



News of Friends of Grasslands

Supporting native grassy ecosystems

May-June 2004

Program

Wed 5 May (3:30 to 6:30pm) - Canberra Nature Park: a shared vision and future management. See news item, *Very important Community Forum* (page 3), but you need to book immediately.

Sat 29 May (8:30am to 4:30pm) - Managing regeneration of grassy woodland. With Roger Farrow we shall visit Bronwyn Johnston's 100-acre property, "Ridgeway", Shellhaven. We will meet at the park in Braidwood (near toilets in park off the main street) at 10am. "Ridgeway", which is a highly biodiverse Yellow Box secondary grassland, has recently had stock removed and is regenerating. Bronwyn is keen to learn about FOG experience in managing such land for its biodiversity values. Bring picnic lunch (or purchase lunch at Braidwood). Tea and coffee provided. Please let Roger or Margaret (details back page) know if you are coming.

Sat 26 June (2 to 4:30pm) - Alan Ford's Winter Tour of Canberra Grasslands - This is the fifth successive year that Alan has organised his winter tour. This year we visit the new and spectacular Gooroo Nature Reserve. Meeting place is the Gooroo Nature Reserve car park (Horse Park Drive), about 1.8km north of Federal Highway and 4km south of eastern end of Gundaroo Drive.

Sat 24 July (2pm to 4pm) - FOG slide afternoon. David Tongway will show slides on *Desert ecosystems*. Venue Mugga-Mugga Education Centre, Narrabundah Lane, Symonston ACT (opposite Therapeutic Goods Administration). Afternoon tea provided.

Sat (Date to be determined) August (9am to 3pm) - Leaf, feather, fur and scale workshop: exploring the relationship between Southern Tablelands ecosystems and their bird, mammal and reptile inhabitants. The workshop will describe our region's ecosystems and vegetation, how we identify the various animals and their habitat requirements, and what this means for practical conservation. Venue Mugga-Mugga Education Centre, Narrabundah Lane, Symonston ACT (opposite Therapeutic Goods Administration). Lunch provided. More detail in next newsletter.

Sat and Sun 18 and 19 September - Eden heathland expedition. With Jackie Miles we will be visiting far south coast heathlands.

Sat 23 October - Braidwood orchids. We will visit some exciting orchid sites near Braidwood.

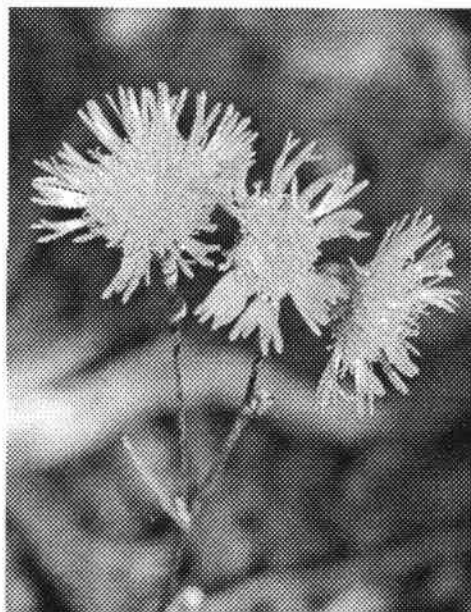
Sat 30 October (9am Bungadore Park) - Field Day visiting Bungadore Biodiversity Hotspots and becoming a FOG Buddy. See news item on *Sustainable Bungadore* by Rainer Rehwinkel on page 3.

Sat 13 November - FOG's Tenth Birthday - we are planning something special.

In this issue

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- President's AGM report
- An edible daisy? I would like to see that.
- Third native grasses conference continued
- Woodrush - *Luzula densiflora*

Right: Gentian and Everlasting Daisy (top) and Copper-wire Daisy (bottom) seen at the Gentian Grassland visited by FOG on 24 April.



News Roundup

FOG's new committee

Di Chambers, Vice President

Around 25 people attended FOG's AGM, held on 21 February. Geoff Robertson, outgoing president, provided a comprehensive report that is published on page 7 of this newsletter.

Geoff did not re-stand for the position of President, and as no one else stood for that position, FOG is without a president. Geoff has since been appointed as an ordinary committee member.

The AGM created a second vice president position, and Roger Farrow was elected to that position. Roger will focus on FOG's program. I was re-elected as vice president and will focus on the day-to-day management of FOG's affairs.

Ros Wallace stood down as Secretary and was replaced by Cathy Robertson. Alan Ford was re-elected as Treasurer.

Michael Treanor and Betty Wood did not re-stand for the committee - otherwise all committee members continued. Stephen Selden was elected as a new committee member. Full details of the committee appear on the back page.

While Geoff Robertson and Margaret Ning wish to pull back on some activities, they will continue to be active in the organisation of FOG activities, and will continue to produce the newsletter, for example.

The committee is examining roles and responsibilities.

Snowy Flat

Alan Ford

FOG joined a Field Naturalists' excursion to Snowy Flat in the high Brindabellas on a sunny Saturday 6 March. The huge damage caused 14 months earlier is now being repaired as all sorts of strange plants were visible from the road in various stages of re-growth - a truly astonishing sight.

However, once we actually got to the Flat, there was another story - one of almost complete devastation of the Sphagnum Moss (*Spagnum cristatum*) that is the heart of the bog community. Geoff Hope led this expedition and he said that these were relatively recent communities based largely in the granite country. He has a date of 3,000BP for Ginini Flat, which is just to the north of Snowy Flat and a date of 8,000BP for Snowy Flat.

They are surrounded by the forest ecosystems of the high Brindabellas, with their Poas, one of which was probably *Poa costiniana*, their raft of daisies, *Celmisia* sp., *Leptorhyncos squamatus*, a *Brachyscome* sp., a Leek Orchid (*Prasophyllum* sp.) and the hugely successful *Stellaria pungens*. We also found the fern *Botrychium australe* in one spot close to the bog.

The relatively small surviving areas of intact bog have a number of plants either competing or coexisting with the Sphagnum. These include *Richea continentis*, *Empodisma* sp., *Callistemon* sp. and a *Baekea*. The *Empodisma* may out compete the encroaching grasses but it may also make it difficult for the Sphagnum to recover in certain areas.

The Southern Corroboree frog (*Pseudophryne corroboree*) depends on the bog and has clearly been severely affected by the damage. It will take a real effort to maintain it in the wild. One also has to consider the role of the local crayfish in the ecology of the bog.

The extent to which human interference, in terms of past and present disturbance, cattle, horses and pigs, has affected the bog and its ability to recover is an issue that we all need to be aware of as its ability to bounce back may be affected by these and other threats.

Geoff Hope is involved in an experiment to re-vegetate the bog by seeding it with Sphagnum from adjacent areas of the Flat where the Sphagnum has survived. We wish him well in this endeavour.

Our thanks to Geoff Hope for a marvelous day.

FOG display at ANPS sale

Rosemary Blemings

Quite a number of plant sale customers stopped to study FOG's magnificent new grassland poster as they left the sales area on Saturday 20 March. Loaned grasses and sedges complimented the posters and the photographic studies of grassland plants Michael Bedingfield has included in his dossier of beautiful drawings. FOG's own photo albums showed what we do and helped to answer questions.

Sincere thanks are due to Roger, Dierk, Rosemary, Stephen, Naarilla, and Warren who ably and personally promoted FOG and grassy ecosystems, and to the

Australian Native Plants Society whose sale presented the publicity opportunity.

Foray at Burra

FOG had a stall at the Burra Show on 28 March. Much interest was shown in the variety of native grasses and forbs that Roger Farrow had brought along, especially by people who wanted to grow native grasses in their gardens. Roger also had examples of African Lovegrass and Serrated Tussock that were good talking points. The FOG posters also attracted much attention.

The Burra Showground itself has some quality remnant Yellow Box Red Gum grassy woodland and those people who showed some interest in conservation, were provided with an impromptu tour of the remnants. Thanks to Roger, Christine, Margaret and Geoff who manned the store.

Working bee at Old Cooma Common

Saturday 3 April, six FOG members tackled the woody weeds at Old Cooma Common. Earlier working bees had made substantial progress on this problem, but had not totally removed all woody weed plants and, of course, some had re-shot. The vegetation at the Old Cooma Common Grassland Reserve appears to be surviving the drought rather well.

FOG native grasses meeting room

Stephen Selden

At the last FOG committee meeting, it was agreed that I would have a Grasslands forum added to Envirotalk and that I would be the Moderator. I think this will be an excellent place for us to discuss issues and a really good way to help spread the word to others about us and grasslands.

To have a look at the forum please visit <http://www.envirotalk.com.au/forum/index.php> and scroll down to the Group and Society Meeting Rooms. You will see, Native Grasslands Meeting Room, Friends of Grasslands (FOG) and all wishing to preserve and restore our grassy ecosystems. Click on the title to enter the forum.

To use the forum, you will have to register with Envirotalk - this is a very easy process. All discussion is on the board so you will have to enter the site to read and post messages - but you can have an e-mail alert sent to you whenever any-

thing is posted by scrolling down to the bottom of the screen and clicking on "Subscribe to this forum". E-mail addresses that you enter on registering are encrypted into Envirotalk and are not able to be accessed by anyone, as is your password.

The Envirotalk format is a lot of fun and we have loads of really good feedback about it. Membership has risen dramatically in the past few days and we are visited constantly by people just dropping in for a look. Our hit rate is well in excess of 120,000 a month - so great for exposure. There are already many knowledgeable and active people on Envirotalk so it is a great place to ask questions and make contacts, so I hope people enjoy the forum.

If you have any questions or problems - please contact me (see back page for contact details).

Very important community forum

The Conservation Council and Environment ACT invite FOG members to attend the Fourth Community Forum to be held at the Ainslie Football Club 3.30pm-6.30pm, 5 May 2004.

The title is *Canberra Nature Park: a shared vision and their future management*. FOG has long advocated that we need a vision for our landscapes, hopefully one based on restoration of our natural ecosystems: grasslands, woodlands, dry forest and wetlands.

The forum offers the opportunity to assist in developing a shared vision for Canberra Nature Park. About 100 people are expected to attend from the community, environmental groups and Environment ACT.

It will also be an opportunity to discuss and explore major concerns and issues with a range of presenters and through group discussions. Your contribution will be greatly appreciated.

Please RSVP by 29 April. Dora Ugalde, 02 6207 5911 dora.ugalde@act.gov.au.

The Vision Splendid (Action Plan 28) Alan Ford

The title is a shortened version of the heading on the background papers (Drafts of Chapters 1, 2 and 4 of the Strategy) for the Community Forum on Grassland Conservation in the ACT held

on 4 March 2004 and attended by a number of FOG members. The papers were provided to assist people come to a common understanding of the framework for the *Natural Temperate Grassland Conservation Strategy*, (Action Plan 28) which is to replace Action Plan 1 and a number of related species action plans.

Chapters 1 and 2 provide an excellent summary of the preservation of grasslands to date and of the threats to the flora and fauna of Natural Temperate Grasslands. Apart from agricultural, urban and infrastructure development,



FOG's AGM at Mugga Mugga on 21 February 2004.

there are references to weed invasion and other forms of disturbance in relation to general threats, fragmentation and degradation of habitat, and predators in the case of fauna. Chapter 4 of the draft strategy contains management goals in terms of information, protection, threats, planning, management and threatened or uncommon plants and animals.

One of the real problems with the material provided is that it did not include Chapter 3, Planning and Management for Conservation. To make up for that, there are some excellent proposals in Chapter 4. The following are examples. First, one *action* under the heading of *protection* is to develop and support appropriate proposals that will protect areas identified for reservation representing. The areas should include: the geographic and ecological extent of natural temperate grassland including representation of all floristic associations; key habitat for threatened, uncommon and declining grassland species; and elements that will achieve a Comprehensive, Adequate and Representative system.

Second, the first *objective* under *planning* is that "The *Natural Temperate Grassland Conservation Strategy* and up-to-date ecological information is the

major basis for assessing planning decisions impacting on conservation of native grassland and component species". The first *performance criteria* under *planning* states that "all ACT planning and urban development decisions involving natural temperate grassland and habitat for grassland species are based on the *Natural Temperate Grassland Conservation Strategy* and up-to-date ecological information."

Having acknowledged that, it will be up to the rest of us to argue for the implementation of the second part of the title, *of the Grassy Plains Extended*.

Sustainable Bungendore Rainer Rehwinkel

There is an exciting new project, called "Sustainable Bungendore". The role of this project is to promote sustainability issues in the village. One of the planks in the project

is to raise awareness of local biodiversity hotspots.

As FOG people know, there are some very nice grassy remnants in the Bungendore area, including Brooks Hill Reserve, Turallo Nature Reserve, Sweeneys TSR, Six-Mile TSR, and Lake George.

A field day is planned for 30 October 2004 that will bring FOG and Sustainable Bungendore people together with other interested parties. The aim of this field day will be to enable interested Bungendore people to gain a better understanding of the biodiversity and other values of grassy ecosystem sites in the region.

It is planned to visit two or three sites, with FOG members acting as "mentors", buddy-ing-up with Bungendore people on a one-to-one basis, thereby giving personalised service to those interested in learning more about our grassy biodiversity.

This is a project sponsored by the Southern Tablelands Grassy Ecosystems Conservation Management Network.

Gungahlin Drive Extension (GDE) - personal explanation Geoff Robertson

Since 22 March, hardly a *Canberra Times* issue has been published without the GDE being given prominent focus.

Local radio, television, and other media have also run hot with GDE news. Yours truly, shot to some prominence because of my position as President of the Conservation Council and events surrounding GDE.

I have urged FOG members to become involved in this issue because the GDE will cut through an extensive area of remnant vegetation covering dry forest, and threatened natural temperate grassland and grassy woodland. The area affected has also been called a "biodiversity hotspot". A population of Striped Legless Lizard is threatened by the road - the list of biodiversity consequences goes on and on.

In addition, one has to look at the other costs and benefits. Having considered the issues for some time and as a Gungahlin resident (who are said to want the road), I have formed the conclusion that the road is expensive, promotes greenhouse gas emissions, and fails to address Canberra's transport needs.

I have also mentioned on a number of occasions, that I am deeply disappointed in a government that came to office with so much promise of vision, and commitment to biodiversity and community involvement in decision making. In reality, on hard biodiversity decisions, biodiversity has become the loser.

Legal action by Save the Ridge in the Supreme Court halted destruction of the vegetation, but the ACT Government has announced its attention to wipe aside any obstacles to the road.

The Conservation Council thought that it should continue to play an active role opposing the road and to support those most actively involved. I would never have thought that I would be one of nine people arrested.

As I have publicly said, I consider that being arrested on 23 March was the right decision at the time, in what I can only say are exceptional circumstances. For five weeks those charged with trespass faced tense and possibly long drawn out legal action.

Good legal advice from several sources, especially through the Environmental Defender's Office, suggested that we had a good case to plead not guilty. We believe it was that case that convinced the Commonwealth Prosecutor not to proceed with the prosecution, leading to the dismissal of the charges. Unfortunately, two other people still face charges.

This was a very difficult personal experience, and I would like to thank the many people who expressed support for me, including many prominent people on the other side of this argument. However, I have seriously questioned whether I have helped or hindered the cause of organisations with which I am associated. Time will tell.

Strangely, in the middle of all this, as President of Friends of Grasslands, I received a letter from the Chief Minister saying "I am delighted to invite you to become an Honorary Ambassador for the ACT in recognition of your personal contribution to Canberra." While, this is a personal honour, I regard it as recognition for FOG, and the many people who actively contribute to it over the years.

Cats in Gungahlin

The FOG committee resolved to support the Conservation Council's efforts to advocate a cat ban in the new Canberra suburbs of Forde and Bonner, because of their proximity to the important grassy woodland reserves of Mulligan's Flat and Gooroo, which provide habitat to threatened species such as Hooded Robin and Brown Tree Creeper. The Conservation Council had made a strong case for restricting free-roaming cats that are a major threat to native species, including threatened species.

On 3 March the ACT Government took the first step towards keeping threatened wildlife safe from cats in announcing cat containment measures for the proposed suburbs.

The Conservation Council expressed its disappointment that these suburbs will not be cat free as this would have provided the greatest level of protection for wildlife in the reserves and have been the easiest to enforce.

It pointed out that elsewhere in Australia, cat-free suburbs have attracted residents that pride themselves on protecting the wildlife at their doorstep and these people are the first to inform the authorities when there is a breach of such conditions.

The Council in its press statement stated that it will be integral for the success of containment measures to have a cat registration system such as micro-chipping. Regular monitoring of any cats entering reserves, their removal, and appropriate penalties for cat owners who allow their cat to roam into the reserves will also be needed.

It stressed that it will be imperative for an intensive community education program to be undertaken to ensure people living in these suburbs understand the responsibilities that come with owning a cat.

The Council stated that the Government's compromised position and proposed measures for compulsory cat containment are a step in the right direction, but believes that the community needs to seriously consider cat-free suburbs for future developments near nature reserves.

According to the Council's Director, Trish Harrup, "An important question is whether the unrestrained individual rights of pet owners should always take precedence over the community's responsibilities for protecting native animals".

The Conservation Council will continue to advocate cat-free suburbs where our wildlife is directly threatened.

Grassland job opportunity

Geoff Robertson

As mentioned in the last newsletter, Rebecca Hall was appointed to the position of project officer for the National Recovery Plan for Natural Temperate Grasslands of the Southern Tablelands and NSW. While making an excellent start, she has resigned, leaving the position vacant. The position is likely to be available for three years or more, and will be advertised in the near future. David Shorthouse, Chair of the Recovery Team, is eager to hear from anyone who may be interested in applying for the position. For further information, please contact David on david.shorthouse@act.gov.au.

Employment opportunity with ANPS

Fiona Hall

I thought FOG members might be interested in the project officer and officer manager positions being advertised by the Australian Network for Plant Conservation, Canberra. Please note that the closing date is 10 May.

The project officer position has a salary range of \$45,000 - \$50,000pa and is full-time until October 2005.

ANPC is non-profit network dedicated to promoting and developing plant conservation in Australia. It is seeking a motivated and enthusiastic person to coordinate an education program within NSW and Queensland.

The program will provide training and educational resources for community and professional development in plant conservation techniques and the rehabilitation of native plant communities.

The successful candidate will require knowledge of native plant conservation issues in Australia and excellent organisational, project management, communication and networking skills. A good knowledge of plant conservation techniques and rehabilitation procedures is desirable as is desktop publishing and web publishing skills.

The Office Manager position has a salary range: \$35,000-\$40,000pa pro rata. This is part-time (1 day per week initially). ANPC is seeking a suitably qualified person to manage the office administration in the national office.

The occupant will be expected to be responsible for general office administration, including budgetary matters, to liaise with a wide range of organisations, clients and Committee members and to keep good records of the organisation and its membership, website and databases. The occupant will also assist with production and distribution of the ANPC's newsletter *Australasian Plant Conservation*.

The successful candidate will require excellent organisational, general office skills, time management and computer skills. A good knowledge and understanding of Australian flora conservation issues is also required.

Selection criteria and additional information available from <http://www.anbg.gov.au/anpc>, or Bob Makinson on 02 9231 8174 or bob.makinson@rbg-syd.nsw.gov.au.

Translocation workshop

Due to popular demand the Australian Network for Plant Conservation (ANPC) is running a second workshop on the translocation of threatened plant species on 4 June 2004 at the Royal Botanic Gardens in Sydney. The cost is: \$85 for members (we assume that this includes FOG members as FOG is an ANPC

member), and \$115 for non-members. Registration closes on 27 May 2004.

The target audience is people who have been involved in, or would like to be involved in, the planning, approval or implementation of a translocation project for threatened flora.

The workshop will address: What is translocation? When is it appropriate to use translocation as a tool to conserve threatened species? What needs to be done when planning a translocation program? How should a translocation program be implemented? What ongoing management and evaluation is required? Where can I go for more information? The workshop will include case studies of translocation programs, highlighting lessons to be learnt.



Gentian Grassland visited by FOG on 24 April. Picture taken 10 April. The flowering shows the incredible array of Gentian and Everlasting Daisy. Story of visit next issue.

Translocation is one of the many tools available to assist in conserving threatened plant species. It involves the deliberate transfer of plants or regenerative plant material from one place to another. Translocation can be used to enhance existing populations; reintroduce a species to a site where it formerly occurred, but where it is now extinct; and to introduce a species to a site where it hasn't been recorded previously.

To register contact ANPC 02 6250 9509 or e-mail: anpc@deh.gov.au. Website: www.anbg.gov.au/anpc.

Conder 4a to be reserved

On 16 February Jon Stanhope announced that the woodland site known as Conder 4a would be incorporated into Canberra Nature Park by adding it to the

adjacent Tuggeranong Hill nature reserve. There are administrative processes to be concluded before this decision is made legal. There needs to be a change to the Territory Plan and approval by the Legislative Assembly, and this process takes time. Hopefully this will go smoothly.

The site, though only 8 hectares, is an important site in the Tuggeranong area, an example of a quality piece of woodland with a high level of floral diversity and a spectacular spring display. There are three schools within walking distance and great educational opportunities exist. The site was the subject of much controversy back in 1999/2000 before Dr Joe Baker, the Commissioner for the Environment, recommended the current ten-year development moratorium.

When the site is made a reserve it will be the culmination of much hard work and dedication by FOG member Michael Bedingfield who recognised the value of the site and began a campaign, with FOG's support, to have the site protected against proposed development. FOG has been quietly working for several years to have the moratorium status

changed and the site made a reserve, and the announcement is very welcome.

WEN
Geoff Butler

As many FOG members know, I ceased to be a Councillor on the former Yarrawlumla Shire Council in mid February, when that Council ceased. My four and a bit years experience on Council, plus some ten years of dealing with Council prior to becoming a Councillor, starkly reveals to me that environmental issues rate very low on Council staff agendas, and indeed there is a single lack of understanding of their environmental responsibilities.

This is especially so when related to monitoring or compliance to Local, State and Federal requirements for environmental protection. A series of very serious and blatantly illegal land clearing incidents have been brought to my attention in recent months, and Council staff's responses to these incidents have been extremely wanting.

To counter this apparent neglect of environmental protection, a number of environmental-minded people have formed an environmental network in the newly amalgamated shire.

At present we are proposing the name "Weereewa Environmental Network" (WEN) or something similar. We foresee the main objectives of WEN as being to challenge Councils' responses (where required) to current environmental protection measures in an open and public way, and to work cooperatively with Council for environmental improvement(s).

WEN will retain total autonomy on which issues it becomes involved with, and its focus will be on matters of public/community interest, not becoming involved in neighborhood disputes or clashes unless there is a clear case that the public interest is involved.

We would like to conduct an initial meeting in the near future, so if you are interested in becoming a member of WEN, or have further inquiries, please let me know by e-mail. (g.butler@aus-

tarmetro.com.au), and I will add you name to WEN's e-mail circulation list. We are hoping that much of the business of WEN can be conducted by e-mail in future.

'Development destroys Delma' David Shorthouse

I refer to the article entitled *Development destroys Delma* that appeared in the November-December 2003 edition of *News of Friends of Grasslands*. Environment ACT, through Wildlife Research and Monitoring (WRM) have been involved in discussions on this development from the outset, providing comment on the initial Storm Water Master Plan in February 2003, through to draft and final Preliminary Assessment documents.

Early advice from WRM proposing an alternative route ensured that the sewer easement did not destroy any significant areas of Natural Temperate Grassland. Although there will inevitably be disturbance to Striped Legless Lizard (*Delma impar*) habitat it is not felt that the development will significantly impact the

population of this lizard at Gungaharra Grassland.

Acting on WRM advice the developers will arrange for all open sections of trench to be inspected by suitably trained personnel on a daily basis to remove and relocate any fauna that fall into the excavation. With its commencement, the development project will be overseen at all stages by staff from Parks and Conservation and Wildlife Research and Monitoring.

David is the Manager, Wildlife Research and Monitoring, Environment ACT.
Thanks David - Editor.

Canberra Spatial Plan

The Canberra Spatial Plan was released in March. A detailed analysis will be included in next issue.

East O'Malley land sale

Residential land blocks went on sale in April. Government finance is a winner, and biodiversity the loser.

New Sub-population of Button Wrinklewort found at HMAS Harman

Sonia Colville and Lauren Gray, Defence Environmental Officers, ACT/SNSW

A new population of the endangered *Rutidosis leptorrhynchoides*, commonly known as Button Wrinklewort, has been found on Defence land at HMAS Harman in the ACT.

R. leptorrhynchoides is a small, herbaceous perennial plant about 30 cm tall. It has soft, narrow mid-green leaves with edges that are rolled under. The species produces clusters of yellow flowers from October to March. This endangered species is understood to have a self-incompatibility mechanism which results in a plant failing to produce viable seed from pollen with a similar genetic make-up to the receiving plant, making the species particularly susceptible to inbreeding depression.

R. leptorrhynchoides grows in grassland and woodland of the ACT, Monaro region and also Victoria. In the ACT it is associated with two Commonwealth-listed ecological communities, Natural Temperate Grasslands and Yellow Box/Red Gum Grassy Woodland. Defence currently manages more than 5,200 hectares of land in the ACT. A significant proportion contributes to the remnants of Natural Temperate Grassland and Yellow Box/Red Gum Grassy Woodland remaining in the ACT region.

As a part of its ongoing effort to ensure the sustainable management of these communities, Defence has established a monitoring program for the Button Wrinklewort population.

A recent survey of the grasslands at HMAS Harman revealed there are additional 782 *R. leptorrhynchoides* individuals in a



Photo above: Button Wrinklewort and next page Ginninderra Peppercross. Photos supplied by Environment ACT.

newly identified sub-population. This discovery has quadrupled the total number of *R. leptorrhynchoides* individuals previously found at HMAS Harman.

This higher abundance greatly increases the chances of the plant continuing to survive at HMAS Harman, given that the species is susceptible to inbreeding depression in populations of lower numbers.

This sustainable population is a welcomed addition to the already known

populations of threatened flora species that exist on Defence land.

In addition to HMAS Harman, Defence's Majura Training Area, Campbell Park Offices, RAAF Gungahlin and Belconnen Naval Transmitting Station are all sites that provide habitat for a variety of threatened woodland and grassland species

associated with Yellow Box/Red Gum Grassy Woodland and Natural Temperate Grassland communities.

These range from reptiles such as the vulnerable Striped Legless Lizard (*Delmar impar*) and endangered Grassland Earless Dragon (*Tympanocryptis pinguicollis*), to insects such as the endangered Golden Sun Moth (*Synemon plana*) and the vulnerable Perunga Grasshopper (*Perunga ochracea*), in addition to a number of bird species, as well as flora species.

The sustainable management of the grasslands at Belconnen Naval Transmitting Station in consultation with Environment ACT, research institutions and other organisations is ensuring that the endangered *Lepidium ginninderrense* (Ginninderra Peppercress) continues to survive there. This population on Defence land is the only population of this species known to remain extant.

L. ginninderrense is a perennial herb that grows to a maximum height of about 20 cm and flowers in late spring.

To date, Defence's environmental management practices have been successful in managing these threatened species and surrounding grassland community by ensuring that any activities occurring nearby do not adversely affect these grassland sites.



Defence is implementing an active works program to control potential threats, such as noxious weeds and is continuing to stay abreast of best practice in grassland and woodland management, through facilitating research on Defence properties by research institutions such as CSIRO, ACT universities, as well as Environment ACT.

Defence will continue to monitor, manage and maintain these populations and the condition of their grassland and woodland habitat in collaboration with botanical researchers, government agencies, and other organisations.

President's AGM Report

Geoff Robertson

FOG's objectives

FOG's key objective is to support natural temperate grassy ecosystems across south-east Australia. This is done through advocacy, research, targeted public education, and on-ground work. Key strategies include a quality newsletter, working with other groups, well-researched submissions, focussed activities (eg workshops, field trips and vegetation surveys), and assisting individuals with visits and information.

The thinking on how to support grassy ecosystems has been evolving, and it is recognised that all remnant vegetation should be preserved, that naturally functioning wetlands need special attention, and that our grassy ecosystems need to be restored and reconnected. It has also been recognised, especially after the 2003 Canberra Fire, that naturally functioning grassy ecosystems contribute substantially to ecosystem services and are responsible for clean water, air, good biodiversity outcomes, and provide better protection against fire and global warming.

The areas of ACT and NSW Governments responsible for threatened species and communities have a strong view, shared by FOG, of the need to map,

protect, manage, restore and reconnect, and research and resource our grassy ecosystems. There is also a shared view of the need to provide targeted public education, including the more complete establishment of Conservation Management Networks.

The *Planning framework for natural ecosystems of the ACT and NSW Southern Tablelands* and the *Draft Woodland Strategy* are important documents in this respect. This thinking will continue to emerge through the work of the Natural Temperate Grasslands of the Southern Tablelands of NSW and the ACT Recovery Team and the planned ACT reviews of grasslands and riparian areas.

FOG is very pleased with this development in thinking and takes some credit for facilitating it. A further welcome development is the view in the ACT government that we need to restore the natural landscapes and develop, as long advocated by FOG, vegetation guidelines and protocols.

There are some members of FOG who consider that Environment ACT ought to do more to protect particular sites, and there is a great deal of tension over areas such as East O'Malley, Forde, Bonner, the airport, GDE, sites in NSW, etc and

there will be many more. FOG has fought hard on each of these issues and in some quarters has made itself unpopular. However, at the end of the day we need to recognise that these are political decisions which are largely based on the community choosing life style over biodiversity.

Much land clearing of grassy ecosystem remnants is taking place in NSW because natural temperate grasslands and snow gum woodlands do not have proper protection, and we have not been in a position to do much about it. We are now developing some good information on aspects of these and should take these up with the NSW Government. For starters I consider that FOG should strongly urge that government to list natural temperate grasslands of the Southern Tablelands and Snow Gum Woodlands (and associated vegetation) as threatened communities.

Getting the message out there is key. It is pleasing that FOG is both well known and respected. FOG's thinking is starting to bite in many areas of natural resource and catchment management, and this is partly due to our efforts to engage people involved in these processes.

Unfortunately, while we know why we should manage and restore our grassy ecosystems, we still need to learn a lot about how to do it. FOG and Australian Native Plan Society have pushed ahead with establishing Southern Tablelands Ecosystems Park (STEP) which in many ways will allow the concrete expression of many of our objectives, including restoration of our landscapes. However, STEP is taking on a difficult task and not without tension. It will need FOG's emotional and financial support.

Activities in 2003

FOG organised or co-organised 20 activities in 2003 that covered a very wide range of areas and interests. Our aim continues to be to attempt to provide activities that interest every part of the membership. Each activity was very successful and most had a heavy education component. Not only did many people participate but very many members contributed by providing talks and/or providing organisation skills.

Some important events this year will be a workshop on soils, possibly a workshop on feather, fur, and scales, and our Tenth Birthday celebration.

Membership and finances

At the end of 2002 we had 180 memberships which translates into many more actual members. At the end of 2003 the number was slightly lower. This is pretty pleasing as we are replacing those who drop out.

Financially we made a surplus that has added a little to top up our kitty.

Working with other groups

A key aim of FOG is to infiltrate and influence other groups and/or enter into partnership with like-minded groups. Infiltrating is often the first step and partnerships a second. Attachment B sets out a list of active partnerships between FOG and other organisations in 2003.

Submissions

FOG wrote many submissions in 2003 and participated in many more especially through the Conservation Council. FOG members devoted hundreds of hours to many ACT Government consultations.

FOG relies on many people

FOG would not be as successful as it is, if it were not for the many people assisting with the finance, administration, lobbying, education, activities, and newsletter, and attending to committee matters. A big thanks to you all.

Indigenous people

An overdue matter is to develop a better link with some of our indigenous people. One person whom I have got to know a little (through my friend Joan Goodrum) is Agnes Shea, a senior Ngunnawal elder. It is pleasing that Aunt Agnes received the Order of Australia in January.

Stepping down as president

I became FOG's president in late 1997 and I have enjoyed the challenge immensely. However, for a number of reasons I cannot continue in the position. Grassy ecosystems are still my key concern and I am happy to continue on the committee and to continue to perform a number of functions, in accordance with the new committee's wishes.

Attachment A: List of FOG activities in 2003

- Insect workshop (Jan)
- AGM (Feb)
- Old Cooma Common Working Bee (Feb)
- Grasses display at ANBG (ANPS Plant Sale) (March)
- Bushfire recovery working bee at Conder 4a (April)
- Visit to Warren's nursery (May)
- Walk in endangered woodland (East O'Malley) (May)

- STEP launch (May)
- Slide afternoon on Sikkim Grassland (June)
- Alan Ford's Winter Grassland Tour (July)
- Water ecology in grassy ecosystems (August)
- Slide afternoon on bushfire recovery (August)
- Cryptogam workshop (Sept)
- Woden grassland (Oct)
- Picaree Hill Flora Survey (Oct)
- Visit to Royalla (Nov)
- Tinderry Walk (Nov)
- Stipa-FOG third native grasses conference (Nov)
- Packers Swamp (Nov)
- Sub-alpine tour in Riverina Highlands (Dec 2003)
- Tassie Midlands tour (Jan 2004)

Attachment B: List of organisations which FOG formally or informally worked with in 2003.

- Conservation Council for South East Region and Canberra
- Southern Tablelands Ecosystem Park
- Monaro Grassland Conservation Management Network and the Southern Tablelands Grassy Ecosystem Conservation Management Network
- Stipa Native Grasses Association,
- Environment ACT and NSW Department of Environment and Conservation
- ACT Parkcare Leaders Group, ACT NRM Investment Strategy and Ginninderra and Tuggeranong Catchments groups
- Recovery Teams for Natural Temperate Grasslands of the Southern Tablelands and the ACT, and Grassland Earless Dragon.
- Fisher Parkland and Tuggeranong Homestead
- Greening Australia, ASGAP, ANPS, Field Naturalists, COG, ACT Herpetological Association.

An edible daisy? I would like to see that

Bev Courtney

One of my aims in moving to a larger property is to grow as much of my own food as possible. So when I attended a talk by Dr Beth Gott on aboriginal food plants the possibility of introducing some new foods looked promising.

Prior to white settlement, Yam Daisy (*Microseris lanceolata*) covered large areas of Victoria, especially the western basalt plains. The aboriginal people knew it as Murnong, and dug the white fleshy tubers as part of their staple diet. The plains are

recorded as being "quite yellow with Murnong" and aboriginal women would collect huge baskets of roots with very little effort.

Microseris has an interesting history. The genus originated in North America and 13 species still grow there. At some point in the distant past, hybridisation occurred between two species. Their descendants, which bore double the number of chromosomes, are those from which the Australian species are

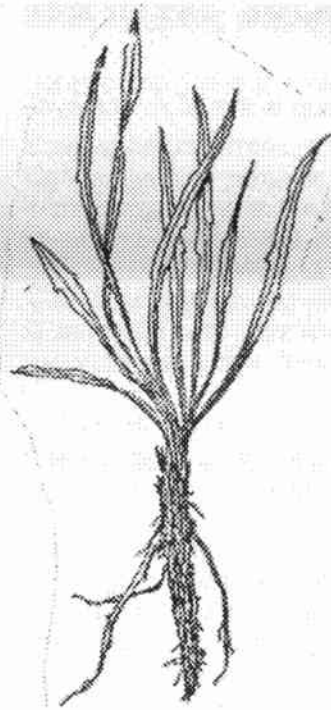
derived. Somehow seeds from America made their way to the other side of the world and the progeny evolved into two species, *M. lanceolata* in Australia and *M. scapigera*, which occurs in New Zealand.

This at least is the story given in the Winter, 2002 edition of *Nature Australia* magazine, in an article by Tim Low. The *Flora of Victoria* sees it somewhat differently, stating that the type specimen of *M. lanceolata* was collected in Tasmania and that, pending revision, it is uncertain if this taxon in the strict sense occurs in Victoria. They describe instead three species: *Microseris* sp. 1, *Microseris* sp. 2 and (you guessed it) *Microseris* sp. 3.

Microseris sp. 1 occurs only on the basalt plains. Its roots are described as fleshy and fibrous. *Microseris* sp. 2 is confined to alpine and subalpine herbfields of the eastern ranges and is often locally plentiful. Its roots are elongate, fleshy, often branched, sometimes suckering. *Microseris* sp. 3 is the true Murnong and is widespread in Victoria. It has a fusiform (cigar- or spindle-shaped) to napiform (turnip-shaped) tuber which is replaced annually. This one is my future food crop!

Following the decision to grow and study *Microseris*, I was inundated with seed by kind Australian Daisy Study Group members. Judy Barker provided seed and plants of the Anglesea form. Esma Salkin, via the Provenance Seed Bank, came up with a Woodend form and two alpine forms (Mt Buller and Mt McKay) and a form from Berry Jerry State Forest (NSW), courtesy of AD SG member Matt Hurst. I already had two plants of the Mornington Peninsula form (Arthur's Seat) which finally sent forth some seed over the summer.

First trial of the Woodend form (collected December 2000) was sown in March, 2001. Seed took 28 days to germinate and I potted up 24 plants. The plants grew slowly so I left them in the tubes over the summer of 2001/2, watering sparsely when the top growth died down. Growth resumed in autumn 2002,



Illustrated by Betty Campbell

but three plants hadn't made it through the summer. The rest were getting bigger in the tubes and I wanted to plant them out but didn't have the planting area prepared so, in a moment of inspiration, I planted 12 into one of our vegetable planter boxes (big wooden boxes full of rich compost where veggies are safe from rabbits). The plants went out in June, rapidly quadrupled in size and are already producing masses of flower buds. I plan to pull up some of these after flowering has finished and inspect the tuber/s for size and edibility. If any plants have more than one tuber I will replace some tubers to see if they re-sprout the following year. Aboriginal people believed that the roots of Murnong should not be collected before the plants flowered, so I will follow their example.

Seed of all the other forms germinated successfully and I have a large number of plants to play with. The seed has a large pappus; its main function seems to be to aid dispersion. When sowing, it tends to hold the seed up and away from the seed-raising medium, so after an annoying period trying to make the seeds sit flat, I cut off the pappus and found germination

improved to the extent that the root easily found its way into the mix. The alpine forms will be of interest but I don't expect to make any sort of a meal of their thin, stringy roots.

My ultimate aim is to create a grassland ecosystem with yam daisies and other wildflowers, interspersed with local native grasses. I will probably try other edible tuberous plants, such as chocolate and vanilla lilies, bulbines and milkmaids. I might even try eating greenhood orchid tubers. We have huge patches of nodding greenhoods on our property and they multiply readily so a few tubers won't be missed. Naturally I'll be using a homemade aboriginal digging stick.

A final note on taste. Eaten raw, yam daisy tubers are said to be crisp and juicy. Roasted slowly, they "half melt down into a sweet, dark-coloured juice." Mmmn!

This article is republished with permission from the Association of Societies for Growing Australian Plants, the Australian Daisy Study Group Newsletter No. 64, 2003.

Third Native Grasses Conference cont.

The last two issues of the Newsletter brought several pages of reports on the Stipa and Friends of Grasslands Third Native Grasses Association, held in Cooma in late November 2003. Much of the material that we published was written by Peter Austin, the Land journalist, who attended the conference and subsequently printed many column inches in the Land. We now bring the final instalment.

Fresh ideas on the Monaro *The Land 4 December 2003*

Native grasses are undergoing a revival in standing among landholders on the Monaro following a run of drought years that has caused widespread disillusionment with so-called "improved pastures", according to local grassland authority, David Eddy.

Mr Eddy, a former native pastures specialist with NSW Agriculture and now coordinator of the Monaro Grasslands Catchment Management Network, says

native grasses are again being valued as the resilient and productive resource they are.

"They are a traditional part of Monaro history but for 30 or 40 years of last century people were told that exotic pasture species, were the way to go, and native grasses fell out of favour," he said.

"Those same people are now finding that the experiment (with exotics) is not working and they are using grazing management to manage their properties

back to their original native pasture base."

Mr Eddy said although most of the Monaro pasture was now "modified" to some degree, it still had a high proportion of native grassland compared with other regions.

This was one of the factors attracting new settlers to the region, bringing with them new ideas and aspirations, and helping to move more enlightened attitudes. *A great picture of David was published with this news item.*

The story continues

The Land, 18 December 2003

"SUSTAINABILITY" is now the most over-worked word in the Australian language. There is now no shortage of "experts" ready to talk endlessly about how modern Australian farming practices aren't sustainable. *The Lands* senior writer, Peter Austin, attended the recent national Native Grasses Conference in Cooma where he met many farmers who are achieving sustainability, not talking about it. Here are two of their stories.

Pasture Cropping pays: Case Study One

Three years since he decided to switch from conventional to the "pasture cropping" system developed by Gulgong farmers, Colin Seis and Darryl Cluff, self-confessed "diesel-head" Matthew Barton is positive he made the right move.

Not that his cropping program has returned him rich rewards - the drought took care of his 2002 cereal crop and frost this year decimated his wheat and canola - but, unlike other farmers who met a similar fate, he didn't lose a fortune in the process.

Because his costs for sowing and growing the crop were far less than under a conventional system, his losses were more notional than cold, hard cash.

As a recently-arrived farmer with a background in financial management, Mr Barton (pictured in *the Land*) is more interested in bottom line results than "pub talk" about yields and, to him, the fact that pasture cropping enables him to halve his growing costs is what matters.

Pasture cropping is the technique of planting winter crops directly into dor-

mant summer-active native perennial grasses - a process that protects ground cover, encourages soil organic activity and delivers a "bonus" six months' extra grazing.

Since introducing the system on his "Barragonumbel" property at Gollan in the Central West, Mr Barton estimates his costs for growing a hectare of winter crop have gone from about \$250 to \$125 a hectare.

Had it not been for the frost damage that wiped out his canola harvest and reduced his wheat yields by more than 50 per cent, he was on track to reap a 25 per cent return on assets this year, and in the longer term he is confident of realising at least 20 per cent in most seasons.

On top of that, Mr Barton believes that by having a living ecosystem in the soil the whole year round, he will build soil health and fertility, in contrast to the "boom and bust cycle" of traditional cropping enterprises.

Although a student of grazing management techniques, Mr Barton said his passion lay with cropping rather than grazing, but it had only been when he stumbled across pasture cropping that he could see a way of cropping ecologically soundly.

He says perennial native grasses are the key to the pasture cropping system and they can be managed for biodiversity by cell grazing, which he will introduce after harvest.

Reclaiming Gullah Cropland: Case Study Two

Targeted species of native perennial grasses are being employed to restore run-down cropping land on a long-held family property near Gulargambone, in the State's North West. The project is being run by Jenny Anderson (pictured in *the Land*) and her semi-retired stockbroker husband, Neil, on their 2800-hectare property, "Avoca", which before the drought typically ran 3500 Merino sheep and 400 head of Murray Grey cattle.

The property has been built to its present size from a 1400ha portion of the original Avoca Station settled by Jenny's forebears in the 1850s, which she retained from her family's most recent land divvy-up in 1989.

As Jenny described it to the Cooma conference, because she and Neil were in the position of having no children returning to the land, no grandchildren and no debt, they were able to plot a course for "Avoca" free of financial imperatives.

They elected a low-input but profitable grazing enterprise based on re-establishment of the valuable native perennial grasses that once covered the area.

This involved, first, a lengthy process of identifying suitable species and determining their distribution, seasonality and palatability by a combination of botanical research, observation and trial and error.

Three species little in evidence on "Avoca" by 1989 were selected for favoured treatment: silky browntop (*Eulalia aurea*), hoop Mitchell grass (*Astreblielymoides*) and slender panic (*Paspalum gracile*).

A grazing system was then developed to encourage these grasses to spread.

This called for stock to be run in large mobs and moved through paddocks to a timetable that ensured the selected grasses were in a "rest" phase at their time of seeding.

The strategy worked and all three species repopulated the former wheat paddocks, producing palatable feed and, in some seasons, yielding sufficient seed to allow it to be harvested.

The onset of drought in 2002 put pressure on the system as sheep "laid waste" to some paddocks, although Jenny blames herself for not unloading more stock earlier.

Although the operation is not yet profitable she is confident it ultimately will be, as further fencing expands the tactical grazing options and further investment in saltbush planting and paddock water improves drought preparedness.

In the meantime, she says, the ecology of the property is much improved and their experience so far shows that native perennials can be strategically managed - provided you are not in too big a hurry for results.

Woodrush - *Luzula densiflora*

Michael Bedingfield



One usually thinks of rushes and sedges as belonging on the edges of rivers or in swamps, but there are some species that are common in grasslands and woodlands. It is true that they usually prefer damper areas, for they tend to grow near springs or in places that get very wet when there is sufficient rain. For example, woodlands sometimes occur on the gradient between the grassy flats and the forested hills where there can be springs and damp areas during a wet season. However, some rushes and sedges can survive through a hot, dry summer when the ground can be as hard and dry as concrete. They will re-appear when some rain comes in the new growing season.

The Woodrush is moderately common and widespread in the ACT and Southern Tablelands region. It also occurs on the slopes, plains and coast of NSW, and in other states too, such as Victoria, South Australia, Western Australia and Tasmania.

The scientific name is *Luzula densiflora*. The genus name "*Luzula*" comes from the Italian "*lucciola*" and means firefly or glow-worm, and "*densiflora*" means "crowded or dense flowers" and refers to the way the flowers are clustered together into a compact unit. There are other *Luzula* species that occur in the local area, i.e. *L. modesta* and *L. ovata*, but these usually prefer the higher altitudes.

The Woodrush is found in both grasslands and woodlands. It is a perennial, and seasonal re-

growth begins in winter or spring with a tuft of grass-like leaves, the edges of which are fringed by tiny white hairs. The inflorescences appear later in spring or summer. These are dense clusters, 5 to 10 mm across, of tiny flowers at the top of long stalks up to about 20 cm tall. These flower-heads or seed-heads have quite a distinctive look among the grasses because of their shape and colouring which is various shades of brown or reddish brown. (Please refer to the drawings. The whole plant is shown at 60 per cent of natural size and a seed-head is shown separately at full size.) After the hot summer the foliage withers, the seeds are dispersed, the plant is eaten or trampled, and the plant becomes invisible again.

The Woodrush is yet another species that adds to the elusive image of plants in grassy ecosystems which have a tendency to practise "hide and seek". Nonetheless, when they return next season they add to the very rich variety of plant life that comprises our grasslands and woodlands.



Luzula densiflora
Woodrush

Michael Bedingfield
1999

FRIENDS OF GRASSLANDS INC

Supporting native grassy ecosystems

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Friends of Grasslands Newsletter

Do you want to subscribe to the newsletter? It comes out six times a year, and you can obtain it by joining FOG. You do not need to be an active member - some who join often have many commitments and only wish to receive the newsletter.

However, if you own or lease a property, are a member of a landcare or parkcare group, or actively interested in grassland and woodland conservation or revegetation, we hope we have something to offer you. We may assist by visiting sites and identifying native species and harmful weeds. We can suggest conservation and revegetation goals as well as management options, help document the site, and sometimes support applications for assistance, etc.

Of course you may wish to increase your own understanding of grasslands and woodlands, plant identification skills, etc. and so take a more active interest in our activities. Most activities are free and we also try to arrange transport (or car pool) to activities.

If you are already a member, why not encourage friends to join, or make a gift of membership to someone else? We will also send a complimentary newsletter to anyone who wants to know more about us.

How to join Friends of Grasslands

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

If you would like any further information about membership please contact Sandra Hand, or if you would like to discuss FOG issues contact Di Chambers or Roger Farrow. Contact details are given in the box above. We look forward to hearing from you.

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