

News of Friends of Grasslands

supporting native grassy ecosystems

January - February 2001



FOG'S COMING EVENTS

MEMBERSHIP RENEWAL

A membership renewal form is included with this newsletter if your membership is due. We apologise for sending these out so tardily, but, with the workshop in December, things became a little too tight. Please complete the form and return it with your payment to our post office address. The membership fee is \$20 for individuals and families, \$50 for corporate members, and \$5 concession (students and those on social security benefit). Additional donations are also appreciated. If you have joined or rejoined in the last couple of weeks, please ignore this message. (If you joined in the last six months of 2000 your membership will carry over to the end of 2001, so no renewal form should be enclosed!)

FOG AGM

Saturday 10 February, 4pm

Geoff Robertson

The Annual General Meeting will be held at Mugga Mugga Education Centre, Symonston, on Saturday 10 February at 4pm. Traditionally we have attempted to keep the formal meeting to one hour in which time the President provides a written (and an informal verbal) report, the Treasurer presents the audited accounts, and the election of the new committee is held. There is ample time for those attending to raise any issues they consider may benefit FOG. This is followed by an informal BBQ provided by the committee – meat, salad, cordial, tea and coffee will be provided. We suggest you might also like to bring some wine or whatever to add to the celebration. To assist with catering, it would help if you could let Margaret Ning know if you are coming. (6241 4065 (h) or 6252 7374 (w))

FOG has chalked up a rather successful year with good outcomes on many fronts. We face no serious immediate problems. This result relies on the efforts of many people both on and off the committee. Some of you may like to consider how to become more involved or may wish to raise an issue you would like FOG to consider. If so, please contact Geoff Robertson on 6241 4065. However the aim of the AGM is to fulfil our legal obligations, give members the opportunity to discuss broad directions for FOG, but most of all, to enable us all to catch up with each other and have a good time.

For your information, the Committee meets 5:30 to 7:30pm every 4th Tuesday of the month at the Environment Centre. Major decisions are taken at committee meetings by consensus. Most important items of outgoing correspondence are sent to committee members (via e-mail) for their input and/or endorsement. We attempt to keep the adminstrivia outside committee meetings so that meetings are informative and fruitful. Participation in the committee is an excellent way to learn about grassland conservation. In the last twelve months, the committee has held several workshops with Stuart McMahon to assist it with its policy formulation and strategic planning.

NEW COPIES OF GRASSLAND FLORA – GET YOUR COPY NOW!!!!

We have autographed copies of the 'new' reprint of Grassland Flora, which contains a few amendments and is printed on glossy paper instead of the previous satin. Cost is still only \$15. Contact Margaret on 6241 4065 (h).



FOG'S 2001 PROGRAM

Saturday 10 Feb, 4pm - FOG's Annual General Meeting at Mugga Mugga, Symonston Brief meeting and BBQ.

Saturday 10 March - Ginini Flats
Our alpine grassland for the year.

Sunday 29 April - Salinity Local damage and one property's experience with winding back the clock.

May - Slides First showing of Rainer Rehwinkel's slides of western grasslands.

June - Local grasslands from Action Plan Number 1 Continuing our familiarisation.

end July - Lyn Nelson presents her Grassland Earless Dragon research

August - A weekend of south coast grasslands with Rainer Rehwinkel

Saturday 22 Sept - Grasslands in the Young area with Rainer Rehwinkel

Saturday 6 October - Orchids at Gungahlin Hill

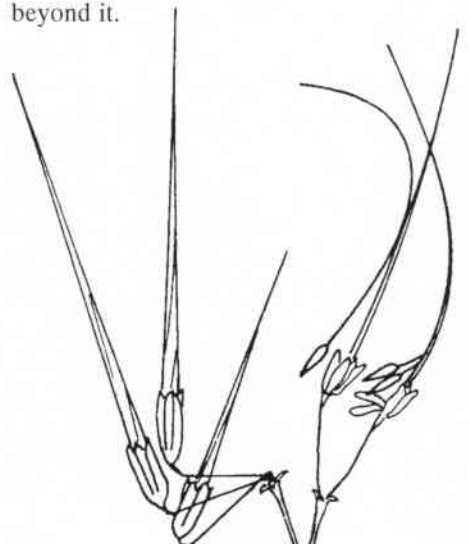
late October - Kowen Forest

November - A Theodore grassland

Early December - Pursuit of the Golden Sun Moth

December - more Monaro grassland gems

Other possibilities throughout the year may include Werribee Zoo's grassland displays (Melbourne), Wadbilliga National Park, the Murrumbidgee/Riverina area, Rob Roy Reserve. Of course, further suggestions are welcome for this year's program or even beyond it.



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NEWS ROUNDUP**Workshop success**

The workshop, *Grassland beyond the reserve*, held in Cooma and surrounds on 1-2 December was highly acclaimed by the nearly 100 participants. The workshop acknowledged that the main efforts for grassy ecosystem conservation will take place outside formal reserves on land either owned or managed by people in the rural community. The opening address by John King and the first session by Matthew Crozier (NSW Farmers' Association) put a farmer's perspective which suggested that conservationists and farmers have much common ground but some work to do to understand each other's viewpoint.

Roger Good (NPWS), David Thompson (DLWC) and Sarah Sharp (Environment ACT) talked about various state agency experience in off-reserve conservation. This provided valuable insights into what has been learnt over the last five years. To bring a broader perspective, Helen Ryan, Ann Prescott and Michael Dunn spoke of experiences in Victoria, SA and the Riverina.

FOG's presentation on identifying and conserving native grassland was given by Michael Treanor. This was followed by three Monaro case studies presented by Winston Phillips (Cooma RLPB), Peter Beer (Cooma Council) and Neville Locker (local historian and farmer). Rebecca Cole gave the final day-time session by outlining what funding assistance is available to landholders.

Dinner provided an opportunity for workshop participants to get to know each other further and to learn about the foibles of past local Monaro pioneers courtesy of Neville Locker. On Saturday, the field trip provided an opportunity to see three local grasslands at

first hand. Even well informed grassland enthusiasts were amazed at the quality of grasslands they saw at Radio Hill, Round Plain and Happy Valley. The workshop proceedings are available and are highly recommended, see notice on page 4.

FOG develops survey skills

Our last newsletter reported on plans for the rail easement survey and a survey of Bombala TSRs, plus some Cooma TSRs to boot. The rail easement survey was essentially conducted over two Saturdays by 20 FOG members while the Bombala surveys involved five people over four days. These surveys were undertaken under the guidance of Rainer Rehwinkel (NPWS).

There were some impressive finds. Both surveys have revealed many very high quality grassy ecosystem sites. The rail survey found three new populations (and the most southern known in NSW) of Button Wrinklewort (*Rutidosis leptorhynchoides*), a couple of new sites for Creeping Hop Bush (*Dodonaea procumbens*) and many new sites for Silky Swainson-pea (*Swainsona sericea*) – all threatened species. The survey also recorded a possible new species of Leek Orchid. The Bombala survey has turned up the most southern and possibly the largest known population of Creeping Hop Bush and a new population of Grassland Earless Dragon, 30k south west of previous known populations. The survey results are now being compiled. More on these surveys is revealed by Alan Ford on page 7.

Feverish spring activity

As per normal, spring was a time of feverish activity for FOG members. FOG continued to hold various field trips and Ian Fraser and Margaret McJannett commenced offering grassy ecosystem tours – welcome. Alan Ford reports on these activities on page 6.

Radio Hill

Our work on Radio Hill continues and during December a small working party working with a commercial contractor helped get much of the larger vegetation, which had been cut, turned into wood chips and taken off-site. However, some of the cut Hawthorn will remain on site because of the size of the job and our funding limitations. In our last newsletter we reported that additional funding had been obtained from DLWC for fencing and more weed control. The negotiations over the fencing have taken some time to resolve but

fencing may be completed by the end of January. Prospects for further weed control money are also looking promising.

Andrew Young has now produced his report on the genetics of the Monaro Golden Daisy (*Rutidosis leiolepis*) – the TSN/ NHT Grant obtained by FOG partly funded this research. His research has found that the genetic diversity of this species decreases as altitude increases, ie those at higher altitudes are more inclined to reproduce vegetatively so these populations are less genetically diverse. Therefore of the populations studied, (several more have since been rediscovered), the population on Radio Hill (and the adjoining reserve) is the most genetically diverse, due to a combination of its size and altitude. Apparently the vast bulk of the genetic diversity within the species is represented at Radio Hill.

People familiar with the Button Wrinklewort (*R. leptorhynchoides*) may be aware that the species exhibits polyploidy (differing numbers of chromosomes), making mixing genetic material from separate populations potentially risky. Andrew's work shows all populations of *R. leiolepis* to be diploid thereby avoiding this problem. The Radio Hill population would therefore be a good source of seed for species recovery work, at least at lower altitudes.

Positive announcement on Jerrabomberra

On 2 November 2000, ACT Minister Brendan Smyth released a press statement stating that a new town centre for Jerrabomberra Valley had been ruled out to ensure the protection of the high environmental values of the area. He stated that a scoping study reviewing the development potential of the Valley found that the area is not suitable for standard suburban residential development, as had been the long-held intention. These environmental concerns include the presence of Native Temperate Grassland habitat, home to the endangered Grassland Earless Dragon, Striped Legless Lizard and Golden Sun Moth, in addition to areas of Yellow Box/Red Gum Grassy Woodland endangered community.

He stated "We will reserve substantial areas of the Jerrabomberra Valley for the protection of these threatened species. These areas will not be available for development. However, some of the remainder of the Valley, which does not have the high environmental value,

is still suited to meeting important commercial and community land needs, as well as some alternate residential options. Some development would be possible through normal development processes and consistent with environmental Action Plans. In these areas, the types of uses could include broad acre institutional, industrial and commercial activities, which can be developed in a natural landscape setting, telecommunications and aviation facilities, some tourist facilities and low impact agriculture such as grazing.”

Mr Smyth stated that this is the second time Government has put environmental importance ahead of substantial development in regard to town centres. The Gungahlin Town Centre was moved to an alternative site in 1995 due to the presence of endangered species at the original site. However the withdrawal of this town which would have housed tens of thousands of citizens means that other areas of Canberra will need to be further developed and there are implications for infill.

ACT weed survey

Environment ACT is undertaking a survey of invasive non-woody weeds in ACT and the surrounding region. Commonly-known invasive weeds include Serrated Tussock, African Love Grass and St Johns Wort. A less well-known species, Chilean Needle Grass, has occurred in the ACT for many years, but it now appears to be rapidly spreading, at least in urban areas.

There is little information about where these species are most abundant, particularly Chilean Needle Grass, what the land is used for and in what sort of situations these plants occur. Nicky Bruce (Australian National University) and Sarah Sharp (Wildlife Research and Monitoring, Environment ACT) are coordinating a survey of these species. They are seeking volunteers to gather data.

FOG supports this survey because it will provide very good data about these nasties and help to define a strategy to combat them. We would like our members to participate. The survey is simple and will involve very little time. FOG can help you if you are not sure how to identify these species. This is also an excellent way to learn a little about grassland conservation. Surveys forms are available electronically or can be obtained by calling Nicola Webb on 6207 2126. Completed forms need to be returned by the end of January.

Important news from SA

On 15 October, Mokota Conservation Park (previously known as Mt. Cone) was officially opened in the State's Mid North. This is a *Lomandra tussock* grassland. Some Canberra FOG members who attended the Clare Conference in 1999 had the opportunity to visit it briefly then. East of Mount Bryan township, the park conserves 455 hectares and has been created under the National Reserve System Program of the Natural Heritage Trust. This joint Commonwealth and State initiative contributed to the purchase and establishment of the park. The Nature Foundation SA Inc, a charitable non-government organisation, contributed \$50,000 towards the purchase. Mokota Conservation Park is probably one of the most extensive, and relatively diverse, known areas of tussock grasslands left in South Australia. This native tussock grassland is of unusually high quality due to a previous conservative stocking program and contains more than 150 indigenous plant species including 32 of particular conservation significance in South Australia. It also preserves essential habitat for the endangered Pygmy Bluetongue lizard which inhabits nearby grasslands.

Key's Matchstick

In our last issue, Kim Pullen encouraged FOG members to keep an eye out for Key's Matchstick grasshopper (*Keyacris scurra*). We are pleased to report that it was spotted at three sites visited on FOG trips, two of which were previously unknown populations.

ACT prison update

In our July-August newsletter we reported on ACT prison developments. Being concerned citizens, most of us will have followed this story with interest. However there is a more direct interest as the chosen site at Symonston is bounded on one side by a grassland and on the other by a grassy woodland. Recently, the ACT Government announced that a new remand centre would be built at the site. On 14 December, the ACT Prison Community Panel released its report *An ACT Prison-Getting it Right*. Copies of the report can be obtained from ACT Corrective Services.

The report, as one might expect of an educated, sensitive and sensible community, argues that the ACT needs to replace the outmoded remand centre and take responsibility for housing its own sentenced prisoners (although prison is seen as a last resort for criminal behaviour). The report focuses on the

ACT's duty of care, and places emphasis on rehabilitation, health, a positive prison culture, respect for cultural, gender and other specific needs, family and community involvement, transparency and accountability. All aspects of staff selection and training, programs and prison industry should underscore these objectives. The report makes a number of recommendations on conservation, consistent with FOG's report in our earlier newsletter.

Geoff Robertson who has been an active participant stated that being on the panel opens one's eyes to many of the ACT's social problems. A disproportionately high number of remand and sentenced prisoners suffer from mental illness, drug and other abuse, health problems, lack of education and skills, etc. Seventeen percent of ACT prisoners are Aboriginal and Torres Strait Islander people.

For Geoff, participation on the panel also highlighted the links between social justice and conservation. In his view there are many parallels between how a community deals with its least fortunate members and its environment. In both issues there is often unconsidered rhetoric and a desire to sweep matters under the carpet. Strangely, given the location of the ACT prison, it may provide opportunities for many synergies for linking conservation, family and community involvement.

Canberra Airport back in the news

We last mentioned the Canberra Airport in our May-June newsletter in a short piece titled *Saint George and the Dragon*. The Commonwealth Government has announced that \$15 million will be available to widen the runway at Canberra Airport. This will help large planes to land at Canberra. Readers will recall that VIP planes such as that belonging to St George (the Queen) are unable to land in Canberra because the runway is inadequate. The threat to this development will be the Dragon (Grassland Earless variety). There was mention that this development will be subject to an Environment Impact Study. So keep an ear out for the Dragon.

Opposition to East O'Malley

On 20 November FOG wrote to PALM opposing the draft recommendations for urban developments at East O'Malley. The Conservation Council also opposes these

developments. Our previous newsletter outlined the background and principal recommendations of the draft East O'Malley report. Apart from our concerns about developing grassy woodland areas known to have 'high' and, in one area, 'very high' conservation value, our submission argued that PALM had given community groups insufficient time to make a proper assessment of the proposals. Copies of our submission are available.

Since the submission some members of FOG have visited the area and noted that they substantially agree with the vegetation mapping that was undertaken as part of the draft report. They concluded that the development plans would destroy high value areas of grassy woodland. However, they considered that if the authorities paid more attention to the vegetation map there may be possibilities of developing areas of East O'Malley which were not considered to have conservation value.

Grassy ecosystem applications

In our last newsletter, mention was made of an application for the WWF/NHT Devolved Grants for Grassy Ecosystems. This application was made by the Cooma, Bombala and South Coast Rural Lands Protection Boards to conserve 26 Travelling Stock Reserves. We have now learnt that two applications have been made in relation to ACT sites, a further 17 proposals have been submitted for NSW projects (many from the local region), and a combined ACT/NSW project has been submitted. In addition there are 13 applications from Victoria, 11 from SA

and 6 from Tasmania. Generally the quality of the applications has been very good and it looks like many grassy ecosystem sites will become recognised and good conservation outcomes will be achieved. The applications will be considered in January.

Conder development

Now that the future of the Conder 4A grassland has been resolved (some to be developed and a large chunk to be placed under a ten year moratorium and managed as part of Canberra Nature Park), attention has turned to developing the wetlands. In particular discussion has commenced on the siting of various ponds and the interface between the wetland and the grassy woodland. PALM called a meeting of all stakeholders on 18 December. Some options suggested may mean that the wetlands will encroach on the grassy woodland areas. Generally, the meeting agreed that this should be avoided. PALM will now employ a consultant to develop some design options.

A Victorian garden

Chris Findlay is running a business concentrating on the conservation of bush land remnants, mainly of the grassland variety. He is maintaining and developing an indigenous garden at Burnley Horticultural College in Richmond, Melbourne. He is happy to show his most diverse collection of plants collected from grassy ecosystems in a public garden. He has well over 100 species of ground flora including many native grasses, forbs, orchids, ground covers and small shrubs. Burnley is situated on the Yarra Boulevard

next to the Swan St Bridge. His phone number is 03 9250 6800.

Also from Victoria

Penny Fannin in the *Science Reporter* (16 October) reports that endangered native grasses have been reintroduced to western Victoria in the hope of fighting salinity and preserving native plant systems. The grasses are found naturally on the basalt plains in the west of the state and grow in salty depressions that are water-filled in winter and dry in summer. Scientists at the Royal Botanic Gardens in Melbourne are collecting the grasses, which they believe could be widely used for rehabilitating salinity-affected areas.

The article quotes Liz James, a plant geneticist at the gardens, as saying that the area of agricultural land affected by salt was expanding, but that the grasses could help stabilise these areas by preventing erosion. She said the grasses would also attract insects and fungi that, although not the focus of conservation efforts, were necessary for plant systems to function properly. A trial planting of 40 grasses three years ago was successful. She said the native grasses did not need salt to grow, but were more widely distributed when salt was present. One of the grasses being investigated is Adamson's blown grass, a tussock grass that grows about 30 centimetres high. The grass was first described in 1853 but it was not until 1985 that it was rediscovered. Ms James said it had since been found at about 60 sites in the Western District.

Grassland Beyond the Reserve Workshop Proceedings Now Available!

Cost, including postage, \$10

The 80 page workshop proceedings are available. They contain a wealth of information and come highly recommended for anyone interested in grassy ecosystem conservation and management. For example:

- For ACT residents, Sarah Sharp's paper is a must-read for an up-to-date understanding of the ACT Government's active grassland management program.
- FOG's paper provides a good

understanding of what is happening in grassland conservation and describes its approaches, experiences and successes.

- NSW Government agencies, NPWS and DLWC, are major players in grassy ecosystem conservation and their papers put their work into perspective.
- Experiences in Victoria, South Australia, and Western Riverina provide valuable insights into approaches being tried elsewhere.
- The three case studies illustrate how farmers, Local Government, and Rural Lands Protection Boards see their role.

The presentation by the NSW Farmers Association and the opening address illustrate how farming and conservation values interact.

- There is ample information on what financial and other assistance is available.

To order your copy send payment and your address details to Friends of Grasslands Inc, PO Box 987, Civic Square ACT 2608. For inquiries contact margaretning@primus.com.au or 02 6241 4065.

SITE EVALUATION AND SIGNIFICANT PLANT SPECIES

Michael Bedingfield

FOG members will be familiar with some of the trials we had in trying to convince planning authorities of the value of Conder 4A. One difficult issue was evaluating the site's relative importance and during the process we learnt a lot about what methodologies are most useful.

In Rainer Rehwinkel's method of evaluating a grassy woodland or grassland site he looks at many things, including: (1) the number of native species that are present, (2) the diversity/density/abundance of each of the species, (3) the amount of disturbance and weed invasion, and (4) significant species.

This article will concentrate on significant species, which are plants that are threatened, rare, declining or uncommon. Also included are those that are highly palatable to stock, or otherwise intolerant of being in a grazing environment, and do not persist in an area with even light year-round grazing.

Our experience with Conder 4A emphasised the need to develop a comprehensive list of significant plant species for grassy ecosystems in our region. The large number of significant species present at Conder was a strong argument for its protection, and a list is given below to show why we put in such an effort to save it. This list of uncommon species, some of them occurring in great abundance, indicates it has had relatively little disturbance and is of high conservation value. Generally a number like this does not occur in isolation and in this case there is a total of about 170 native species present.

What follows is the beginning of an attempt by FOG to create a regional list drawing together information from various sources. It is not complete, but will be developed and made clearer over time as our knowledge grows and researchers in the field gain more detailed information. We hope this will provide an extra dimension for members in evaluating grassy ecosystem sites.

Data are drawn from three unpublished sources. Each list has a different focus so I have kept them separate. To avoid duplication of names, plants have been excluded from a list if they appeared in a preceding one.

List 1: Attachment 4 *Native plant species recorded from Conder 4A and considered to be uncommon in Yellow Box - Blakely's Red Gum Woodland on the Southern Tablelands* by I. Crawford; from the report *Environmental Values of Conder 4A*, by the Commissioner for the Environment ACT, Sept 2000.

(Plants in *italics* are regarded as very uncommon)

Alternanthera species A (undescribed sp.)
Arthropodium milliflorum (Pale Vanilla Lily)
Arthropodium minus (Small Vanilla Lily)
Bulbine bulbosa (Bulbine Lily)
Bursaria spinosa subsp. Lasiophylla (Blackthorn)
Caesia calliantha (Blue Grass Lily)
Calotis anthemoides (Chamomile Burr-daisy)
Craspedia variabilis (Billy Buttons)
Daviesia mimosoides (Leafy Bitter Pea)
Dianella longifolia var. longifolia (Smooth Flax Lily)
Dichelachne species (Plume Grasses)
Diuris dendrobioides (Wedge Diuris)
Erogrostis brownii (Brown's Love Grass)
Eryngium ovinum (Blue Devil)
Hardenbergia violacea (False Sarsaparilla)
Hibbertia riparia
Indigofera adesmiifolia
Isotoma fluviatilis (Swamp Isotome)
Lotus australis (Austral Trefoil)
Mentha diemenica (Slender Mint)
Opercularia hispida (Hairy Stinkweed)
Ophioglossum lusitanicum ssp Coriaceum (Austral Adder's Tongue)
Polygala japonica
Pterostylis cycnocephala (Swan Greenhood)
Rumex dumosus (Wiry Dock)
Scutellaria humilis (Australian Skullcap)
Sorghum leiocladum (Native Sorghum)
Swainsona behriana (Behr's Swainson Pea)
Thysanotus tuberosus ssp Tuberosus (Fringe Lily)

List 2: from the section entitled *The significant species concept*, in the booklet *Native grassland survey method - A rapid site assessment method and conservation value rating system* by Rainer Rehwinkel (NSW National Parks and Wildlife Service), June 1999:

(a) Threatened plants:

Ammobium craspedioides (Yass Daisy)
Calotis glandulosa (Mauve Burr-daisy)
Dodonaea procumbens (Creeping Hop-bush)
Prasophyllum petilum (Tarengo Leek Orchid)
Rutidosis leirolepis (Monaro Golden Daisy)
Rutidosis leptorhynchoides (Button Wrinklewort)
Swainsona recta (Small Purple Pea)
Thestium australe (Austral Toadflax)

(b) Rare plants not covered by legislation:

Discaria pubescens (Australian Anchor Plant)

(c) Plants intolerant of grazing:

All 'lilies' except *Tricoryne elatior* (Yellow Rush Lily)
 All orchids
 Most daisies with an upright habit eg:
Calotis scabiosifolia (Rough Burr-daisy)
Helichrysum scorpioides (Button Everlasting)
Microseris lanceolata (Yam Daisy)
Leporhynchus elongatus (Scaly Buttons)
 all *Bracteantha* (eg Sticky Everlasting)
 all *Calocephalus* (eg Lemon Beautyheads)
 all *Craspedia* (eg Billy Buttons)
 all *Leucochrysum* (eg Hoary Sunray)
 all *Podolepis* (eg Tall Copper-wire Daisy) and most *Brachycome spp.*

Also:

Cheiranthra cyanea (Finger Flower)
Cullen tenax (Emu-foot)
 the grasses *Cymbopogon*, *Dichanthium*, *Pennisetum*
Linum marginale (Native Flax)
 all *Swainsona spp.* (Swainson-peas)
Velleia paradoxa (Spur Velleia)

(d) uncommon:

Calotis lappulacea (Yellow Burr-daisy)
Erodium crinitum (Blue Heron's-bill)
Helichrysum rutidolepis (Pale Everlasting)

List 3: An extract from Table 6 of *Uncommon and Declining Vascular Plants of Lowland Native Grasslands of the ACT* - a report by Isobel Crawford and Alison Rowell to the Wildlife Research Unit, ACT Parks and Conservation Service, June 1996

Amphibromus nervosus (a grass)
Amphibromus pithogastrus (a grass)
Bossiaea prostrata (Bush Pea)
Carex bichenoviana (a sedge)
Centrolepis strigosa (a small herb to 6 cm)
Danthonia duttoniana (Wallaby Grass)
Desmodium brachypodium
Eleocharis plana (a spike-rush)
Eleocharis sphacelata (a spike-rush)
Fimbristylis dichotoma (a sedge)
Hemarthria uncinata (Mat Grass)
Isoetopsis graminifolia
Juncus vaginatus (a rush)
Lepidium sp. aff. Monoplocoides
Limosella australis
Lomandra bracteata (Short-flowered Matrush)
Marsilea spp.
Montia fontana (Water Blinks)
Pentapogon quadrifidus (Five-awn Spear Grass)
Poa labillardieri (River Tussock)
Polygala veronicaea (Milkwort)
Pratia sp. aff. Pedunculata
Ranunculus papulentus (a Buttercup)
Rumex tenax (a Dock)
Schoenus latelaminatus (a sedge)
Stuartina hamata
Stuartina muelleri
Wolffia australiana
Zornia dyctiocarpa var. dyctiocarpa



GRASSLANDS IN SPRING

Alan Ford

Eastern Expedition

Australian botany was on show as 17 FOG members went east under the leadership of Rainer Rehwinkel on Saturday 28 October. The difficulties of identification and the problems of the boundaries of species arose again and again in discussions about the plant that people were looking at in a particular context.

Rainer took us first to Reedy Creek Travelling Stock Reserve (TSR), which is east of Bungendore and on the Goulburn road which leaves the Kings Highway on the way to Braidwood. From grassland to forest in a fairly small area, I listed over sixty native taxa and I wasn't keeping up with the experts. Perhaps the most interesting was the yellow form of the daisy, *Leucochrysum albicans*. The orchids proved an intractable problem, although there was apparently some agreement from time to time as to whether we were looking at *Caladenia cucullata*. We also sighted a Blotched Blue-Tongue and a ground cricket that had just emerged.

If Reedy Creek proved that there were still diverse remnants out there, Back Creek TSR south of Braidwood was to confirm that impression by overwhelming us with the diversity on show. There was one swamp where there were few weeds and a great display of native aquatic plants. I counted over sixty taxa on my list, and again I wasn't keeping up with the experts. This time there was the white form of *Leucochrysum albicans*, and more daisies in *Brachycome diversifolia* and *Calotis glandulosa*. Someone found the grasshopper, *Keyacris scurra*, and a Katydid was also hauled up for examination. The swamp areas here were something special, the *Utrichularia dichotoma* and the *Isotoma fluviatilis* being particularly noticeable for their beauty on the edge of the swamps. Another tiny plant that was pointed out - I would have missed it - was *Centrolepis strigosa*. How such a tiny object hangs on is beyond me.

We then paid a short visit to Majors Creek Cemetery, with over 40 taxa. - a stunning diversity in an area that is mowed with apparent regularity and with exotic plantings along the edge and in the seating area. FOG has written to the management authority about the plantings and aspects of the

mowing regime. I must pay special thanks to Rainer for a great day.

Mulligan's Flat

On a threatening Saturday afternoon of 11 November, 10 FOG members braved the conditions to go out and explore the world of Mulligans Flat. This reserve is on the northern border of the ACT and is a little gem. See it before it's surrounded by suburbia.

We climbed the rise to the ridge and followed that north for a short distance before branching off into the first gully. We were soon confronted by the signs of colour in the near distance, a common experience during the afternoon. Patches of the Bulbine Lily (*Bulbine bulbosa*), whetted our sensory organs for what was to come. Little groups of Scaly Buttons (*Leptorhyncos squamatus*), soon turned into significant fields of the plant - adding to the blaze of yellow that attracted the party to the next feature of the landscape.

The small gullies that one crossed had their share of the action in little bunches of Billy Buttons (*Craspedia sp.*) and the really wet ones contained the tiny Common Bog Sedge (*Schoenus apogon*).

Margaret managed about 115 native species for the afternoon and that included 5 orchid species, 2 of which were different sun orchids, *Thelymitra sp.* There was also a little *Poa*, which, as usual, was far too difficult to identify.

There were other small plants that tended to be passed by in the rush of excitement at seeing the next band of yellow - we did manage to find the Yam Daisy (*Microseris lanceolata*). One of the small plants was the Small Vanilla Lily (*Arthropodium minus*), and we managed a single specimen of the Common Fringe Lily (*Thysanotus tuberosus*) just to balance matters.

We found plenty of the Common Raspwort (*Gonocarpus tetragynus*) in flower, and, apart from the usual Stinking Pennywort (*Hydrocotyle laxiflora*) (you could smell it) we also found another species from this genus.

Our thanks to David Eddy for leading the afternoon. We were also able to examine trees made famous by the inclusion of their photographs in Grassland Flora, as a bonus.

Northern Grassland Sites

On Sunday 29 October I went on an Environment Tour conducted by Ian Fraser and Margaret McJannett to six sites in the near north. We began with Bowning Cemetery, notable for a *Swainsona sericea* and *Bulbine bulbosa* among twenty odd taxa, plus the usual array of orchids.

This was followed by a brief stop at Yass Gorge, not many natives, about 10, but the quality was there, *Bulbine glauca* and *Austrostipa densiflora* among the *Themeda*. There was also this little matter of the Eastern Brown Snake sunning itself on the rocks.

From there to Rye Park Cemetery. The cemetery itself was fairly small but we wandered around the adjacent Yellow Box/Ironbark woodland/forest finding a *Gompholobium* and a *Calochilus robertsonii* (an orchid - what else would you expect to find on an expedition led by Ian Fraser) among the twenty odd taxa that I managed to record. This little remnant was indicative of what things might have been like in this area in the past. The trees were magnificent and they were accompanied by an interesting ground structure of shrubs and forbs.

Pudman Creek Travelling Stock Reserve (TSR), clearly the giant of the day, with 30 plus taxa, among them *Microseris lanceolata* and what was probably *Swainsona behrii*, to say nothing of the *Arthropodium minus*. You had to watch your feet in this one. Well worth a visit by FOG, at some point.

The penultimate site was Dalton Cemetery, with 20 plus taxa, including the standard orchid special, in this case *Thelymitra rubra*. The day concluded with a brief visit to Collector TSR.

This was a special day with a very ambitious program of site visits, which succeeded because of the organisational skills of Ian and Margaret. But it was memorable for just one find, the leek orchid *Prasophyllum petilum*.



The mountains

I also went on another Environment Tour with Ian and Margaret to the NSW alpine areas. We were accommodated at the cabins at Sawpit Creek, a truly excellent place for a mountain base.

Saturday was bright and sunny and just right for a ride on the Thredbo chairlift to the roof of Australia for a short walk through the tall alpine herbfield to the main range lookout 2km distant. I managed about 25 native taxa, although it was too early for some of the daisies at this height, it was more than made up for by the *Pimelea*, the *Euphrasia* and the little *Ewartia*. The remainder of the Saturday was spent at a lower altitude along the Cascade track at Dead Horse Gap and along the Thredbo River. These areas are a contrast to the higher country and there are differences in the plant communities. Mind you, the mysteries of the *Ranunculus* occupy a considerable slice of time whatever the altitude.

Sunday was an equally incredible bright and sunny day for a wander around the Charlotte's Pass trails. Again, the party was perplexed by the fact that most of the Hovea was finished-no great purple swathes for us. A brief stop for morning tea at Spencer Creek and then to the Rainbow Lake walk. The last had a little *Veronica* for variation. Dainers Gap has a walk to the 'Plains of Heaven', those who went on the FOG excursion to the mountains saw it with some colour in it.

The Monday started with a walk up the Porcupine Track at the rear of Perisher. Here you are walking from about 1700 metres to 1800 metres, so that you are confronted by a mix of alpine and sub alpine vegetation. My thanks to Ian and Margaret for a wonderful tour.



Workshop addressed conservation issues

ORGANISERS of the Friends of Grasslands workshop in Cooma on Friday and Saturday were thrilled with the number of participants the workshop attracted.

The annual workshop was moved to a regional centre for the first time this year, and the 90 or so people on hand came from varying backgrounds.

Cooma was chosen to host the seminar because of its place in the heartland of some of Australia's best kept high-quality native grassland remnants.

The title of the workshop was "Grassland Beyond Reserve" and, according to Friends of Grassland president, Geoff Robertson, was beneficial to both lovers of native grasslands as well as farmers with remnants on their properties.

People from around New South Wales and the ACT travelled to



June Wilkinson, Quartz Hill, Cooma (centre) was one of the many participants at the site inspections on Saturday.

Cooma for the event while others came from as far afield as Victoria and South Australia.

"We hoped for a group of this size, being a bit optimistic, and we ended up getting it," he said. "But it reaches a lot of people on the land and is a conserva-

tion issue that needs to be addressed."

As well as the all-day session on Friday, the group took a trip to three areas of grassland on Saturday to see first-hand the vegetation in this area.

During the seminar, several speakers

addressed different issues concerning native grassland, ranging from off-reserve conservation of land, water and vegetation, to case studies in grassland conservation and what funding assistance is available to land managers.

An article on the recent and highly successful FOG Workshop *Grassland Beyond The Reserve*. Express Summit Sun, Tue December 5 2000.

NPWS/FOG GRASSLAND SURVEYS

Alan Ford

The Great Train Survey

On 4 and 18 November 2000 FOG undertook a survey of part of the rail easement between Williamsdale and Cooma. This major undertaking was the result of considerable effort by Geoff Robertson and Rainer Rehwinkel in organising the documentation and the survey teams for the two days. FOG also called upon the expertise of the team leaders for the two days and this involved a major commitment of time on their part. Approximately 20 members took part in the survey.

The aims of the survey were to:

- discover what native grassland and grassy woodland sites may still exist along the easement;
- identify threatened plant species and other species known to be uncommon and/or declining;
- identify options for conservation of those sites with owners;
- add data to the NPWS Southern Directorate Grassy Ecosystems Database;
- enhance plant identification and survey skills of FOG members; and
- analyse the data and publish a report.

There were 5 teams on each day covering 3-4 major sites per team. There was a team

leader and a team recorder, who recorded each taxa in the four letter genus/species code on forms provided by Rainer with the aim of including the results in his data base. Each site had its specific number which would enable identification on the day or at a later time. The base for Day 1 was Michelago, which had the advantage of being close to the sites surveyed on that day and a general store that provided milkshakes and coffee.

The easement consists, in terms of vegetation, of scattered plots of native vegetation among long swathes of exotic species, some merely pasture grasses and others consisting of accompanying weeds. While it was clear that many sites contained a significant proportion of weeds there were some that, while not pristine, were still basically Themeda grasslands or the remnants of woodlands.

Important finds on Day 1 included *Lotus australis* and two of the Swainson peas, *Swainsona sericea* and *Swainsona monticola*. Personally, I learnt how to recognise a weed known as Vetch.

Michelago also served as the base for Day 2, although the sites to be visited on that day were further south. Generally, the teams found that the sites examined on Day 2 were less rich than those visited on Day 1. The only exception to this, as far as I could tell, was one team that found orchids at a site that will need to be the subject of a separate FOG excursion at a future date.

This was a major undertaking by FOG as the organisation has not done detailed survey work in the recent past. Survey demands a strategic approach, organisation and time. Data entry alone, a follow up activity that is often forgotten, needs considerable skill and time, to say nothing of the interpretation of what was written hurriedly a couple of days previously. FOG now has a base on which it can, time permitting, participate in further survey work.

Our thanks to the organisers and team leaders.

The Bombala Surveys

FOG has also been involved in assisting in a survey of some of the Travelling Stock Reserves (TSR) in the Bombala area, under the supervision of Rainer Rehwinkel.

Day 1

Tuesday 21 November was a sunny day which proved the point about the importance of the faunal element of these surveys. During

that day the survey team extended the location of the Grassland Earless Dragon (*Tympanocryptus pinguicollis*). This notable find was perhaps the most significant for the day. It was possibly matched by an orchid at one site and what appeared to be a *Lepidium*. The latter was quite a find in itself, but has yet to be definitely identified

The sites visited were in the vicinity of the Nimmitabel/Dalgety Road. Four sites were visited during the day, I suppose the most impressive being Avon Lake TSR, which had 69 native species. We managed to flush a Stubble Quail during the visit to this reserve, further evidence of the importance of these Reserves to the native fauna.

The range of grasses and sedges was quite impressive at a couple of these sites. The other matter was the presence of *Swainsona behriana*, *Swainsona monticola* and Hairy Buttons (*Leptorhynchus elongatus*). The Swainson peas really stand out in the grassland, adding their own different colour to the surrounding greenish-grey.

Day 2

Monday 27 November was another long drive into the far south. (Spare a thought for Rainer, who has to do it all the time.) We visited four sites in basically the same area as Day 1. The first two sites were at McLachlan River TSR. This included an area that had been fenced off to protect an erosion gully from stock. These two sites were not only rich in flora but were also very good for birds, although the find of the day was a Painted Button-quail at one of the later sites. The fenced section of this site had 76 native taxa, an incredible number considering its size and location.

The fourth site for the day was interesting as a *Eucalyptus viminalis* woodland. The pipeline had gone through the front section, which was a mess. What is there is an intriguing place with 70 native taxa, with its *Solenogyne*, *Veronica*, *Swainsona* and *Cullen*, taxa that we are aware of but hardly figure in our lists around here. For me, the most impressive sighting during the day was *Dodonea procumbens*, a tiny plant on the soil, but easily recognised because of its 'green carpet' effect.

Day 3

Tuesday 5 December was a sunny day for the long trip to far southern NSW, the TSR system south of Bombala, with strange names like Eight Mile and Little Plains. We started at Walkers, 74 native taxa, the *Dichelachne*

adding to the spectacle of the *Cullen* and the *Swainsona*.

Little Plains was another remote spot, 74 native taxa (again!), but more trees and shrubs at this site. The grasses are based around the Poas and Themeda, which is a common pattern in some of these sites. Eight Mile TSR is presumably 8 miles from Bombala, 71 native taxa, a little pea, a *Daviesia* and the *Triptilodiscus* standing out among the by now almost standard *Swainsona*. The day ended with a stop at a truly stunning little roadside remnant.

Day 4

To the far south in perfect weather, around Delegate and looking at Mt Delegate, which is actually close by in Victoria. Such is the distance and such the quality and size (in one case) of the TSRs that we only managed two in the day. Both were worth the travel and both would be worth a future FOG visit. In the first, 94 native species and in the second, Steves TSR (believe it or not), 120 native species. The day included *Lomandra bracteata* and the stunning little lily *Caesia calliantha*.

ERODIUM CRINITUM

Michael Bedingfield

Erodium crinitum (Blue Heron's Bill), is a sprawling or erect native herb to 30 cm. It is from the family Geraniaceae and is uncommon though locally widespread. The plant is recognisable from common exotic Erodiums by its blue flowers and distinctive leaf shape (the common exotics have pink flowers).

Erodium crinitum is very interesting to observe throughout its growth cycle. It begins growing during the winter and its small, 5 petalled flowers are produced in spring. After flowering, a spear like fruit emerges which grows to 5 or 6 cm. As the fruit matures and dries, 5 separate seeds split from a stem within the fruit. They then curl up individually to produce the mature seed, which is corkscrew like. Then the seed is somehow thrown away from the plant and can travel several feet. This phenomenon was very interesting when I was drawing the plant. The seeds were scattered on the floor in all directions from the table on which the specimen stood. In the wild, when the seeds are wet with rain, the corkscrew

straightens and in the process burrows the seed into the damp soil.

I've tried to capture the various stages of growth in my drawings, and parts of the plant are also placed throughout the text as decorative inserts for this newsletter.



Erodium cicutarium at 50% actual size.
Drawing by Michael Bedingfield. 100% actual size drawings appear throughout the newsletter: Fruit and seed drying out and leaves (Page 1), flower (Page 10) and seed (Page 11)

ACTION PLANS FOR ENDANGERED AND VULNERABLE SPECIES

Naarilla Hirsch

Action plans 15-18, 20

There is a series of action plans relating to birds that occur in grassy woodlands, and I thought I might discuss the common elements of these action plans first, then cover specifics relating to the individual species. The birds in question are the hooded robin, swift parrot, superb parrot, brown treecreeper and regent honeyeater (action plans 15, 16,

17, 18 and 20 respectively).

In the ACT, the regent honeyeater has been declared endangered, and the other birds vulnerable. Common reasons for these declarations are the risk of premature extinction due to serious or severe decline in population or distribution based on direct observation and on serious decline in the quality or quantity of habitat. Environmental changes that have led to this are clearing of native open forest and woodland, urban development, and fragmentation, separation and degradation of remaining viable habitat areas. Continuing threats to the species' woodland habitats include clearing of both living and dead trees, grazing by livestock, use of chemicals, and rural tree dieback.

Implementation of conservation objectives for yellow box/red gum grassy woodland is fundamental to conservation of these species. Other conservation objectives include research, monitoring and experimental management programs, negotiating with rural lessees for cooperative management arrangements, cooperating with surrounding shires in NSW for conservation of road reserves and travelling stock reserves (which contain suitable habitat for the species), and increasing community awareness of the need to protect the species and their habitats.

Common intended management actions for these species include protection and enhancement of their habitat (especially yellow box/red gum grassy woodland), and encouragement and support by Environment ACT of research into the species' ecology and conservation. There are four principal measures for protecting the habitat of these species: reservation, memorandum of understanding (between the ACT government and landholders, especially the Commonwealth government), property management agreements for leased rural land, and off-reserve conservation on public land within the urban fabric.

Action plan 15

The first species I'd like to look at specifically is the hooded robin. This bird occurs throughout much of Australia, but has been reported as declining in Victoria, South Australia and the ACT. It is a quiet, shy and largely sedentary bird. In the ACT it is found in woodland, often with scattered yellow box

or Blakely's red gum, but hasn't been seen in Canberra suburban gardens. It hunts for invertebrates by "perch and pounce" in grassy clearings, and between feeds darts to rocks and fallen timber littering the ground. As well as the threats listed as common to all five species, additional threats to the hooded robin are the removal of fallen timber and litter for fire hazard reduction, and predation by foxes, cats and dogs. Other management strategies for the hooded robin include minimising adverse effects of fire on its habitat, limiting removal of live and dead timber, and seeing if a standardised monitoring program involving volunteers (with the help of COG) can be established.

Action plan 16

In being declared vulnerable, the swift parrot has also being noted as having a small population and is recognised as vulnerable in an authoritative international or national listing. It is a small parrot that breeds in Tasmania and over-winters mainly in the box-ironbark forests inland of the Great Dividing Range in NSW and Victoria. It feeds on nectar and lerps and has been seen on Blakely's red gum in grassy woodlands. It also visits urban areas and farmlands with remnant woodlands, and is recorded intermittently in the ACT. As well as the management strategies already discussed, action plan 16 indicates that Environment ACT should maintain links with and forward information to the National Swift Parrot Recovery Team, and encourage and possibly support bird surveys in the ACT.

Action plan 17

The superb parrot has a small population, is recognised as vulnerable in an authoritative international or national listing, and has a seriously fragmented distribution. It is a slender grass-green parrot occurring in central and eastern inland NSW, northern ACT and northern central Victoria. It is a highly mobile species, and is present in the ACT during the breeding season (spring-summer). In the ACT region, yellow box/red gum grassy woodland forms its major habitat, with red gums being the main source of nesting hollows and the woodland understorey being the main feeding habitat. Additional threats to the superb parrot are inappropriate fire regimes and associated degradation of habitat, and competition for tree hollows for nesting sites. As well as those already listed, management actions identified for Environment ACT include liaising with COG to establish a standardised monitoring program including volunteers,

discussing with Yass and Yarrowlumla Shires and the NSW NPWS concerning a regional approach to conservation of the superb parrot, and developing management arrangements with the managers of Mulligan's Flat and Dunlop Reserves, Mount Rogers and private leased land that encourage this regional approach.

Action plan 18

The brown treecreeper occurs in drier timbered habitats throughout eastern Australia. In the ACT it prefers relatively undisturbed woodland and dry open forest below 1000 meters where the native understorey, especially grasses, has been preserved. It is rarely seen in urban areas. The brown treecreeper spends up to half its time on the ground and on fallen logs, often well away from cover, pecking at the bases of grass tussocks, turning over leaves and litter, feeding on small insects and larvae. As well as those in common to all five species, additional threats to the brown treecreeper are the removal of fallen timber and litter for fire hazard reduction, predation by foxes, cats and dogs, and competition from introduced species (eg. starlings) for nesting hollows. Additional management strategies in action plan 18 include minimising adverse effects of fire on its habitat, limiting removal of live and dead timber, and seeing if a standardised monitoring program involving volunteers (with the help of COG) can be established.

Action plan 20

The regent honeyeater has a small population and is recognised as endangered in an authoritative international or national listing. The bird is a spectacular black and yellow honeyeater with yellowish orange skin around the eye. The ACT is at the maximum altitude for the bird's distribution, and it used to be fairly common. It has been seen in suburban gardens but prefers yellow box/red gum grassy woodlands here. It has bred in the ACT as recently as 1996. As well as those already discussed, management actions identified for Environment ACT include monitoring NSW and Victorian initiatives to enhance conservation of the regent honeyeater and implementing similar measures here, maintaining links with and forwarding information to the National Regent Honeyeater Recovery Effort, and encouraging and possibly supporting bird surveys in woodlands in the ACT region.

Source:

ACT Government, 1999. *Hooded Robin*



Above: David Eddy: Snapping another book cover or providing a perching point for hungry birds?

Below: A new population of Grassland Earless Dragon found during the Bombala survey on Nine Mile TSR, 30 km SW of existing known populations.



(*Melanodryas cucullata*): A vulnerable species. Action Plan No. 15. Environment ACT, Canberra.

ACT Government, 1999. *Swift Parrot* (*Lathamus discolor*): A vulnerable species. Action Plan No. 16. Environment ACT, Canberra.

ACT Government, 1999. *Superb Parrot* (*Polytelis swainsoni*): A vulnerable species. Action Plan No. 17. Environment ACT, Canberra.

ACT Government, 1999. *Brown Treecreeper* (*Climacteris picumnus*): A vulnerable species.

Action Plan No. 18. Environment ACT, Canberra.

ACT Government, 1999. *Regent Honeyeater* (*Xanthomyza phrygia*): An endangered species. Action Plan No. 20. Environment ACT, Canberra.



FLORA BANK

Naarilla Hirsch continues her summary of FloraBank guidelines

The fourth FloraBank guideline is *Keeping records on native seed*. Revegetation work is a long and labour intensive process. To obtain maximum benefit and achieve success, we need information on all aspects of revegetation. Records of seed collection, storage and germination is an important part of this information.

The basic unit of collection and record keeping is the seedlot, a unique batch of seed from one species from one location, which should have a unique identification number or code. Much of the information about seed collection in the field concerns attributes of the site rather than the seedlot collected. Information about the seedlot collected includes date, collector, species, number of plants sampled and their origin (natural, planted), seed crop quality and timing, flower and bud timing, and predation. Information about the site includes location, species frequency, vegetation type and structure, site landform, geology, slope and aspect, and soil texture, colour and acidity.

Records of processing and storage methods are very important for proper stock management, to maintain standards and to understand changes in native seed quality (especially viability) in storage. Information on processing and storage includes seed weight in stock, seed quality and count, methods used for (and notes of irregularities in) drying, extraction, cleaning and pest control, and seed moisture and germination test results.

FloraBank recommends that you start with a simple and efficient handwritten system unless you know you have greater needs. Such a system is not only more likely to be used but more likely to be understood by users. Computer-based systems are generally justified where your seed operation holds more than 500 seedlots or handles upwards of 1000 seed transactions each year.

For a copy of this guideline, contact the FloraBank coordinator, Warren Mortlock, on 02-6281 8585 or email greenaus@ozemail.com.au.

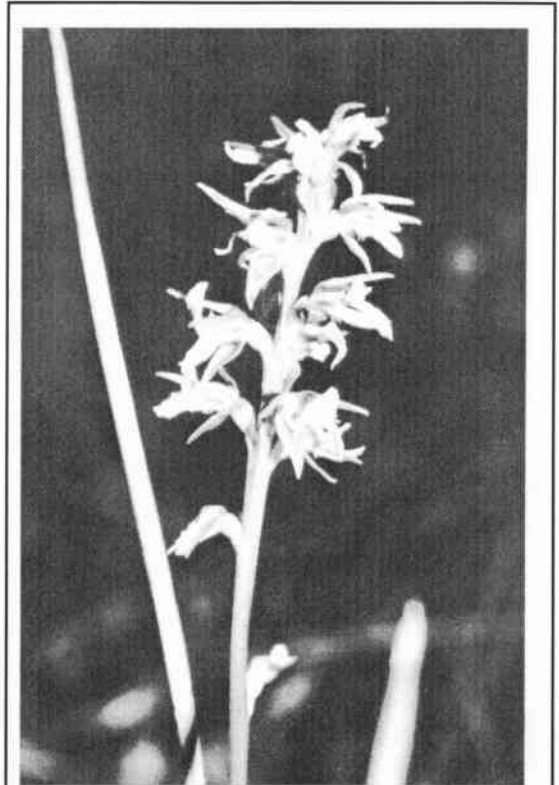
NEWSLETTERS RECEIVED

Naarilla Hirsch

The latest issue of the *Stipa* newsletter has a description of a simple demonstration that assessed microbe activity in the soil. Microbes make minerals available to plant roots by either converting them to compounds the roots can absorb, or by releasing them when the microbes die. The article suggested that lenient rotational grazing coupled with minimal soil disturbance may help microbes strike a healthy balance, as was the case with the native pasture tested in this demonstration. *Stipa* also has the second half of an article on salinity, which focuses on problems with a current model used to describe changes in water balance (the recharge-discharge model).

Life Lines (from the Community Biodiversity Network) has an update on the NSW Biodiversity Strategy. Projects mentioned included development of guidelines that identify appropriate fire regimes for the conservation of biodiversity, and research by the Royal Botanic Gardens and the Australian Museum into the taxonomy of targeted invertebrates, non-vascular plants and fungi, and their role in maintaining ecosystem functions and health. There's also an article about a report of a satellite study that indicates that land clearing in NSW could be double previous estimates. The new satellite study can pick up "illegal clearing" of woodlands of more than 20% of canopy cover - but unfortunately not clearing of sparse woodlands and native grasslands.

Don't forget that you can contact Margaret if you want to have a look at any of the newsletters discussed in this column.



The recent Rail Easement Survey was a great success. Amongst the notable finds was this likely new species of Leek Orchid, pictured above! Yie Har!



This group of dedicated FOGGERS found far too many species at Mulligan's Flat to let the rain get them down!



FRIENDS OF GRASSLANDS INC

Supporting native grassy ecosystems

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Membership inquiries: Please contact Margaret Ning whose details appear above.

FRIENDS OF GRASSLANDS NEWSLETTER

You have read this far, so we must have kept your interest. If you are not a member of Friends of Grasslands why not subscribe to the newsletter? It comes out six times a year and contains a lot of information on native grassland issues.

You can get the newsletter by joining Friends of Grasslands. 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 group, or actively interested in grassland 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, plant identification, etc. and so take a more active interest in our activities. Most activities are free and we also try to arrange transport (or car pool) to activities.

If you are already a member, you might encourage friends to join, or even make a gift of membership to someone else. We will also send one complimentary newsletter to anyone who wants to know more about us.

HOW TO JOIN FRIENDS OF GRASSLANDS

Send us details of your name, address, telephone, fax, and e-mail, etc. You might also indicate your interests in grassland issues. Membership is \$20 for an individual or family; \$5 for students, unemployed or pensioners; and \$50 for corporations or organisations - the latter can request two newsletters be sent. Please make cheques payable to Friends of Grasslands Inc.

If you would like any further information about membership please contact Margaret Ning, or if you would like to discuss FOG issues contact Geoff Robertson. Contact details are given in the box above.

We look forward to hearing from you.

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