



# News of Friends of Grasslands

*Supporting native grassy ecosystems*

*July-August 2003*

## Program

**Saturday 28 June, 2pm - Sikkim grassland slides, Mugga Mugga, Symonston**  
Come along for the illustrated version of Roger and Christine's recent Indian Himalayan trek. See advertisement on page 2. Afternoon tea provided.

**Saturday 26 July, 2pm - Alan Ford's winter tour of Canberra grasslands**  
This is Alan's fourth successive winter tour, and he'll focus on the Mt Stranger area. We'll meet at 2pm just off Woodcock Drive, Gordon at the track entrance beyond the suburb (on the right hand side going south, approximately 1.2k from Drakeford Drive). There is sufficient parking at this spot.

**Saturday 9 August, 1.30pm to 3.30pm - Water ecology in grassy ecosystems.**  
Ross Wissing will show us a grassy ecosystem site and explain the natural drainage patterns and their impacts on the chemical, biological and habitat health of water. Ross has been involved in water catchment management for many years. Prior to that he was a grassland ecologist. Meet at Tia Close, Amaroo.

**Saturday 23 August, 2pm - Slides afternoon on the bushfire aftermath, at Mugga Mugga, Symonston**  
This will focus on the past bushfire season looking at various impacts, recovery, etc. Afternoon tea provided.

**Saturday 20 September, 9am to 4pm - Cryptogam workshop, Mugga Mugga, Symonston**  
David Eldridge. This will be both a special and informative workshop. See advertisement on page 2.

**Sat 11 October - 'Woden' property, Tuggeranong**  
We visited this property in winter last year and thought it looked like a great place to visit in a good season.

**Sunday 19 October - Picaree Hill Flora Survey.**  
FOG is organising a flora survey as its contribution to the Picaree Hill Conservation Project. If you have plant identification skills or wish to learn them contact Margaret before 19 October. We need to know if you can participate to ensure the survey's success and for catering purposes. For more information see article on page 3.

**Saturday 8 November, 2pm - Royalla**  
A FOG member has a great patch of grassy woodland, including some interesting orchids, in this new development.

**26, 27 and 28 November - Third Native Grasses Conference, Cooma**  
See news item and advertisement, page 4.

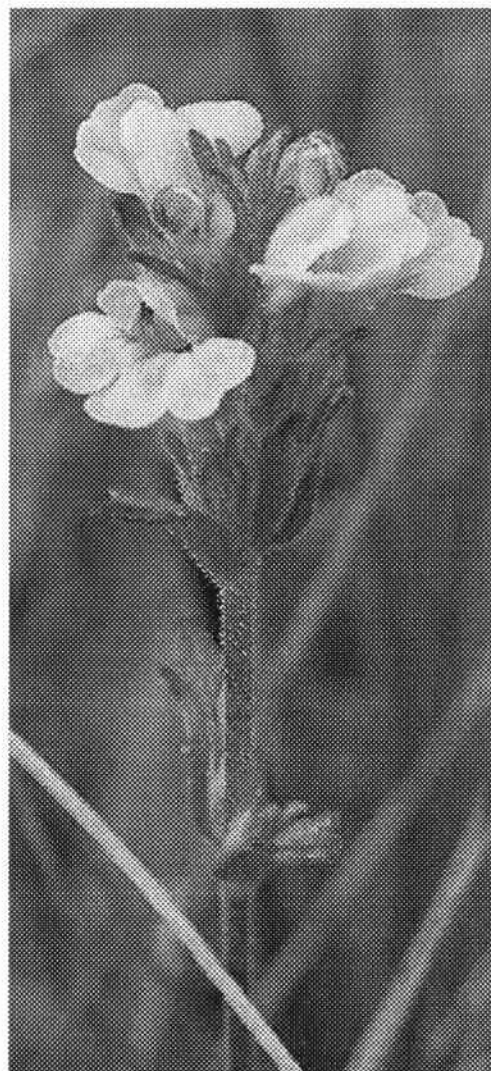
**Saturday 29 November - Packers Swamp (Tantawangalo NP)**

**13 to 14 December - SubAlpine grassland/wetland weekend**  
Kylie Durant will show us Micalong and Tarcutta Swamps and McPhersons and Tomneys Plains. Talk to Margaret about accommodation or just join us for one day.

## And also...

**Thursday 3 July 8pm, Gould Building, ANU.**  
Michael Braby, author of the two-volume *Butterflies of Australia: their identification, biology and distribution* will explain the origins of Australian butterflies and how collecting and rearing butterflies fits in with his work. Hosted by Canberra Field Nats. FOG welcome.

**8 to 10 December - Ecological Society of Australia (ECA) Annual Conference.**  
The ECA Annual Conference will be held at the University of New England, Armidale and will include symposia, an open forum of contributed papers and poster session, postgraduate course, social events and post-conference excursions. Submissions of abstracts for papers and posters are invited. Registration and abstracts should be submitted electronically via the Conference web page <http://www.ecolsoc.org.au/conferences.html> between June and 5th September 2003. Further conference information can be accessed at the web site, or telephone 02 6773 2539 and e-mail: [jreaseigh@metz.une.edu.au](mailto:jreaseigh@metz.une.edu.au).



*Jackie Miles discovers a new population of Euphrasia scabra thought to be extinct in NSW. Article page 12.*

## In this issue:

- News roundup
- Open letter on East O'Malley, Forde and Bonner
- STEP launch
- ACT woodland strategy
- ACT bogs after the fire
- Some rare plants of escarpment swamp margins
- Early Nancy

## NEWS ROUNDUP

### What do you want first - the good news or the bad?

Friends of Grasslands likes to be up-beat and smiling. Since our last newsletter, many things have happened, some good and some very bad. Amongst the positives: Rosemary Blemings won the ACT Volunteer of the Year Award (Environment), STEP was launched, the ACT Government published the lowland woodland review and announced the creation of two woodland reserves (1000ha), and the Stipa Conference is shaping up well. David Eldridge has agreed to present a cryptogam workshop for FOG and Ross Wissing will do a field workshop on water ecology in grassy ecosystems.

But the Government has also announced its decision to destroy East O'Malley and woodland and grassland in North Gungahlin. This has bewildered many people, especially the hundreds of individuals who have worked to save these areas. Our regular correspondent, Aristida, normally a cheerful fellow, also reports on the senseless trashing of a high quality Broad Leaf Peppermint remnant in Fisher Parkland which many a FOG member has visited and weeded. You may recall Maggie Nightingale's article on Fisher Parkland in a recent issue.

### ACT Volunteer of the Year Award

In our last edition, we mentioned that Friends of Grasslands had nominated committee member Rosemary Blemings for ACT Volunteer of the Year Award. She won the award in the environment category. Renee Cutrupi, *Canberra Sunday Times* 11 May 2003 wrote.

"Rosemary Blemings is a highly motivated and committed individual. Volunteer-

### Sikkim Grassland Talk 2pm Saturday 28 June See program Page 1

Christine and I undertook two treks to a relatively undeveloped (tourist-wise) part of the Himalayas in West Bengal and Sikkim to see the wildlife of unexploited montane forests and alpine meadows. We went in April, rather than the more traditional autumn period (with its clear skies), in order to see the spring flower display, especially that of the rhododendrons although we were too early for the alpine display when this region is cut off by the monsoon.

The first trek followed a trail northwards along the Singalila Ridge marking the border separating Nepal, India and Sikkim. We ascended through deciduous and coniferous forest into secondary grasslands (3000m elevation) cleared for Yak grazing and suffering considerable degradation.

The second trek was to the base of Kanchenjunga. We ascended through subtropical, warm and cool temperate deciduous and evergreen forest, coniferous and rhododendron forest, rhododendron heath and finally alpine meadows which ended up being covered in snow. We ascended to over 4000m before turning back in a blizzard unable to reach our final destination on Guiche-La pass at 5000m for the ultimate view of Kanchenjunga.

Roger Farrow

### Cryptogam Workshop With David Eldridge Saturday 20 September, 9am to 4pm Mugga Mugga

Non-vascular plants are common components of grasslands where they form crusts on the soil called a biological or cryptogamic crust and play a vital role in ecosystems. They stabilise soils against wind and water, regulate the flow of water, produce nitrogen and organic carbon, and provide protection for young plants and habitat for fauna.

They are susceptible to trampling, disturbance and fire and as such are good bio-indicators.

David is the author of *A practical guide to Soil Lichens and Bryophytes of Australia's Dry Country*. In this one-day hands-on workshop, you are guaranteed both new knowledge and enjoyment. However, David warns that people interested in plants might find that interest surpassed.

You need to book for this workshop and there will be a small fee to cover catering and venue hire.

Contact Margaret - phone and e-mail details on back page if you wish to participate.

ing an average of 30 hours a week to activities, including caring for the local environment, Ms Blemings has been recognised for her efforts through a nomination for the Volunteer of the Year Award which will be announced on Wednesday.

Nominated by Geoff Robertson, President of Friends of Grasslands of which she is an active member, Ms Blemings has also made significant contributions to Canberra Field Naturalists and the Australian Native Plants Society Canberra Region. In his submission, Mr Robertson highlighted her "tangible results" which included "keeping organisations going and meeting objectives in an easy-going and relaxed style".

He also said that Ms Blemings had initiated many activities "and kept them going. Without her they would not have been done," he said. "For example, the weed swap, the weed display at Floriade and the Black Mountain Wildflower walk."

"The scope of her work covers promoting understanding and caring for the environment in terms of community education and awareness, encouraging landowners and government to make appropriate decisions, and practical on-ground work."

So why does Ms Blemings do it?

"I have a thirst for knowledge and love learning as I go, she said. "the satisfaction factor is also important, as is the social interaction. I enjoy meeting people and making new friends and doing something to assist the community and the environment in the process."

There was another excellent photo of Rosemary in the *Canberra Sunday Times*.

### **Last walk in Endangered woodland**

As advertised in our last newsletter, Friends of Grasslands helped organise a walk in an endangered woodland, namely East O'Malley, on Sunday 9 May. Over 160 people attended on what turned out to be a nice sunny day, although cold and there were a number of experts on hand to explain why woodlands, and sites such as East O'Malley, are important. Everyone was cheerful as the knowledge of its fate was not known at the time.

### **Visit to Seeds and Plants Australia *Aristida***

On Saturday 24 May, FOG visited the nursery, Seeds and Plants Australia managed by Warren Saunders, before visiting a local re-vegetation project.

Warren's business is concerned with supplying local Australian plants for both large re-vegetation projects, such as the David St wetland on Sullivan's Creek or the rehabilitation of road verges, to small-scale home garden projects. This involves maintaining a huge range of plants to cover the needs of a variety of clients - keeping them happy is a major task. Keeping track of what is there so it is available at the appropriate time is a major headache.

The first impression at 8 Beltana Street, Pialligo, is the organised chaos of a plant nursery, with its huge variety of plants in various stages of growth. We were shown the main growing processes for grasses, from tiny enviro tubes to trays of larger plants. It is always a problem with rehabilitation projects to determine whether the smaller or larger stock is more suitable for a particular project. Warren pointed out the intricacies of the hot house operation, noting that temperatures below the soil played an important part in plant development.

One of Warren's major problems is sourcing seed. In a discussion relating to the collection of seed for vulnerable Australian plants Warren pointed out that from his perspective as a nursery operator specialising in Australian plants, all the plants that he needed to source were fairly rare in the landscape. This is perhaps the biggest problem facing large-scale rehabilitation of our landscapes, the sheer enormity of the

task just to produce the locally sourced plants we need to do the job.

### **Challenges facing a local grower**

*Margaret Ning*

Nestled right at the back of 8 Beltana Street in Pialligo is Warren Saunders' Australian plants nursery, Plants and Seeds Australia. On the cool autumn morning that FOG visited his place of business, Warren welcomed us with a hot cup of coffee, and, after an introductory talk about the business, took us around while fielding a constant barrage of questions. The business originally operated as A-Bulk, and Warren was one of its employees until he took the opportunity to buy it in 2000.

Warren has 300 plant species in his seed store, and grows 200 species as tube

the RTA, other government bodies, nurseries (wholesale), and seed companies and revegetators, and range across civil projects (mines, roadworks and dams) to some residential landscaping. He has also sold Canturf some native grass seeds to use in their mix, though he has trouble keeping up the supply.

Specific problems Warren has experienced with seed collection include:

- Lots of old stands used as seed sources have been bulldozed
- It's difficult to get permits now - the best sites are where development is planned - next to Woolworths at Gungahlin used to be a very good spot!
- Many populations are so small that it's hard to get viable seed as not enough gets pollinated.

Apparently Warren's business slowed while the drought prevailed, but now things are getting back on track and it has become very hectic as customers are anxious to make up for lost time.

Warren is happy to sell to FOG members at the following rates:

- by the tray, which contains a minimum of 50 tubes at around \$1.50 per plant,
- by the cell, a minimum of 200 at a time for around 35 cents per plant, or
- by the pot; Warren also has a small number of larger 6 inch pots for \$8.

### **FOG supports Picaree Hill project**

Picaree Hill is a privately owned 800ha patch of woodland, forest and grassy ecosystem near Murrumbateman (NSW) which serves as an important wildlife refuge. The Picaree Hill Conservation Project is a community conservation partnership between the Murrumbateman Landcare group and Greening Australia funded through NHT. It is also supported by CSIRO, NPWS, Department of Sustainable Natural Resources, Friends of Grasslands, Canberra Institute of Technology, Gallagher Electric Fencing and the Australian National University. The project seeks to manage a significant hub of remnant bushland for conservation, whilst taking into ac-



*Seeds and Plants Australia - growing local native grasses for revegetation jobs. Page 5, David Eddy inspects a small mystery Kangaroo Grass/Chilean Needle Grass experimental plot that FOG discovered near a revegetated site. Page 12, some FOG members listening to Warren.*

stock, little plugs (enviro tubes, which he says have revolutionised the revegetation process) and in seeding trays. His plants are growing out in the open, under shade cloth and in plastic igloos, depending on their requirements. For example, shade cloth softens the effect of rain on his seedlings; and most grass species seem to like heat and humidity to germinate so this all happens inside the igloo. Apart from discussing aspects of what we could see around us, Warren also shared some of his germination tricks with us, and discussed the problems he currently has with seed collection and with working at some of his revegetation sites. His customers include

count agricultural, scientific and environmental education issues.

The Murrumbateman area was recently found by the National Land and Water Resources Audit to have 99.5 per cent of its natural ecosystem destroyed for agriculture and its temperate grasslands were found to be the most endangered ecosystem in Australia. Picaree Hill acts as a biodiversity hub linking vegetation on the Murrumbidgee River to the Yass River across a largely cleared rural landscape. The Picaree Hill Conservation project is the culmination of several years of planning.

Landholders are undertaking a comprehensive fox baiting program over the next two years to reduce pressure on native wildlife. CSIRO is undertaking research on the success of baiting in reducing the fox population and subsequent effects on native wildlife in comparison with other sites in the area. An ANU honours student is researching small mammal behaviour. A CSIRO project into sustainable harvesting of firewood in the Murray Darling Basin is using Picaree Hill as a study site.

NPWS and Friends of Grasslands, along with community members, are providing assistance with flora surveys and the development of a publicly available photo herbarium for Picaree Hill. Department of Sustainable Natural Resources has provided maps, advice and guidance throughout the process and Canberra Institute of Technology has assisted with fencing as part of their fencing training course, in conjunction with advice from Gallagher electric fencing.

All information collected is being fed into a management plan which will help ensure protection of Picaree Hill over the longer term and assist the local community to build on this significant conservation project. For further information contact Lori Gould (Greening Australia) on 6253 3035.

#### **Stipa conference coming together**

The Stipa conference is coming together and so as the advertisement says, keep 26 to 28 November free. The first day will be a bus tour visiting a number of grazing properties and crown land reserves. Given a normal spring we should see some stunning wildflower displays and also see sites where land management and grassland management deci-

sions come together. Thanks to the South East Catchment Board the bus trip only costs \$10 and includes lunch.

Days two and three include a wide range of speakers on building networks and functioning landscapes - integrating production, conservation and function. Sub-themes will cover regional landscape management, on-farm conservation in productive systems, knowing your plants, enhancing functionality, sustaining biodiversity in regional landscapes, and socio-economic aspects of bringing it together. The cost of the conference is \$160 including catering. This does not cover the cocktail party, or the formal dinner. There is a small discount for Stipa and FOG members. We will be privileged to have ACT Chief Minister and Minister for Conservation, Jon Stanhope as the after dinner speaker. Copies of brochures are available from Margaret, see details on back page.

### **Put this in your calendar NOW The Stipa Native Grasses Association**

Supported by Friends of Grasslands

### **THIRD NATIONAL NATIVE GRASSES CONFERENCE**

**26, 27 & 28 NOVEMBER 2003  
COOMA, NSW**

### **"Sustainability and Beyond"**

Producers, conservationists and horticulturalists will present papers on Australian native grassy landscapes.

Inquiries should be directed to Christine McRae, Conference Coordinator, 1480 Bocoble Rd, Mudgee NSW 2850 or [cmcrae@hwy.com.au](mailto:cmcrae@hwy.com.au).

#### **A city like no other Geoff Robertson**

In 1913 Walter Burley Griffin said 'I have planned a city like no other. I have planned an ideal city.' This was the starting point for Lincoln Hawkins, Executive Director, ACT Planning and Land Management (PALM) as he kicked off the two day Spatial Plan Summit held on 11 and 12 June. The first day was devoted to transport and the second to the Canberra Spatial Plan. He said that the work on the Spatial Plan would come together before the end of the year. He said the summit, which about two hundred people attended on each day, would play an important part in the Government's deliberations, and there

would be another paper appearing around July for community comment.

The Spatial Plan is one of three elements of the Canberra Plan being developed to set the planning scene for the next twenty-five years. The other two elements are the Social Plan and the Canberra Economic White Paper. There is a serious attempt to bridge the social, economic and environmental dimensions (or triple-bottom-line). Many FOG members, including yours truly, have been actively involved in the various consultation processes, particularly through the Conservation Council. In turn, many studies are feeding into the Spatial Plan such as the ACT Water Strategy, ACT Lowland Woodland Conservation Strategy, ACT Five Year Recreation Strategy, the ACT Forest Business Case, and Non-Urban Study, and work on the Urban Edge and Stromlo Option. Of course another plethora of work is occurring around the bushfire recovery, not to mention Namadgi Management Plan and a raft of other studies and reviews.

Minister for Planning Simon Corbell said that the Government is putting in huge resources to all these processes as part of a long-term planning strategy. This is true and the government is to be congratulated for it. But many have complained about too much and too little detail and query if we get the right result?

Sitting through the deliberations it was clear that we in grassy ecosystem conservation had still not got our message across. Sure, people think that grasslands and woodlands are important but fail to see the huge tension between continued urban sprawl and the destruction of our natural ecosystems, particularly grasslands and woodlands.

Therefore, it is important that we reflect for a while on what is possible, and get in there to argue our case.

Four options for Canberra's future were put on the table. Before looking at these options we should recall that Canberra's population is around 320,000 and it is projected to grow to 380,000 by 2026. It should be pointed out that population projection is an iffy business and under some scenarios Canberra's population will fall. The planning scenarios assume that Canberra's population will reach 420,000 under option one and 500,000 under each of the other three options. Is this just the current property boom projected? However, it is pointless to get into arguments about the ultimate size of



Canberra, because no one can determine this. Our focus, in my opinion, should aim to halt greenfield development at the expense of natural ecosystems (eg East O'Malley and North Gungahlin) and ensure that we keep within the environmental capacity (eg no new dams).

Options 1 and 3 would continue the onslaught on Gungahlin. Development in Gungahlin has been responsible for the destruction of large areas of natural temperate grassland and grassy woodland. High quality areas will be sacrificed, when even the so-called poorer remnants should, in my view, be saved. This view lies behind my comments. Option 1 would see Canberra's existing sprawl continue within its borders - Gungahlin and Dunlop would be completed. In my view this is the worst outcome. Option 2 would stop development in Gungahlin and, working with the NSW Government, would see the development of areas such as Gooromon-Jeir over the north-east border of the ACT, Tralee and Googong to the south of Queanbeyan, and further development around Sutton. This would stretch sprawl and infrastructure, but it would stop the destruction of natural vegetation in the ACT, although we would need to ensure that we were not just shifting the problem. Option 3 would complete Gungahlin, develop the Molongo Valley (between Belconnen and Weston), develop West Murrumbidgee (can this be serious?) and Kowen in the extreme east of the ACT. This option seemed to upset most people and was in my view badly presented. Option 4 would contain the existing city and build up and in - a good biodiversity outcome. These are different scenarios and the paper to be published later will probably present a combination of options. However, the Government, under any scenario, is unlikely to wind up development in Gungahlin.

#### Fisher Parkland

*Aristida*

Following the January 2003 fire, large areas of Fisher Parkland have been cleared of trees and ground cover on

safety grounds. With the significant reduction in canopy cover in a number of areas within the Parkland, there are severe reservations about the potential for weed spread and soil erosion.

One major disaster has been the destruction of the *Eucalyptus dives* remnant in the midst of the Parkland on safety grounds. This remnant had around 60 native plant species within its boundary. As there were few who wandered into this area it is hard to see how this act of



wanton ecological vandalism can be justified.

What makes it worse is that the Parkland began to be effectively managed under the local Liberal government and the Dives remnant was looked after and preserved. The Stanhope Labor government has effectively trashed the remnant.

#### ACT woodland restoration

On 13 May, Jon Stanhope announced that an extensive tree-planting program would be undertaken to help restore the ACT's endangered Yellow Box/Red Gum woodland in one of Canberra's newest nature reserves (Gooroo) in east Gungahlin. The ACT budget allocated \$1.67 million dollars for the management and restoration of woodlands. Yellow Box/Red Gums and various related species will be planted in parts of Gooroo and other woodland habitats that were cleared over a hundred years ago but which still retain the diversity of native grasses and herbs characteristic of woodlands (secondary grasslands). He said "we also plan to regenerate wood-

lands in the Belconnen area, particularly Mt Painter and the Pinnacle. Once conditions improve after the drought, this will involve controlling weeds, preparing the ground and planting trees and shrubs. Restoring habitats, linking the patches that remain and increasing the size of these remnants are all important ways of improving conservation of woodlands, as well as the birds and other animals that depend on them." From FOG's perspective this is good news but this will need careful planning

and protocols so that there is not an undue emphasis on tree and shrub planting.

#### Why is it called Kangaroo Grass?

*Bill Semple*

Regarding Michael Bedingfield's comment about the origin of the name 'Kangaroo Grass' for *Themeda australis* in the May-June newsletter, I don't know why it's called Kangaroo Grass either but the following quote from C.E.W. Bean's *On The Wool Track* (Second Platypus Edition 1927) may shed some light (or confusion):

"When first he ['The Boss'] rode on to his country forty years - or more - back, he could sit in his saddle and tie the long kangaroo-grass over his horse's shoulders. It grew chiefly in the hollows, where the kangaroos fed. ... Best of all, on the flats there was Mitchell grass - square miles of it. There was not a fence or a tank; or a hoof-mark; nor a rabbit. ... The kangaroo-grass and the Mitchell grass are gone, as often as not, and in their place is pigweed or Spanish thistle, or some rubbish brought down by the '90 flood." (p. 32)

I didn't know *T. australis* grew that high but it's very variable across its range. The now quite rare, tall oatgrass (*T. avenacea*) certainly does and I suspect it was that species Bean was talking about. Perhaps in the early days both species had the same common name - though I think that's doubtful as the early writers (at least) seemed to know their plants fairly well.

## *Open letter on East O'Malley, Forde and Bonner*

*(This is an extract from a letter sent to Jon Stanhope, ACT Chief Minister and Minister for the Environment and Simon Corbell, Minister for Planning in May following the release of the ACT budget. FOG encourages members who have not written already to let Jon and Simon know their views)*

Dear Jon and Simon

Both of you are aware, Simon more so, of the effort that Friends of Grasslands has put into preserving East O'Malley. In fact before the election Simon was very supportive of our efforts and troubled about the proposed development up until he announced the Government's proposed sale last year. I assume that you are also aware of the comments that Friends of Grasslands made in relation to the North Gungahlin Structure Plan saying that the proposed development in North Gungahlin including clearing of a large area of high quality Yellow Box Red Gum Grassy Woodland and the area of Natural Temperate Grassland was going too far. In relation to North Gungahlin, we have been limited in our assessment because we have not been able to familiarise ourselves with the vegetation on the ground, although I have personally taken every opportunity to visit such areas.

The judgement of how much to save of our woodlands and grasslands is all about where one draws the line. I know that people in Environment ACT take the view that so much of our grassland and woodland is threatened by development that we really need to ensure that large and strategic areas like Gooroo and Callum Brae should be protected. I can hardly disagree with that - it is difficult to imagine anyone would. In fact, given the release of the *Draft ACT Lowland Conservation Strategy*, I am somewhat surprised that your Government did not mention more such areas (eg other areas in west Gungahlin, Kowen, etc). This means that groups such as ours will be spending hours making submissions on the need to protect areas that should obviously be included in our reserve system.

However, the problem with the view in EACT is that, by comparison, areas such as East O'Malley, Forde and Bonner are not so important and maybe there is some truth in this. Unfortunately, I am not able to make such a judgement, because despite repeated requests, members of Friends of Grasslands have never had the opportunity to visit Gooroo, Callum Brae, Forde or Bonner. What we have seen has been viewed from binoculars from fence lines. Anyway, the argument about relative quality is somewhat academic, and in the view of

Friends of Grasslands we should retain all quality remnants and areas with high habitat value for threatened and declining animal species. What we do know about the area of East O'Malley proposed for development, is that its structure provides somewhat unusual habitat for a number of uncommon and seriously declining birds, which may not be present in other woodland areas.

Members of Friends of Grasslands are also very concerned that many areas which appear to have high conservation value are not regarded as "Yellow Box Red Gum" woodland or Natural Temperate Grassland. There are a number of areas, particularly in Gungahlin, which are dominated by native grasses but which may be lacking the full variety of wildflowers, and are not mapped as threatened grassland or woodland. We accept that such areas are probably of lesser conservation value, but when I show such areas to visitors from other regions, they are quite surprised that we do not consider these areas part of the threatened communities. I mention this because there are many areas that we consider should be protected, but choose, because of their lesser value not to argue about. We have implicitly chosen to accept the scientific evidence on the conservation value of most sites, and argue for the retention of the higher value sites. Therefore when we express concern about certain sites it is after a process of much deliberation and is not done lightly.

In our submissions we have attempted to provide evidence 'disinterestedly'. We have also never said that no development could take place in these areas. Frankly we are disappointed that, in the twelve months since East O'Malley has been on hold, the Government has not produced an alternative less destructive plan. We hope that the Government, if it is determined to sell off parts of East O'Malley will come up with an alternative plan. Similarly, we believe that there are other options in Gungahlin, including a start on those suburbs which are less rich in threatened communities.

Geoff Robertson  
President  
Friends of Grasslands

## *STEP Launch*

*Margaret Ning*

Close to sixty people attended the launch of the Southern Tablelands Ecological Park (STEP) held at the Crosbie Morrison Building at the Australian National Botanical Gardens (ANBG) on Thursday 22 May. Appropriately held on International Biodiversity Day, the launch brought together many interested parties who were keen to support the whole concept behind STEP.

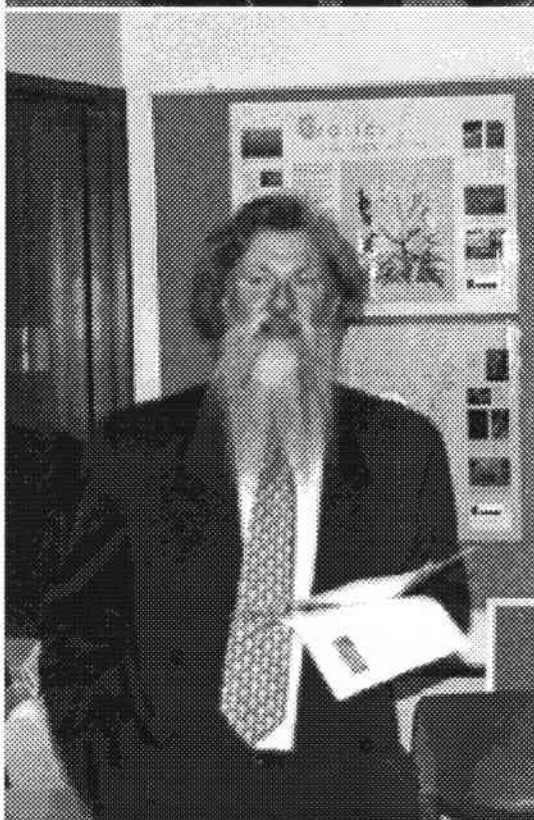
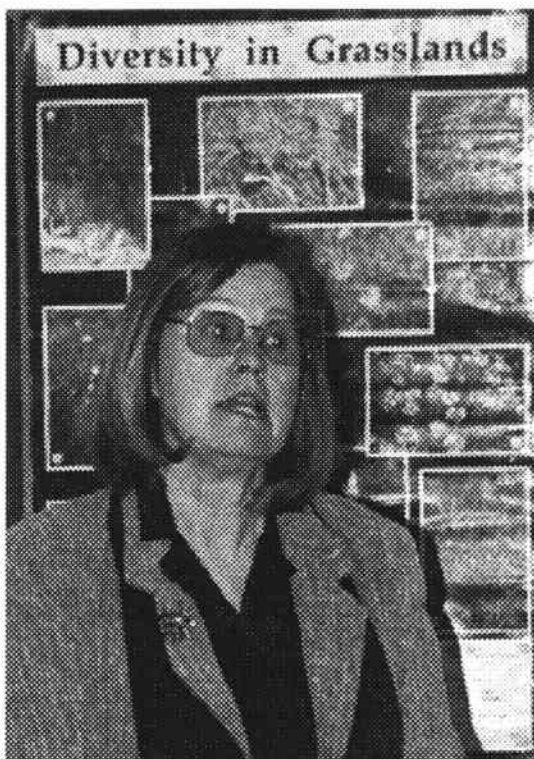
The room was also the site of many creative displays by groups and individuals from the Southern Tablelands. Jo Walker had made a small gallery of original photographs showing a splendid variety of the wildflowers of the Southern Tablelands. Rainer Rehwinkel displayed a series of large sat-

ellite maps showing modelled native vegetation as at 1750 compared with actual vegetation in 2000, part of the Regional Ecological Planning framework for natural ecosystems of the ACT and the NSW Southern Tablelands. Michael Bedingfield's display included his original framed drawings of local plants, as well as his extensive photographic records and the results of his survey of biodiversity values of the Conder grassy woodlands and other areas near Conder. Geoff Clarke (Australian Native Plants Society (ANPS)) brought the ANPS display boards showing the activities of ANPS including a plant propagation workshop, a field study day with seed collection activities and a gala ANPS Native Plant Sale. FOG's

posters included one on FOG itself, one on grasslands and one on threatened species.

Cathy Robertson on behalf of the STEP committee opened things. She briefly outlined why we were all there and the need for such a resource. She said that the launch was a way to demonstrate that key stakeholders strongly supported the need for a Southern Tablelands botanical gardens, education and ecosystem recovery centre. She mentioned STEP's vision and values referring to the value that STEP would bring to current and future generations of this region by increasing their capacity and capability for biodiversity conservation management. She indicated that by increasing and improving skills across the whole region, STEP would create new opportunities for conservation and restoration of ecosystems. It would do this by improving the accessibility of knowledge, skills and resources to all stakeholders including landowners, industry, community groups in urban and rural settings, schools and educational institutions. She thanked the six founding organisational members of STEP for their participation in the STEP launch, and their agreement to make a short presentation outlining the many ways in which STEP would foster research projects and promote planning and monitoring of biodiversity management. Cathy introduced Jonathon Banks who MCed the remainder of the evening.

Roger Farrow spoke on behalf of FOG, one of the six foundation members of STEP. Roger shared a little of his personal experience with us and described how attitudes had changed towards the significance of native grasslands since he moved to a rural block in 1976. In those days the advice was to replace his native grassland with improved pasture, because of its increased carrying capacity, but fortunately he did nothing and was rewarded by a diversity of native plants and animals present in his grassy woodland. He also explained that he initially fell into the trap of "tidying up" the fallen logs, resulting from the initial clearing, in order to control a rabbit problem but this made other native animals homeless. He emphasised that conservation is not just looking after individual plants and animals but the whole habitat, including the logs, dead trees, rocks and litter, which is why an echidna and a wombat frequently spend some time under his house. Attitudes change slowly which is why STEP



*Top: Cathy Robertson, Convenor STEP. Bottom: Jonathon Banks, Master of Ceremonies at STEP launch. Photos by Rainer Rehwinkel.*

can play such an important role in educating the public on the importance of conserving and managing all types of remnant vegetation in this region and preventing its loss by death from a 1000 cuts.

Next Rod Harvey (ANBG, another foundation member), spoke of the ANBG's support for STEP which had been practically demonstrated by John Nightingale (before he took up a position of curator in the desert garden in Alice Springs) and more recently by Paul Janssens (currently acting in the curator's position). He envisaged the ANBG would give advice on technical issues that will arise and help with documenting the herbarium that will be prepared.

Mike Saxon (NPWS, also a foundation member), described STEP as a wonderful initiative, congratulated people for its development, and welcomed it as another player, joining Environment ACT and NPWS, in the local arena. He said NPWS was looking forward to the prospect of access to seed sources and growing expertise for the future repairing of remnants. He also mentioned two grassy conservation management networks that NPWS was coordinating and thought STEP should become part of that too.

Philip Selmes of Queanbeyan City Council (QCC, also a foundation member), spoke of Turallo Nature Reserve near Bungendore and the great grasslands in the Cooma area, of willow removal, of the need to choose endemic species when doing plantings and of the benefits of using deep-rooted and quick-growing natives. He looks forward to having access to the expertise STEP would provide. He also informed us that Mount Jerrabomberra would be handed over to QCC management on 5 June (World Environment Day). In addition, he gave us an

overhead display of some QCC rehabilitation efforts, often achieved by Green Corps members, as examples of where QCC is slowly developing lots of natural areas. Tom Baker of QCC also spoke briefly on progress being made on the

Buttle Creek project, less than two years old but achieving very impressive results. Pamela Finger (ANPS, another foundation organisation), congratulated the STEP committee for getting the idea up and running, and recalled Geoff Robertson's first thoughts on a local botanical garden at an ANPS vision meeting. Pam said the STEP launch is the first big step towards this idea and towards

building knowledge of and capability for, growing indigenous plants into a resource for the communities in this region. She made it very clear that ANPS is right behind STEP.

Don Walton, President of the Eurobodalla Botanical Gardens (EBG, another of the key member organisations), referred to STEP as a "giant step for the Southern Tablelands", saying that EBG and STEP have many things in common and that EBG will no longer feel quite so lonely in the regional botanic garden field! He offered EBG support for STEP wherever possible.

Jenny Bounds wore two hats to the launch, representing both the Conservation Council and Canberra Ornithologists Group (COG). She spoke of the importance of having something uniquely regional to help save local species, saying that COG was doing lots of work lately trying to save woodland birds in the area. She foresees many environmental battles ahead and stressed the need for the public to work with us and sees STEP as an important step enabling that to happen.

David Shorthouse, Wildlife Research and Monitoring (WRM), Environment ACT, abandoned his notes asserting that it had 'all been said' by the other speakers. He referred to Cathy Robertson's energy and suggested that STEP's future was in good hands if she was to be involved with it. He said there were a lot of regional issues that weren't necessarily ACT issues, so STEP could play an important role in these. He also referred to

WRM's recently released woodland strategy, and said that they have just started on the grassland strategy. He wants the community to play a role in this and wants networks built to do this - another role he saw STEP could be active in.

Finally, Cathy Robertson closed the formal part of the evening by summarising what STEP would offer to the region and invited everyone present to join the fledgling organisation in order for it to become recognised in the region. She invited everyone to enjoy the displays on the walls all around the room as they showed what the conservation groups in the region had all been active in lately.

Although there were quite a few speakers, everyone kept things brief so the formal part of the evening passed quickly and the informal part of the evening was soon under way with people chatting and catching up with friends by 6.30pm or so.

By the end of the evening STEP membership had ballooned to around 28 which was a healthy step towards the 50 required to be registered as an environmental organisation with gift deductible status with Environment Australia.

Thank you to everyone who brought along the celebratory champagne and tasty nibbles, for their contribution to the evening and thanks to Jonathon Banks for his participation in it.

## *ACT Woodland Strategy*

*Geoff Robertson*

On 2 May 2003, ACT Chief Minister and Minister for the Environment, Jon Stanhope, released the *Draft ACT Lowlands Woodland Conservation Strategy (Action Plan 27)*. When finalised, it will replace the Action Plans on Yellow Box Red Gum Grassy Woodland ecological community and six threatened bird and two plant species associated with lowland woodlands. It is the first of three broad strategies. The second will cover natural temperate grasslands and the third riparian communities.

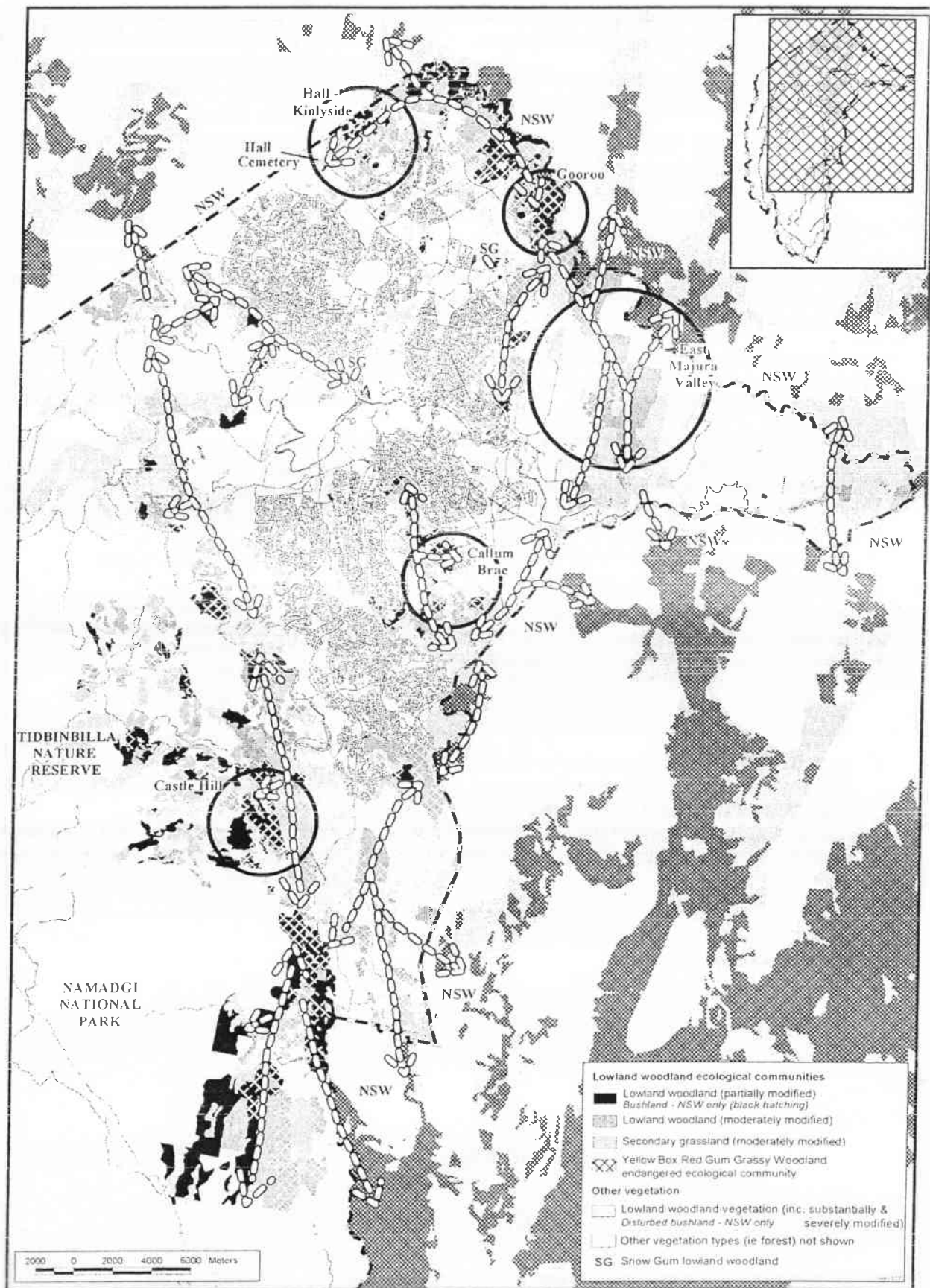
The *Strategy* identified three categories of woodland - partially modified, moderately modified, and substantially and severely modified - nothing has been left in pristine condition comparable to 1750. These categories are shown on the map on the next page. The first two categories are overlaid by cross hatching if they are part of the Yellow Box Red Gum community. The moderately modified category has two sub-categories: one of which is called 'secondary grassland' (less than two percent tree cover). Both partially and moderately modified have more than fifty percent native (ground layer) vegetation cover, with the first category containing 'disturbance sensitive species and/or moderately sensitive species.' Secondary grasslands can also contain such species but generally moderately modified woodlands do not. The substantially/severely modified have more than fifty percent exotic vegetation perennial cover. The categorisation is very useful, although it means that an excellent stand of Yellow Box Red Gum trees which have a mostly exotic understorey are not regarded as part of the threatened Yellow Box Red Gum community.

A small brochure has also been released by Environment ACT explaining some of the key issues. Some of the following material has borrowed heavily from the brochure. Importantly, the *Strategy* found that:

- The ACT contains large areas of Yellow Box-Red Gum woodland and related woodlands at Gooroo (East Gungahlin), Callum Brae (Jerrabomberra Valley) and Castle Hill-Naas (near Tharwa) in good ecological condition;
- Yellow Box-Red Gum woodland and habitat for declining and threatened birds is not adequately protected in the ACT and sub-region;
- Significant biodiversity conservation gains can be made by avoiding greenfield development in areas containing large areas of Yellow Box-Red Gum woodland; and
- There is scope for targeted restoration and regeneration effort to improve the viability of lowland woodlands and their component species particularly in rural areas.

It goes on to state that the goal is "to conserve in perpetuity all types of lowland woodland communities in the ACT as viable and well-represented ecological systems". It states that for our remaining woodland, this means maintaining and improving their condition and habitat for threatened birds; maintaining and improving connectivity to other native vegetation; avoiding further fragmentation, and minimising harmful effects from nearby land uses. To provide a focus, as the map shows, the strategy has identified 'locations of high priority tasks' and 'wildlife habitat connections'.





### Priority tasks to improve conservation of lowland woodlands.

Circles indicate locations of high priority tasks, arrows indicate priority wildlife habitat connections.

#### Woodland facts

- Less than 10 per cent of all woodland types are left in the ACT Region as a result of past land uses.
- Of the original Yellow Box-Red Gum woodland in ACT, about 33 percent (10,500ha) remains.
- Two thirds of this 10,500 hectare Yellow Box-Red Gum woodland is protected under land tenures that do not permit clearing (eg Territory Plan: *Hills, Ridges and Buffers*, *Nature Reserves*, National Capital Plan: *Designated Areas*).
- This includes (2,345ha) the remaining Yellow Box-Red Gum woodland that is protected in Nature Reserves.
- Amongst other lowland woodland types 12,570ha are also protected under land tenures that do not permit clearing.
- Other areas (2,940ha) of Yellow Box-Red Gum woodland and (4,035ha) of other lowland woodlands are located on land identified as Broad acre or Rural. Some of these areas are subject to Land Management Agreements or Memorandums of Understanding to retain conservation values.
- Ten percent (1,110ha) of Yellow Box-Red Gum woodland is located on land identified in the Plan as urban or related land use. Categories, and includes areas not yet developed. Most of this is located in the Gungahlin area, and to a lesser extent, the Jerrabomberra Valley.
- ACT woodlands provide habitat for 6 bird and 2 plant species that are listed as threatened. At least 7 other woodland bird species are apparently declining. Some of the key woodland habitat for these bird species is not in a nature reserve.
- The major threats to these woodland bird species are clearing, fragmentation and modification of their woodland habitat.

Source: *Woodland for Wildlife* brochure released as part of the *Draft ACT Lowland Woodland Conservation Strategy*.

- Protecting a more complete altitudinal range of woodlands by including secondary grassland and lower elevation woodlands in reserves;
- Reviewing management of lowland woodland areas in government horse paddocks and agisted land to ensure ecological condition is improved; and
- Enlarging the Hall Cemetery so as to protect the Tarengo Leek Orchid.

Another key recommendation is to involve the community to assist the protection of this part of Canberra's iconic landscape. This is to be done by the setting up of a Conservation Management Network (CMN) - a grouping of woodlands and of people who will be active in the sharing of knowledge and taking decisions that will help preserve the fragile ecosystems for the future. Friends of Grasslands members will be familiar with the CMN concept. The *Strategy* also recognises the importance of cross-border cooperation with NSW to protect and enhance woodlands, and the importance of voluntary agreements with landholders in off-reserve conservation.

For anyone seriously wanting to get his or her head around woodland conservation, this document is a must and already I have seen many people treating it as a comprehensive reference. It is full of excellent information. For example it provides very readable explanations and it contains a set of excellent maps that assist anyone to relate his or her patch to the broader picture. It also contains very relevant information on each of the threatened species covered by the document. It has also commenced the task of pushing-out-the-envelope to include species which, while not formally recognised as threatened, are uncommon or seriously declining.

Particularly pleasing is the inclusion of material on best practice and adaptive management, the discussion of rehabilitation, regeneration, and restoration of grassy woodlands, and the recognition of CMNs. This does not address all the recommendations made by Friends of Grasslands when it has advocated the restoration of our natural ecosystems, but it makes a great leap in that direction.

How can we in FOG evaluate this document? There are criticisms that might be levelled at the work, eg it has not resulted in saving certain high quality Yellow Box-Red Gum woodlands, (East O'Malley, Forde and Bonner), and it is based very strongly on vegetative assessments. Very early in the process, we in FOG recognised that this was a piece of scientific work, not a document to argue for or against particular political outcomes. Also, we recognise that resources are an important constraint. I do not believe that these factors should be taken too seriously when judging the work.

On the whole, I think that FOG and other groups can take a lot of credit for this work. We lobbied the incoming Government to commit to a proper review and pressed on when it appeared to falter. Much of the findings, the broadening of the approach to include all lowland woodlands, and the strategic approach adopted are things that we have been advocating. The document provides an excellent framework. The consultation in which many community groups participated laid the framework for close cooperation on much of the work that will come out of this review.

To get hold of a copy of the *Strategy* contact 6207 9777 or [marjo.rauhala@act.gov.au](mailto:marjo.rauhala@act.gov.au).

Since releasing the *Strategy*, the ACT Government has announced the establishment of the 700ha Gooroo reserve and the 300ha Callum Brae reserve, and its intention to determine the status of Hall-Kinlyside in the near future. Nothing has yet been announced for the East Majura Valley and off-reserve areas eg Castle Hill (Tharwa).

In discussing priority tasks, the *Strategy* mentions:

- Completing surveys of woodlands including data collection on groundlayer and understorey vegetation and habitat characteristics;
- Protecting key habitat areas in Hall - Kinlyside, Gooroo, East Majura Valley and Callum Brae, and off-reserve areas eg Castle Hill (Tharwa);
- Improving habitat connectivity for wildlife movement from Hall - Mulligans Flat - Majura Valley - Jerrabomberra Valley and on to the Rob Roy Range; between the Belconnen Hills and the lower Molonglo River; and across the rural landscape by connecting woodland fragments;
- Protecting examples of Snow Gum lowland woodland, especially ecotones between woodland and grassland.

## ACT bogs after the fire

Geoff Hope

Last year the Cotter Catchment Manager for ACTEWAGL, Alan Wade, got interested in the alpine bogs and took me some a few times. This included a helicopter visit to Top Flat to film some coring, and a coring trip to Cotter Flats where there is a surprising bog infilling a stranded meander. Meanwhile we were working on Nursery and Snowy Flat on pollen. Post-fire I was made a member of the Environment ACT recovery groups.

The natural resources and wildlife programs team I was on was led by Murray Evans (Wildlife Resources Management Group, EACT) and Peter Galvin. The aim of the group was to:

- Audit extent of disturbance to natural resources communities and species;
- Identify environmental risks, potential loss of species/communities, erosion, sedimentation, weed/feral animal invasion;
- Prepare an audit report of environmental condition;
- Liaise with Commonwealth, ACT Forests, Canberra Urban Parks and Places and other land managers as necessary;
- Evaluate threats to the natural environment and agree on priorities;
- Develop soil conservation/revegetation action plans;
- Assess need for retention of suppression infrastructure over the short term (environmental protection works) and long term (fire suppression, park management);
- Develop plans for protection and recovery of species and communities;
- Develop plans for renewal of wildlife recovery programs; and
- Develop plans for opportunistic control of weeds/feral animals.

Being part of the team meant that I went on a swamp tour in an ActewAGL helicopter, stopping at Little Creamy and Rotten Swamps, which are mainly grasslands, and circling Nursery, Top Flat and Upper Cotter. Trish MacDonald and Frank Ingwersen let me tag along to Snowy and Ginini as well. We will set up monitoring quadrats and trial a couple of recovery ideas, as we think the fire will cause a major shift to sedge and wet grassland. I also went to the only meeting of the recovery

group to Tidbinbilla where we all agreed that the whole thing was pretty natural and that "control burning" would probably have been pretty pointless, except in a few localised cases. So I apologise for dragging FOG into the swamps, but there are grassland aspects to all these mires.

The good news is that the swamps have not suffered peat fires except in a few local spots, and that they have unburnt areas so Ian Fraser's report was a bit overstated. The bad news is the very widespread death of *Sphagnum* which will not, in most cases, be able to regenerate.

The regeneration of open areas in the Cotter catchment was quite startling by the end of February (2003). The Cotter flats, Tidbinbilla and Orroral are a vivid green from regrowing tussock, and myrtaceous shrubs were sprouting from the base, although most other species are dead. *Acacia* seedlings



(Blackwood) are sprouting widely at Tidbinbilla. Lilies such as *Hypoxis* and a larger unidentified plant (shame) are extremely common on Creamy Flats and throughout the grasslands. The fire has been very variable in its severity, with patch sizes usually of 50-200ha ranging from completely burnt crowns to semi-intact resprouting crowns. For example a large block of forest on the eastern slopes of Bimberi is not badly burnt. An ACT conservation person (sounds like an ex-forester) remarked: "We wouldn't have burnt the whole lot at once but this is the sort of nice patch fire we might have wanted". He wasn't referring to the suburb of Duffy by the way.

The photo above of Nursery Swamp was taken on 27 February. From left to right: the slopes are bare, but the swamp has completely resprouted *Carex*. The fire debris on the right has come off the *Poa-Danthonia* grassland and is burying the sedgeland as the black mess. The sedge will sprout through this but it will probably be colonised by grasses eventually.

Around the Cotter Hut, there was pretty good grass regeneration on open areas and even under the woodland on the Cotter flats. At that time the regeneration was strong on alluvial areas, but all the slopes were still very dead. Huge rafts of charcoal and alluvium are everywhere due to a local big storm on 28 January.

## Some rare plants of escarpment swamp margins

Jacky Miles

I recently had the thrill of finding a population of a very rare plant, Rough Eyebright (*Euphrasia scabra*) while doing a survey of a few escarpment swamps for another rare-ish species, of which more later. I found the *Euphrasia* around the margins of Packers Swamp, one of the large swamps located close to the top of the escarpment in the Brown Mountain area. Although I have done a fair bit of poking around at Bega and Nunnock Swamps I hadn't paid more than a brief visit to Packers before. It proved to be interesting in a number of respects and would be a good FOG destination for a spring visit.

*Euphrasia scabra* is listed as endangered in NSW and the Flora of NSW says it could be extinct in NSW. So I was quite elated by my find, but chastened to find on ringing Keith McDougall from the NPWS Threatened Species Unit that he knew of another population from a bog in Bondi State Forest near the Victorian border. The Flora of Victoria states that it was formerly widespread in lowland and montane parts of Victoria but is now threatened with extinction. It also occurs in Tasmania and Western Australia and I am not sure of its status there. According to Keith there are probably at least a couple of different entities currently lumped under *Euphrasia scabra*. The Packers Swamp plants are tiny, mostly about 15-20cm high with leaves and flowers less than 1cm long and the stems are conspicuously hairy. Flowers are pure yellow, unlike most other eyebright species which have white to lilac flowers with purple or yellow markings. Plants in the Bondi State Forest population are apparently taller, mostly 30cm or so.

Although Packers Swamp is a fair size, probably 40 hectares or more, and I have walked the entire margin and crossed the swamp in a few spots, I only found a total of about 70 plants, scattered widely round the edges in groups of from one to twenty plants. They seem to prefer areas where small drainage lines enter the main body of the swamp. The grass here tends to be shorter and sedge tussocks more widely spaced, leaving a bit more open space for delicate forbs to occupy. The main body of the swamp consists mostly of robust tussocks such as *Carex appressa* and *Poa labillardieri* with few forbs. Pigs and deer represent a threat to the plants. Old pig diggings are scattered around the swamp margins and there was a bit of deer scat around. Hunters in 4WDs are another potential problem as

there were wheel tracks around the swamp edge at one location.

What took me to the swamp in the first place was a brief search for the Swamp Everlasting (*Xerochrysum palustre*, formerly *Bracteantha palustris*). This species is not listed in the Flora of NSW so I had been assuming that the conspicuous orange-flowered everlasting in the escarpment swamps was the alpine everlasting, *Bracteantha subundulata* (or *Xerochrysum subundulatum* now) which I was familiar with from the high country of the Snowies. But apparently not, although they do look diabolically similar. The Swamp Everlasting has less hairy stems and the tips of the papery orange bracts are more or less smooth, although very finely roughened with fine raised lines visible under the microscope. Alpine everlasting has the bract tips densely covered in quite large papillae (bumps to you and me) and it prefers drier habitat.

There is a push from the Victorians to list *X. palustre* as threatened nationally, so Keith asked me to check out how common and widely distributed it is along the top of the escarpment. The answer was quite widely distributed but not very common. I found it in almost all the swamps I visited but not in any great numbers except for the "Wildflower Swamp" on the Kydra Fire Trail in Wadbilliga (known to some FOG folk as "the gentian swamp" – it depends what time of year you visit it as to which wildflower grabs the eye more). It was a lousy time of year for surveying the everlastings as they had all finished flowering and gone black, but the gentians (presumably *Chionogentias cunninghamii* ssp *cunninghamii*, but I didn't check) were out almost everywhere I went, being a late flowerer.

A few other interesting plants were also seen at Packers Swamp. *Craspedia paludicola* (I think – it wasn't flowering) has been recorded from the region before, but I have not seen it in any of my other swamp expeditions. It was common, growing in the water in the wetter parts of the swamp. *Hierochloa redolens* is a tall grass with a beautiful weeping seed head with a golden sheen and a strong coumarin scent. *Barbarea grayi* is a large fleshy forb in the Brassica family. Both of the latter are uncommon up in the Snowies and had not been recorded from the Eden region before.



Warren Saunders talks to FOG members and reveals his approach to revegetating public areas around Canberra with native grasses and forbs.

## Early Nancy

Michael Bedingfield

The Early Nancy is a small perennial lily, which grows from a tuber and for most of the year it is quite invisible. But in the early spring, to herald the new flowering season, fresh shoots grow quickly to five to fifteen centimetres tall, and produce an array of white flowers.

The flowers look to have six petals, but actually have three petals and three sepals. The botanists say there are six 'tepals' because the petals and sepals are hard to differentiate. Each flower has a distinctive inner circle of maroon, purple or reddish and consequently in some places they are called Bulls-eyes. This lily is widespread throughout Australia and its preferred habitat is in grassy areas, doing better on seepage slopes or other seasonally damp places.

In a dry spring many of the tubers will remain dormant and the plants unseen. But locally, when there is good rain, the Early Nancy is a common sight on good grassy remnants. This is not the case for disturbed sites, however, nor for those that are heavily grazed, as these plants don't cope well under stress and tend to disappear.

For the Early Nancy the male and female flowers differ and occur on separate plants, with the female producing a three-celled oval shaped fruit six to ten centimetres long. The drawing, which is at four-fifths size, shows the whole plant with male flowers and the upper part of the female with the swelling fruit. The fruit contains a number of small round seeds. As the warm weather advances the plants soon wither, but for a time, the dried out plants remain standing, with the fruit split open and the seeds held aloft in cup like structures.

The scientific name for Early Nancy is *Wurmbea dioica*. "Wurmbea" comes from the name of a Dutchman from Java of the 18th century, F. van Wurmb, who was a naturalist, amateur botanist and merchant; "dioica" comes from the Greek and means "two houses", referring to the habit of having male and female reproductive organs on separate plants.

Early Nancy - a charming early starter to the spring flowering in our grasslands and woodlands.





**FRIENDS OF GRASSLANDS INC**

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***Supporting native grassy ecosystems***

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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.

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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.

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