

# News of Friends of Grasslands

November 1998

## COMING EVENTS

Margaret Ning

*As you well know, November is prime time for viewing native grasslands and it will be a busy month. Hopefully no one will collapse from exhaustion and grassland overload. Because the substantial winter rains have made this spring a very special one, we have added a couple of activities to the list. So please maximise your opportunities to join us for some of these activities, in the realisation that things will return to normal in December when you can again draw breath!*

*Please put these dates in your calendar immediately*

**Saturday 31 October - Halloween Northern Cemeteries Tour** We have been planning this all year and it is **an event not to be missed**. We'll visit Binda and Bigga Cemeteries north of Crookwell. (See special article by Rainer Rehwinkel on page 2.) Meet at the Yowani Country Club (golf course) carpark, which is just after the Netball Centre on Northbourne Ave (opposite Downer) for departure at 8.15am. Please call me if you'd like more carpooling directions or even a map of our destinations ahead of time.

*For outdoor activities, don't forget your hat, sunblock and drinking water*

**Saturday 7 November, Volunteer Grassland Fieldwork** This will combine a visit to an excellent grassland site (see more details on page 2) and be FOG's contribution to the recent Weedbuster Week. We'll carpool from the government carpark next to St Mark's, Blackall St, Barton; meeting at 7.30am for 7.45am departure. Alternatively, travel south on the Monaro Highway; drive 14 kms south of the Bredbo Hotel, turn left at the gate across the road from a large stand of poplars, and you'll find us a couple of kilometres along the track (if you reach the railway line you've gone too far). Lunch provided.

*For information about any activities (including times and venues), please phone Margaret Ning on 6241 4065 (home) or 6252 7374 (wk)*

**Tuesday 10 November, 4.30pm - Conder grassland** Michael Bedingfield's article in the last newsletter helps set the scene for our weekday visit to a grassy area near his home in Conder. In his article, Michael introduced us to some of the native plants growing in his suburb, and since then Geoff Robertson and I have visited the site and found it to be very impressive in its quality and diversity. The moist grassy slopes are ablaze with the glow of Bulbine Lilies, Candles, Sundews and Early Nancies, all at the height of their spring flowering. Michael's species list is steadily growing. With the onset of daylight saving we shall be

able to enjoy this site for a couple of hours. We'll meet and park at the end of Templestowe Ave (opposite no. 3) which is next to the grassland site. Templestowe is off Tom Roberts Ave, which is off Box Hill Ave which is off Tharwa Drive.

**Saturday 14 November, 10am-1pm - O'Connor Ridge Grassland Plant ID** Please bring along a copy of *Our Patch* or other suitable books if you have them. We'll join the O'Connor Ridge Park-care Group to identify plants on its grassland site, evaluate and document the site, and suggest suitable management options. This area is in the path of one of the John Dedman Parkway options. We'll meet at the northern end of Dryandra St (known as the Archibald St entrance) at 10am.

**Sunday 15 November, 11am-1pm - Belconnen Naval Station** A not-to-be-missed opportunity to view a spectacular native grassland right in our midst. If we're really lucky we may even sight the Golden Sun Moth. Sarah Sharp will be our leader, and we've invited the Society for Growing Australian Plants (SGAP) and the Field Naturalists to join us. We'll meet at 11am at the entrance to the Belconnen Naval Station off Baldwin Drive, opposite Kaleen High School - please be punctual.

**Sunday 22 November, 9am-3pm - Gungahlin Open Day** ACT Parks and Conservation, SGAP and FOG are hosting a 'Grasslands Open Day'. Please see page 2 for details.

**Saturday 5 and Sunday 6 December - Southern Cemeteries Tour** David Eddy (WWF) will guide us through some rural cemeteries and travelling stock reserves on the Monaro. This is **another of our major events - not to be missed**. This will be a two-day activity if you have the time, with an overnight stay at Geoff and Margaret's near Nimmitabel in a grassy woodland setting, but you are also welcome to join us for either of the two days. On the Saturday morning, we'll meet at Dierk's place at 121 Springvale Drive, Weetangera, leaving at 8am (you may leave your car at Dierk's if you wish to carpool). There will be a **BBQ** at Geoff and Margaret's **on Saturday evening**, and we'll enjoy some of the Nimmitabel butcher's prize-winning specialties. I have fool-proof maps to get you there if you wish to join us for the barby - pls help catering arrangements and let us know in advance if you will be joining us. BYO sleeping bags. If you'd like to join us on Sunday morning

**COMING EVENTS - continued**

for the second day's sites, please be outside the Nimmity Emporium (General Store) in Nimmitabel for a 9am start.

**January 1999 - Crown Land Sites Near Canberra** Geoff Butler will show us some Crown Land sites which contain some interesting areas of secondary grassland.

**HALLOWEEN NORTHERN CEMETERIES TOUR** - *Special message from Rainer Rehwinkel*

The climate at Bigga and Binda cemeteries appears to be cool and wet, compared to here. On my last visit there I noticed plants typical of wetter sites, even though the two western slopes specialists, Yass Daisy and Blue Pincushion were there. When I last saw these sites in spring 1997, they were quite spectacular, apparently both secondary grasslands, though with a very high diversity of those taller forb species that are associated with ungrazed sites. There were Hairy Buttons, Billy Buttons, Ranunculus, a variety of orchids and things like Native Flax. I even found a couple of plants the genera of which I couldn't recognise (yes its true!!). I take this to mean that the area is in a quite different floristic zone, especially as the Blue Pincushion is there. I'm looking forward to going to these two spectacular sites.

The other site that is well worth a look if we have time, is Laggan Travelling Stock Reserve. This would make a good detour on the way home and we could then travel back by a different route!

Laggan is a site identified by the Hibberd and Taws survey of 1993 as being one of five or so Reserves of particularly high conservation value. I included this site on my Goulburn reserves survey last year and it certainly comes up as an important site. It has grassland, grassy woodland, tea-tree thickets on seasonal springs on the hillslopes and a Mountain Gum forest at the back. I have recorded plants here too that suggest these areas are well within a different biophysical area to ours - things like Creeping Raspwort, some daisies and a variety of epacrids stand out. Here too I saw many orchids, some Yam Daisies and the regionally uncommon Black Gum.

Something to whet everyone's appetites? See you soon.

Cheers, Rainer

**GRASSLANDS OPEN DAY**

ACT Parks and Conservation (Canberra North Dis-

trict), Friends of Grasslands, and the Society for Growing Australian Plants (SGAP) is hosting a 'Grasslands Open Day' on Sunday 22 November 1998 (9am to 3pm).

Gungahlin Grasslands reserve is 500 hectares of natural lowland temperate grassland. The area was made a reserve in 1995 and urban development plans were changed in order to protect it. It is now part of Canberra North District, managed by the ACT Parks and Conservation Service.

In July 1996 the ACT Government was awarded the 'New Reserve of the Year Award' by the WWF. The award recognises the significance of the reserve which protects some of the last remaining native grassland left in the ACT and surrounding region. Nationally there is less than 0.5% of this type of grassland, and what is left is vulnerable and requires careful management.

In November 1996, an Open Day was held and was highly successful. The aim this time is to raise community awareness and provide an opportunity to learn about:

- the value, diversity and richness of the native grasslands and their importance as habitat for some fascinating animals such as the Legless Lizard and the Golden Sun Moth
- how the ACT Parks and Conservation Service intends to manage this important ecological resource
- growing native grasses
- how local community groups have assisted with the establishment of the reserve
- the Aboriginal and European history of the Gungahlin area
- future development in Gungahlin

The Gungahlin Grasslands Reserve is a special place for the Gungahlin community. It has national conservation importance, as well as local historical interest. To reflect these values the theme for the Open Day is 'Not just a Sheep Paddock'. Come along and join us in this community event.

**VOLUNTEER GRASSLAND FIELDWORK**

- *Something to look forward to.*

FOG members will visit a good example of short open structured native grassland on shallow shale soil in one of the driest parts of the Monaro. The area retains a diversity of native grasses and forbs including some significant and indicator species and a population of the threatened Creeping Hop Bush (*Dodonaea procumbens*). The group will continue the work of the past two springs in removing the highly invasive African Lovegrass (*Eragrostis curvula*) from the grassland to enhance its quality and survival. The visit will also enable members to become familiar with a variety of native herb species and the sort of environment and landscape which support grasslands. Lunch will be provided - All hands welcome!

*I even found a couple of plants ... I couldn't recognise (yes its true!!)*

*Something there to whet everyone's appetites? See you soon.*

## FOG WORKSHOP ON GRASSLAND EVALUATION - Geoff Robertson

Sixteen people attended our workshop at Dierk and Rosemary von Behrens' place on 24 September.

The workshop focused on how FOG might be of more assistance to landcare groups and landowners who want to know if they have a quality remnant native grassland and possible options for its management.

The main speakers were Rainer Rehwinkel who described his experience and methods of grassland site evaluation, Isobel Crawford who spoke on how FOG can organise site evaluation, and David Eddy who spoke on how FOG members could improve their skills. A copy of Rainer's paper *Native Grassland Survey Method* was distributed (copies available from Margaret Ning).

Some of the key ideas from the lively discussion are reproduced here.

### *Documenting site visits*

There was a view that FOG outdoor activities could be better structured. For example, a planned outcome of a visit to a grassland site could be an informal report which would provide a framework for further work.

Such a report might follow a pre-determined format which reflected a FOG method for rapid site evaluation. The format could be distributed at the beginning of a visit giving a structure for all participants. The important questions are: what species are present? is this a biodiverse site? are there rare or threatened species? what exotics and weeds are present? what are some possible management strategies?

The aim of a FOG site visit is to raise awareness and assist the process of understanding. One site visit cannot provide a totally comprehensive record of a site. This is an ongoing process. However, it is important that the report be accurate (or suitably qualified).

Emphasis should be on encouraging self-learning for both FOG members and stakeholders.

### *Amateur versus expert*

If it is necessary, an expert view on the value of the site and the identification of particular plants should be obtained. Understanding the roles of amateur and expert is important.

While many FOG members may be amateurs when it comes to plant identification and making authoritative comments about a particular site, Isobel pointed out that in many fields of endeavour, amateurs can often make major contributions.

### *Rapid assessment method*

Rainer outlined aspects of his rapid assessment method. This includes listing (in his shorthand) every grassland species at the site and its frequency. If uncertain about a species he collects a specimen and has it identified. Rainer's frequency classification has several codes, e.g. F - frequent (dominant at site), I - intermittent patches and clumps, O - less than 5% cover, and R - rare (less than three clumps). It is important to note the situation in which the species grows. Attention should also be drawn to *significant species*, species that are "uncommon" or "declining". He also attempts to build up a regional perspective from his site investigation to get a broader picture of the structure of grasslands and their species diversity.

Recording the coverage of native and non-native species and bio-diversity is important. However, this needs a word or two of caution. Two sites may have an equal number of species, but in one only a few specimens of plants exist but in another many. Assessing the weeds situation is also essential in the evaluation process.

### *Training and tools*

To improve one's knowledge and skills, there are some good books and plant identification and regeneration courses available. But there needs to be a commitment of time and effort. David Eddy considers crawling around on hands and knees a time-honoured method.

Concerning books, a plethora of grassland books are coming out this year. Ian Fraser and Margaret McJannett's book is described in this newsletter, the Marriot book was reviewed in the last newsletter, and two others are planned before the end of 1998.

The meeting discussed several possible things FOG might do. These include encouraging members to grow particular species in pots to be produced for educational purposes, to run workshops for members, to undertake a study on one or two convenient sites, and to purchase a small library and a microscope. The newsletter should contain more information about the species identified on field visits and notes on plant identification. The posters produced by FOG were also seen as excellent training aids.

The inspiration for the workshop was FOG's commitment to the **plant identification day at O'Connor Ridge planned for 14 November**. It was recognised that FOG needs to ensure that this be a good educational activity for those turning up on the day. On that day we will try out a few ideas. Persons attending should bring a copy of **Our Patch** or some other plant identification books if they have them.

*Emphasis should be on encouraging self-learning*

*The newsletter should contain more information about the species identified and plant identification*

## GRASSLAND EVALUATION WORKSHOP - a second report - Paul Hodgkinson

On 24 September, Rainer Rehwinkel, Isobel Crawford and David Eddy spoke to FOG on their methods of grassland evaluation and identification.

Rainer Rehwinkel, NPWS, has developed a Rapid Assessment Method (RAM) based on the diversity of natives and exotics that allows identification of a large number of sites. It is a subjective method but it is useful to identify and compare sites. His method is very flexible and is not constrained by plot size. A four letter species code and a frequency code are applied for each species present. Also each site is given a conservation rating (CR) based on the presence of significant species and percentage of exotics and natives. The greater the number of species and the greater the number of individuals of a species, the more valuable the site. A site is even more valuable if significant, uncommon or declining species are present. The application of a CR depends on a knowledge of a range of sites in a region.

Isobel Crawford believes that there is no substitute for learning about grassland plants than getting down to serious plant identification. She suggests that FOG could purchase a second-hand stereo microscope and flora books such as *Flora of NSW* for members to use for identification.

David Eddy, WWF, suggests getting together in small groups with perhaps one leader and 3-4 people to examine grassland plants regularly. The leader would confirm correct identification but each individual would need to decide why a species is a particular one. Please contact Margaret Ning if you are interested in joining an ID group.

## WALLABY GRASSES - David Eddy

Wallaby Grasses are among the most prominent of the native grass genera of the grassy ecosystems of the Southern Tablelands of NSW. They grow in all the grassy communities from treeless grassland to open forest understoreys. Their relatively small stature probably typically relegated them to the inter-tussock spaces of grassy communities dominated by the more physically dominant grasses like Kangaroo Grass, Snowgrasses and Speargrasses. Here they grew with a plethora of other 'minor' grasses (like Wheatgrass, Nineawn Grass, Panics, Lovegrasses, Windmill Grass, Plumegrasses and Weeping Grass) and the hundreds of other plants including sedges and rushes, lilies, orchids, peas, daisies, bluebells, geraniums, buttercups, ferns, sundews and brambles.

Most of the many species of Wallaby Grass have proven to be highly tolerant of defoliation by graz-

ing, and observation suggests that they are close to the top of the dietary preferences of domestic livestock. In addition, they flower and set seed strongly even under grazing and difficult climatic conditions. As with many plants, defoliation (a stress) seems to enhance seed production. Many species also respond well to elevated soil fertility. These attributes have allowed them to prosper while the larger grasses have declined in most areas with a long history of grazing and fertiliser application.

Wallaby Grasses have thus become more prominent, and in many cases dominant, in Southern Tablelands grasslands. From this position they have become a major component of 'native' pastures, as they are highly palatable and nutritious, tolerant of drought and acid soil, tolerant of low fertility yet respond to fertiliser, produce green feed year-round and produce a high proportion of leaf material. The formal classification of this group of grasses has always been difficult because of the variability within each species and the similarity between different species, even beyond the genus. In addition, there continues to be a significant degree of hybridising between species in the wild.

The Wallaby Grasses have been placed in the genus *Danthonia* for many years, though several attempts have been made to reorganise the group and separate them from the *Danthonias* of the northern hemisphere. The most recent review has placed most of the Australian *Danthonias* into the new genus *Austrodanthonia*. As a group, the Wallaby Grasses are easy to identify once their distinctive features are well 'digested'. All have prominent tufts of hair on each side of the junction between leaf blade and sheath or stem, and a fine pair of parallel grooves down the middle of the upper surface of the leaves. The leaves of most species are hairy upon close inspection though the degree varies, and several species are glabrous (hairless). The inflorescences are quite distinctive but difficult to describe. Identification of individual species is fairly difficult in most cases and can only be achieved confidently after much practice with the key and in the field. Good luck!

## 1999 IN TWO MONTHS - Geoff Robertson

Your FOG Committee is considering:

- what objectives the next committee should set (the AGM is in February) - what we should improve and what potential members we should be trying to reach
- what membership fees should be set at
- who might stand for a committee position
- what should be in the program
- how frequently should the newsletter be issued

If you have any ideas or want to gravitate towards a committee position, please let us know. **How about giving FOG membership (or a subscription to the FOG Newsletter) as a Christmas Present. Contact Margaret Ning about how to achieve this.**

Please contact activities coordinator Margaret Ning if you are interested in joining an ID group.

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**A TOP GRASSLAND** - Geoff Robertson

On Saturday 10 October four FOG members visited Radio Hill, Cooma, a treeless grassland reserve. It offers spectacular views of the Tinderries to the north, Cooma to the west (directly below the reserve), and mountain ranges to the east and south. We were in for many pleasant discoveries. Our guide was David Eddy.

We decided that we ought to test our skills and provide as much information on the site as possible. I hope I do not bore you with technical detail, but I shall list all the plants which we identified and quote the relevant page in Marriott's *Grassland Plants* (eg Marr p95) or Fraser and McJannett's *Wildflowers of the Snow Country* (eg Wildflowers p40). So take your time reading this and look up the references in these or other books. It should be rewarding.

The grassland occupies a hill. It is basalt country and the hill top has poor cover and is quite rocky. The slopes have better cover. There are several species of *Poa* there, including *P. sieberiana* (Grey Tussock Grass, Marr p124) which are the dominant grasses. A common frustration is not knowing how to distinguish the various *Poa* species. In some spots, *Themeda triandra* (Kangaroo Grass, Marr p159) was dominant, while in others a *Stipa* species, most likely *S. scabra* (Rough Spear Grass, Marr p150), dominated. *Elymus scabrus* (Common Wheat Grass, Marr p59) was also widespread - this can be identified as a single awn turning backward.

**Endangered and threatened**

However, we were on a hunt for *Rutidosia leiolepis* (mentioned in Marr p138), an endangered species. While this is known in the Snowy Mountains Park, it has not been seen there for many years. It is known to exist at only two other sites outside the Park. We estimated about two hundred plants were present at this site. Unfortunately it was not in flower. Another nationally endangered plant at the site is *Leucochrysum albicans tricolor* (Hoary Sunray, Marr p95). It is a spectacular paper daisy with a pink top when in bud. It was also widespread but not as plentiful as *R. leiolepis*. Both are members of the Daisy family (Asteraceae). Other members of that family present at the site, but not in flower, were *Vittadenia* sp. (possibly *V. triloba*, Marr p165/6), *Chryscephalum apiculatum* and *C. semipapposum* (Common and Clustered Everlastings, Marr p36/7), and *Rhodanthe anthemoides* (Chamomile Sunray, Wildflowers p57), similar to, but smaller than, *L. albicans tricolor*.

**Discaria - a rare species**

Another species we had come to see was *Discaria pubescens*. This plant is now regarded as rare, and there are few references in field guides, etc. to it. It

sends up green thorny stems and has spectacular curling creamy white flowers. Most of the plants we saw were in full flower. While thorny, it is susceptible to grazing which seems to account for its disappearance.

There were many other plants of interest and much time was spent discussing how they may be distinguished. These included *Scleranthus diander* (mentioned in Marr p141), a *Plantago* sp. (see Wildflowers p154), *Erodium crinitum* (Blue Stork's-bill, Crowfoot, Marr p63), two other members of the Geranium family, *Geranium retrorsum* (Marr p69) and *G. solanderi* (Wildflowers p140), *Asperula conferta* (Common Woodruff, Marr p14), *Acaena* sp. (Bidgee-widgee, Wildflowers p165), *Wahlenbergia* sp. (Bluebell, Marr p167), *Convolvulus erubescens* (Morning Glory, Marr p 39), *Velleia paradoxa* (Spur Velleia, Marr p163), *Ranunculus lappaceus* (Buttercup, Marr p134), *Epilobium bilardieranum*, *Stackhousia monogyna* (Creamy Candles, Marr p147) which were coming into flower, and *Dianella longifolia* (Pale Flax Lily, Marr p48). Some other monocots (possibly orchids or lilies) were on the way, but too underdeveloped to identify.

**A Major discovery**

David was curious about the ridge north of the reserve, also crown land, but under a grazing regime. So we set off for the next peak.

We were amazed to discover a much bigger population of *Rutidosia leiolepis*, thus doubling the numbers of the species known to exist. These plants were further advanced than those on Radio Hill and many had ten or so buds per plant. We also found many more plants of *Leucochrysum albicans tricolor* which were in flower everywhere. Even the *Discaria* grew to the size of small trees. Strangely, the new site was missing most of the common grassland plants. Why had these endangered, threatened and rare plants survived here and where were the more common plants?

**The Down Side**

There were weeds on the site but these should be manageable. These included African Lovegrass which was extensive in places, St. John's Wort although this was restricted to occasional plants, and many exotic grasses, especially *Vulpia*. Over lunch we discussed how such a site is best managed, the educative value of the site so close to Cooma, and the role FOG might play in these issues.

**References:**

Neil and Jane Marriott *Grassland Plants of South-Eastern Australia*. (Bloomings Books) - reviewed last newsletter. Ian Fraser and Margaret McJannett *Wildflowers of the Snow Country, A Field Guide to the Australian Alps*. (Vertego Press, Canberra, ACT)

However, we were on a hunt for *Rutidosia leiolepis*, an endangered species.

David was curious about the ridge north of the reserve

## FOG SLIDE/CHAT AFTERNOON REVEALS A WEALTH OF VISUAL DELIGHTS

On 29 August, 22 members attended our slide/chat afternoon at the Environment Centre. There were three slide presenters. David Eddy commenced with his slides showing various grassland landscapes. This certainly helped put the various types of grasslands in context. He showed grasslands dominated by various grass species (Poas, Kangaroo Grass and Stipa), grasslands with and without trees, grassy woodlands, and grasslands with good forb content. He finished off by showing numerous slides on individual native grassland flowers - truly wonderful.

*There are  
no Earless  
Dragons in  
Gunghalin*

Art Langston followed with a cameo on Earless Dragons. He had many wonderful slides and gave many insights into their lifestyle. To stress a point, he made all grasslanders repeat again and again "There are no Earless Dragons in Gunghalin".

Kim Pullen concentrated on two themes - first up were grassland insects including some wonderful slides of the Golden Sun Moth. We all hope that Kim will continue to impart his knowledge of insects - his talks are always fascinating. He then showed his holiday slides which showed many varied Australian landscapes - from the very small to the vista. Thanks David, Art and Kim.

Paul Hodgkinson showed his grass gathering and growing equipment. He has an advertisement in this issue. Good luck with your business ventures Paul. We also had several herbariums on display. Thanks to those who brought them in or loaned them.

## WILDFLOWERS OF THE SNOW COUNTRY: A FIELD GUIDE TO THE AUSTRALIAN ALPS

*Ian Fraser & Margaret McJannett  
watercolours by Helen Fitzgerald*

The first detailed and comprehensive field guide to the wildflowers of the mainland Australian Alps.

This book provides an accessible means of identification, for lay-people, of virtually every native species to be found in the Snow Country - from the Alpine Ash forests up to the true alpine zone. It covers the wildflowers of the Snow Country of Namadgi, Kosciuszko, Victorian Alpine and Mount Buffalo National Parks, relying on field characters for 'non-experts', such as flower colour, petal number and plant dimensions.

It includes name pronunciations and meanings, relationships and how to distinguish between similar

species. It also offers brief, interesting anecdotal information on ecology, conservation status and human usage.

The authors, Ian Fraser and Margaret McJannett, have been an integral part of Canberra's natural history landscape for much of the past two decades. Their contribution has been through the pioneering Environment Tours program, their work with the local environment movement, an ABC radio show and their six books, of which this is the first to move beyond their local area.

Artist Helen Fitzgerald is also motivated by a conservation ethos. She has painted in three continents, and taught widely. This is the fifth book she has illustrated with these authors.

*Wildflowers of the Snow Country will now join a warm jacket and sturdy shoes as essential companions on a visit to the snow country in summer. Those who can't make the trip should still take the journey through the book to enjoy Helen's Fitzgerald's fine illustrations and Ian and Margaret's introduction and clear text descriptions with fascinating derivations and pronunciations of plant names.*

Dr Robert Boden, Deputy Chair, ACT Flora and Fauna Committee and Director, Australian National Botanic Gardens, 1979-89)

**LETTER** - SOS from Philippa Rowland, Co-ordinator of the O'Connor Ridge Parkcare Group

Dear Colleagues

I have just had a phone call from Simon Corbell who has been attending the Senate Estimates Committee hearing. Questioning on access plans for Bruce Stadium has revealed that the Carnell Government intends to use Old Weetangera Road for access during major sporting events. They plan to open this road to allow vehicle egress from the rear carpark (2000 cars) at Bruce Stadium to Dryandra Street for the Olympic Soccer games, and also for other major games.

According to Simon Corbell, this suggestion formed part of the Preliminary Assessment (PA) carried out for the Bruce Stadium. This PA has already been approved by PALM, which classifies Old Weetangera Road as a Class A road. This proposal leap-frogs any further discussion on John Dedman Parkway and threatens to open up the Bruce Ridge section of Canberra Nature Park to traffic without any discussion with parkcare groups or others with an interest in the Canberra environment. I would be very grateful for any support from other groups around Canberra who also oppose this suggestion of making the current quiet walking track along the alignment on Old Weetangera road into an occasional freeway for sports fans.

All the best, Philippa Rowland  
(philippa.rowland@rs.gov.au)

*Highly recommended  
reading,  
and an ideal  
Christmas  
gift.*

## DRAFT MASTER PLAN FOR CANBERRA AIRPORT - Art Langston

On 24 September I represented FOG at a public meeting in Canberra to discuss the "Draft Master Plan for Canberra Airport" (DMP). The meeting was publicised in local print media, though judging by the small turnout (approx. 30 people) this was not very successful. A similar small number attended the Queanbeyan meeting two nights earlier.

The meeting was part of a consultation process which will include a ninety day public comment period on the DMP - starting early December. Before this date, attendees will receive a newsletter updating progress of the preparation of the DMP. It arrived with FOG a couple of days ago. I congratulate the management team (Capital Airports Group - CAG) for organising the meetings as they are not obliged to under the Airports Act. Also it was pleasant to see many of the issues I heard raised at the meeting reported honestly in the newsletter. However, CAG was criticised by a number of attendees (including FOG) for the timing of the public comment period - over the Christmas holidays! CAG responded at the meeting by detailing the legislative timing constraints that have forced them to do this. FOG suggested that the period be expanded by one week on either side to assist respondents. I had hoped the newsletter would give us some indication of whether CAG will do this. Unfortunately it didn't.

The DMP dovetails with a Draft Environmental Strategy (DES) which is being prepared by a local planning consultant Maunsell Pty Ltd. Maunsells are listed in the yellow pages under the heading "Engineers - Consulting". I note they are not one of the twenty four companies listed under the heading "Environmental &/or Pollution Consultants". The DES is primarily concerned with on-site environmental issues, while the DMP sets the long term scope for on-site development. One of the things the DMP must also address is the off-site environmental effects. The DES will be available for public comment some time next year. CAG have also committed to forming an "Environmental Reference Group" which will include community representatives. FOG will lobby strongly to be included in this group.

Of concern for FOG is the presence of remnant native grassland on the northern sections of the airport. Although this grassland is highly managed (regular mowing), the lack of grazing over the past few decades has allowed native forbs to re-establish themselves among the native grass. The presence of these species makes the airport important for its potential role in rehabilitation of surrounding native grass fields. This is just one reason for protecting the site. Also of concern for FOG is the presence of the "grassland earless dragon" in the airport grasslands. Both the grassland and the dragon

were acknowledged in the DES. FOG raised several specific concerns relating to plans for development that may impact both on and off site populations of the dragon. These include the plan for a bitumen road around the north eastern corner of the airport which would form a barrier for movement between the airport and adjacent dragon populations on the Majura Field Firing Range (Dept of Defence). They also include a planned transport hub on the western side of the airport which would be in close proximity to the remnant grassland.

Not surprisingly, airport noise was also raised as a major issue at the public meeting. As I was representing FOG, I thought it inappropriate to provide comment.

The next step in the process is the release of the DMP for public comment. After that period CAG have to submit the draft (possibly revised) to the Federal Minister for the Environment in June 1999 for approval. The involvement of the Federal Government is one problem we face in getting a good environmental outcome on the airport. The airport is commonwealth land and is therefore bound by commonwealth law. Neither the grassland nor the dragon is protected under commonwealth law. It is somewhat grey as to whether the influence of the airport on surrounding sites and populations which are protected under territory law can be controlled by the ACT Government. Comments from consultants and facilitators at the public meeting suggest that CAG are fully aware of this situation. Let's hope they don't use it to the disadvantage of the grassland or the dragon. To be fair, in the past when under the control of the Federal Airports Corporation, the airport management were sympathetic to the conservation of both grassland and dragon. To be cynical, at the time they did not have any conflicting development proposals. They now do!

FOG will continue to participate in the consultation process and provide review of the DMP and the DES when they are released for comment.

## WORKSHOP PROCEEDINGS - Art Langston

No we haven't forgotten about them! However, other commitments have meant that the production of the workshop proceedings have taken a back seat. We are currently hoping to have a first print run of the proceedings out in December. They will be distributed to those people who attended the workshop. For those who did not attend we will include an order form in the January/February newsletter so you can purchase a copy. We expect to print copies to fill these orders in January/February 1999.

Sorry for the delay.

*Of concern for FOG is the presence of remnant native grassland on the northern sections of the airport.*

*We are currently hoping to have a first print run of the proceedings out in December*



## WEEDBUSTER ITEMS

Congratulations to the organisers of Weedbuster Week. Hopefully many more people in this area are now more aware of weeds and their management. Sadly, weed proliferation in the ACT and adjacent NSW makes the task of weed management look overwhelming. FOG came across some interesting items.

Hopefully many more people in this area are now more aware of weeds and their management.

**The Weed Navigator** by Kate Blood, Ursula Taylor, Toni Nugent, and Susan Timmins is your first point of call to find your way around the weed world in Australia and New Zealand. With over 2800 entries, it is the most comprehensive environmental and agricultural weed contact and information guide. It includes contacts, listings of publications, brochures, web sites, databases, CD ROMS, strategies, legislation, posters, training opportunities and much more. Cost \$30. To order, contact the Cooperative Research Centre for Weed Management Systems: Phone 08 8303 6590, fax 08 8303 7125, email [crcweeds@waite.adelaide.edu.au](mailto:crcweeds@waite.adelaide.edu.au)

A useful new book is **Alps Invaders: Weeds of the Australian High Country** edited by Geoff Sainty, John Hosking, and Surrey Jacobs and published by the Australian Alps Liaison Committee. Cost \$7. It has an excellent picture of each offender. A good reference to carry with you.

## LET THE SNOWY FLOW

FOG is a member of a couple of environmental organisations with kindred aims and aspirations, the Environment Centre and the Australian Network for Plant Conservation. The Environment Centre publishes the quarterly *Bogong* magazine and the monthly newsletter *Sustainable Times*. A flyer in the latest *Bogong*, entitled *Let the Snowy Flow*, states:

"Australia's legendary Snowy River receives less than 1% of its original flow, the rest having been cut off at Jindabyne, NSW, since the 1960s by the Snowy Mountains Hydro-electric Scheme. This means that **for every litre of water the scheme catches, the Snowy River gets only two teaspoons**. Reduced to a trickle along much of its course, the river is now infested with weeds, silted up, salty, dirty and dry.

In 1995 a panel of scientific experts studied the entire length of the Snowy River and declared that the river was dying. They recommended at least 28% of flow be returned to the Snowy to help bring it back from the brink. Following this study, a national enquiry into the environmental effects of water distribution by the Snowy Scheme was initiated. The enquiry will report to the NSW, Victorian and Federal

Governments towards the end of the year. They will then decide the fate of the Snowy.

This is the last chance to help the Snowy River flow again. It is vital that you tell the government they must act to save this national icon before it disappears from the Australian map."

Readers may care to write to Bob Carr or Jeff Kennett (copy to John Howard). Details are Premier Bob Carr, Parliament House, Sydney 2000, Fax: 02 9228 3935; Premier Jeff Kennett, Parliament House, Victoria 3000, Fax: 03 9651 5298; and John Howard at Parliament House, Canberra 2600. A suggested letter follows.

Dear Mr Carr/Mr Kennett

## LET THE SNOWY FLOW AGAIN

I urge you to immediately restore at least 28% environmental flow in a natural flow pattern to the Snowy River with scope for more if it is found to be inadequate. This amount was recommended as a minimum by an expert panel in 1995 in order to restore this national icon.

The Snowy River needs an adequate environmental flow to help reverse siltation, weed infestation, pollution, salination and declining fish and platypus populations. It is a precious part of our natural heritage.

Yours sincerely ...

There are other ways to help the Snowy River campaign; for further information contact: Snowy River Alliance ph 02 6456 5000/fax 02 6456 5100

## CANBERRA NATURE PARK AND HORSES

If you read the Chronicle's article a couple of weeks ago on the Canberra Nature Park's horses ban, you will be aware of a few aspects of this controversial issue. The saga has covered several months and has still not been resolved. In our next newsletter, one of our members, Jean Geue, will outline the major developments to date.

## AN UPDATE - MICROLAENA AND DANTHONIA HARVESTING OPEN DAY

John Betts near Yass, who wrote an article for our July newsletter on harvesting Microlaena and Danthonia seed, is on track for December harvesting of his Danthonia fields. If you are interested in coming out to Yass for his harvesting open day sometime around Christmas, please contact Margaret Ning and she will notify everyone when the harvest is ready.

Australia's legendary Snowy River receives less than 1% of its original flow



## ACTION PLAN FOR ENDANGERED AND VULNERABLE SPECIES

- Naarilla Hirsch

FOG has received nine action plans developed by Environment ACT for species declared endangered or vulnerable in the ACT. They are:

- 1 Natural Temperate Grassland - an endangered ecological community
- 2 Striped Legless Lizard (*Delmar impar*) - a vulnerable species
- 3 Eastern Lined Earless Dragon (*Tympanocryptis lineata pinguicolla*) - an endangered species
- 4 A leek orchid (*Prasophyllum petilum*)
- 5 A sub alpine herb (*Gentiana baeuerienii*)
- 6 Corroboree frog (*Pseudophryne corroboree*) - a vulnerable species
- 7 Golden Sun Moth (*Synemon plana*) - an endangered species
- 8 Button Wrinklewort (*Rutidosia leptorrhynchoidea*) - an endangered species
- 9 Small Purple Pea (*Swainsona recta*) - an endangered species

A tenth action plan, for Yellow Box/Red Gum Grassy Woodland, is in preparation.

Before being declared threatened or vulnerable under section 21 of the Nature Conservation Act 1980, a species or ecological community is assessed by the ACT Flora and Fauna Committee and has to meet criteria laid down in the Committee's publication Threatened Species and Communities in the ACT (July 1995). In general, a species or community is declared endangered or vulnerable because it is thought to be at risk of premature extinction in the ACT in the near or medium-term future due to severe decline in population or distribution, or severely fragmented distribution. Some of the species have already being recognized as endangered or vulnerable nationally or internationally.

Several of these species/communities overlap at sites such as Majura Valley, Jerrabomberra Valley, Gungahlin and Belconnen Naval Station, and measures proposed in the different action plans are complementary.

Common threads run through the threats listed for the different species/communities. Urban, agricultural, industrial and infrastructure developments are threats listed in a number of the action plans. Others are weed invasion, changes in fire frequency, grazing, degradation of habitat, predation and presence of feral animals.

Surveys to determine the extent of known populations and to locate other sites in the ACT where the species/communities may occur are proposed in many of the action plans, as well as long term monitoring of the species/communities and research into management related issues. An adaptive approach to management of habitat and species/community values

will be developed in a number of cases, along with management guidelines, and management plans for some specific sites.

Memoranda of Understanding for Commonwealth-owned occupied land are identified as one means for ensuring long term conservation of some sites where these endangered species/communities are present, as is the reservation of sites of high conservation value. Education and liaison with the community and those responsible for managing the habitat of these species/communities is another important measure.

As well as detailed information on conservation issues and intended management actions, the action plans also contain information on the species/community description and ecology, conservation objectives, socioeconomic issues and legislative provisions. They identify avenues for conservation and community participation, and strategies for implementation and review.

Some of the major conservation and management issues from each action plan will be presented in a series of articles in this and later newsletters. Further information on each action plan can be obtained from Environment ACT (Wildlife Research and Monitoring), phone 02-6207 2124, fax 02-6207 2122.

### Action plan for the Striped Legless Lizard, *Delmar impar*

*Delmar impar* is found primarily in lowland native grasslands. It was declared vulnerable in the ACT because it is:

- recognized as vulnerable on international and national listings;
- at risk of premature extinction in the ACT in the medium term due to
  - decline in quality and quantity of habitat, high actual or potential levels of exploitation or persecution, and serious threats from herbivores, predators, parasites, pathogens or competitors;
  - seriously fragmented distribution for a species currently occurring over a moderately small range or having a moderately small area of occupancy within its range.

Conservation objectives are to increase understanding of the biology and ecology of the species as the basis for managing its habitat, and protecting several viable populations in native grasslands across the ACT.

Management actions cover a range of activities. Where possible, further fragmentation of populations will be minimized and habitat linkages maintained. Priorities for research are population dynamics (e.g.

Urban, agricultural, industrial and infrastructure developments are threats listed in a number of the action plans.

Others are weed invasion, changes in fire frequency, grazing, degradation of habitat, predation and presence of feral animals.

*Prasophyllum petilum*, a slender ground orchid is known from only two sites

population viability, longevity, causes of mortality and over winter requirements), capture and marking techniques, habitat requirements, population genetics and habitat management (e.g. effect of grazing, fires, weed invasion and mowing). Surveys will establish the regional distribution of the species. A monitoring program will be designed to obtain information on population fluctuations over time, particularly in response to changes to grassland habitat, specific management practices and pressures associated with urbanization. Education and liaison activities include compilation and distribution of management guidelines to land managers, and a public awareness campaign to inform residents living close to D. impar habitat of ways to decrease potential threats associated with urbanization.

Source: ACT Government, 1997. *Striped Legless Lizard (Delmar impar): A vulnerable species. Action Plan No. 2. Environment ACT, Canberra.*

#### **Action plan for a leek orchid, *Prasophyllum petilum***

*Prasophyllum petilum* is a slender ground orchid with one or two dark green leaves and pink-mauve flowers with greenish tinges. It is known from only two sites, Hall Cemetery in the ACT, and a Travelling Stock Reserve near Boorowa in New South Wales. At Hall the habitat is remnant grassy woodland, timbered with *Eucalyptus blakelyi* and scattered *Eucalyptus melliodora*. Dominant native grasses are *Themeda triandra* and *Danthonia* species.

*P. petilum* was declared endangered in the ACT because it is:

- recognized as vulnerable on a national listing;
- at risk of premature extinction in the ACT in the medium term due to
  - severe decline in quality and quantity of habitat;
  - very high levels of exploitation or persecution;
  - continuing decline or unnaturally extreme fluctuations in population or distribution for a species currently occurring over a small range or having a small area of occupancy within its range;
  - severe fragmentation in population for species with a small current population.

Conservation objectives are to preserve the existing ACT population, to maintain as diverse a gene pool as possible, to provide opportunities for research and enjoyment of the species in the ACT, to foster an appreciation of natural heritage values alongside the cultural values of Hall Cemetery, and to develop successful propagation techniques.

Consultive management arrangements have been

made with the ACT Cemeteries Trust, who manage Hall Cemetery. Management activities include monitoring the survival of *P. petilum* at Hall Cemetery each year, a plan for grass management (and mowing) in the cemetery, no application of herbicides in the cemetery until the exact locations of orchids are known, and minimization of the impact of grave excavation on *P. petilum*. Given the rarity of the species, survey work is not to be undertaken to locate other populations. Instead, field workers are being made aware of the species, as are interested naturalists and conservation groups.

Source: ACT Government, 1997. *A leek orchid (Prasophyllum petilum): An endangered species. Action Plan No. 4. Environment ACT, Canberra.*

#### **MESSAGE FROM TIM BARLOW**

Just a quick note to remind people that even though the trees are sparse, Bushcare projects focusing on grassy ecosystems ARE a Bushcare priority. The time for development of proposals is now upon us.

The perception that Bushcare is about tree-planting derives solely from the fact that the vast majority of applications involve tree-planting (which of course is not always a bad thing!). Grassy ecosystems need people who can develop innovative, ecologically appropriate projects that will enhance their conservation status.

So please put your lateral thinking caps on and help get some decent project ideas up. I'd like to hear from anyone who is thinking of putting in a proposal for grassy stuff. It will probably be in your interest for me to know about it, anyway.

As an example, some ideas that have been mooted are:

- Techniques for enhancing Buloke woodlands (awareness, regeneration, understorey enrichment)
- Techniques for sustainable grazing ("beyond anecdotes")
- Species enrichment at selected sites
- Thinning weedy shrubs in grassy woodlands (won't that get them scratching their heads!)
- Bush Curlew recovery program
- A DB of herbicide application in grassy veg. mgt
- Incentives package for private land conservation

Any advances on the above would be appreciated. The main area of interest (for me) is SE Aust. If you're outside this region (eg Nthn NSW, WA, Darling Downs or the tropics) I suggest you talk to your State Bushcare Co-ordinator (I can put you in contact if need be). I look forward to hearing from y'arl.

Tim Barlow is a FOG member & the 'Bushcare' Project Officer Grassy Ecosystems, South-eastern Australia: ph (03) 9650 8296 Em: t.barlow@latrobe.edu.au

The time for development of proposals is now upon us.

## GRASS IDENTIFICATION COURSE

This is the second of the ANU Continuing Education courses given by Isobel Crawford. Details were given in our July newsletter. Two members, Alan Ford and Geoff Robertson attended *Botanising in Canberra* (Sept) and were delighted by the content and excellent presentation - they will attend *Grass Identification* (Nov) which still has vacancies. Phone 6249 2892, 6249 0776 or 6249 5991 if you wish to enrol.

## GREENING AUSTRALIA BUSH RESTORATION COURSES

A little more about the Greening Australia courses we mentioned in our last newsletter. These courses should appeal to members of landcare groups, owners of bush blocks wondering where to start, and anyone with a thirst for knowledge; and the cost is considerably less than if the course was being offered at one of the adult education institutions. So try to take this opportunity to expand your knowledge.

**Bush Regeneration** Sats 7 Nov & 21 Nov, \$40: *Presenter Alison Elvin* The course will focus on the rehabilitation of degraded areas and include: Bush ecology - different vegetation communities, their function and the relationship within; General soil assessments, tests and remedies; Weed ID and control; Water availability and quality; Role of fire in different communities; Regeneration techniques, treatments, tools and timing; Site monitoring, and Maintenance and management

**Riparian Restoration** Sat 14 Nov, \$25: *Alison Elvin* Course will cover: Catchments, sub catchments and watercourses; Geomorphological/hydrological processes; Erosion and sediment loss; Water quality and landuse impacts; Weeds and other ferals, their effect and control; Streambank reconstruction; Riparian revegetation; and Site monitoring, maintenance and management.

**Wetland Restoration** Sat 28 Nov, \$25: *Alison Elvin* The course will cover: Wetland characteristics and ecology; Wetland plants, their identification, ecology and propagation; Water quality and its impact; Wetland invertebrates and invertebrate species; Weed ID and control; Revegetating wetlands; and Site monitoring, maintenance and management

**Seed Collection** Sun AM 29 Nov, \$10; and *Propagation*, Sun PM 29 Nov, \$10: *Brian Cumberland* Course will include: Different plants and their seed sources; Seed collection techniques; Timing and treatment; Plant propagation; and Plant maintenance

All workshops will run for 8 hours (9am-5pm) and include site visits, hands-on practical demonstrations and information sheets. Tea and coffee provided,

BYO lunch. Minimum course numbers of 15. Enrolments close 7 days ahead of each workshop and payment will be accepted on the day. Concession rates available.

**Contact details:** Greening Australia ACT & SE NSW, PO Box 538, Jamison Centre, ACT 2614, Ph (02) 6253 3035 and Fax (02) 6253 3145

## PLANT CONSERVATION TECHNIQUES COURSE 30 November - 7 December 1998, Hobart

This course is supported by the Australian Network for Plant Conservation and a host of others. Its objectives are: enhance confidence, skills and experience of plant conservation practitioners; provide an opportunity for information, skills and experience exchange; promote links between government and communities to further plant conservation objectives; and provide a consistent basis of understanding and skills to plan and undertake practical plant conservation.

Its content includes: introduction to principles and ethics of conservation: causes of rarity (field trip); accessing existing information (databases, networking and taxonomy); gathering new information - survey techniques; conservation management techniques (integrated conservation, habitat management, threat abatement, germplasm collection and storage, translocation and smoke germination); field trip - plant conservation projects; community awareness and involvement (philosophies of partnership, methods of engagement, and case studies); conservation instruments/initiatives (legislation and treaties and property management programs); strategic planning; funding opportunities; and determining funding priorities.

Course fees are residential \$1000 (community \$600) and non-residential \$800 (community \$400). Full payment by 30 October 1998. Enquiries: Andrew Smith (03) 6233 2185, [andrews@delm.tas.gov.au](mailto:andrews@delm.tas.gov.au); or Jeanette Mill 6250 9509, [jeanette.mill@ea.gov.au](mailto:jeanette.mill@ea.gov.au)

## 30 ACRES 15 MINUTES FROM HALL

Two 30 acres blocks (with building permits) in Hall-Murrumbateman region. Good roads to ACT. Both have power and phone at boundary, good access, good fencing, good homestead sites, and views of surrounding bush and Brindabellas. Both are in a quiet, attractive area of predominantly large properties. Block one is flat to undulating pasture, has good shade trees and is suitable for horses, grapes, olives, etc. Block two is mainly undulating pasture, has prepared house site, dam, flowers and wildlife. Prices (negotiable) are \$143,000 (Block 1) and \$132,000 (Block 2). Contact Sheridan 6252 6068 (wk) or Geoff 6227 5505 to arrange an inspection.

*Two members attended Botanising in Canberra (Sept) and were delighted.*

*Greening Australia courses should appeal to landcare groups, owners of bush blocks wondering where to start, and anyone with a thirst for knowledge.*



## *Native Grassland Plants and Seeds*

**Phone:** (02) 6259 3869  
(02) 6258 5380

**86 Carlile Street**  
**Evatt ACT 2617**

**Email:** [phodgkin@aucom.com.au](mailto:phodgkin@aucom.com.au)

**Paul Hodgkinson *Principal***

- Collector of native tree, shrub, grass and forb seeds from the ACT.
- New supplier of native grass plugs to Government, Landcare and enthusiasts for grassland rehabilitation, public and home landscaping.



**Australian Biodiversity for the Local Environment**

*Danthonia carphoides*

### **FRIENDS OF GRASSLANDS**

*Supporting native grassy ecosystems*

**Address:** PO Box 987, Civic Square ACT 2608

**Web address:** <http://www.geocities.com/Rainforest/Vines/7769/index.html>



**Your committee:**

Geoff Robertson	President	6244 5616 (w) 6241 4065 (h & fax)	<a href="mailto:geoff.robertson@dss.gov.au">geoff.robertson@dss.gov.au</a>
Naarilla Hirsch	Vice President		<a href="mailto:naarilla.hirsch@health.gov.au">naarilla.hirsch@health.gov.au</a>
Paul Hodgkinson	Secretary	6278 3231 (w & h)	<a href="mailto:phodgkin@aucom.com.au">phodgkin@aucom.com.au</a>
Art Langston	Treasurer	6258 1032	<a href="mailto:art.langston@dwe.csiro.au">art.langston@dwe.csiro.au</a>
Margaret Ning	Activities	6252 7374 (w)	<a href="mailto:margaret.ning@abs.gov.au">margaret.ning@abs.gov.au</a>
	Membership	6241 4065 (h & fax)	
Dierk von Behrens	Newsletter	6254 1763 (h)	<a href="mailto:vbehrens@actonline.com.au">vbehrens@actonline.com.au</a>
Kim Pullen	Committee	6246 4263 (w)	<a href="mailto:kimp@ento.csiro.au">kimp@ento.csiro.au</a>
David Eddy	Committee	6242 8484 (w) 6242 0639 (fax)	<a href="mailto:deddy@ozemail.com.au">deddy@ozemail.com.au</a>
Linda Hodgkinson	Committee	6278 3231 (h)	<a href="mailto:u983405@student.canberra.edu.au">u983405@student.canberra.edu.au</a>

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