News of Friends of Grasslands

Supporting native grassy ecosystems

July-August 2010

ISSN 1832-6315

Program - take the diary out now

*Please register for FOG activities with the **FOG contact person** who can assist with directions and possibly car pooling. By registering, you assist FOG to organise any catering and to provide you with necessary information.*

SAT 17 JULY 1.30 to 4.15pm. **What FOG members have been doing.** This year our winter afternoon will feature three presentations

Conservation value of TSRs

Gardening with grassland flora

Pacific Islands, economics, society & biodiversity

Location is Mugga Mugga Education Centre, Narrabundah Lane, just opposite the Therapeutic Goods Administration Centre. Afternoon tea provided. To let us know you are coming, please contact Tony Lawson at tony.lawson@fog.org.au or 6161 9430. For more information see page 2 item *three winter presentations*.

SAT 21 AUG 1.45-4pm. **Winter visit to Kama Woodland** led by Sarah Sharp. Meeting place to be determined. For inquiries/registration, please contact Tony Lawson at tony.lawson@fog.org.au or 6161 9430. More information page 2.

TUES 24 AUG 5.30 to 7pm **FOG newsletter despatch** at the Conservation Council office. To help, please contact Margaret Ning (6241 4065 or margaret.ning@fog.org.au). More information on page 2.

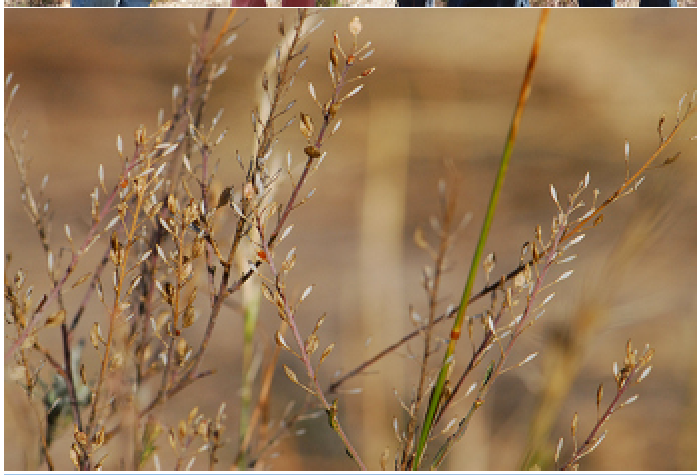
SAT 25 SEPT 9.45am-4pm. **Different ways to monitor your patch** with Sarah Sharp. The workshop will be held at Mugga Mugga with a visit to nearby Callum Brae. Cost of the workshop will be $10 for a light lunch and morning tea. For enquiries and to register, please contact John Fitz Gerald at john.fitzgerald@anu.edu.au, or 6125 4176 or 6254 0327. More information on page 2.

SUN 10 OCT, 9am to 4pm. **Biodiversity & Farming Fair, Bredbo**. FOG will be hosting several activities at the fair and needs members' assistance. To help, please contact John Fitz Gerald at john.fitzgerald@anu.edu.au, or 6125 4176 or 6254 0327. More information on page 2.

In this issue

FOG member selling property at Delegate, NSW.

See page 3.



Photos: Translocation of aromatic peppercress, Story page 7.

Upcoming FOG Events

For details of times, locations, or to enquire or register, please see cover page

Three winter presentations
Sat 17 July, Mugga

The full title of the first presentation is *Conservation values of NSW travelling stock routes and reserves*, presented by Andrew Zelnik, who has put together an inventory of biodiversity and cultural heritage values and management issues for a majority of the nearly 5000 TSRs listed in *The Long Paddock*. This brings together both existing and new survey datasets and new data obtained in interviews with TSR rangers. Andrew will outline the origins of this project, a brief history of TSRs and their usage, project methodologies, and key innovations, results and findings. This should assist FOG in determining how it can use the data and mapping products to ensure that TSRs and their conservation values are maintained and improved.

The second presentation is by Rainer Rehwinkel, who started his professional career in 1972 as a horticulturist when he graduated from the Canberra Technical College (as it was then known). Rainer has, of course, always been interested in native plants, combined with a life-long passion for the environment, and has always gardened using native species. He has also long enjoyed gardening with herbaceous species (not necessarily natives), and when, in 1990, he undertook four years of study in environmental science at the University of Canberra, his gardening and environmental interests merged. Rainer then really started to focus on locally-indigenous grassland species.

Rainer's interests were spurred by the establishment of his new garden at Elmslea, Bungendore. Here he had a chance to work on a new slate, and this year, seven years after beginning this venture, he has been invited to open his garden in the Australian Open Garden Scheme (27-28 Nov). Rainer will share his journey in FOG's winter presentation.

The third presentation is by Geoff Robertson who has visited many Pacific island countries (Federated States of Micronesia, Fiji, Guam, Kiribati, Hawaii, Nauru, New Zealand, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu), is familiar with their economic and social strategies, and interested in their biodiversity. Geoff will touch on each place and make some observations about the interplay of economic development, social structures and environmental management.

Winter visit to Kama Woodland
Sat 21 Aug, Canberra

This year's Canberra winter tour will be to Kama Woodland, a newly created grassland/woodland reserve in the Molongo Valley in Canberra. It will be led by Sarah Sharp, well known grassy ecosystem ecologist.

We shall visit several areas within the reserve to illustrate the different vegetation communities and habitat communities, discover what plants there are to be seen and discuss the management of the reserve and woodlands more generally.

Monitoring your patch
Sat 25 Sept, Mugga Mugga

Sarah Sharp and Lori Gould (GA ACT) have recently published a vegetation monitoring manual for community groups. Sarah will provide a workshop on the manual for FOG members (max. 20 people). GA will organise other workshops in the region in spring.

The workshop will be held at Mugga Mugga with a visit to nearby Callum Brae to illustrate the different monitoring methods.

Cost of the workshop will be $10 for lunch and morning tea.

Copies of the manual will be for sale, CD - $5 , or hard copy $30. You may download your own copy from the Greening Australia ACT website.

Biodiversity & Farming Fair
10 October, Bredbo

Kosciuszko to Coast, in which FOG is a very active partner, will be holding a Biodiversity and Farming Fair at Bredbo on 10 October with lots of great stalls and activities. It should be a fun and rewarding event for people of all ages, so put it in your diary now.

FOG will be assisting in a number of areas such as organising the FOG stall, the Speakers Hall, field trips, and other groups with their stalls.

The FOG stall will showcase what we do and answer questions on all manner of things. For the Speakers Hall we are planning a number of great presentations on biodiversity, sustainable farming and what K2C and partners are doing.

FOG needs volunteers. To assist, please contact John Fitz Gerald, details on cover page.

For more general inquiries about K2C and how your group might participate, please contact K2C Facilitator, Lauren van Dyke at facilitator@k2c.org.au, www.k2c.org.au, or Ph: 0411 402 978.

FOG newsletter despatch
Tues 24 Aug, Canberra

If would greatly assist if members regularly or occasionally help in despatching the newsletter. If you can assist, we are compiling a list of volunteers and will email you a reminder as despatch dates come up. Enquiries: Margaret Ning.

FOG minute taker

FOG would like a volunteer or volunteers to take minutes at committee meetings and the AGM when our secretary is unavailable. There are a maximum of seven meetings a year. Enquiries: Al Gabb on 0433 357 654 or al.gabb@fog.org.au.

News Roundup

Verbascum targeted at OCC
Grasscover

9 MARCH At FOG's second 2010 working bee at Old Cooma Common Grassland Reserve, seven FOG members and Margaret's friend, Sabina visiting from New York State, primarily attacked verbascum. They removed and bagged seed heads - some twenty large bags in all. Margaret is filing the submission to the Guinness Book of Records. Some big guns were employed. Jim and Geoff delivered a large amount of herbicide to the many verbascum plants and others such as St John's wort (now largely isolated patches given the work already done on these plants), using spray tanks on their four-wheel drive bikes, while Margaret sprayed from a 200 litre tank on the back of her 4X4, primarily focusing on woody weeds.

The weather was perfect for the day, sunny and warm but not too hot, although a little wind came up in the afternoon. Jim put on a barbeque lunch which supplied much energy for the afternoon stint. We don't know if we saved time by not having lunch in town, but it was free, tasty and a great conversation starter.

Woodland Flora
Sarah Sharp

FOG has received a grant from ACT Government (Parks, Conservation and Lands) to publish a new book, *Woodland Flora*. Back in 1997 when *Grassland Flora* was published, Wildlife Research and Monitoring took on distribution of the book. The authors and David Shorthouse, then Manager of Wildlife Research and Monitoring (ACT Government), agreed that the book would be sold at close to cost price, to make it cheap for everyone to buy, but provide enough money to reprint it if there was a market, or to use the money for another educational product. Well, thirteen years and 11,000 copies later, there is enough money to consider the alternatives.

Photo: from left to right, David, Andrew, Trish, Bob, Sabina, Margaret and Jim and in the foreground, Roy.

The four intrepid *Grassland Flora* authors, who are collectively suffering from amnesia regarding the pain last time, have agreed to produce volume two, a *Woodland Flora of the Southern Tablelands* (and everywhere else). This time, there is a bit of money to prepare it as well as print it. We have a design that won't change, and we hope it will be as popular as *Grassland Flora*. The grant requires us to produce the new book in 2012. We have chosen about 300 species to include, and we shall use the same style as before: descriptive, useful information about identifying the species, and how to discriminate between similar species, and we shall include some great photos. We hope this time to use photos more strategically to assist with identification.

PS. *Grassland Flora* is still on sale, and is still selling!! If you need a replacement copy if yours is falling apart, don't forget that you can buy a new one at only $20 a copy, or at a special price of $12 a copy, for more than 35 copies. Just email booksales@fog.org.au, or contact me on 02 6257 5619 or 0402 57 6412.

Delegate Property for Sale

2,000 acre (or smaller lots) +4 bed weatherboard house + 1.75k Snowy River frontage + magnificent views and trees + largely gently sloping + native grasses and forbs + heritage slab sheering shed + 3 stand shearing shed + netted orchard

FOG member is selling this beautiful property, with magnificent stands of yellow box, apple box, snow gum and cypress pine, with ground storey of native grasses and some forbs, with views of the snow capped Kosciuszko Range and forested hills. The property has been owned since 2001 and has been managed for conservation for the last five years. The property consists of six portion lots some of which could be sold separately. One of these is a bush block of 360 acres with power and phone and the other two total approx. 500 acres. One of these latter two has Snowy River frontage. For further information contact Virginia on 02 9389 4130 or agent on 6458 3558.

Hall Cemetery
John Fitzgerald

15 May On an absolutely perfect day to be outdoors, eleven volunteers pitched in to weed at the Hall Cemetery, for the second time in 2010. It was delightful to see new faces, particularly many residents from nearby. The only downside – organisers Andy and Janet Russell were not able to join us due to a mishap in their garden at home.

The task at Hall this time was to build on a solid work session earlier in the year. Teams in the fenced zone around the cemetery block tangled with briar rose, hawthorn and even despatched one remaining tagasaste (tree lucerne) in the carpark. Andy's drill and fill experiment with a huge hawthorn at the earlier visit, too big for our bush-saw tools to topple at that time, seems to have been entirely successful and so that has to be entered into our journals for future management reference. Some volunteers went into vital grubbing of the many eucalypt seedlings and regrowth throughout the cemetery zone. Margaret trundled her handy spray pack around and dispensed treatment to smaller weeds through both zones of the cemetery area.

The end result is that large woody weeds have all been treated once now, and revisits are expected to focus on the few inevitable regrowths from stems and new seedlings. The control of fleshy weeds (like plantains, capeweed, various thistles) and exotic grasses (phalaris) now presents itself as the ongoing task in this area, and signals that FOG's primary objective of eliminating large weeds from the area is basically completed thanks to those participating at this and all previous sessions.

If you are venturing near this site, please drop in to enjoy the beautiful woodland location, now looking a great deal better thanks to our group's actions. A new feature near the cemetery entrance is an attractive interpretive sign from ACT Environment highlighting, not only the rare Tarango leek orchid which brings many to Hall during its flowering weeks each year, but also many other delights to found in reserves around the ACT region.

Grassy Groundcover Gazette
Grasscover

The Grassy Groundcover Gazette is published by Greening Australia and the Grassy Groundcover Research Project, Melbourne University. FOG members who want to find out more about it should contact Lynne King (lking@gavic.org.au). This gazette is of great interest to FOG members who want to learn more about native grasslands and especially their restoration.

I found the March 2010 issue very interesting. Paul Gibson Roy, whose name has been mentioned on many occasions in the FOG newsletter, heads up the research project and is an important contributor to the gazette.

There are many lessons to learn from the gazette. In early 2009, the project was asked by the Pyrenees Shire to rehabilitate by direct seeding three small sections of roadside following road widening works. In this instance the plan is to return phalaris-dominated areas to native grasses.

According to Paul, using locally harvested native grasses and a small number of common forbs they prepared the site over autumn/winter, and again their 'crack team swung into action and sowed the site down. Rainfall at the site has been modest which at least restricts weeds a bit'. Paul said that he plans to visit the site in the coming weeks and, fingers crossed, will see good germination of native grasses.

Another project is being undertaken with Vic Roads at two sites west of the township of Wickliffe. These two sites had been plantations of introduced native trees which were removed in 2006 and 2007. The project had been asked to undertake a combination of Grassy Groundcover Research Project methods to restore species-rich grassland within this degraded area, thus rejoining the high quality grassland at either end. In May 2009 the ground was scalped and in spring both sites were sown using locally sourced grassland species. The team also propagated and planted a number of button wrinklewort (*Rutidosis leptorrhynchoides*). Paul says that he has been past the site a number of times since their spring sowing. Happily almost all planted material has survived and weeds were scarce. However, there were few seedlings emerging from the sowing. He called into the site again in early December, following some good rainfall in the previous weeks. Happily he reported that emergent seedlings were common across the length and breadth of the sites, these being both grasses and forbs.

Another development reported upon is the successful trial sowing of native grasses and wildflowers at a vineyard. This is accompanied by lower water use and maintenance requirement, low growing native grasses between vines, and end-caps of vines sown to taller grass mixes. The native plants are competitive against local weeds and result in areas of high forb richness - excellent for attracting pollinators to the vineyard and increasing biodiversity in general.

Another project is a contribution to the Werribee Plains Vision. Over the next three years the project will be promoting education about native grasslands in 36 schools in the Werribee Plains region, establishing a containerised seed nursery for future zoo and regional grassland projects and expanding the area of grassland previously direct seeded by the project.

One technique used by the project is to scrape the soil, which means that little weed seed is present. The evidence is now coming in that this method generally lowers weed presence as the new native grasses and forbs grow. Another technique has been to collect wild grown seed in diverse but small quantities, on-growing it, then using the harvested seed in on-ground projects.

Grassland Forum

20 May Over forty stakeholders attended the Grassland Forum organised by FOG, the ACT NRM Council, TAMS and the Office of the Commissioner for Sustainability and the Environment. A full report will be included in the next issue.

Restoration at Stirling Park
Jamie Pittock

On May Day a valiant band of seventeen FOG and ANU Fenner School volunteers descended on Stirling Park in Yarralumla to restore it to a better state. The group included a number of new participants from ANU and local residents. As a result, there was an estimated 84 volunteer-hours of work, and an astonishing volume of woody weeds were cut - around 100 m^3 unchipped in my estimation. The work focused on three sites.

Woody weeds were cleared from all of Button Wrinklewort Knoll, a small hill next to Alexandrina Drive, that has a huge population of the endangered forb. Phil and Sarah Sharp brought and wielded a chain saw which proved vital to dispatching large Cootamundra wattles, and Margaret "never seen a weed I can't spray" Ning provided blackberry and St John's wort with a chemical farewell.

An extensive broom infestation was flattened by Geoff Robertson's brushcutter, hefted ably by John Fitz Gerald, with support from two Peters, Wendy, and Andy.

A continuous corridor from the lower button wrinkle wort habitat at the Gap, up to good habitat on the upper slopes of Stirling Ridge was established by a fine array of volunteers - Amy, Ingrid, Christina, Peter, Bernadette and me.

Thanks also to Margaret for keeping up supplies of herbicides, Barbara Payne for maintaining our work base, keeping records and sorting out lunch, and Bernadette O'Leary for aiding the clean up.

Bears ears

Bears ears are breaking out and many FOG members have reported them successfully introducing themselves into Belconnen lawns. Trish and Jim Williamson recently found bears ears *(Cymbonotus lawsonianus)* growing in their front lawn in the suburb of Page.

Page was created in 1969, and they first noticed the plant a couple of years ago. Since then, they have been careful not to spray it or dig it up, and through two years seeding, the number has increased from three plants to over a hundred. (see photo). Can anyone else beat this?

Sadly there are even more woody weeds left to dispatch. Of particular concern, the ACT's first recorded infestation of Maderia vine *(Anredera cordifolia)* was located, and control measures will be planned for late spring.

Silver Wattle
Geoff Robertson

5 MARCH Margaret Ning and I visited Silver Wattle on the shores of Lake George. This is a property that the Religious Society of Friends is considering acquiring from the Catholic Church, to become an Australian Quaker Centre (AQC). Helen Bayes, FOG member, author of *Lovely weeping grass lawn* (FOG newsletter May-June 2009) and Director of the AQC was keen to obtain FOG's input on biodiversity/ restoration issues.

This is a delightful property both from a historical and biodiversity perspective. While highly modified, the vegetation contains many native grasses and forbs, and I have to admit that I am becoming increasingly fascinated to see the interplay of regenerating indigenous plants interspersed amongst exotic plants.

Silver Wattle also contains important areas of native grassland, wetlands and bogs in the lower areas of the property. The landscapes are also truly fascinating – Lake George is an amazing place. This was also the first time that I had ventured out onto the lakebed. I thought it would be exotic grasses, but no!

As published in the Jan-Feb newsletter, Rainer Rehwinkel describes the grasslands present as *Lacustrine Ephemeral Grassland*. This is a newly recognised association. The dominant species are a blown grass, curly sedge (*Carex bichenoviana*), round-leafed wilsonia *(Wilsonia rotundifolia)*, fanflower mudwort *(Selliera radicans)* and a rush. This is an ephemeral tussock grassland of the lacustrine deposits of Lake George and Lake Bathurst, and is confined to the beds of those two lakes. Unique species to this community are *Einadia trigonos* and *W. rotundifolia*.

Since the visit, Helen said that 'it was good to meet you both, and a memorable experience of discovery for me. You may be glad to hear that we have been removing Paterson's curse and dandelions from the glycine and weeping grass patches!" She added that FOG members are welcome to visit the property, but please phone first to check with her - 02 62380588 or 0422138991.

Budget cuts weed out maintenance

Front page of City Chronicle: 27 April 2010. Good work Jamie.

Caption reads: Friends of Grasslands spokesman Jamie Pittock is concerned that Stirling Park in Yarralumla is being over-run by weeds.

By Carmen McIntosh

VOLUNTEERS have been left to pick up the bill when it comes to weed control in the National Capital Authority-managed Stirling Park in Yarralumla.

Friends of Grasslands, a community group that conserves threatened plants and animals throughout the southern tablelands, believe cutbacks of Federal Government funding to the NCA since 2008 appear to have reduced the authority's ability to control weeds.

Spokesman for the group, Jamie Pittock, said they began to notice an increasing spread of weeds in the park in late 2008.

''My understanding was that the Federal Government roughly halved the National Capital Authority's budget and no agency can do everything they were doing if their budget's been halved,'' he said.

''Ultimately this is Federal Government land and this type of bushland, this grassy woodland ecosystem, is listed as endangered under the Federal Government's Environmental Protection and Biodiversity Conservation Act.

''Friends of Grasslands believe the Federal Government should be investing more in managing their land to protect the threatened plants and animals that are listed under their law in the centre of the national capital.''

Mr Pittock said the NCA had been very supportive of Friends of Grasslands, sponsoring their volunteer working bees and helping with some of the larger groundwork, but they were substantially relying on volunteers to do a lot of the day to day maintenance of the threatened plant populations.

From page 1

MR Pittock said Stirling Park provided habitat for a number of threatened species, and also contained the country's second largest population of the endangered wildflower Button Wrinklewort.

''There's about 20,000 plants, and that's the main thing that we're volunteers for – to come in here and help and take the weeds away, to give the poor old Button Wrinklewort a chance,'' he said.

''We do have beautiful patches of native vegetation through here like Windmill Grass, and red leaf grass, but unfortunately you can see all these woody weeds, these exotic plants taking over, and they shade out a lot of the threatened plants and animals that are native.''

Mr Pittock said the park would require constant maintenance to keep it up to standard.

''The job that's required here is constant management to keep these weeds under control, and to look after the natural values of this park,'' he said.

Friends of Grasslands is now in a partnership with the Australian National University Fenner School of Environment and Society to look after the park and hold regular working bees to rid it of weeds.

The endangered Button Wrinklewort.

They are calling for more volunteers who can help.

''We really need more help from residents of Canberra but particularly in Yarralumla, to help us keep an eye on the place and do the weeding,'' Mr Pittock said.

The next working bee will be held this Saturday. For more information or to register contact Jamie Pittock at jamie.pittock@anu.edu.au or 0407 265 131.

Peppercress returns home
Sandra Hand

On a fine Tuesday in May, seven volunteers joined Rainer Rehwinkel under FOG's banner at his home in Bungendore where we had a short history lesson on the endangered aromatic peppercress (*Lepidium hyssopifolium*). It is found in a limited number of sites in south-eastern Australia, including Victoria, SA, Tasmania and NSW, where there are small populations near Bathurst and Bungendore (since Rainer's discovery). It has also been recorded near Armidale in 1945 and more recently in Crookwell, but has not been sighted in these locations recently.

Hence there was a need to collect the seed and establish it in its former habitat. This was the first time Rainer had been involved in a translocation, though he mentioned that he has sent a lot of seed of this species to the Millenium Seedbank at Mt Annan Botanic Gardens. On this day our job was to extract the seeds from seedheads and take it to two sites, Days Hill, a natural temperate grassland site behind Rainer's house and Sweeneys TSR, along the Tarago Road, with a great lunch between sites in Bungendore.

While not a particularly appealing plant, the aromatic peppercress is a perennial herb growing to 50cm tall, with stems covered by fine, short hairs (being one of its distinguishing features). This plant mysteriously appeared in Rainer's garden several years ago. Rainer, as many members know, started an indigenous garden, which by the way will be opening through the

Australian Open garden Scheme in November. As the top soil had been scraped off during construction, Rainer planted directly into the clay. The advantage of this approach is that there are no weed seeds below the topsoil. In retrospect, not surprisingly, several plants whose seeds were in the clay layer appeared, and these included the aromatic peppercress and some native flax (*Linum marginale*). While most gardeners would have removed it as a weed, Rainer became very curious and found that it was a plant that had otherwise disappeared. It had been recorded in the past but was largely forgotten. Rainer had the only other known population in his garden.

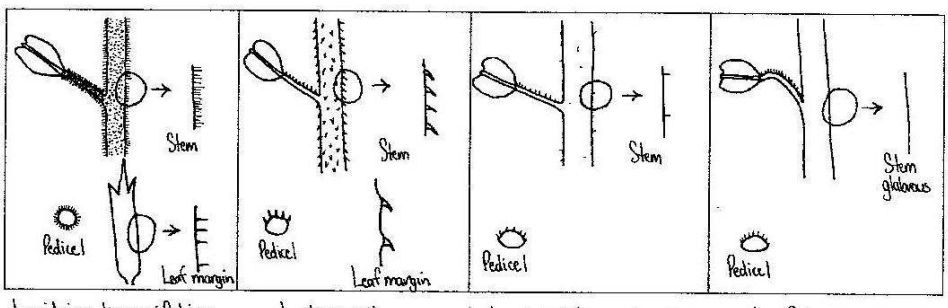
The photos, taken by Stuart Cohen, tell the story. On the front page, we can see from top to bottom: Sarah Fethers, Sandra Hand, and Rainer planting the peppercress at Days Hill; Rainer, Isobel Crawford (FOG coordinator for the day), Sandra, Selga Harrington and Sarah talking about the tasks at hand; the star of the show; and finally, a view of Bungendore from Days Hill. On this page we see Rainer and Sue preparing the seed – note the presence of the FOG brochure on the table. As well as planting aromatic peppercress seeds, we also planted seeds of the native flax at both locations.

NCA Forum
Jamie Pittock

29 APRIL Sarah Sharp and I attended the National Capital Authority (NCA) Public Forum on behalf of FOG. The Forum is intended as an annual event and covers the full range of NCA-related issues. Eight Authority members plus senior staff were on the panel. Our objectives in going were to ensure that management of ecologically significant sites was raised as an issue.

This proved valuable as most of the NCA Members are new and we had an opportunity to raise our concerns with them. FOG thanked the NCA for their work on grassland site planning and asked the panel to further consider improved conservation tenure and management of Stirling Park and Yarramundi Reach as a key issue at the next forum, and to seek further resources to better manage the two sites.

The NCA executives responded by thanking FOG for its volunteer work on the site and acknowledging management challenges. The Director, Gary Rake, reported that he had received advice from FOG on site tenure, would discuss it with the NCA members, and would consider taking action before the 2011 Forum. FOG will meet with NCA staff in coming months to further discuss grassland management, progress in implementing management plans, and tenure.



Drawing: C. Strain

FOG website

The FOG website (www.fog.org.au) is now well established and attracting over 2,000 visits per month. If there is anything you'd like to contribute to the site, let us know: webmanager@fog.org.au.

FOG advocacy *Naarilla Hirsch*

April 2010

The Commonwealth Department of the Environment, Water, Heritage and the Arts is undertaking a review of Australia's Native Vegetation Framework. Overall, FOG supported the vision and goals of the framework, but was concerned about the lack of strategies specifically targeting endangered, threatened and/or rapidly declining native vegetation communities such as natural temperate grasslands and grassy woodlands. Under Goal 2 – *maintain and improve the condition of native vegetation*, FOG suggested addition of an objective along the lines of "An increase in the extent and condition of endangered, threatened and/or rapidly declining native vegetation communities". FOG also suggested strengthening the section on offsets to include reference to gains in the quality and quantity of native vegetation commensurate with the native vegetation lost, and also to ensure that the tenure of land provided as offset is secure and future management ongoing.

FOG provided comments on the proposed Mirrabei Drive Extension in Gungahlin, submitted under the Environment Protection and Biodiversity Conservation 1999 (EPBC) Act. However, the proposed road will have some impact on habitat of the golden sun moth (GSM) and on an area containing the threatened ecological community white box-yellow box-Blakely's red gum grassy woodlands and derived native grasslands (box-gum woodland), and FOG was disappointed that, if the development is regarded as necessary, there is no mention of offsets in the proposal. FOG also expressed concern about the piecemeal nature of development proposals occurring in this area. FOG's view is that the environmental impact of all proposed developments in this area should be considered at the same time, so that the best outcome for all of the endangered and vulnerable species and communities affected is achieved.

In 2008 a northern deviation for the ACT section of the Kings Highway was proposed but rejected by the Department of Territories and Municipal Services (TaMS) due to the impacts on the Kowen Travelling Stock Reserve (TSR). This month ACTPLA put out for public comment a proposed southern deviation for the highway, with the new alignment specifically designed to avoid the removal and fragmentation of a large number of eucalypts. However, a small section of box-gum woodland will be directly impacted by road construction, and fragmented into one large and one small remnant. FOG noted the intent to rehabilitate, using locally occurring native species, the road works, a component of the existing Kings Highway alignment and remaining pockets of pine trees, to try to re-establish connectivity between the two halves of the TSR. FOG has asked for these rehabilitation activities to form part of a formal offset for both the area being lost and fragmentation of the area. FOG supported a number of the recommendations of the draft environmental impact statement relating to prevention and mitigation of impacts from construction activities, and suggested an induction for workers that helps them understand the values of the conservation areas and how to protect them.

The National Capital Authority (NCA) recently released for public comment a draft development control plan (DCP) for the Belconnen Naval Transmitting Station (BNTS). FOG has had a long-standing interest in the BNTS, which contains both high quality endangered natural temperate grasslands and box-gum woodlands and several threatened species, including one that is known only from this site, Ginninderra peppercress (*Lepidium ginninderrense)*. FOG was very pleased to see that all the areas containing conservation values have been excluded from development in the DCP, including the eastern themeda grassland. In its submission, FOG urged that steps be taken immediately to manage the main conservation area as a grassland reserve, since this is one of the largest remnants of high quality danthonia grassland in the ACT and contains a significant population of golden sun moth *(Synemon plana)* (GSM) as well as the Ginninderra peppercress. FOG considers that these steps should include allocation of sufficient resources and expertise to manage the area properly for its conservation values, maintenance of the secure fencing, management of kangaroo grazing pressures and weed control. The nature of the residential development has the potential to have a negative impact on the grassland and grassy woodland areas. FOG suggested several actions for inclusion in the DCP, such as creation of adequate buffers so that bushfire buffer zones are totally outside the reserves and the conservation areas are not used for moderate to high intensity recreation. It suggested that residential areas be designed to avoid impacts on conservation areas by urban run-off or the spread of weeds from urban plantings or gardens. Information/education packages should be planned for future residents to inform them of the importance of the conservation areas and their role in retaining these areas.

ACTPLA released for comment a framework and draft strategic assessment for the *Molonglo Valley Plan for Protection of Matters of National Environmental Significance*. While FOG supported a coordinated strategic approach to assessment of the Molonglo Valley, in its response, FOG expressed concern that piecemeal assessment is continuing, with the omission of the stormwater and recreation strategies and information about proposed offsets for environmental losses from the assessment. The ACT Government has not yet released its offset policy, and there was little detail about proposed offsets in the documents. FOG noted that a decision on the lake and dam wall options proposed in the draft structure plan is still pending. Also, community facilities such as walking trails and recreation areas are proposed within the East Molonglo river corridor, together with possible further extension to the trunk sewer, but details of these have not yet been defined, so their direct and indirect impacts on the pink-tailed worm lizard (PTWL) (*Aprasia parapulchella*) are unknown at this stage. For these reasons, FOG considers it premature to be finalising these documents and forwarding them to the Commonwealth for approval until these issues are clarified and made available for public comment.

FOG had a number of other concerns with the documents. One was the potential impact of the two bridge crossings, which will have a significant impact on the PTWL and its habitat along the river, as well as an area of box-gum woodland. Another concern related to the loss of sixty percent of one of the larger and best areas of box-gum woodland within East Molonglo, with a high floristic diversity, high tree hollow density and connectivity to the river corridor. A third concern was the lack of proposals to fence all PTWL areas (and surrounding buffer zones), including corridors between populations, and locating walking trails and significant recreational facilities away from and

upslope from these fenced areas. FOG suggested that one patch of reasonable quality woodland that is immediately adjacent to the National Arboretum Canberra be added to the arboretum, to be managed by the Southern Tablelands Ecosystems Park. Other issues FOG raised included the size of buffer zones around areas of high conservation value, the spread of weeds into reserves near the urban development, adequate resourcing to develop and implement plans of management for the river corridor and reserves, and the principle of minimum impact from construction and ongoing urban activities.

FOG provided comments on the proposed Throsby Multisport complex development in Gungahlin, submitted under the EPBC Act. A major concern with this development was the presence of the GSM in this area. The argument in the development proposal that the GSM is in low numbers in Throsby was not, in FOG's view, sufficient to justify developing the area, since the GSM is only present as small or medium-size populations at most locations where it is found. FOG is particularly concerned as there were two development proposals making the same argument concurrently (for Forde North and Throsby). FOG argued for a more strategic approach to the conservation of the GSM, and recommended that better data are collected about the GSM in the area and about the moth's ecology and distribution patterns generally. Another concern was potential impacts on the Mulligans Flat Nature Reserve, and lack of commitment in the proposal to some of the measures suggested by the ecological assessment.

FOG also provided comments on the proposed Forde North development in Gungahlin, submitted under the EPBC Act. Again, presence of the GSM was a major concern with this development, with the arguments being similar to those for Throsby. Another concern was the need to re-engineer the entire creek (leading to destruction of all of the secondary grassland and GSM habitat within the development site), rather than just the severely eroded areas. As well as GSM habitat, Forde North contains secondary grassland which is part of box-gum woodland with (on FOG's observation) at least half of the grass in the area being redleg grass (*Bothriochloa macro*) rather than exotics – another reason FOG saw for not developing the site. Little in the way of offsets were included in the proposal; although there was a comment about Forde Developments meeting with representatives of the ACT Government to discuss the coordination of offsets for Forde North within a wider ACT Government offset strategy. FOG's view that development of the site was premature given that the ACT Government has not yet finalized its offset policy and no offsets were evident in the proposal. FOG was strongly opposed to earlier developments at Forde, and in this case was concerned about the lack of opportunity for community groups and independent experts to look more clearly at the issues on the ground, particularly given the loss of biodiversity, with little in the way of an ecologically strategic approach or any attempt to retain areas of higher conservation value.

May 2010

FOG provided comments to the NCA's Lindsay Pryor National Arboretum Draft Masterplan Report. FOG argued for rezoning the land at Yarramundi Reach to a more secure tenure, and that the NCA land between Lady Denman Drive and Tuggeranong Parkway should also be managed as part of the Arboretum (after assessment for its native vegetation values). As well, integrating management of the current grassland and Arboretum would create a more diverse and cohesive botanical landscape. FOG supported the first of the design concepts as the more restricted vehicular access offers additional benefits for preventing illegal vehicle access onto both the Arboretum and the grassland, and because locating the proposed geological garden on the eastern border adjacent to the native grassland provides an opportunity to link the two sites with sympathetic, lower and more open plantings of indigenous grassland and woodland species on this area. FOG strongly urges the NCA to plant indigenous species with a lower height along the grassland boundary fence to prevent excessive shading of the grasslands from its western boundary, and to provide a buffer against spread of invasive exotic trees species.

ACTEWAGL held an information session on their draft public environment report for the Murrumbidgee to Googong water transfer project, which has been out for comment. FOG attended the session and has made a submission about the report. FOG supported the measures proposed to minimise the impact on the threatened small purple pea (*Swainsona recta*) habitat and on the PTWL, while noting that it would be better if all PTWL habitat could be avoided given the status of this reptile as threatened. While ACTEWAGL states that it is committed to successful rehabilitation of the construction easement, FOG has some concerns about rehabilitation for this project, both in the future and for work done to date, and requested further information about this. The use of experts in bush regeneration was recommended to ensure that all rehabilitation efforts are of the highest quality and likely to succeed, both in the construction corridor and in the offset area. Other recommendations included development of performance measures for the rehabilitation work, monitoring to ensure that these measures are met, and continuation of active weed control and monitoring for five years at least. On the proposed offsets, FOG would prefer that there was no need for offsets due to no impact on threatened or endangered species or ecosystems, and stated that to be effective, offsets should be of similar quality to the areas being lost, be maintained in perpetuity, and be in place before construction activities commence. If offsets are needed, then FOG's view was that the offset plan must be finalized and the offsets actually achieved before construction activity through natural temperate grassland or box-gum woodland areas commences. FOG asked to be kept informed about the progress of rehabilitation and mitigation efforts and the implementation and maintenance of offsets.

The proposed southern deviation for the ACT part of the Kings Highway has also been referred to the Commonwealth for consideration under the EPBC Act. FOG's comments to this referral were similar to those made to ACTPLA in April.

FOG Membership - To join or renew

FOG membership entitles you to receive our newsletter and e-Bulletin, to attend FOG's many diverse activities, & more.

The cost is small: $20 for individuals and families, $5 for students/concessions and $50 for organisations. Membership is due on 1 January each year.

Membership forms are available on our website: www.fog.org.au and you may pay by cheque or electronically. While donations are not tax deductable, they are always very welcome.

For inquiries contact Margaret Ning 02 6241 4065 or membership@fog.org.au.

Cultivation Corner:

Water retention- *Janet Russell*

Amongst the still surviving forbs from our propagation efforts eighteen months ago, I find that we have five blue devils (*Eryngium rostratum*), and one each of native flax (*Linum marginale*) and the yellow burr daisy (*Calotis lappulacea*). Two of the blue devils look rather like large seedlings although one is more robust than the other. I am hoping that this year we shall get a flowering from the others. They certainly established themselves sufficiently to survive the long hot summer and early autumn we have lived through. They were planted in May last year and something like eleven native flax died after putting on a good flowering through the spring and the earlier part of the summer. Native flax seeds germinate readily in pots but conditions have not been good enough for them to germinate in the garden.

We have been aware for some time of how dry the outside garden is and how many small grassland or woodland plants we have lost over time. Mulch helps reduce water loss, but for so long we have had so little rain that the soil has not had a thorough soaking for years. In May 2007 when FOG visited Jillamatong near Braidwood, we were inspired by how Martin Royd was managing his property. Martin explained the principles of natural sequencing farming he was using which had been developed by Peter Andrews. We were most interested from a gardening perspective in the method of helping to retain water on the property by building contour drains to slow the flow of water through the property. Our suburban block has a steep sweeping fifty metre west-facing frontage on which, during periods of heavy rain, we would see the mulch cascading down to the gutters with the flow of water. We started to build terraces and swales which run along the contours and we now have a system of them.

Above, swale bank planted ion October 2009 with magenta storksbill, and below, a swale bank of self-sown paper daisies and bluebells.

We have found that the water retention of the soil has already improved in places. This was particularly obvious in a spot where I had planted some winged everlasting daisies (*Ammob-ium alatum)* which then proceeded to multiply at an alarming rate. When I dug in the area to put in other plants, I was amazed at how damp it was – it certainly didn't have that sort of moisture when I planted the first six winged everlastings. I now have to thin these everlastings out each autumn.

In addition to this, we intend to use our tank water differently than we have done previously. I heard Alan Saunders interview Simon Taylor, who calls himself a *Landscapist*, on the *By Design* program on Radio National. Simon Taylor looks after a two acre garden that only has small water tanks, and he said that they do not hold on to the water, but use it on the garden after a rain event. Apparently a garden with top quality topsoil has forty percent water holding capacity. The example he gave was that a two acre garden with half a metre of topsoil (something to be greatly desired) is capable of holding 4000 m³ of water. They use the pulse method of watering which means you water every fifteen or thirty minutes which allows the water to get into the soil more effectively, soil which has already been made more moist by the rain. We have also been adding organic matter to the garden to build up the top soil but that is still a work in progress.

Our garden started out as a specimen garden with mainly small to medium shrubs, and it is easier to water with a drip irrigation system when there are relatively few large plants in the garden. We have found that most herbaceous grassland or woodland plants do not survive or thrive in our garden unless they get extra watering, and it is not practical to grow them on a larger scale using a drip system. We intend to try this watering method ourselves, to see if we cannot make better use of the garden by better distributing the available water across it. I may even be able to have a sufficiently damp spot to grow some of the plants I would love to be able to sustain, such as *Podolepis* sp. and *Goodenia elongata*.

Temperate Grasslands Conservation Initiative

Bill Henwood, Project Director

The Temperate Grasslands Conservation Initiative (TGCI) was formed after June 2008 and has been focused on getting indigenous temperate grasslands included more formally on the global agenda, initiating the development of four regional action plans, developing a world temperate grassland map and locating funding support, which has not been easy, according to the project director. Fundraising continues to prove difficult. Temperate grasslands are one of the world's great biomes.

After cradling our needs for centuries, indigenous temperate grasslands are now the most altered and endangered ecosystem on the planet. They occur on every continent, except Antarctica, and occupy about eight per cent of the earth's terrestrial surface. Of this eight percent, only five per cent of it is currently protected within the global system of protected areas.

Temperate grasslands have been converted for crop production, forest plantations, urbanization and other land uses such as energy and mining development. Much of the remainder is subject to intensive grazing. These practices have led and are continuing to lead to habitat loss, declining biodiversity, desertification and fragmentation. In addition, the spectre of climate change is of ever-increasing concern.

It is essential that we increase the level of conservation and protection of temperate grasslands, and minimize the threats to these important landscapes, if we are to ensure their future health and ecological viability. Although the past few decades have seen impressive gains in the protection of nature in tropical rainforests, coral reefs or mountain landscapes, temperate grasslands have not been a visible part of the global conservation agenda. The level of communications and international cooperation that exists for many other biomes simply has not been present for temperate grasslands.

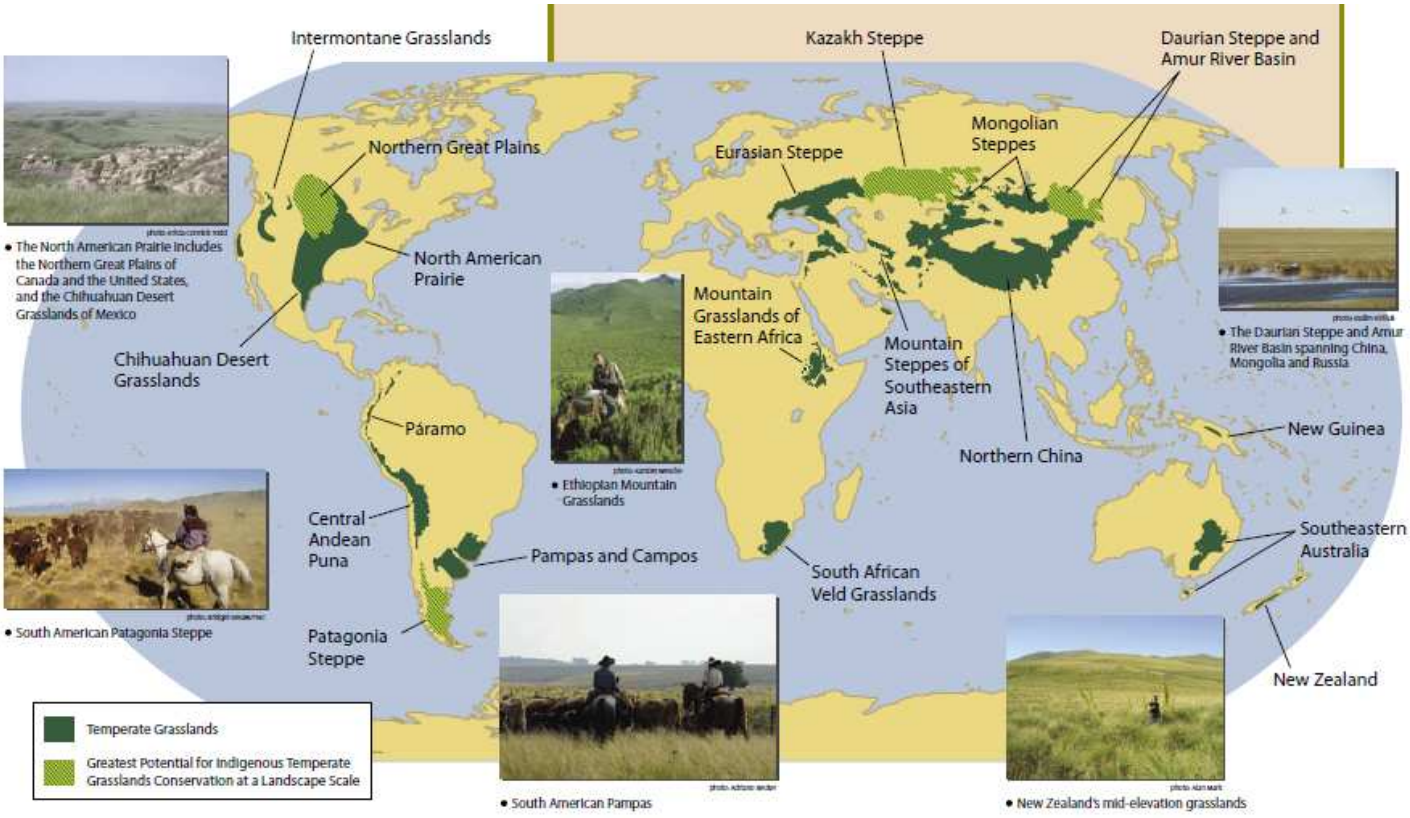
TGCI was created to serve as the centre point for international communications and collaboration for the improved conservation and protection of the world's indigenous temperate grasslands. Our goal is to double the current level of protection for these grasslands by 2014 and promote sustainable land use practices throughout the biome.

Where are These Grasslands?

The TGCI has prepared a map illustrating the location of the world's temperate grasslands. This map also highlights the four regions of the world where there remains the greatest potential for indigenous temperate grassland conservation at a landscape scale: the Kazakh steppe of Central Asia, the Patagonia steppe of South America, the Great Plains of North America and the Daurian Steppe – Amur River Basin of East Asia.

Regional Conservation Action Plans

The potential for improved conservation and protection of indigenous temperate grasslands varies widely around



the world. Our current focus lies in the potential for large landscape level conservation in the Daurian steppe – Amur River Basin of eastern Mongolia, China and Russia; the Kazakh steppe; the Patagonia steppe; and the Northern Great Plains of North America. In North and South America the coordination of local conservation planning is being assisted by the TGCI, whereas the East Asia and Kazakh efforts are in the process of being established. The goal in each region is to develop a ten-year conservation action plan that focuses on the identification of candidate protected areas, legal protection opportunities and sustainable management.

As biologically important as large landscape conservation is, those indigenous temperate grasslands that have been modified and fragmented in various regions of the world deserve equal attention. On these grasslands, we must ensure the maximum retention of biological diversity, their long-term potential for connectivity and the ability for indigenous people to retain their culture and livelihood. In those grasslands that have been highly modified (where less than five percent of the original ecosystem remains) the urgency for legal protection cannot be overstated. These include for example, the steppes of eastern Europe, the tall grass prairie of North America and the lowland grasslands of south-eastern Australia and New Zealand. For these and the more moderately modified grasslands, such as those in the pampas of Argentina, the veldt in South Africa or the steppes of China, the TGCI will provide support for a host of regional programs already underway, and encourage new initiatives, by governments and nongovernment organizations.

Guidelines and Best Practices for Sustainable Land Use Planning

The ecological health and viability of the temperate grassland biome cannot be dependent on protected areas alone. Most unprotected grassland ecosystems are in an altered condition and many are managed by local pastoralists. If temperate grasslands are to continue to provide the full range of ecological and socio-economic goods and services that humans require, the management of temperate grasslands throughout the biome needs to be guided by a comprehensive set of best land use practices that focus on conservation, the maintenance of biodiversity and the interests of the indigenous people who depend on these lands.

To this end, the TGCI is actively fundraising to support the development of overall guidelines for sustainable land use practices on temperate grasslands. Once developed, these guidelines will be widely distributed to temperate grassland users and managers.

Conservation and protection of the world's indigenous temperate grasslands requires site-specific protection of representative areas and the fostering of sustainable land use practices throughout the biome.

To achieve this mandate the TGCI has identified five priorities:

1. Conduct a global inventory and gap analysis of temperate grassland protected areas.

2. Develop a global strategy and four regional specific action plans to double the level of protection for temperate grasslands by 2014.

3. Develop guidelines for sustainable land use practices that promote the maintenance of ecological and biodiversity values as well as socioeconomic values of indigenous grasslands.

4. Develop mechanisms for improved international communications and collaboration, and general public awareness.

5. Support research that improves the understanding of the total economic value of intact indigenous temperate grasslands to society and human health.

What are temperate grasslands worth?

A recent exhaustive literature review, sponsored by TGCI, found no studies that specifically addressed the economic value of indigenous temperate grasslands. It is traditionally assumed that when grasslands are treated as a 'commodity and sold on the market place' their economic value has been measured and reflected in the subsequent dollar amount exchanged. However, we now know this is not true! In a biome with the highest Conservation Risk Index globally, we have found that our understanding of the value of all goods and services provided by indigenous temperate grasslands is virtually non-existent.

Temperate grasslands are in all likelihood the least understood biome in the world in terms of their value to sustainable economic uses, ecosystem goods and services, and their contribution to human health. If our economy is not fully able to provide an accurate picture of the net benefit of temperate grasslands, poor land-use and investment decisions will result, and the important values of these grasslands will be lost to society. We are currently raising money to help us undertake research to determine the value of the goods and services associated with temperate grasslands and carbon credit conservation funding.

Dear FOG

I found you while browsing on the web. We live in Victoria and I work on the Basalt Plains to the West and North of Melbourne.

I have photos on the following site www.victoria-flora.com which I thought some of your members might like to browse through.

Colleen Miller

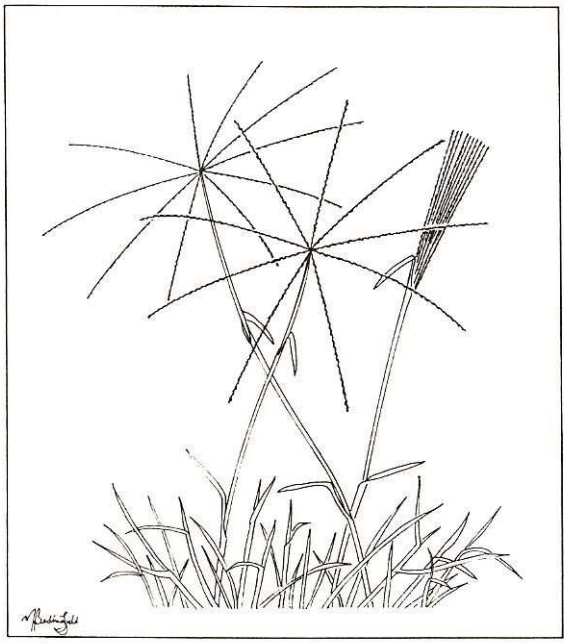
Thanks Colleen. Her site is worth visiting, as is another site she mentioned to FOG, floravictoria.com.au. - Ed.

Windmill grass -

a good colonizer and restorative plant, and a decorative lawn grass too *Michael Bedingfield*

A subject that has intrigued me since I became familiar with the poor state of our native grassy ecosystems, is the question of how to restore them. Since natural ways are often the best, I've spent a lot of time observing those plants which like to colonize disturbed areas. By a colonizer, I mean a plant which moves or spreads by its own means into a disturbed area, which is dominated by exotic plants or has bare ground. Logically, the native colonizers provide the most natural way of repairing native areas which have been damaged in some way. So, with the eye of an enthusiastic amateur, I've focused on local areas that have been denuded of their native flora at some stage. These include my house-block, as well as the many nearby grassy areas, such urban open spaces, parks, nature strips and parts of the Murrumbidgee River Corridor.

One of the native grasses which has moved voluntarily onto my block, and has done very well, is windmill grass, which has the botanical name of *Chloris truncata*. It is a low-growing, short-lived perennial, with a small tuft of pale green leaves. It flowers in the warmer months, producing a digitate (finger-like) seed-head with a distinctive umbrella or windmill shape, and grows up to about 30 cm tall. It tolerates a range of soils, as well as droughts and high temperatures. It is frost-sensitive, and browns off to become invisible during the cooler months. The plant occurs only thinly scattered in native grass communities, and is relatively uncommon there. However, being a good colonizer, it does quite well in disturbed areas, where it can be quite common. In their book *Australian native grasses, a manual for sowing growing and using them*, by I H Chivers and K A Raulings, they say that windmill grass is a "primary colonizer" of bare ground, "will rapidly occupy denuded areas" and is "a valuable soil stabiliser".



Windmill grass is widespread on the Southern Tablelands, and occurs in all regions of NSW except the South Coast, also occurring in Vic, SA, Qld and WA. Last summer there was good rain and it appeared in profusion throughout Canberra. Dense patches were visible on nature strips and roadsides. The most similar local species is couch grass (*Cynodon dactylon*), which differs in that the umbrella-like seed-heads are much smaller, and it spreads by creeping stems and rhizomes. This is a cosmopolitan plant and there are both native and introduced forms.

There are a number other native grasses which have moved uninvited to my patch, and which can also be found growing in local parks and open spaces. Some have done exceptionally well at home, and like the windmill grass, have created small patches that have a dense covering of plants. These are red grass (*Bothriochloa macra*), slender spear grass (*Austrostipa scabra*) and ringed wallaby grass (*Austrodanthonia caespitosa*). Others that have done fairly well are, rat's tail grass (*Sporobolus creber*), short wallaby grass (*Austrodanthonia carphoides*), slender wallaby grass (*A. racemosa var racemosa*) and Poa tussock (*Poa sieberiana*). One that has arrived and spread in small numbers is hairy panic grass (*Panicum effusum*). The native lovegrass (*Eragrostis trachycarpa*) is a short-lived perennial, and a few appear occasionally in the warmer months if there is good rain. Another grass that hasn't moved in to my place, but which can be found growing in our local parks, is tall speargrass (*Austrostipa bigeniculata*).

I have planted some other native grasses, which have established and have spread into the surrounds. These include weeping grass (*Microlaena stipoides*), which has spread very well. Those that have spread slowly are kangaroo grass (*Themeda australis*), river tussock (*Poa labillardieri*), and nineawn grass (*Enneapogon nigricans*). Barbed wire grass (*Cymbopogon refractus*) does spread, but only in native grass patches. A plumegrass (*Dichelachne sieberiana*) has increased its numbers only slightly since planting. There are no doubt other grasses that have colonizing qualities, such as other wallaby grasses, but I've just recorded my observations.

So, from the research station of my own home, and the nearby grassy open spaces, there is much to be learned about re-establishing a native grass ground-cover. Windmill grass is quite prominent, and is one of a valuable suite of colonizing native grasses which could be used to recreate a native grass cover in the ACT region. In my drawing the plant is shown at about quarter size.

FOG groups and projects

Activities organises FOG field trips, talks, workshops, on-ground works, support to other groups, property visits, and the FOG calendar. Inquiries: activities2@fog.org.au.

Advocacy prepares submissions and advocates for grassy ecosystem issues. It holds occasional meetings and workshops. Inquiries: advocacy@fog.org.au.

African love grass (ALG) monitoring holds monitoring days at the Bush Heritage property at Scottsdale. Inquiries: linda.spinaze@fog.org.au.

Committee & correspondence The Committee organises, coordinates and monitors FOG activities. Members are Geoff Robertson (Pres.), Isobel Crawford (Vice Pres), Sarah Sharp (Vice Pres.) Al Gabb (Sec.), Sandra Hand (Treas), Kim Pullen (Imm. Past Pres), David Eddy, Naarilla Hirsch, Stephen Horn, Tony Lawson, Margaret Ning and Benjamin Whitworth. Andy Russell is public officer. Inquiries/ correspondence: committee@fog.org.au. Postal address: FOG, PO Box 987, Civic Square, ACT 2608.

Communication produces *News of Friends of Grasslands* and *FOG e-Bulletin*. Inquiries: geoff.robertson@fog.org.au (newsletter), and tony.lawson@fog.org.au (e-Bulletin).

Cultivation and Conservation encourages growing of local grasses and wild flowers to learn about their horticulture and ecology, and produces *Cultivation Corner*. Inquiries: janet2.russell@fog.org.au.

FOG ANU Fenner School, with the National Capital Authority, holds regular working bees at Yarramundi Reach (grasslands) and Stirling Ridge (woodlands). Inquiries: jamie.pittock@fog.org.au.

Financial matters, excluding membership, contact sandra.hand@fog.org.au or Sandra on 02 4846 1096.

Grassland Flora FOG is now responsible for sales of *Grassland Flora*. Inquiries: booksales@fog.org.au.

General inquiries Contact info@fog.org.au, Geoff Robertson (6241 4065) or Janet Russell (6251 8949).

Golden sun moth In 2008-09, FOG conducted a major survey of GSM in Canberra region. Inquiries: geoff.robertson@fog.org.au.

Hall Cemetery, with ACT Government, holds regular working bees to protect the Hall leek orchid and generally restore the site. Inquiries: andy.russell@fog.org.au.

Media spokesperson Geoff Robertson (6241 4065). FOG is a regular contributor on Radio Landcare, Tues 9-10am on (2XX, Canberra 98.3FM).

Membership and newsletter despatch See Membership box (page 9). Newsletter despatch is fourth Tuesday of Feb, Apr, June, Aug, Oct. To help, contact margaret.ning@fog.org.au.

Old Cooma Common (OCC) with Cooma Monaro Shire Council manages the OCC Grassland Reserve. Working bees are held twice yearly. Inquiries: margaret.ning@fog.org.au or david.eddy@fog.org.au.

Southern Tablelands Ecosystems Park (STEP) FOG helped establish STEP (at Canberra's International Arboretum), a regional botanic gardens and recovery centre to showcase local ecosystems, especially native grasses and forbs. Inquiries: limestone@grapevine.com.au.

Woodland Flora is planning the production of *Woodland Flora*, the sequel of the popular *Grassland Flora*. Inquiries: sarah.sharp@fog.org.au.

Website (www.fog.org.au) full of FOG information, back issues of *News of Friends of Grasslands*, and program details. Inquiries: webmanager@fog.org.au.

Friends of Grasslands Inc.
PO Box 987
Civic Square ACT 2608