# News of Friends of Grasslands

*supporting native grassy ecosystems*

**May – June 1999**

# FOG'S COMING EVENTS

**Saturday 19 June, 9 am – Canberra's northern grassland sites** A couple of us have decided to seek out some of the sites mentioned in Action Plan No. 1 on Natural Temperate Grassland. We hope to visit four in the morning (Sites 7, 4, 2 and 3 - one can only be gazed at from a distance), and continue on intrepidly into the afternoon. This will be a getting to know the sites visit and people can return at their leisure later in the season when there's a little more to see. We shall meet at 9am at the Gungahlin Dr/Gundaroo Rd crossroads, in the carpark of the new clubhouse (at the golf course). If anyone would like to join us after lunch please call Margaret to arrange something.

If you wish to do some homework on the subject, details of the sites are contained in Action Plan No. 1 available from Environment ACT. The Action Plans are also on the ACT Government's website.

**Saturday 24 July - Members' slide afternoon** Several members have been undertaking some interesting research and/or taking some wonderful photos. This is a chance to hear from them.

**August - Workshop: Maintaining Pasture Mass for Profit, Catchment and Conservation** This will be a one-day workshop to look at the work being done on minimum pasture coverage and its implications for increased profit and conservation. The workshop will target pastoralists, researchers and conservationists. It will be FOG's second major workshop for 1999. Leon Horsnell is the workshop convenor.

**Spring 1999** - As with last year we shall have a full program in spring.

**Saturday 30 October - Halloween Cemeteries Tour** We plan to repeat last year's successful northern cemeteries tour.

**November - St Mark's Grassland Open Day** This grassland open day at St Mark's, Barton will bring together church, conservation, government and community groups to focus on the beauty of a grassland and its conservation.

**November - Common grasses identification workshop**

**4-5 December - Southern Tablelands Grassland Hotspots** We'll do something similar to last year's southern cemeteries tour.

**January 2000 - Y2K Bug Identification in the Southern Tablelands**

**February 2000 – Alpine grassland weekend** Is there any interest out there for a FOG visit to the alpine grasslands? Please contact Margaret ASAP to express interest as bookings need to be made early. Ballpark accommodation costs would be $20 each per night at a Perisher lodge, or $15 per night at a Jindabyne lodge which would be a half hour commute to the Kosciusko National Park each day.

**Important notes on COMING EVENTS:**

- *Please put firm dates in your calendar.*
- *For outdoor activities, don't forget your hat, sunblock and drinking water.*
- *For insurance purposes, sign in/out at activities.*
- *For any information about activities (including times, venues and carpooling details), please contact Margaret Ning on 6241 4065 (home) or 6252 7374 (work).*
- *To make program suggestions, contact Margaret.*

## ALSO OF INTEREST

**1-2 May - Greening Australia's Bush Regeneration Workshop** Please see page 8 for more details on this course. It's a valuable opportunity to learn from Alison Elvin; exchange ideas and experiences with others; and learn what's worked (or failed!) for someone else.

**19-21 August - Bushcare Grasslands Conference – Managing native grasslands for conservation and production, Clare Valley, South Australia** Please contact Margaret if you would like more information.

**September 1999 - 7th Australasian Conference on Grassland Invertebrate Ecology, Perth, Western Australia** The Australasian Conference on Grassland Invertebrate Ecology is held alternately in Australia and New Zealand. It has proven to be a major forum for interaction between Australian and New Zealand scientists researching the biology, ecology and management of both pest and beneficial invertebrates in grassland ecosystems. These systems include native grasslands, exotic pastures, pasture/crop rotational systems and managed turf.

The 7th conference in this series will be held in or near Perth, WA during the week 27 September to 1 October 1999, probably over about three days in the middle to latter part of the week. This will be the first time that it has been held in Perth. The theme of the conference is 'Ecologically sound management in grassland ecosystems'.

For further information please contact the convenor of the organising committee:

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## FOG visit to Fisher Parkland

**Naarilla Hirsch**

On 7 March, a small group of FOG members attended the Clean-up Australia Day/Parkcare activity at Fisher Parkland. This is the open area between Fisher and Kambah. It forms a corridor for birds, kangaroos and other wildlife between Mt. Taylor and Cooleman Ridge (both part of Canberra Nature Park). The area has been neglected for some time and over 70 bags of rubbish were collected.

The area is one of several such areas around Canberra that has fallen through the cracks in terms of management. It has been recently designated as semi-natural open space, and Urban Services are looking at management strategies for the area. Both woody and non-woody weeds, a concern for the neighbouring Parkcare groups, have been sprayed recently. FOG led a small group through the area, identifying a number of plants and discussing management issues with local Parkcare members.

Fisher Parkland is a mixture of woodland and grassland. The overstorey is a mixture of local trees such as Blakely's red gum and red box, plus some stands of natives (many out-of-area eg. Tasmanian blue gum) planted 20 odd years ago. Underneath are grasses and forbs, with a few shrubs. At a cursory glance the understorey appears to be Phalaris, Wild Oats and other exotics, but amongst this are a surprising number of native grasses and forbs. In the middle of the area is quite a good patch of native grassland. We noted 24 different shrubs and forbs, and 15 grasses, rushes and sedges.

A management strategy for the area is yet to be developed. Particular issues are control of weeds, possibilities for regeneration of local species, impact of nearby urban facilities and houses, replacement of out-of-area eucalypts and wattles, fire risks due to Tuggeranong Parkway and housing being nearby, and extensive regeneration of Blakely's Red Gum impacting on some remaining grassland species.

## Majors Creek Visit
## THE EDGE OF THE ESCARPMENT

**Alan Ford**

*On Saturday 20 March, FOG members visited the former town common at Majors Creek, approximately 15 kilometres from Braidwood. We were visiting the site, now known as Long Flat Reserve, at the invitation of FOG members Sandra and Richard. They and another local resident have been taking an active interest in the Reserve, identifying plants and weeding, and Sandra is interested in making this a FOG-registered site and would like to get a landcare group established eventually.*

On a very wet Saturday afternoon (we were rained away from the cemetery) of 20 March a FOG party of eleven visited Long Flat Reserve at Majors Creek. The Reserve is part of the former town common which was much larger. The majority of the former common is currently leased to a local farmer. In contrast, a smaller area adjacent to it is a crown lease, in environmentally-friendly hands and with a plan to preserve/restore it.

Around 70 different species / genera were found on the Majors Creek Trip. The planned visit to the cemetary was cancelled due to the rain, but that's OK, we heard it was dead boring there anyway...

Majors Creek is to the south of Braidwood and was a significant gold mining area. The Reserve has a number of remains of the activities associated with that industry - miners' huts, sluice lines, shafts, etc.

The Reserve is not far from the escarpment and receives a fairly substantial rainfall as a result. It incorporates a significant area of Narrow-leafed Peppermints (*Eucalyptus radiata*) and Ribbon Gums (*E. viminalis*) with Swamp Gums (*E. ovata*) in the wetter parts. Beyond the forest there are grassland areas. There are other creatures in the reserve, spiders and snakes, for instance. A few members of our party did see a snake!

While there is a considerable forested area there is also a profusion of grassland associated flora. In all, the party came across 70 nameable species/genera as well as some we couldn't put to genus, including 7 orchids and 7 grass genera. The grasses included *Agrostis*, *Austrodanthonia*, *Microlaena*, *Panicum*, *Poa*, *Austrostipa* and *Themeda*.

This is an important little reserve in a place where you might not have expected anything to have survived. We missed the cemetery because of the rain. Hopefully, we will be able to return and see whether that matches the Reserve in species preservation.

## Why did they call it Lovegrass ?

**David Eddy**

On Saturday the 10th of April a small group of FOGgers and a couple of other community volunteers spent the day on a property between Bredbo and Cooma. It was our fourth in a series of attacks on a population of African Lovegrass (*Eragrostis curvula*) in an otherwise very high quality grassland on the property of one of our members. The grassland contains the threatened Creeping Hop Bush (*Dodonaea procumbens*), the Mauve Burr-daisy (*Calotis glandulosa*), a wide variety of other plants, and one of very few apparently naturally treeless stands of Redanther Wallaby Grass (*Joycea pallida*). The group of about 10 spent most of the day diligently spot spraying the Lovegrass: the dye in the mixture and the density of tussocks giving the paddock the appearance of a case of the measles by the end of the day.

This sort of activity provides FOG and its members with opportunities both to visit interesting grassland sites and to be actively involved in on-ground conservation work. It also helps to build very valuable bridges between urban and rural people. Broadacre spot-spraying can provide some understanding of the practical realities of vegetation conservation on a landscape scale.

## YARROWLUMLA SHIRE GREENWAY NETWORK

**Margaret Ning**

On the afternoon of Saturday 6 March a dozen FOG members met at Geoff Butler's home in Wamboin to explore a few stretches of the Yarrowlumla Shire Greenway Network. It was a hot day although the strong winds gave us some relief from the heat.

The network is currently approximately 22 kilometres long. It is based on the crown road reserve network and its trails traverse many interesting areas including forest, woodland and secondary grasslands. While the prime purpose of the trail is conservation, the trails also have a recreational function (horse riding, mountain biking, walking) as there is high community demand for access to the countryside. Geoff says there is a greater likelihood of Council extending the network across the Shire if such maltase continues. However, the Greenways Management Committee (a community based committee appointed by Council) does have the power to close the trails off to users if necessary, and this option will be used if user groups do not contribute to necessary management activities (erosion control, etc).

The first part of our afternoon was a reasonably brisk stroll along part of the Greenways close to Geoff's home. We walked through a woodland area consisting of Yellow Box (*Eucalyptus melliodora*), Brittle Gum (*E. mannifera*), Scribbly Gum (*E. rossii*) and Bundy (E. *goniocalyx*) with an understorey dominated by Narrow-leaf Bitter-pea (*Daviesia mimosoides*) which harboured a wide range of flora. The area also contains a rich diversity of animal species, including grey kangaroos, swamp wallabies, red neck wallabies, echidnas, an assortment of reptiles, and, apparently, sugar gliders in profusion. Special mentions include Rosenberg's Monitor and the Speckled Warbler.

**None of these dedicated Grassland Conservationists had any idea why they called it *Love Grass*!!**

The area along which we walked was relatively weed free, although Geoff listed Briars (*Rosa rubiginosa*), Serrated Tussock (*Nassella trichotoma*), African Love Grass (*Eragrostis curvula*), Hawthorn (*Crataegus monogyna*), Blackberry (*Rubus fruticosa* complex), and Cootamundra Wattle (*Acacia baileyana*) as weeds within the area. While horses have been responsible for transporting some Paterson's Curse (*Echium plantagineum*) seeds into the area, Geoff is confident that Greenway outbreaks have been successfully contained so far. The greatest threat from the horses is the erosion damage they do to the trail itself. Riders are urged to travel in single file to minimise this damage.

While discussion during our walk had touched on a few negative aspects of what was going on in the area, the second part of our afternoon soon immersed us in visual and anecdotal examples of some fairly depressing and seemingly insurmountable issues that have arisen from the nearby development of rural subdivisions.

A general observation by Geoff on subdivisions has been that people do plant, though many people do not generally want to plant species already growing there - quick growth exotic plants such as Radiata Pine, Poplars and Willows are favourites.

Irrigation is another concern for some of the intensive horticultural industries being set up, with vineyards and olives being two such crops.

Termite mounds are often poisoned, causing the destruction of habitat. Echidnas often feed at these mounds and Rosenberg's Monitor (a vulnerable species) lays its eggs inside active termite mounds.

Animal overstocking (particularly horses) often occurs - on one property, 2 horses took only 6-9 months to completely destroy an impressive area of Yellow Box/Red Gum grassy woodland with a Red Anther Wallaby Grass (*Joycea pallida*) understorey. Some superb examples of this type of woodland still exist in the area but are all within rural subdivisions and many have seriously deteriorated due to human activities (grading and planting of unsuitable species) and grazing.

There has been a great increase in kangaroo numbers, and Geoff pointed out that kangaroo grazing pressure can be as detrimental as overstocking by cattle, sheep and horses. Local cats have been known to catch sugar gliders.

I do not recall any horror stories regarding firewood collection during the afternoon, and indeed, Geoff referred to his own ongoing, successful use of a suckering wattle, Silver Wattle (*Acacia dealbata*), as a major contribution to a firewood supply.

The Yass River was another gloomy part of the subdivision story. Not so many years ago, the river used to flow pretty much all year round at the bridge over the Mack's Reef Road, but with a

requirement being at least one dam on every allotment, the river now only runs after considerable rain.
The Yass River has been regarded as "dead" in its upper reaches. Common Reed (*Phragmites*) is now growing into the stream bed, and it is not unlikely that the riverbed will gradually overgrow. Gorse is another common weed in the upper reaches of the river. One patch of Gorse (a declared noxious weed) in the area has received a boost from being burnt following its flowering and seeding!

Some willow control has occurred although they are not too bad at present on the upper river reaches. Perhaps the equal worst image of the day was of a property situated on the very first ephemeral creek flowline at the start of the Yass River that sported two residences - known as dual occupancy. One of these dwellings had been built inexplicably close to the easement containing the Greenway Network, which had led to the resident trying to grow a privacy screen - with *Pinus radiata* planted on the Greenway! The property also had copious plantings of white poplars, various willows including the notorious Matsudana hybrid clones and radiata pines. It is somewhat incongruous to be allocating large sums for Landcare groups to remove willows and poplars from the lower reaches of the Yass River when the whole river will be continually re-invaded from sources in the Wamboin area. Serious weed control will only commence when these invasive species can no longer be planted so randomly by private individuals.

Perhaps the gloomiest prediction of the afternoon and the most morbid topic of the day concerned the ever-present and ever expanding growth of *Pinus radiata* throughout the area. Geoff is convinced that this species will be declared a noxious weed within the next 15 years (Postscript - since this outing, the National Strategy for Invasive Plant Species has listed *Pinus radiata* as an environmental weed on its schedules). While the species is a very important provider of softwood, its prolific use as screens and windbreaks will accelerate its spread through wildlings. Pines continue to be sold at around 10 cents each (with the cheapest native plant being around a dollar), so many people purchase pines solely based on the cost, as many trees are required for this purpose. Geoff explained the apparent short sightedness of pine plantings on properties stocking animals, as the grass required to feed such animals will decline over time as the pines shade it out. This species has also been planted across extensive areas of native grasslands and pastures.

Geoff believes landcare groups need to become more politically active and more aware of how to lobby and approach the appropriate authorities. He concludes that the solution is a combination of education and legislation. While there is not enough information going out, there are also sufficient environmentally unaware ( and blatantly bloody-minded) individuals prepared to flout the law and to sabotage/resist all attempts to bring undesirable aspects of rural subdivisions under control.

We thank Geoff for the provocative, challenging afternoon we spent with him.

FOGers enjoy a day with Geoff Butler exploring the Yarrowlumla Shire Greenway Network.

## FOG comments on the Draft Plan of Management for Queanbeyan Nature Reserve

Naarilla Hirsch

FOG has submitted comments on the Draft Plan of Management for Queanbeyan Nature Reserve. The Draft plan is a very readable document providing much good information, especially on the Button Wrinklewort. One difficulty with managing the site is balancing the significant detrimental effect (given the small size of the site) of public visits with the need to make the community aware of the importance of this grassland site.

To FOG, seeking protection of other sites containing endangered grassland species is a high priority rather than a medium priority as specified in the draft plan. In this context, the protection of the site on The Poplars has been an issue for some years and needs to be addressed sooner rather than later.

FOG, in its submission, said it would also like to see the discussion of management of surrounding areas to include the ecotone between this site and the Letchworth grassland. The latter is also a diverse grassland site. Management of the surrounding areas to prevent weed invasion is a particular concern, especially between the site and the railway line.

A problem with conservation of Button Wrinklewort is that ACT and NSW populations are diploid whereas Victorian populations are diploid or tetraploid, so that mating between the two ploidy levels could affect the reproductive capability of a population. Button Wrinklewort sold locally usually has plant labels indicating that such plants are not to be released into the wild. However, crossbreeding could easily occur as remaining populations are very close to the urban community. Management and recovery planning for the species should ensure that any plants sold locally derive from seed of local provenance.

## Help Save Conder Grassy Woodlands

Geoff Robertson

As many of you will know, Friends of Grasslands has been endeavouring to save two grassy woodland sites at Conder. Michael Bedingfield wrote an article on the sites in our January-February Newsletter. Sites 1 and 2 (see Michael's article) are classified as of "high" and "very high conservation" value, respectively. In FOG's view we regard Site 1, or a significant portion of it, as of very high conservation value also - 120 grassland species have been identified at the site.

Both sites, despite being classified as endangered ecosystems under the ACT Draft Action Plan No 10 Yellow Box/ Grassy Woodland: an Endangered Ecological Community, have been earmarked for urban development. Site 1 is under more imminent threat from a proposed road.

Since October last year FOG has been endeavouring to save both sites. On 10 November, FOG held a Conder Wander at Site 1. Apart from FOG, members of the Conder Community Landcare Group, the Conder Residents Action Group, Clean-Up Australia, Society for Growing Australian Plants, and Field Naturalists Society attended and were most impressed by the stunning array of colour. As reported in a previous newsletter, Michael spoke to Brendan Smyth (Minister for Urban Services (and conservation)) and Simon Corbell (Opposition spokesman) about the sites. Both sides of politics have been sympathetic. Subsequent visits to the site have been made by Bruce Lindenmeyer (Conservation Council), Simon Corbell and John Hargraves (Legislative Assembly Member for Molonglo). There have been many discussions between all these parties. FOG made a submission to Brendan Smyth on 10 March; there have been discussions with all parties since.

We have been advised that Site 2 will be made a reserve. However, for Site 1 the ACT Government has included in its capital works program for 1999-00 a road through a significant section of the grassland which would also allow future urban development. The ACT Legislative Assembly in its comments on the capital works program agrees with having a road but states that the impact on the grassland should be minimised. In FOG's submission, we argued that any road joining Templestow Ave and Tom Roberts Avenue should not go through the grassland. Also we have argued against any urban development. A number of parties met at the site on 16 April to review the situation.

As you may appreciate, there are a few other complications. However, I would be happy to provide more background, and if you can assist in any way (e.g. letters of support), it would be much appreciated.

## Airport update

Art Langston

We are in a "holding pattern" at the moment with Canberra International Airport. The airport management is considering submissions from the public about the draft management and environmental plans for the airport. They will present final documents to be approved by the Federal Minister for Transport in June. FOG participated in two submissions. Once through our representation on the National Tympanocryptis Recovery Team and again in our own submission. Though acknowledging the importance of the airport to the regional economy, both were critical of the lack of analysis given to environmental issues, especially grassland issues. There are several developments proposed that will severely diminish the chances of survival of grassland species on and around the airport.

FOG's position has never been an anti-development one. We would like to work with the airport to ensure that development occurs in sympathy with the environment. However, there is so far little sign that the airport is truly interested in this approach. Both the FOG and NTRT submission extended an offer for dialogue and assistance. To my knowledge neither group has been approached directly by the airport to help formulate alternatives for development.

The focus of the airport management

seems to be dominated by noise issues. For example FOG participated in the only meeting of an environmental reference group set up by the airport. That meeting was allowed to be dominated by noise issues, although there was a similar group set up specifically to address noise issues. Public meetings have proceeded along similar lines. The general manager of the airport, John Milton, told ABC radio national that noise was the major issue. Again no reference was made to other environmental issues. There is a danger that this focus will mean that other less human oriented environmental issues will not be adequately addressed.

FOG will continue to follow up and where possible work with airport management to ensure good outcomes for all concerned. Part of that process is to ensure that our views are in the public arena. As a member you can help by discussing these issues with your friends and within other community groups. FOG will also be writing to key public representatives to point out the inadequacies in the airport's development plans.

## Progress on Radio Hill

**David Eddy**

In the last issue of News... we mentioned that FOG had applied to the Threatened Species Network (TSN) Community Grants Program for funding of conservation work on high quality grassland areas on Radio Hill (Cooma) and the Adaminaby golf course. Our application has been successful and we have been invited to join the Federal Minister for the Environment, Senator Robert Hill, in launching the TSN Community Grants Program at the ANBG in late April.

In the meantime some establishment work has already begun at Radio Hill through WWF Australia's Monaro Remnant Native Grassland Project, funded under the NHT. The old and wobbly partial perimeter fencing around the northern and half the eastern boundaries has been repaired to provide a sound fence at a budget price. All strainer posts were replaced, some steel intermediate posts added and the wire restrained. The remainder of the reserve's perimeter has never been fenced but shares boundaries with a council road reserve, a crown grazing lease, a travelling stock route and a public road verge. So a local surveyor was engaged to find the legal boundaries for positioning the new fencing to complete the boundary. The WWF also project provided funds for the purchase of the selective woody weed herbicide Grazon, which was then applied by the experienced noxious weed staff of the Cooma-Monaro Shire Council. The Council also provided some funds toward the fencing repairs.

## Grassland Flora Book Review

**Kim Pullen**

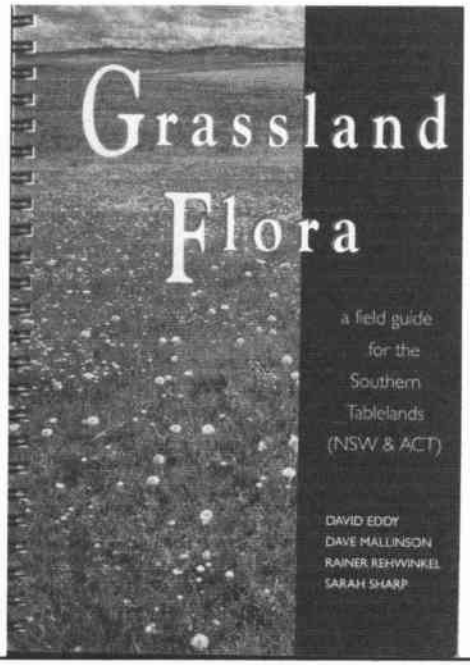
Grassland Flora: A Field Guide for the Southern Tablelands
by David Eddy, Dave Mallinson, Rainer Rehwinkel and Sarah Sharp.
Environment ACT, NSW National Parks and Wildlife Service (NPWS), World Wide Fund for Nature Australia (WWF), Australian National Botanic Gardens (ANBG), NSW Department of Land and Water Conservation and Snowy Mountains Authority, 1998. 157 pp. $15.00

Those of you who read the March-April 1999 issue of this newsletter will have seen co-author David Eddy's notice about this significant book, and many will no doubt already have a copy. *Grassland Flora* is the product of four Canberra-based field botanists- David with WWF, Dave Mallinson with ANBG, Rainer with NIIWS and Sarah with Environment ACT- who together command a wealth of knowledge of the local grassland flora. With the assistance of numerous consultants, advisers and photographers, they have produced a first-class field guide.

*Grassland Flora* covers the, Southern Tablelands region of NSW and the ACT as depicted in the included map, an area extending from the Crookwell district south through Canberra and the Monaro to the Victorian border. In this sense, the 'Southern Tablelands' does not include the high ranges of the region. The guide aims to enable the non-specialist to identify not only the herbaceous plants likely to be seen on natural grassland and grassy woodland sites, but also the more common shrubs and even the overstorey Eucalypts.

It is an unfortunate fact that an alien/ exotic/weed-free grassland site, probably no longer exists on the Southern Tableland. Perhaps because they are so ubiquitous, exotics are given equal treatment in this book, which is as it should be, since when it comes to identification there is nothing that distinguishes exotics as a group, Moreover, some 'exotic looking' plants turn out to be natives!

Fittingly in a grassland flora, the species treatments begin with the grasses, and of




*Grassland Flora.* Grab one while they're HOT. Flora guides of this quality are hard to come by!

the grasses what better one to start with than Kangaroo Grass? The entry gives the common name, botanical name (*Themeda australis*), a synonym by which the species is also known (*T. triandra*), and the family (Poaceae), followed by the text arranged in dot points under the headings Description; Status and distribution; Management, Notes; and Similar species, Facing the page of text are four colour photograph., to help identify the species, illustrating green and senescent foliage, a seedhead with mature seed and a broader. view of a community dominated by Kangaroo Grass, Three photographers contributed to this page and no less than 24 to the whole book, a remarkable feat of organisation on the part of the authors and one that, I am sure, contributes greatly to the overall quality of the illustrations. Where no photo was available or to illustrate morphological detail (e.g, with *Glycine*) we have line drawings by Rainer Rehwinkel.

Throughout the book the text entries follow the same standard format as that outlined above for Kangaroo Grass, although the format is often abbreviated. Symbols placed in the margin indicate which species are annuals (A), exotics (E), noxious (NI) and/or threatened (T), Exotic species also carry an asterisk before the botanical name. Personally, I found myself thinking 'Endangered' instead of 'exotic' each time an E symbol came up, but no doubt I will get used to it.

Kangaroo Grass is on the first of 38 pages of Gasses, followed by Rushes and sedges. Of the Forbs, the Lilies and Orchids are first separated- the remainder, comprising about 30 families with the daisies predominating, are grouped simply as forbs. The final two categories are Ferns, and Shrubs and trees. The authors don't claim to include all the herbaceous species recorded from the region (more than 500 are known!), but hope most species likely to be seen are distinguishable.

Short introductory chapters explain why grassy ecosystems are important and briefly cover Threatened plants and communities, Animals, Management, and how to use the guide. The final few pages include References, Further Reading, an index of Common and Botanical names, including synonyms an Explanation of Terms and a Glossary. This list is short, since the authors have taken pains to avoid using botanical terms.

Grassland Flora is attractive, compact and crammed with information and illustrations. At only $15.00 I consider it a bargain, and an essential companion for anyone, experienced botanist or strolling naturalist alike, finding her or himself in a Southern Tablelands grassland wondering what the surprising variety of surrounding plants might be. With the publication in Victoria in the last couple of years of two similar guides, the grassland botanist is better equipped than ever to identify the flora.

## GRASSLAND FLORA BOOK LAUNCH

**Margaret Ning**

Just before 9 am Friday 12 March, the area around the ANBG auditorium was humming with an air of excitement and expectation. The weather was perfect and groups of people were chatting among themselves. Within a few minutes, over 100 guests had squeezed into the auditorium to let the formalities of the book launch begin. The ensuing speeches touched on the importance of grasslands, each agencies' achievement in grassland conservation, and the agency's pride in the contribution made by their employees, ie the book's four authors, David Eddy, Dave Mallinson, Rainer Rehwinkel and Sarah Sharp.

Guests were welcomed by Tim Richmond, the Director of the Australian National Botanical Gardens, who suggested that a discreet area in the ANBG may be devoted to growing grassland plants which could be managed in partnership with community groups.

Ian Pulsford, Southern Zone Manager of NSW National Parks and Wildlife Service, referred to his department's aim of establishing the State's first predominantly grassland nature reserve in the region, Kuma Nature Reserve. He discussed Rainer's having worked on grasslands for the department since 1995 and praised his ability to work so effectively with others in addition to his technical ability.

David Butcher, Chief Executive Officer, World Wide Fund for Nature Australia, confessed that while WWF was originally interested in the megavertebrates of the world there was a relatively speedy realisation that the world also needed to preserve the ecosystems that supported such animals. He summarised the plight of south-east Australian grasslands: originally two million hectares with 2000 species of flora of which ten thousand hectares remain today in good condition. Much of this is disjunct remnants, but the hope is that these will not be so disjunct in future. He stressed that grasslands have a role in production and that they need to be managed judiciously. The paucity of information available to land managers and owners of grasslands was also mentioned. His prognosis was that if the assembled agencies worked together, and not individually, they would achieve more.

Dr Colin Adrian, Environment ACT's Executive Director, lauded the "fantastic book and field guide" and referred to the cooperation of many agencies and community groups involved with grasslands. He told us of EACT's 20 Action Plans for grassland species, all of which will be finalised by June this year, and of the two new grassland reserves of Gungahlin and Dunlop Hills.

At the completion of the speeches, copies of Grassland Flora were bought and autographed, a scrumptious breakfast was served, and the excited throngs of people continued to discuss the occasion. It was a moment in the spotlight for the four authors and NSW grasslands. The book is selling well and will inevitably lead to a heightened awareness of grasslands and their ecosystems.

## GREENING AUSTRALIA'S BUSH REGENERATION WORKSHOP, SAT/SUN 1-2 MAY 1999.

*The following course is being offered by Greening Australia, 1-2 May 1999. It was first offered last November at a time when FOG was overwhelmed by its spring activities. The course was very successful and FOG encouraged Greening Australia to run a repeat. Please support it if you are interested in the topic.*

Presenter: Alison Elvin
Where: Banks Room, Botanic Gardens
When: 9 am - 4.30 pm, Saturday & Sunday 1-2 May
Cost: Adults $40, Concession $30

The two-day course will include: bush ecology - different vegetation communities, their function and the relationships 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, maintenance and management

There will be some focus on issues of grassland regeneration.

The workshop includes site visits, hands on practical demonstrations and information sheets. Tea and coffee provided, BYO lunch.

If you are interested in Bush regeneration please provide the details below and send/fax to:

Greening Australia ACT & SE NSW
PO Box 538
Jamison Centre ACT 2614
Ph (02) 6253 3035 Fax (02) 6253 3145
Email gaact@dynamite.com.au

Contact Details
Name:
Address:
Phone: home & work
Signature

Please don't pay in advance. Greening Australia will accept payment on the day. If you have any queries please contact Sue Streatfield at GA.

Please note that Greening Australia will be running an extensive training program again in November. Topics include weed management, wetland restoration, riparian restoration, plant propagation, seed collection and algal management in late summer. Early registration is recommended.

## Action plans for endangered and vulnerable species 1

**Naarilla Hirsch**

In this series on the action plans for endangered and vulnerable species, I thought it might be worth discussing the process and criteria used for the original declaration of endangered/vulnerable species. There are four categories: an endangered species, a vulnerable species, an endangered community, and a threatening process.

The process is that the ACT Flora and Fauna Committee receives a nomination under one of these four categories. Nominations need to contain a description of the species, ecological community or threatening process that distinguishes it from all others, information about its distribution, which of the criteria it satisfies and why. The Flora and Fauna Committee assesses the nomination, obtaining more information from the public where necessary, and makes a recommendation to the Minister. The Minister either rejects the nomination or makes a declaration under the ACT Nature Conservation Act. An action plan is then prepared.

Criteria for declaring an endangered species are that the species is thought to occur in the ACT and is already recognised as endangered in an authoritative international or national listing, that the species is presumed extinct in the ACT, or that it is at risk of premature extinction in the ACT in the near future. Reasons for the latter include severely fragmented distribution over a small range, extremely small population, unnaturally extreme fluctuations in population or distribution of a species in a small range, or severe decline (or risk of decline) in population or distribution. Evidence for severe decline in population or distribution include severe decline in quality or quantity of habitat or rate of reproduction or recruitment, severe increase in mortality, very high actual or potential levels of exploitation or persecution, severe threats from herbivores, predators, parasites, pathogens, competitors, hybridisation, pollutants or toxic substances.

Criteria for declaring a vulnerable species are similar but apply in the medium term (the next 25 years) rather than the short term.

An ecological community is defined as a group of ecologically related species with shared habitat characteristics that may inhabit a particular place and may vary in composition within ecological limits. Criteria for declaring an endangered community are that the community is presumed extinct or that it is subject to current and continuing threats likely to lead to premature extinction. These can be demonstrated by severe decline in distribution, marked alteration of composition or structure, the community approaching non-sustainability, loss or decline of species that play a major role in community function, small distribution, or the community processes being altered to the extent that interaction between the community components will be impeded.

A threatening process is one that threatens (or may threaten) the survival, abundance or evolution of a species or community. The threatening process is that which most directly affects the species or community. For example, sedimentation rather than land clearing may directly threaten an aquatic community. Criteria for declaring a threatening process are processes that are clearly shown to be a significant cause or have the potential to cause any species to become vulnerable or endangered or any ecological community to become endangered.

## ACTION PLANS FOR ENDANGERED AND VULNERABLE SPECIES 2

**Naarilla Hirsch**

This article is the next in a series discussing action plans for endangered and vulnerable species in the ACT. Action plan for a subalpine herb, *Gentiana baeuerienii*

*Gentiana baeuerienii* is a small annual herb with bell-shaped

flowers that are greenish outside and blue-white inside. It occurs in the inter-tussock space of moist tussock grassland and sedgeland (*Poa labillardieri* and *Carex gaudichaudii*) associated with ground water.

It is found in one location in Namadgi National Park. *G. baeuerienii* was declared endangered because it is recognised as vulnerable on international and national listings; at risk of premature extinction in the ACT in the medium term due to extremely small population.

Management actions are to be directed towards maintaining existing conditions and ensuring that activities nearby do not adversely affect the site. These include no use of herbicides near the site, feral pig control, and seeking expert advice on ex-situ conservation measures for the species. When the number of plants at the site is greater, propagation is planned.

Source: ACT Government, 1997. A subalpine herb (*Gentiana baeuerienii*): An endangered species. Action Plan No- 5. Environment ACT, Canberra.

## GRASSES NAME CHANGES AND NEW ABRS PRODUCTS

**Katy Mallett**

*We have an update on the name changes contained in Susan Walker and Iain Dawson's article on Native Grass Seed Germination published in our January / February 1999 newsletter. The authorities for those name changes are listed below and this information is to be published in the Flora of Australia's volumes on grasses. I would like to thank Katy Mallett of Australian Biological Resources Study (ABRS) for providing the following information to FOG. Margaret Ning.*

*Austrodanthonia caespitosa* was named in Telopea 7(3): 27 (1997) *Austrostipa scabra* subsp *falcata* was named in Telopea 6(4): 588 (1996) *Ehrharta stipoides* was named first by Labillardiere (Nov. Holl. Pl. 1: 91 (1805)), before Robert Brown named it *Microlaena*. The manuscript in the Flora combines *Microlaena* and *Tetrarrhena* into *Ehrharta*, and only quotes one paper: L.P. M.Willemse, A discussion of the Ehrharteae (Gramineae) with special reference to the Malesian taxa formerly included in *Microlaena*, Blumea 28: 181-194 (1982). *Joycea pallida* was named in Telopea 6(4): 611 (1996).

We have also been provided with some broader information on other grass genera.

**Australian Stipas**

Surrey Jacobs and Joy Everett (Sydney Botanic Gardens) have decided that all the Australian Stipas do not belong to the wider genus, and named (most of) them *Austrostipa*. There are a few taxa which have been placed in other genera, but most are *Austrostipa*, and the work is described in the Telopea 6(4) (1996) paper.

**Southern Danthonieae**

Peter Linder (Bolus Herbarium, University of Cape Town) has been looking at the southern Danthonieae for some time. His Telopea 6(4) (1996) paper gives most of the rationale, and splits the Australian *Danthonia* into several genera. However, under the existing rules for naming plants, some names weren't valid, so he published new valid names in the Telopea 7(3) (1997) paper. There is only one species of the (northern hemisphere) *Danthonia* genus in Australia - and it is introduced. The majority have become *Austrodanthonia*, but there are a fair number of *Notodanthonia* (4 spp. In Australia) and *Rytidosperma* (9 spp. in Australia). *Rytidosperma* seem to be more cold climate, and are generally confined to the alpine and Tasmanian areas, with a few in the East Gippsland area of Victoria as well.

New Australian Biological Resources Study products

* The Flora of Australia's volumes on grasses will be several books! The first should go to the printer at the end of 1999 and the next in early 2000.
* Also in the pipeline is the development of interactive keys on Australian grasses and Australian plant families, using LucID (like EuclID). They should also be available around the end of this year or early next year.
* In addition, the Natural Heritage Trust is funding some posters illustrating grasses (native and introduced), which will be available in July this year.

You can check for recent ABRS publications on the ABRS web-site: http://wwww.anbg.gov.au/abrs/

## SE Australian Grasslands: Going, Going, Gone?

**Tim Barlow**

*The following is a message from Tim Barlow which recently appeared on an e-mail list for grassland ecologists. (Tim is Bushcare Project Officer, Grassy Ecosystems, South-eastern Australia, and a FOG member.) Reproduced with permission from Tim.*

Greetings all

At the 'Down to Grass Roots' conference (1998) I gave a paper in which I presented some information / estimates about the extant area of grasslands in SE Australia, and current rates of decline. The latter was restricted to the period 1986 - 1992 for western Victoria, and some pers. comm. for the period 1990 - 1996 for northern Victoria. Assuming these rates are typical for the region, and my area estimates are within ball-park figures, I drew the conclusion that temperate grasslands should be pretty well kaput within 25 years. The only areas remaining will be those in conservation reserves, and everything else on roadsides, rail reserves, cemeteries, farms etc. will have been 'inadvertently destroyed'.

I am not super-confident in my findings, possibly because I feel somewhat uncomfortable as a grasslands person facing a future without grasslands - I had planned to be still working in 25 years time!

If I'm wrong, well and good. If I'm near-correct, we're all in deep trouble, and not just because we're in dead-end careers. However, some solid information would be immensely valuable.

There is an urgent need to quantify this situation to the policy makers. Whilst some of us may see sites being stuffed on a daily basis, others may never see such loss. Unfortunately, vegetation clearance data only covers heavily treed (forest, mallee) vegetation, and the current Government in Victoria is apparently quite happy with a clearance rate of *only* 5000 ha (as stated in latest ENRC Inquiry). Policy makers may believe making a response to a threat is the same as redressing the threat. Some (?most) may perceive there being no threat until extremely firm evidence is placed before them. Only last week I was told that some catchment management officers (well, definitely one, but I'm sure he's not the only one) 'didn't believe it [grassland destruction] was happening'. For some reason some people seem to think that all available cropping land and intensified pasture was established between 1830 - 1930.

However, Blind Freddie could see that grassland is being lost with the collapse of the pastoral industries (the worst is yet to come), the push to more intensive pasture management and dryland & / or irrigated cropping, withdrawal of broad departmental scientific expertise in land management, local government amalgamations, subcontracting of municipal and state government services, accelerated infrastructure installation, suburban subdivision, remnants being targeted for tree-planting, yadda yadda yadda.

Since it would take me too long to collate the necessary information, I would be most grateful if anyone out there has specific information that they would like to pass on to me in order to assist delivery of the message. What I need is:
- site name (optional)
- size of site (approx. / exact)
- approx. location (eg 20 km SE Cooma)
- type of veg (swamp, grassland, woodland etc)
- % destroyed (razed, cropped etc) or
- % modified (ie direct seeded, no longer burnt etc)
- any notable values (eg had only pop'n of sp X for Campaspe catchment)
- year site was destroyed / modified (or first noticed, if actual year not known)
- for what purpose (eg road works, Telstra, cropping, spray-topping, etc) - anything else that may be of interest (eg was a veg clearance permit applied for / issued, newspaper clippings, cropped for footy club etc)

I am especially interested in recent history, say post-1990, but it would also be valuable to put this in perspective with other periods so don't feel shy if you think it might be old info - any info is potentially good info.

You can contact me at the address below, faxed hand-written (& legible) notes are fine, but I will be difficult to catch on the phone over the next few weeks if you need to speak to me. E-mail is best. Please note that you don't need to provide your name (unless you want to), and I will assemble the information so that it cannot be attributed to you. I appreciate that some local and state government employees may face some difficulties in certain circumstances.

Hoping you can help.
Tim Barlow
Bushcare Project Officer
Grassy Ecosystems, SE Australia

c/- Victorian National Parks Association
10 Parliament Place, East Melbourne, 3002
Ph: (03) 9650 8296 Fx: (03) 9654 6843

## CONSERVE BIODIVERSITY OR PAY THE PRICE, WARNS CSIRO CHIEF

*This article appeared in NATURAL HERITAGE, The Journal of the Natural Heritage Trust, Edition 1/No. 1, Autumn 1998. NATURAL HERITAGE is published quarterly by Environment Australia and the Department of Primary Industries and Energy.*

A leading CSIRO scientist believes time is running out for the lucky country to conserve its unique biological diversity.

The assistant chief of CSIRO Wildlife and Ecology, Denis Saunders, wants all Australians to urgently consider the problem of declining biological diversity.

"Australians are living on borrowed time as the amazing array of ecological systems that make up our biological diversity break down and decline," he said.

"Researchers fear that too few Australians appreciate that this will have an adverse impact on all our futures. "While the immediate impact of declines in biological diversity might be seen in country areas, the scale of the problem would affect the lives of all Australians.

"It will affect our ability to produce food, our access to clean water, our cost of living and harm other industries such as tourism, recreation, forestry and construction."

Dr Saunders said biological diversity underpinned our life support systems: maintenance of the atmosphere; formation of soils; nutrient cycling; disposal of wastes; production of clean water; provision of food and fibre; and building materials. It also protected us from change. He believed that the loss of biological diversity would compound greenhouse effects many times over.

The CSIRO scientist has spent the past 30 years studying the ecosystems of the wheatbelt in south-western Australia. "In that time I have seen widespread land clearances, decline in biological diversity and the subsequent loss of productive land as dryland salinity spreads across the cropping zone like an unchecked cancer," he said.

"Healthy biological diversity, on the other hand, enhances a system's power of survival and adaptation," he said. "Look at the landscapes of the living dead. Those majestic, mature, native trees that dot so much of our agricultural countryside. Some of them were probably growing when Captain Cook charted the East Coast of Australia. When you look closely you see that there is almost no regeneration so there are few young trees to replace them.
"Clearing of native vegetation has left them isolated, stock and ploughing have changed the structure of the soils in which they stand, and changing water tables have exposed them to increasing levels of salinity as well as making the micro-environment unsuitable for regeneration. "In addition, insect and bird pollinators these trees depend on may have disappeared. As a result, seeds don't set and the trees will never be replaced

because there's no younger generation to succeed them.

"As the trees die the soils become poorer, they erode, saline groundwaters rise, rivers are polluted, pests flourish, entire life-support systems begin to fail.

"That's just one general example highlighting how whole ecosystems can degrade as the variety of life is lost.

"Australia's enormous store of biological diversity can truly be said to be the nation's real wealth, but it is under threat. If we don't act soon that wealth could be lost, and it will our children who are the poorer," Dr Saunders said.

## Biodiversity booklet

**Naarilla Hirsch**

Environment Australia has just produced a booklet called *Biodiversity - Nature's variety: our heritage: our future*. The booklet describes the benefits which biodiversity brings to every part of our lives and provides simple advice which all of us can use to protect biodiversity for ourselves and future generations. Did you know that tylocrelin, a drug that effectively treats lymphoid leukaemia, is derived from a native vine (called Tylophora)? Or that you can grow your own mossy rocks in your garden from any stone and a bit of milk? Or that only 47 of the 209 species of endangered Australian plants live in protected areas? The booklet contains a number of interesting snippets and tips like this, in a clear and colourful format. It's an excellent resource for schools and a simple way of letting people know of the importance of conservation and of easy ways they can contribute.

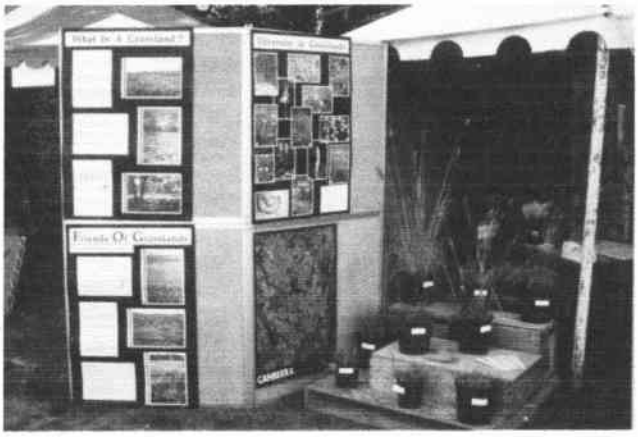
Individual copies of the booklet can be ordered by phoning 1800 803 772. Multiple copies should be ordered through Fiona Herndl on (02) 6274 2248. A poster accompanying the booklet will be available shortly.

## What's In a name?

**Art Langston**

Since the days of Linnaeus biologists have favoured the use of binominal or scientific names for referring to plants and animals. There are two reasons. Firstly, the naming system represents two tiers of a hierarchical system that facilitates classification of species into similar


groups. Secondly, it overcomes the problem of regional and personal differences in the use of common names. We face the second problem with one of our better known local species. Many of you will have heard me talk of the lizard *Tympanocryptis lineata pinguicolla*. That name is long and complex but the situation with its common name is worse. In the past the lizard has been referred to as the "Eastern Lined Earless Dragon", the "Southern Lined Earless Dragon" and the "South Eastern Lined Earless Dragon". This has lead to some confusion, as in a geographical sense all are correct. The term "Lined" also creates confusion, as *Tympanocryptis lineata* is a similar though regionally different group of lizards. Because of this the recovery team for this lizard recommends the use of the common name "Grassland Earless Dragon" to describe *Tympanocryptis lineata pinguicolla*. Yes we now have a lizard of our own! Please try to use this common name when talking about the lizard. As a footnote the scientific name of the dragon is also soon to change. Its all very secret but my guess is *Tympanocryptis pinguicolla*. By the way, that roughly translates to "hidden ear with fat neck". The romance of science is revealed!



Have you ever seen a better Grasslands display? This FOG display at ACT Alive on March 15 was a cracker! These fine grasses were supplied by Michael Bedingfield.

## Bits and Pieces...

### WIN WIN WIN!
### Newsletter Name Competition!

Do you want to be famous as well as win a great prize? Well here is your chance! The FOG Committee are still looking for a new name for the newsletter and we want your ideas.

If your name is selected for the newsletter title you and a partner of your choice will be treated to a luxurious day spraying African Love Grass in scenic Bredbo next year. All transport, meals backpacks and chemicals provided! WOW! How can you go past this one!

So sharpen your pencil and get your creative hemisphere into gear. Send your suggestions to Geoff Robertson (contact details on page 12).

### Species List for Grassland Flora

Rainer rehwinkel has kindly offered to provide owners of Grassland Flora a complete species check list for the book. If you would like a copy, contact Rainer Rehwinkel on
Ph (02) 6298 9745
Fax (02) 6299 4281
Email:
rainer.rehwinkel@npws.nsw.gov.au

Great for professional or personal use, a species list might be helpful for those compiling a flora list for a particular site or those keen to record all of the species they have seen in the field.

## FRIENDS OF GRASSLANDS INC

***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:**

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Inquiries: 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*.

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

We look forward to hearing from you.

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