is clearly a lot of short-term thinking that simply does not recognise that change is needed for our survival.

## Behind the scenes

Geoff Robertson

Well it is now all over and by every measure a success. I thought I might provide a little of the behind the scenes information and fill in a few gaps the others have missed.

Serious planning began about twelve months ago when Stipa and FOG organised a bus trip to see some of the Monaro grasslands and a meeting in Cooma to discuss how we might proceed. It was not just Stipa and FOG involved, many other individuals and organisations from the Monaro played very important roles but the members of the committee were for the most part Stipa and FOG members, often both.

A special tribute needs to go to Christine McRae (conference coordinator) and Sue Rahilly (Stipa President) who seemed to pick up the ball when it was loose on the ground. They also brought with them a wealth of experience in organising conferences, as did many others, including FOG members.

I was very impressed with the self-selected group who sorted out what papers and presentations should be made at the conference. From numerous applications to present papers and posters the group drew out a number of themes and often went back to proposers with suggestions of change and combinations. Hence emerged the themes of regional landscape management, on-farm conservation in productive systems, knowing your plants, enhancing functionality, sustaining biodiversity in regional landscapes, and socio-economic aspects/bringing it all together.

The advertising for the conference was well organised and no doubt facilitated the huge interest in terms of the number of high-quality papers that eventuated. The final count was that 260 participants registered for the conference.

In what has become a Stipa and FOG standard, the forty-six papers and presentations were bound into a 240-page

booklet. This is a huge wealth of information on native grasses, sustainable farming, ecology and grassy ecosystem conservation.

The Tuesday before the conference was pretty busy as the conference bags were packed and the conference hall organised. But there was a good feeling amongst the behind-the-scenes workers and a noticeable lack of tension.



Listening to words of wisdom:  
Photo from *Cooma-Monaro Express*

The first day of the conference was a bus trip attended by 175 participants, unfortunately several people had to be turned away. To quote Sue Rahilly "the feeling of being on the roof of the world, with the clouds skimming past just outside the bus window, casting shadows over this vast landscape, is indescribable" (*Stipa Newsletter No. 26*). The bus trip was organised by David Eddy and Tim Fletcher, two of the committee, and visited Kia Ora, Severn Park, and two TSRs. The visitors saw many of the Monaro's treasures though the flowering overall was a little disappointing.

There were no dramas and the catering and technical support provided by very competent local businesses was extraordinary. Not a few people commented that this was the best-organised conference they had ever attended.

The presentations and posters were most impressive with many excellent images to suggest why grassy ecosystems need conserving. Many are worth special mention, but another time maybe.

Media coverage was good and we have reproduced some of it here. The *Land* and the *Cooma-Monaro Express* ran very good stories, although maybe some of the conservation stories got a little lost. Both Stipa and FOG had their logos published in the *Land*. Both the local

ABC and radio commercial stations ran long interviews on the event.

May I say on behalf of FOG that Stipa and company were excellent partners and our individual reputations have been greatly enhanced. It was a great pleasure.

## Conference, emphasis on native grasses

Cooma Monaro Express, 2 December 2003

SUSTAINING native grazing land while still maintaining commercial returns was the theme of the Third National Native Grasses Conference held in Cooma last week.

The annual convention hosted by Stipa in conjunction with the Friends of Grasslands

Organisation, brought about 300 graziers, environmentalists, students and Government Department representatives from all over Australia and abroad to Cooma.

The conference began on Wednesday with a field trip to two Commercial grazing properties and two Crown Land reserves.

On Wednesday night a meet and greet cocktail party was held at the multi function centre, allowing people who hadn't already, to register and to collect their conference information.

Days two and three of the seminar were based in Cooma.

Opening the convention on Thursday morning were Chief of CSIRO Land and Water, Dr John Williams and Director General Land and Water Australia Andrew Campbell.

A number of presentations were given during the day with a particular focus on on-farm conservation in productive systems and knowing your plants.

Private consultant, ecologist and botanist Kevin Thiele gave an insightful speech on his development of conservation management networks.

Another key speaker included local Kerry Pfeiffer who gave a presentation on the Snowy Monaro Biodiversity Strategy. The strategy has received State Government funding for its weed strategy, research and development into

vegetation in the area, the development of vegetation mapping and its work in the preservation of local threatened species.

The strategy is currently undertaking work on two pilot plots of land in the Dalgety area.

Friday, the final day of the conference, involved again a number of presentations by a variety of speakers. Focus topics included, enhancing functionality, sustaining biodiversity in regional landscapes and the socioeconomic aspects of native grasslands sustainability.

Giving an interesting presentation was Wal Whalley, a retired Professor of Botany at the University of New England. Mr Whalley spoke on two topics; the genetic providence of native grass seeds and managing the rebuilding of top soil using vegetation.

Conference Coordinator Christine McRae said Stipa was thrilled with the success of the conference.

"It was better than we could have ever hoped or dreamed of, it was absolutely great."

"At lunch on the first day we counted 258 people, it was just fabulous."

"The majority of attendants were departmental officials, there were a smattering of farmers, people interested in the environment, private native plant sellers, people from botanic gardens, conservationists and local council representatives," Ms McRae said.

With the theme of the conference sustaining native grasses while still maintaining farm profits, Ms McRae said farmers are slowly coming to terms with the idea of grass conservation.

"Farmers are gradually coming around to the idea."

"Farmers must realise that they need to back off on stocking to allow grasses to recover."

"By relying on native grasses, farmers, may not make as much money but their inputs will be far lower therefore making their profit margins much higher," Ms McRae said.

Stipa and Friends of Grasslands decided around 18 months ago to have the conference in Cooma. Member of the conference organising committee David Eddy said, there is a lot to be learn from

the Monaro's management of native grasslands.

"The issue of sustainable native grasslands is an issue that people have been considering for a long time now."

"On the Monaro people have taken the initiative to nurture the grasslands. People from different areas are looking to this area as an example of what to do in the sustaining of native grasslands," Mr Eddy said.

## *Wanted smarter farming*

*Peter Austin  
The Land, 4 December*

FARMERS have been urged to make stronger demands of the science community and extension providers to help them develop and implement farming systems more compatible with natural resource conservation.

At the third biannual National Native Grasses Conference, held over three days at Cooma last week, the 250 delegates from five States heard repeated pleas for more targeted research and advice directed at better landscape management.

The scene was set in the official opening address to the conference presented by Andrew Campbell, the executive director of Land and Water Australia - a federal research and development corporation specialising in natural resource project funding.

Mr Campbell, himself the owner of a grazing and agri-forestry property in western Victoria, said it dismayed him to see the proportion of public research dollars still being allocated to work such as 'phalaris cultivar trials' when there were so many more pressing needs.

"If we were starting afresh in Australia today we'd establish very different systems to those that our forefathers introduced," he said.

"We'd look at systems more in tune with our extremes of climate variability, able to be scaled up quickly to take advantage of good seasons and shut down immediately in bad seasons.

"We'd look at systems that didn't leak nutrients and water like our present systems do, and that made more use of our native species.

"But apart from one project looking at oil mallee in Western Australia, I don't know of any large-scale research under way to support the development of these much-needed systems.

"We need you (farmers) to be more demanding in terms of how your levies are spent; make sure you are getting the landscape science and the extension that will suit modern farm management."

Mr Campbell said it was now being realised by policy-makers and land users alike that natural resource conservation could not be adequately achieved just by "fencing off the odd patch of bush or creek".

It was the management of the land between those fences - in other words, productive farmland - that would determine the success or otherwise of conservation and biodiversity efforts.

The issue was taken up later by Central West farmer, Matthew Barton, during an outline of his experiences with pasture cropping (sowing winter crops into unploughed native pasture) on his Wellington property, 'Baragonumbel'.

He said it "astounded" him that profitability and ecological sustainability were still viewed in isolation by policy formulators - at times even "inversely correlated".

"There is a huge danger in relying largely on the scientific community for solving problems with natural resource management," he said.

"The reductionism that is part and parcel of scientific discovery and proof does not lend itself to observing whole ecosystems or, for that matter, agricultural systems.

"Combine that with an agricultural extension service that is increasingly focused on funding sources and the next funding round and it comes as no surprise that these services are becoming increasingly irrelevant to mainstream agriculture."

Instead, Mr Barton said, policy-makers should be looking to farmers - who had to operate within the bounds of profitability and peer acceptability - as a source of worthwhile agricultural innovations, and supporting their efforts.

*NEXT issue we will bring you more material on what the Land had to say on 4 and 11 December 2003.*

## News Roundup

### FOG field trip to Royalla

Benj Whitworth

On 8 November 2003, Maryke Booth invited Friends of Grasslands and the Royalla Landcare group on a walk around her 23 hectare grassy woodland property at Royalla, situated south of Canberra along the Monaro highway. A beautiful sunny morning was shadowed by a large dark grey cloud in the west that threatened to drench us, but only really sprinkled. Rainer Rehwinkel led the walk, which was really more of a scattered wander, as we passed from open grassland into stringybark and applebox woodland on a slight ridge. Some early plants spotted included many yellow flowering Hairy Buttons (*Leptorhynchus squamatus*) and an occasional Button Everlasting (*Helichrysum scorpioides*) as well as (green) curved rice flowers (*Pimelea curviflora*). Small patches of Donkey Orchids (*Diurus semilunulata*) were found amongst twigs and rocks, while Tiger Orchids (*D. sulphurea*) were common and spread more intermittently throughout the woodland towards the west end of the property as were very large heads of the Copper-wire Daisy. Right in the NW corner was a spectacular stand of blue/purple 'Royalla daisy' (*Calotis* sp.). Walking east along the northern fence-line groundcover was sparse, probably as a result of the drought, past grazing pressure, as well as being on a slight ridge, while the neighbouring property (north) had a dense lower storey and groundcover including many plants, including Tiger Orchids in flower. We could see numerous egg and bacon peas flowering, probably *Dillwynia sericea* and also some *Oxylobium*, Tiger Orchids and Guinea Flowers (*Hibbertia obtusifolia*).

Marnix was lucky to see a speckled warbler in this area. After a short break admiring the new shed (getting out of the rain) we forged on spotting White winged Choughs, which are common on the property, hearing both western and white throated Gerygones calling near the dam, and seeing a pretty pair of Leaden Flycatchers, all birds being good indicators of quality native habitat. The improved pasture on the south eastern side of the property harboured fewer na-

tive plants but still produced some good surprises including rice flower (*Pimelea glauca*) and Greenhood Orchids (*Pterostylis cynocephala*).

The walk provided interesting gradations between grassland, woodland and more improved pasture. Maryke is justifiably proud of her property and hopefully with recent rains the lower storey of some of the grassy woodland will recover from past grazing pressures. The 23 or so people on the walk enjoyed the plants, animals and diverse company.



Lunching on a board walk in Micalong Swamp 13 December 2003.

### Packers Swamp

Alan Ford

On a sunny Saturday 29 November FOG went to Packers Swamp, which is in the Tantawanglo region in south eastern NSW at the top of the coastal escarpment. You don't realise it is there until you come round the corner and there, in a quite bizarre situation, is this expanse of grass-like sward surrounded by the eucalypt forest. Apart from the usual excitement when somebody found a copperhead retreating under the nearest available log we spent the time trying to ascertain what we were looking at. That was made easier by the fact that we were led by Jackie Miles.

I listed around 45 native species in the swamp itself. You have to be careful to avoid getting wet feet (gumboots are obligatory) and to exclude the plants outside the swamp itself.

The prize of the day went to the leek orchid (*Prasophyllum wilkinsonorum*) but there were other things to keep us guessing in familiar genera that had strange, unfamiliar species in the

swamp. I think particularly of the daisy (*Xerochrysum (Bracteantha) palustre*), the little *Viola caleyana* or the *Stellaria angustifolia*. In these or other cases their close, familiar, relatives were sitting close by in the surrounding forest.

There were two heath (*Epacris*) species and at least two *Ranunculus*, to say nothing of the swamp specialist in the genus *Baumea* and the usual unknown *Juncus* sp.

The swamp is not that hard to find and well worth a visit, you have to avoid the snakes and take the gumboots - they help to keep the leaches at bay.

### An early Christmas gift

Grassland Reporter

Being so close to Christmas (13 and 14 December) the numbers for this trip were a little low, but the twelve or so people who participated were treated to an early Christmas. Margaret Ning described McPhersons Plain as the best grassland she had ever seen - more on that later.

Most of the Canberra mob turned up gradually on the Friday night and were delighted by the antics of some brush-tail possums in the caravan park at Tumnut.

The first stop on Saturday was Micalong Swamp reserve, the largest montane swamp (the reserve is 526ha) on the NSW slopes and ranges, and is on the Register of the National Estate. Kylie Durant had brought along some additional guides, Harry Hill, the author of the guide on the Hume and Hovell track, and Warwick (Department of Lands) who has responsibility for managing the track. Both were extremely knowledgeable and gave excellent and simple answers to questions.

We visited three parts of the swamp. The swamp is owned by State Forests who had planted the area with pine trees. Now that the swamp had been recognised for its ecological values, the pine trees along the swamp were being thinned and/or removed, leaving in places a *Pinus radiata* grassy ecosystem - yes as the pines were thinned or removed the indigenous herb understorey was re-establishing itself.



The first part of our walk was along part of the Hume and Hovell Track which makes its way alongside and in places through the swamp. It was fascinating to see many flowering plants including many daisies, but the first treat was several Potato Orchids (*Gastrodia* sp.) even if they were slightly past their prime.

At an elevation of 900m, the swamp is montane rather than sub-alpine and has areas of both heath and Poa grassland, *Carex* fen associations and open, wet sclerophyll forest. A management plan is being developed for the swamp by State Forests, the managers of the land and aspects of its ecological, historical and cultural heritage significance are being investigated.

Hume and Hovell recorded that the swamp was burnt by Aboriginal people to improve the pick for herbivores. However, it was of little pastoral value. Fire is very infrequent, the last fire occurring in the nineteen twenties.

The swamp has been heavily grazed in the past and we were keen to see how well it had survived the drought - remarkably well. Kylie had mentioned that she wanted the opportunity to add to the ground-layer species list together and she and Margaret attended that task most conscientiously!

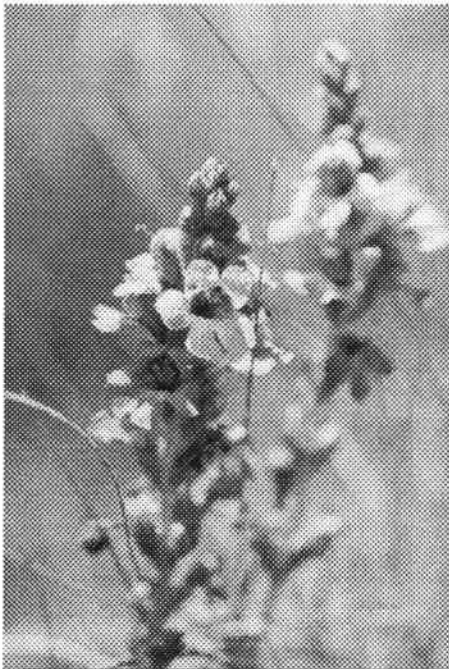
The second stopping point was a vast area of the swamp. There was some sloshing around to reach some out-of-the-way plants only to find later that they were accessible from the board walk. This was a very impressive site. The nearby woodlands also held many treasures, and yielded up a wonderful Bird Orchid (see photo on cover page).

The final stop was a grassland cum woodland, and while a little weedy, had a proliferation of forbs and grasses. Kylie and Warwick were considering whether this should be added to the reserve area to be managed by State Forests - it was agreed that it should be. Harry lifted up some tin and found a legless lizard but could not tell us which species. At this site we saw our third orchid for the day - one of the yellow doubletail - Golden Moth (photo - cover page).

The final Saturday stop was the Tarcutta Swamp, another montane swamp between Batlow and Tumbarumba, and the headwaters of the Tarcutta Creek. It is a heath swamp with sphagnum in places, surrounded by pine forests. Unfortunately, as most of the swamp was on private land we were restricted to visit-

ing one area. While very different to the Micalong Swamp, we were delighted by many different forbs, including a very large population of Milkmaids. Also the swamp had an active population of Bandicoots.

Saturday evening was spent in basic but delightful accommodation overlooking McPhersons Plain. The setting was grassy woodland, with tall wet sclerophyll trees. While used for recreation activity it had great potential as remnant woodland. Time was spent talking over the day's events, sorting out plants, and talking to the locals and their views of the country.



One of a million Eyebright seen on McPhersons Plain.

On Sunday morning McPhersons Plain was dew-covered and so from a distance was silvery white. After a leisurely breakfast we made our way down to be greeted by Jim Kelton, one of the leaseholders of a large section of McPherson Plain (1100m) which is grassy wetland system on the edge of the sub-alpine zone. The Plain is a mixture of private and leasehold land, and three adjoining landholders have recently fenced the area from cattle to manage it better. It experiences pressure from travelling and agisted stock through the summer and autumn, as well as brumbies.

The first delight was Jim's pack of dingoes which came bounding towards us - first time I have had five dingoes jumping all over me. Then a wood duck, with babes nearby, feigned injury and keeping just ahead of the dingoes, took them about half a kilometre off.

Then we started to see the numerous swards of most unusual colours made by the different Poa grasses and flowers. We saw millions of Eyebrights and Golden Moth Orchids. We also saw healthy populations of three different species of Leek Orchid (one is shown on cover page).

Kylie was keen to add to the existing species list, to help develop a management plan. So again she and Margaret got to work, comparing notes with Jim.

Our next planned site was Tomneys Plain but we never made it there - maybe another time.

### McPhersons Plain

Alan Ford

While wandering through the orchids - that is what happened on this site - trying not to step on one and thinking of nothing in particular, I was struck by the thought that this is what the country must have been like a long time ago. We had two genera of orchid, *Diuris* and *Prasophyllum*, but don't ask me about the species involved. A similar situation existed with the Poa grasses. There were a number of species present and it would take someone some time to work it all out.

One of the interesting things about this site is that it is surrounded by typical high country forest and has grassy and damp areas within the plain. While the plain is managed by a number of individuals their priority is the conservation values that become very obvious after you have been in it for five minutes. There are very few weeds on the plain itself while the forest areas are beginning to suffer from the invading St John's Wort.

In recording the species list it was clear that we had to differentiate between the surrounding forest and the damp and dry areas on the plain itself. For instance, in the wet area at one point we found a little *Montia* - something you don't find every day. A little above that the small flowers of a Swainson pea allowed us to speculate as to the species involved. That is what the morning was like really, just one incredible thing after another, while some could be identified, the rest were a mystery. Perhaps that is the secret of the plains adjacent to the high country, a hidden diversity which makes their conservation a necessity.

Our thanks to Kylie Durant for making it possible.

## STEP news

The Southern Tablelands Ecosystems Park, "a future regional botanic garden, education and ecosystem recovery centre" has produced its second newsletter - *STEP news*. It provides an explanation of STEP's objectives and other news. It includes two articles on botanic gardens, including some interesting statistics on the 150 botanic gardens established across Australia. The newsletter describes two proposed projects: one a book on plants of the Southern Tablelands and the other a Powerpoint display on reptiles of the Southern Tablelands. We have reprinted one news item on the ACT woodland school program below. FOG actively continues to support STEP.

But the biggest news is Shirley Pipitone's completion of her *Step into Amaroo* project which was part of her Masters of Landscape Architecture Course, University of Canberra. This examines how a site in North Amaroo could be used to establish STEP. More information is included in *STEP News*.

On 9 December Shirley's work was displayed in a STEP function held at the Canberra Museum and Gallery Centre. Congratulations STEP and Shirley.

Copies of *STEP news* can be obtained from Cathy Robertson (see details back page). By the way FOG members can join STEP for \$10 annually.

## ACT woodlands school program STEP Reporter

Environment ACT, Urban Services, and the ACT Government's 'building our city and building our community' have produced a resource kit (a teacher's resource book and a student workbook), entitled *Grassy Woodlands: Natural Habitats of the ACT*. The program is described as a fascinating local environment education program for Years 4-6.

The education outcomes are listed are very broad, and do not list for example 'an understanding of grassy woodlands as a functioning ecosystem'.

The workbook has five sections: what and where our grassy woodlands are and

why they are special; what threatens them, what plants and animals belong there; how Aboriginal Australians used them; and how they can be conserved. Each section has some great ideas. However, I am left with the uneasy

I would recommend to readers that they find out if it is being used by a school, with which you have contact, and encourage its use. You might also offer your services so that some of the weak points may be better addressed.

*Republished from STEP News, December 2003.*

## Riverina bioregion assessment

Geoff Robertson

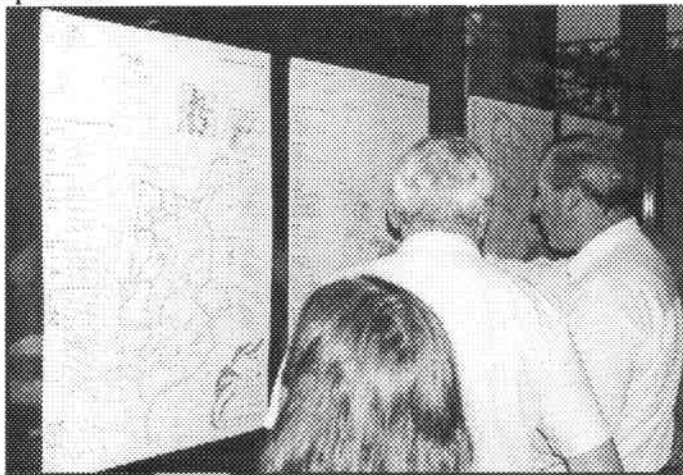
On the 29 and 30 November, I attended, at the invitation of the National Parks Association of NSW, a workshop on the Riverina, held in Griffith, to discuss the proposed NSW Government two-year Western Regional Assessment (WRA) of the Riverina bioregion.

The workshop was jointly organised by the Murrumbidgee Field Naturalists and the Riverina Environment Council and therefore I was able to catch up with some of the people who had participated in FOG's Hay Plains Grassland tour in September 2001 (see November-December 2001 Newsletter). As an aside, Rick Webster mentioned to me that there was great excitement about a Greenhood Orchid that we had found in South Burrabogie. This had recently flowered, as had a similar orchid found in Terrick Terrick. But I digress.

The proposed NSW regional assessment was seen as an opportunity to take stock of remnant vegetation, to achieve tenure changes on public lands, to improve conservation of natural values on private lands, and to improve natural resource management.

There were many informative presentations which gradually built up a picture of the local area, the vegetation mapping, government structure and processes, and the experience and skills of the different participants, especially the National Parks Association. For FOG's contribution, I outlined our approaches and experiences, using the presentation I had given at the Stipa-FOG Conference. This underscored what a number of other participants were advocating.

Rick Webster presented maps on the ecosystems of the Riverina Bioregion that had been compiled for the draft Riverina Native Vegetation Management Plan. This included pre-European vegetation type, the current extent (not



People looking at Shirley Pipitone's STEP into Amaroo landscape concept design. Below Shirley talking to Anne Burhop.



feeling that the student may not be left with a true understanding of what makes Yellow Box/Red Gum Woodland different from other ecosystems, what the common species of these woodlands are, and practical things students can do to protect such areas.

I thought the kit had real problems in describing a typical woodland, and the material on the three layers of vegetation is misleading. There is too much emphasis on threatened species which students are unlikely to see, and little information on plants that they might become familiar with. However, given this is a first and a valuable contribution, I do not wish to over focus on possible weaknesses. I am not a teacher and this makes it hard to judge the quality of the product.

quality) of vegetation types, and priority areas of concern eg Plains Wanderer, Superb Parrot habitat, and the regionally most endangered vegetation types – Grey Box, Boree/grassland, and *Callitris* communities. In his view, there is enough information already to identify areas that deserve special attention for improving conservation. He referred participants to the *Native Vegetation Guide for the Riverina* (Kent, Earl, Mullins, Lunt and Webster 2002).

By day's end, there was more or less a consensus of what needed to be done and certain gaps in a possible strategy had been identified. For FOG's part we will stay in the loop and provide whatever support we can. On Saturday evening we joined the local Field Naturalists for their Christmas party - very pleasant.

On the Sunday Rick took us to a number of sites: Fivebough Swamp, Cuba Lagoon, Crown lands north of Coleambally, and Boona State Forest, which illustrated the different vegetation communities and a range of conservation and management issues that would need to be considered as part of the assessment.

### Sun Moths preyed upon

Benj Whitworth (5 December) reported that the Golden Sun Moths (a threatened grassland species) are out and about at York Park, on National Circuit almost opposite the National Press Club. Quite a few males were flying, even at 1:30 and the starlings and common mynas were having a field day. Another effect of habitat fragmentation on a threatened species, with reduced core habitat size, is that predators find it easier to prey on the moths.

Benj also saw one female, which did fly for 10cm, but walked the rest of the time. She laid eggs at the bottom of about 10 clumps of grass, preferring the taller grass (the area was mown), following a zig zag pattern for walking and egg laying. In the end she covered possibly 4m before having a rest.

### Lanyon High School

Lanyon High School in Conder has its own Landcare group, and the teachers and students there have participated in a number of projects near the school. A

glass house has recently been build and the students are now propagating native plants for use in planting out in various projects. They also wish to collect and use local native seed in their work, but are limited in their knowledge of the local flora. FOG has offered its resources to assist them with native plant identification, as well as with their understanding of the local flora and ecosystems.

### Tuggeranong Homestead Woodland Jenny Horsfield

Residents of the Tuggeranong Valley who travel down Ashley Drive regularly would be aware of the woodland and open paddocks which form the western boundary of the historic Tuggeranong Homestead and which provide a glimpse



Tuggeranong Homestead Woodland:  
Photo by Jenny Horsfield

of an older, rural Australia in the midst of suburbia.

Over the past six months this area of the Homestead property has been the site of work for a Natural Heritage Trust project, which is funded by the Commonwealth Government.

MOTH (Minders of Tuggeranong Homestead) have been carrying out some essential landcare work in the woodland, which is a remnant of the Yellow Box/Red Gum grassy woodland which used to cover much of our territory.

MOTH, using an Envirofund grant and with the help of Conservation Volunteers Australia, have had all the blackberries poisoned and cleared, as well as other invaders like Patersons Curse and horehound. In Pike's Paddock which adjoins the woodland, the enormous clumps of blackberries which have grown unchecked since the 1970s, have

been poisoned, exposing the numerous burrows that have built up and harboured scores of rabbits. Also exposed by the drying up of the blackberries, are historic remains of an old cottage built in the 1840s by Martin Pike, after whom the paddock is named.

Graham Blinksell, Vertebrate Pest officer for Environment ACT, has, in liaison with MOTH, been overseeing a rabbit removal program over the last two months. An attempt to poison the rabbits with bait was not very successful and a fumigation of the burrows will begin shortly.

On the weekend of 25/26 October a burn off was conducted in Pikes Paddock to remove the blackberries and dead willows, after these had been dragged into a cleared space away from the historic Stone Pines in the corner of the paddock. The burn off was conducted as a training exercise by Guises Creek Fire Brigade, who appear regularly at the Tuggeranong Homestead market days.

With the removal of the rabbits and the blackberries that harbour them, it is hoped that the woodland will recover some of its natural grasses and even some of the plants which were used as foods by the Aborigi-

nal people who camped there before the days of white settlement.

### Far too complacent Grasscover

I read with horror recently an article published in the Canberra Times (20 Sept 2003) by Rosslyn Beeby stating that Canberrans are a city of eco-pikers, but the material she produced was convincing. She had compiled material from various reports which showed that Canberra is struggling to reduce its greenhouse emissions, consumes a huge tonnage of illegal firewood (threatened woodland bird habitat), loves to pour water and pesticides on our gardens, and has the nation's lowest participation rate in volunteer conservation activities.

The list goes on: reluctant to save water, use environmentally friendly cleaning products, and second highest level of native vegetation loss in 200 years. While Canberrans have the highest level of environmental concern, in reality they are reluctant to translate thought into action.



## Plains-wanderer Habitat Management

NSW National Parks and Wildlife Service (NPWS) and Greening Australia have published *Plains-wanderer Habitat Management Guide*, which is a photographic guide for visually assessing the grassland structure of Plains-wanderer habitat.

The endangered Plains-wanderer (*Pedionomus torquatus*) is a small quail-like bird that has declined greatly in numbers and distribution since European settlement. The loss of low open native grasslands in southeastern Australia has meant that the NSW Riverine Plain, which until recently has seen little intensive agricultural development, now supports the vast majority of the national Plains-wanderer population. The current population on the NSW Riverine Plain is about 3,100 birds, though this number could drop to below 1000 birds in drought years.

A draft Recovery Plan for the species was on public exhibition until 31 March 2003. The plan aims to protect, reserve and enhance remaining Plains-wanderer habitat. NPWS has already purchased the 22000 hectare Oolambeyan National Park, which contains a significant proportion of high-quality habitat and good numbers of breeding Plains-wanderers.

The most effective approach to managing Plains-wanderer habitat on private land is maintaining the appropriate structure and species composition of its native grassland habitat. The

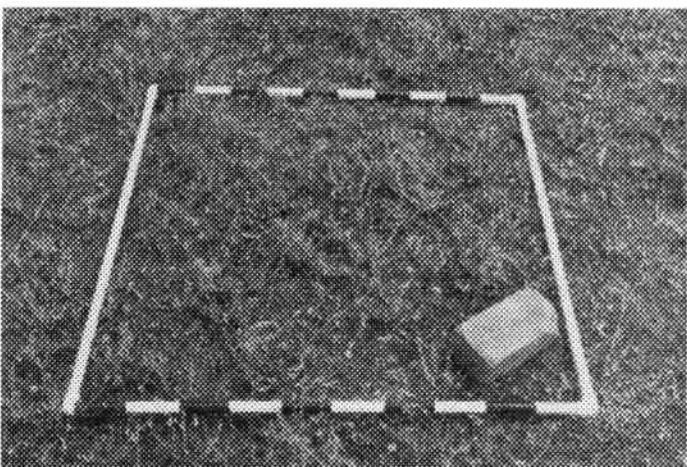
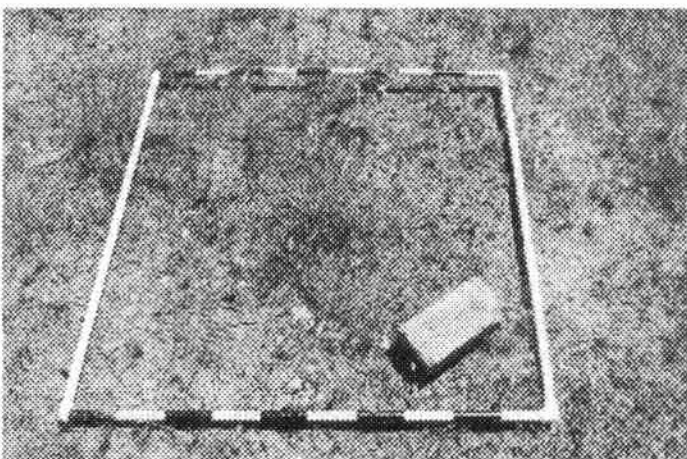
Pictures from the Guide. Below, the right vegetation cover when grass is brown and when grass is green. Other pictures show too much and too little vegetation for managing Plains-wanderer habitat.



future survival of the species hinges on the goodwill of the landholder community across the region to manage the remaining habitat on their properties through adaptive grazing practices. It is recognised that the long-term grazing practices on many family properties on the NSW Riverine Plain have been sympathetic with the existence of the Plains-wanderer over many generations.

Rather than prescribe to landholders a set stocking rate to maintain the appropriate habitat structure, a practical photographic guide would provide a visual tool for assessing whether the grazing pressure in their Plains-wanderer habitat areas is appropriate or not. Grazing management for Plains-wanderers is a voluntary action, but is regarded as a sustainable grazing option that will provide benefits to the Plains-wanderer at the same time as providing economic benefits to landholders. Funding through the Save Our Species program allowed the production of 2000 copies of a high-quality, easy-to-use, photographic guide for landholders on the NSW Riverine Plain. This practical conservation tool will help the community assist in conserving the Plains-wanderer and other native grassland biota.

Since its release in June 2002, approximately 600 copies of the Photographic Guide for Managing Plains-wanderer Habitat on the NSW Riverine Plain have been distributed to landholders and other community stakeholders. Conservation agencies in Victoria, South Australia and Queensland have also been provided with copies of the guide for distribution. It is hoped that in the long-term the outcome of this guide will be an increase in the area of Plains-wanderer habitat that is managed in a sympathetic manner. To obtain a copy of this guide, please contact David Parker, Wildlife Extension Officer, Greening Australia, Deniliquin on (03) 5881 3429 or Damon Oliver, Threatened Species Officer, NPWS Dubbo on (02) 6883 5348.



## Fascination with a Magnificent Spider

From time to time the Newsletter publishes the odd bit of trivia or an interesting photo which poses rather than answers questions. On our Bega trip on 9 October 2002, we saw some interesting spider eggs and included a photo in the January-February Newsletter (page 10). Long-time FOG member, Margaret Howitt wrote a letter to us and attached some wonderful material. We decided that we must publish it, but with apologies to all, we held it over until now. However, the story has lost none of its interest.

### 31 December 2003

Margaret wrote: "I was fascinated by the photos of the egg sacs in the last FOG newsletter. It brought back memories of happy childhood and my first foray into the delights of scientific knowledge. I believe the egg sacs belong to the Magnificent Spider, *Dicrostichus magnificus*. She has a large white satiny body with two large yellow spots and many small orange spots. When I was a child (on a dairy farm in south east Queensland) one such spider made her home in a tree at the bottom of our garden right next to our outdoor dunny. Thereafter all nocturnal excursions with torch or hurricane lantern allowed as to study her habits which included the laborious task of spinning her egg sacs and her ingenious method of catching her dinner.

Encouraged by my mother I wrote to Heber Longman, Director of the Queensland Museum, who was a good man who obviously believed in encouraging scientific endeavour in children. I enclose copies of my drawing and his replies and a later article from the Brisbane Courier Mail.

After building seven egg sacs our spider disappeared and despite the millions of tiny spiders that floated away with the wind we never saw another Magnificent Spider. So it is good to know that they are still alive and well somewhere."

### 16<sup>th</sup> April 1941

H. A. Longman wrote to Margaret Harrison: "The spider you have drawn with its egg-bag is one of the most interesting Australian spiders. It is called the "Magnificent Spider" and its scientific name is *Dicrostichus magnificus*.

The egg-cases contain from 400-600 eggs and take about 8 hours to make but one is completed in a night. About 6 cases are usually made but there may be more.

Each egg-case is very carefully constructed with an inner case containing the eggs separated from the outer covering by a loose packing of silk. The tiny spiders may emerge in about 3 months cutting their way through small holes.

The spider does not build a large web like those of the common garden spiders. Instead it spins a short thread with a sticky globule on the end. The moths on which it feeds are attracted by some means, probably smell, to this and the spider by whirling it round rapidly catches its prey in the snare.

During the day the Magnificent Spider lies in a closely woven "retreat" close to the egg-cases.

We hope that you will be able to continue

your observations on this spider."

### 7<sup>th</sup> May 1941

H. A. Longman wrote again. "Although all spiders have venom glands, I think that the "Magnificent Spider" is not dangerous.

The tiny spiderlings may some times be found beneath leaves, but as most of them balloon-away on silky threads they are difficult to find. Doubtless most of them are eaten by birds and other enemies, but the mother spider does not eat her young.

Probably the "husband" also disappears, for we have only found one specimen apart from the tiny Spiderlings. Usually the husband is very much smaller than the mother spider.

We admired your picture of the Magnificent Spider."

### Queen of Spinners

The article in the Courier Mail, to which Margaret refers, is written by Heber Longman. It is undated. The drawing was included with the article. The article states "on two occasions, my wife and I watched a special spider spinning its cocoons all through the night, and it was well worth the vigil.

This spider is large and handsome, with a cream-coloured abdomen on which are two prominent yellowish tubercles. After months of occasional study we discovered that it has very unusual methods of catching its prey.

Although she does not make a web, she deserves the title Queen of Spinners. Her cocoons or egg-bags are from three to four inches in length, tapering at both ends.

When six or more of these are hanging in a bush or tree they are noticeable objects and as they are not very rare I have had many inquiries regarding them.

There is an inner cocoon, and in this the spider lays a mass of 400 to 600 eggs. The spinning begins soon after sunset and takes about eight hours to complete.

Silk threads are spun at the rate of at least 60 a minute, some 260 movements being made in a single journey up and down the capsule. Toughness is finally given to the outer surface by weaving from side to side.

In this lengthy task the muscular energy expended is, as Dominic Sampson would have said, "Prodigious!" Spiderlings may emerge from the cocoon in about three months, when they spin a fine thread and balloon away on the breeze.

By binding a few leaves together the spider makes a little nest, lined inside with silk, in which it lives. Except for the strong strands for the cocoons and the lines by which it suspends itself, no other web is spun.

We repeatedly found it sucking moths, and close and persistent watching revealed the way in which these were caught. It would spin a filament, usually about 1 and 1/2 inches, at the end of which was a globule of very viscid matter.



On the appearance of a moth, the spider would whirl filament and globule with surprising speed. Moths are unquestionably attracted to the glistening globule and once they touch it are as helpless as a fly on flypaper.

The filament is held by one of the front legs of the spider, the miniature apparatus bearing a quaint resemblance to a fisherman's rod and line.

When this curious method of catching moths was first recorded some people were sceptical, but we have had opportu-

nities of showing it to several scientists and Mr. H. Hacker has actually photographed it.

The supposed desire of the moth for a star is a poet's fancy, but the attraction of the moth to this spider can be seen by any patient watcher. This spider is technically known as *Dictostichus magnificus*. Detailed accounts of its unusual habits have appeared in scientific publications and it is now recognised as a very remarkable species.

## Austral Bears-ear: A native "broad-leaf"

Michael Bedingfield

When I introduced the Austral Bears-ear to a friend with its more fancy scientific name of *Cymbonotus lawsonianus*, she said "Is that a native too? I would have thought it was a weed." Such is the plight of some of our more humble natives!

This plant is a member of the very large family As-

The Bears-ear has a rosette similar to a number of introduced broadleaf weeds. But when it is in flower the low growing totally yellow flower is distinctive. For example, the introduced Capeweed has black flower centres and the leaves are more deeply lobed.



M. Bedingfield.

*Cymbonotus lawsonianus*

Michael Bedingfield, 1998

The plant is found in grasslands and woodlands in the local region, and it also occurs elsewhere in eastern Australia, from southern Queensland to Tasmania. It is moderately common, coping with a degree of disturbance. Perhaps its low growing habit makes it less likely to be eaten. Some daisies with more erect growing habits have their flowers held aloft, are more easily chomped, and as a consequence are more rare.

The genus name for *Cymbonotus lawsonianus* comes from the

teraceae (for daisies and thistles). It is a perennial, and locally begins its annual growth cycle in winter, creating a rosette of leaves that can be up to 25 cm across. In spring, from the centre of this rosette, come a number of bright yellow daisies, with yellow petals and centres. These can be up to about 3 cm across, growing on short stalks. In poor seasons or poor soil the rosettes and flowers can be much smaller. Locally they flower mostly in spring, but in the right climate they can flower anytime. The leaves are a lime green on the upper surface, and underneath are whitish and felt like, and the edges are lobed.

Greek "cymbos" meaning "boat or cup" and "notos" meaning "the back". This refers to the convex back of the seeds. The species name is after William Lawson, the guide to French botanist Gaudichaud when the plant was found. A related and very similar looking species is *C. preissianus* which generally occurs at higher altitudes.

The drawing of the plant is shown at a typical size, although the leafy rosette can be much larger. The Austral Bears-ear - a native plant with a broadleaf look, but decorated in the green and gold of a true Aussie!

**FRIENDS OF GRASSLANDS INC**Web address: <http://www.geocities.com/friendsofgrasslands>**Supporting native grassy ecosystems****Address: PO Box 987, Civic Square ACT 2608**

Membership/activities inquiries: Please contact Kim Pullen or Margaret Ning whose details appear below.

**Your committee:**

Geoff Robertson	President	6241 4065 (h & fax)	<a href="mailto:geoffrobertson@iprimus.com.au">geoffrobertson@iprimus.com.au</a>
Di Chambers	Vice President	6241 3694	<a href="mailto:di.chambers@abs.gov.au">di.chambers@abs.gov.au</a>
Ros Wallace	Secretary	-	<a href="mailto:ros.wallace@act.gov.au">ros.wallace@act.gov.au</a>
Alan Ford	Treasurer	-	<a href="mailto:alford@cyberone.com.au">alford@cyberone.com.au</a>
Rosemary Blemings	Committee	6258 4724	<a href="mailto:roseble@tpg.com.au">roseble@tpg.com.au</a>
David Eddy	Committee	6242 8484 (w) 6242 0639 (fax)	<a href="mailto:MGCMN@myaccess.com.au">MGCMN@myaccess.com.au</a>
Roger Farrow	Committee	-	<a href="mailto:r.farrow@austarmetro.com.au">r.farrow@austarmetro.com.au</a>
Sandra Hand	Committee	6297 6142	<a href="mailto:sandy@wic.net.au">sandy@wic.net.au</a>
Geoff Hope	Committee	-	<a href="mailto:greenhood@netspeed.com.au">greenhood@netspeed.com.au</a>
Margaret Ning	Committee	6252 7374 (w) 6241 4065 (h & fax)	<a href="mailto:margaretning@primus.com.au">margaretning@primus.com.au</a>
Kim Pullen	Committee	6246 4263 (w)	<a href="mailto:margaret.ning@abs.gov.au">margaret.ning@abs.gov.au</a>
Cathy Robertson	Committee	6257 1951	<a href="mailto:kimp@ento.csiro.au">kimp@ento.csiro.au</a>
Michael Treanor	Committee	-	<a href="mailto:mrober17@bigpond.net.au">mrober17@bigpond.net.au</a>
Benjamin Whitworth	Committee	-	<a href="mailto:micwin@bigpond.com">micwin@bigpond.com</a>
Betty Wood	Committee	-	<a href="mailto:benjamin.whitworth@brs.gov.au">benjamin.whitworth@brs.gov.au</a>
Dierk von Behrens	Committee	6254 1763 (h)	<a href="mailto:woodbook@austarmetro.com.au">woodbook@austarmetro.com.au</a>
			<a href="mailto:vbehrens@actonline.com.au">vbehrens@actonline.com.au</a>

***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 Kim Pullen or Margaret Ning, or if you would like to discuss FOG issues contact Geoff Robertson. 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