



News of Friends of Grasslands

Supporting native grassy ecosystems

November - December 2010

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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 other information you may need.

SAT 6 NOV, 10am to noon. A Stroll through Stirling Ridge with Sarah Sharp. See page 2.

SUN 7 NOV, 10am to 1pm. Hall Cemetery working bee. Morning tea supplied. Enquiries: Andy Russell (andy.russell@fog.org.au or 6251 8949)

SUN 7 NOV, 3-6pm. Seeing grasslands, photography workshop. See page 2.

SAT 13&27 NOV CVA & FOG working bees. See page 2.

SAT/SUN 13/14 NOV. Indigenous values workshop. POSTPONED. See page 2.

SAT 20 NOV, 9am-4pm. FOG/Fenner School working bee at Yarramundi Reach. See page 2.

SUN 21 NOV. A stroll through Goorooyarroo with Sarah Sharp. See page 2.

SAT 27/SUN 28 NOV. Rehwinkel's open garden in Bungendore. See page 2.

FRI/SAT 10/11 DEC. Tomneys Plains and The Tops, near Tumburrumba, NSW. Deadline for registration is 15 Nov. See page 2.

It is membership renewal time

A membership renewal form for 2011 is enclosed. Please complete it carefully. You may pay by cheque, money order or EFT. Annual rates are only \$20 for families/individuals, \$5 for students/concessions, and \$50 for organisations. Donations, while not tax deductible, are very welcome. The form is also on our website (www.fog.org.au). For any queries contact Margaret on 02 6241 4065 or margaret.ning@fog.org.au.

In this issue

Regular features: Program & Upcoming events, News roundup, FOG advocacy & Cultivation corner

Articles:

K2C biodiversity & farming fair

Speakers' hut @ K2C fair

Preliminary determination for snow gum woodland

Swamp foxtail grass



Photos: FOG at K2C Fair, story page 3. Top photo shows FOG members, Tony, Janet, Linda, John and Al. Tony (Robinson) was a driving force in organising the Fair. Many FOG members were involved in other stalls or the overall organisation. Bottom photo supplied by Al shows John talking to an inquirer with Linda in background.

Upcoming FOG Events

ACT Strolls with Sarah Sharp

Stirling Ridge, Sat 6 Nov

Goorooyaroo, Sun 21 Nov

10.00am - noon

Sarah Sharp has for many years been committed to the preservation and management of our grassy woodland remnants, and is very familiar with Stirling Ridge and Goorooyaroo, spectacular woodland sites. Stirling Ridge is home to the endangered button wrinklewort, while Goorooyaroo is being used for an ANU research project on woodland habitat manipulation. We shall visit some diverse grassland, woodland and forest areas. Sarah will provide a thorough but simple understanding of the woodlands, the plants, and their management.

For Stirling Ridge, we shall meet on Alexandrina Drive at the Gap, 400m west of the Canberra Yacht Club (car park on Mariner Place), Yarralumla. For Goorooyaroo we shall meet at the Reserve carpark on Horse Park Drive and then carpool to the northern end of the reserve. You should bring appropriate clothing, a hat, water, a sense of fun, and particularly your Yarralumla or Gungahlin friends!

To let Sarah know that you are coming and to give us a sense of numbers, please contact her on sarah.sharp@fog.org.au or 02 6257 5619.

FOG 'Seeing Grasslands'

Photography Workshop

3-6pm, Sun 7 Nov, Mulligan's Flat

Grasslands and many of the species living in grasslands are becoming increasingly rare and endangered worldwide. Want an inspiring and creative photographic challenge? Come and discover the wealth of creative photographic opportunities in grasslands. Help preserve the beauty of grasslands by sharing your artistic interpretation in this unique photographic challenge.

We're inviting passionate image makers and nature lovers to experience grasslands through their lenses to show everyone just what we tend to overlook. Join us for a workshop with ecologists and professional photographers. See how you can focus your camera creativity on conservation.

Cost: Free! Places are limited so register early. Contact David Wong: david.wong@canberra.edu.au for further information.

FOG-Fenner Working Bee

Yarramundi Reach

9.00am to 4pm, Sat 20 Nov

The FOG-Fenner Group is organising its last working bee for 2010 at Yarramundi Reach, a large and important Canberra grassland.

FOG-Fenner School Group aims to involve ANU students and other volunteers at this site and Stirling Ridge. Both are managed by the National Capital Authority (NCA) which welcomes FOG's involvement, and is sponsoring equipment and lunches. Work is based on management plans for the sites.

Jamie, FOG's energetic coordinator, needs volunteers to lead weeding teams, set up monitoring points, run the registration or lunch, or just assist in any weeding tasks. Working bees provide a great opportunity to learn about these sites, to improve skills and to enjoy good company and food.

Volunteers, please bring old, long sleeved clothing, a water bottle and sun protection. Lunch provided. Enquiries and registration: Jamie Pittock (jamie.pittock@fog.org.au or 0407 265 131).

Indigenous Values Workshop

Sat/Sun 13/14 Nov, Garuwanga

POSTPONED

Last issue we advertised this workshop, the first of a series of five. Unfortunately we are postponing it until autumn 2011. Please stay tuned for this important series of workshops.

Rehwinkel's Open Garden

Sat/Sun 27/28 Nov, Bungendore

Take this opportunity to see Rainer Rehwinkel's wonderful grassland garden, located at 23 McCusker Drive, Bungendore. This is part of the ABC's Open Garden Scheme.

Rainer is well-known in botanical circles as the endangered species expert (botanical that is!). His garden is fascinating.

Any assistance in helping to organise this event, and on the day, will be appreciated. Contact Margaret Ning (margaret.ning@fog.org.au or 02 6241 4065). Half the proceeds will go to FOG.

Plant ID

@Tomneys Plain & Tops

near Tumburrumba

Fri/Sat 10/11 December

FOG will be undertaking plant identification to assist with the surveys of these sites for the Murrumbidgee CMA. This work will be led by Dave Mallinson, Joe McAuliffe and Margaret Ning and should be lots of fun.

Accommodation (Thurs and Fri nights) is \$15 per night, and carpooling will be available. You will need to bring your own bedding. Food is provided except for the Thurs night. Deadline for registration is 15 Nov. Enquiries/Registration: Margaret Ning (margaret.ning@fog.org.au or 6241 4065).

CVA & FOG Working Bee

13 & 27 Nov, NCA/FOG sites

FOG has obtained funding from the National Capital Authority for Conservation Volunteers Australia (CVA) working bees at Stirling Ridge and Yarramundi Reach. FOG will provide information to the volunteers on the importance of each site and plant identification to assist in weeding. If you would like to volunteer for this activity, contact CVA on 6247 7770 or Canberra@conservationvolunteers.com.au.

News Roundup

FOG@K2C Fair

John Fitz Gerald

10 OCT FOG participated in the Kosciuszko to Coast (K2C) Biodiversity and Farming Fair at Bredbo Centennial Park as one of the eleven partner organisations of K2C. The well-organised site provided over thirty stalls under cover, allowing over 300 visitors to access a huge range of information about the environment and agriculture concentrated on the local region. Local Bredbo organisations

kept everyone supplied with food and drink. A full day's program of talks in the Speakers' Hall plus guided visits to inspect the flora at Scottsdale gave everybody plenty to do.

As FOG's stall was alongside those of STEP and the ACT Herpetological Association, many familiar faces popped up amongst the workers. FOG was represented by Linda Spinaze, Janet Russell, Al Gabb and me. We were pleased to be equipped with a new and attractive set of FOG posters printed es-

pecially for our very smart new display board organised by David Eddy (see photo).

Warren Saunders provided plants to help brighten the effect - special thanks go to him. A steady stream of visitors devoured the printed information FOG made available, as well as participating in general discussion about grassy ecosystems and landcare. It was great to share a day in the company of so many groups active in the outdoors, from catchment groups, to the National Parks Association, Conservation Volun-

teers Australia, plant and seed merchants and many more.



FOG 2011 Program

Linda Spinaze or John Fitzgerald, who are now responsible for FOG's program, are currently planning 2011 activities.

If you have any ideas, they would love to have members' input. Contact them at activities2@fog.org.au.

Karleila, a conservation property, is for sale

Karleila is a beautiful and floristically diverse 52 ha (129 acre) property located between Numeralla and Nimmitabel. It's an easy 45 minute drive east of Cooma, with 2WD access all year round. The property includes a furnished, very comfy, 2 to 3 bedroom weatherboard house built in the early 1990s, as well as caravan accommodation and various storage and work sheds. *Karleila* is being sold as the owners have moved interstate.

Karleila sits at around 950 metres elevation, has Turoos River frontage and stunning views onto Wadbilliga National Park and its escarpments. More than 140 local native plant species occur on the property including two listed threatened species, *Diuris ochroma* and *Eucalyptus parvula*. Vegetation communities include poa-dominated grassland, snow gum-candlebark-ribbon gum woodland and narrow leaf peppermint-candlebark-brownbarrel forest. Naturally wildlife is also abundant on the property. *Karleila* is basically weed-free after three years of targeting the most serious invasive species. For sale @ \$225,000. For further details and/or to arrange a visit, contact Adam Muyt or Kathryn Godman on 03 6244 5621 or mobile 0428 312 384.



Russell's open garden

2-3 OCT Congratulations to Janet and Andy Russell for great success in participating in the Open Garden Scheme (see photo). Janet heads up FOG's Cultivation and Conservation Group whose members focus on growing indigenous grasses and forbs in their gardens, thereby gaining horticultural and ecological understanding of them. Janet is also the author of *Cultivation Corner*.

This year they modified the garden by introducing swales, and continued to experiment with new plants. They entered the Australia's Open Garden Scheme and worked very hard to gain publicity. Page 5 of the Canberra Times (2 Oct) had a major article on the garden and a large picture of Janet and Andy. They were interviewed on radio and circulated material through local newsletters. This is also great news for FOG, as Janet and Andy describe themselves as FOG and STEP members.

Monies raised went to STEP which provided the volunteers, who included many active FOG members. Great work!

STEP receives major grant

The Southern Tablelands Ecosystems Park (STEP) has received a major grant under the *Growing of natural and cultural capital program* to develop the 2.5ha site at the National Arboretum Canberra (NAC) as a regional botanic garden. The \$16,000 grant will help make Stage Two of the STEP development, the establishment of gardens demonstrating the mid and ground storeys, a reality. STEP has already planted twelve species of eucalypts as the structural overstorey. STEP has fingers in other pies - it is in the process of establishing stewardship over a remnant pocket of 16ha of box gum woodland close to Block 100, it is negotiating to establish a block of rare Southern Tablelands eucalypts, it has been offered stewardship of Blocks 31-35 grassland and wood-



land remnants facing William Hovel Drive, and is keeping a weather eye on other remnants at the NAC.

Peppercress returns home *Margaret Ning*

In early June seven of us joined Rainer at his home for the second lepidium translocation day. I have to say that it was a wonderfully leisurely sunny day. First there was morning tea, then a slow walk around Rainer's native garden, followed by a wander to Days Hill behind his house where he showed us a translocation site from the first day. Then we divvied up the remaining aromatic peppercress and native flax seeds and set out for Brooks Hill Reserve (BHR), our first translocation site for the day.

Eight relatively open areas were selected at random. We prepared five lower sites and three upper sites at BHR, three peppercress sites in the lower site and two in the upper site, with the remainder being for flax. At each site a small stake was driven into the ground and four small patches were prepared for the seed at 90 degree angles around the stake, at a constant distance from it (approx 30cm). A small hole was dug about 10cms deep, the soil broken up a bit, then it was tamped down again and lightly scraped with a small garden fork. The seeds were lightly pressed into the soil in a way that caused a slight dish effect, and gently watered.

Then it was back to the Bungendore bakery for lunch which we ate back at Rainer's. After lunch we took the

remaining seed to Smiths Gap TSR on the western edge of Bungendore where we repeated the procedure at three more sites, two more peppercress and one flax site. Then it was back into the vehicles to begin the trip home, with the sun still beaming down on us.

Thank you, Rainer, for sharing your expertise with us, and to DECCW for providing our lunch. Rainer also wants to pass on his thanks to FOG.

Grassy Groundcover award

Our July-August newsletter had an item on the *Grassy Groundcover Gazette*. Now FOG congratulates the the Grassy Groundcover Restoration Project (GGRP), chosen as one of four finalists for a National Biodiversity Award at this year's United Nations Association of Australia's World Environment Day Awards.

The GGRP partnership between Greening Australia, Victoria, and Melbourne University has set up 23 widely-separated demonstration sites in Victoria's most threatened plant community - temperate grasslands.

The GGRP has demonstrated that under Australian conditions it is possible to reconstruct grasslands on bare-field sites and establish techniques for seed production that will enable direct-seeding to occur at scale without impacting negatively on existing remnant populations.

The GGRP was also named in the top 25 outstanding ecological restoration projects in Australia and New Zealand by the Society for Ecological Restoration International.

Winter visit to Kama

Grasscover

SAT 21 AUG Twenty two people assembled in the early afternoon off William Hovel Drive and then drove into the recently created Kama Woodland, which is now part of Canberra Nature Park. This was FOG's 2010 winter grassland tour.

Sarah Sharp, who is one of FOG's vice presidents and a well known grassy ecosystem ecologist, led the walk. Kama woodland has a mosaic of yellow box and red gum woodland, grassland and remnant dry forest patches. Other landscapes include a large rocky outcrop near the river, and the various dams also provide opportunities for sedges and water plants not associated with the other communities.

Many patches of the ground storey throughout the reserve are high quality remnants dominant by kangaroo grass with a good sprinkling of forbs such as common and clustered everlasting, scaly button, blue devil, early Nancy, bulbine lily, several peas and many more, including the occasional orchid. It was evident that, come spring, there would be a good flowering.

Apart from the better quality patches, there are many highly disturbed and weedy patches which will need some work to get them up to the standard elsewhere.

Sarah pointed out the different vegetation communities and the management issues facing the reserve. This led to a lively discussion with many including Sue McIntyre, Isobel Crawford and Michael Bedingfield making good contributions.

Thanks Sarah for the experience. Sarah will be leading several other Canberra woodland walks this season.

New flora book

Congratulations to our friend Eric Whiting and the Murrumbidgee



Field Naturalists for their recently published flora book *Wildflowers of the Narrandera and Cocoparra Ranges*. This is a comprehensive identification guide and contains detailed descriptions of 225 species and 136 colour photographs. Copies can be purchased from the Murrumbidgee Field Naturalists or Eric Whiting, phone (02) 6953 2612, email ericwhiting@bigpond.com. Price is \$27.50 (post & packing \$4.00)

FoAB is 20

20 SEPT, The *Chronicle* article by Meredith Crisby, reported on the 65 people who attended Friends of Aranda Bushland celebration of their twenty years. Congratulations FoAB.

ACT weed management

FOG has received copies of ACT Parks and Conservation's *Environmental Weed Control Annual Report 2009-10* and *Operation Plans 2010-11*. These are well worth reading especially for anyone seriously concerned about ACT weed management.

Plants delay development

23 SEPT "Plants delay development" was the lead article in the *Cooma-Monaro Express* followed by the sub-heading that "rare species

find holds up Yallakool Road subdivision", which is a subdivision near Cooma for 120 new houses. The plants mentioned are the mauve burr-daisy and the hoary sunray. Recommendations from the Department of Environment, Climate Change and Water about the site are expected. Photos of the plants, by Reto Zollinger and John Briggs, were shown.

Tibetan nomads struggle

2 SEPT, Jonathon Watts in Mandou, reporting for the *Guardian* says that grasslands are disappearing from the roof of the world and scientists say desertification of the mountain grasslands of the Tibetan plateau is accelerating climate change. He quotes Phuntsok Dorje who makes a living raising yaks and other livestock on the vast alpine grasslands. In recent years the vegetation around his home, the Tibetan plateau, has been destroyed by rising temperatures, excess livestock and plagues of insects and rodents. The high-altitude meadows are rarely mentioned in discussions of global warming, but the changes to this ground have a profound impact on Tibetan politics and the world's ecological security. Phuntsok Dorje says "Twenty years ago, we had to scythe it (the grass) down. But now, ...it's so short it looks like moss."

Yarramundi Reach

Jamie Pittock

11 SEPT On a perfect spring day sixteen FOG and Fenner volunteers gathered at Yarramundi Reach for the first 2010 work party at Yarramundi Reach. We were faced with the depressing sight of extensive re-invasion of a number of patches where Chilean needle grass (CNG) had been dispatched in 2009 and little sign that our efforts to promote regrowth from indigenous grasses on site had been successful.

Yet first appearances were deceptive. Where the many isolated CNG tussocks and clumps had been dispatched the native grasslands had resisted weed invasion and partly closed the gaps. In one of the bigger weeded patches, a cheerful mass of *chyrsocephalum* had replaced half the CNG. Further, the National Capital Authority's renewed attention to management was evident, with the site having been slashed in lieu of the washed out, planned ecological burn. Then the FOG and Fenner volunteers swung into action and transformed the landscape.

Data was recorded from three monitoring transects ahead of hand removal of the new weeds and planting of 300 cells of local species. We are trying cells of four grasses and carex in different patches to see which species most effectively survive and replace the CNG. A vast area of CNG was sprayed out in preparation for our planned 20 November work party, when we will try revegetation using *themedra* and *poa* thatch. More woody weeds were removed, and we sized up some rampant blackberry for dispatch in November.

The emerging bulbine lilies and blue devils at Yarramundi Reach promise to create a splendid scene by the time of our 20 November work party, so why not join us then to enjoy and enhance the spectacle?



Photos by Jamie are Peter with the spray unit, Richard looking splendid by our transect marker surveying a weeded and planted patch, Selga, Andy and Bernadette weeding and planting cells, and Sarah and Barbara monitoring.

Attacking ALG

16 JUNE Stephen Pincock, ABC, reported that fertiliser is normally used to encourage plants to grow, but in the case of one Australian weed it may be the perfect eradication tool, scientists have found. Jennifer Firn (CSIRO) evaluated 24 different ways of controlling African lovegrass, an invasive species that affects rangelands in every Australian state. Her work, published earlier this year in the *Journal of Applied Ecology*, was presented this week at the annual Fresh Science event in Melbourne. Jennifer Firn found that adding a small amount of fertiliser to affected areas makes the weed tastier to grazing animals, encouraging them to focus on the introduced species and thereby taking pressure off native grasses.

Nice photo Jean

15 JUNE, The *Chronicle* published a nice photo of Jean Geue who is again Convenor of Friends of Aranda Bushland. She was talking to Meredith Clisby about a planned blitz on pesky woody weed.

Blue-tongue in decline

13 JULY, *SMH*, Ben Cubby reported blue-tongues were once the lords of Sydney's backyards, but high-density development is banishing them to the city's fringe. Blue-tongues and other natives, such as the tawny frogmouth, are being pushed to the edge of the city by more intense development and higher human population density, snail baits and dogs and cats.

Pinnacle restoration trial

7 SEPT Meredith Clisby in *The Chronicle* says the latest methods of grassland restoration will feature in the Pinnacle Nature Reserve. Congratulations to Friends of the Pinnacle Nature Reserve (FOTPIN) who received a grant. FOTPIN member Don Drisoll stated that increased nutrients in the soil have favoured exotic grasses and that's allowed the exotic grasses to take over the landscape to the detriment of native plants. So we are trying to find out if we can suck out the nutrients to disadvantage the exotic grasses and allow the natives to re-establish and diversify.

The group with the help of the Ginninderra Catchment Group and FOG, will trial different methods. Some areas will be fenced and others not. Some will have sugar applied and some not. There was a nice photo of Don and Mary Porter MLA accompanying the article.

Pasture & no kill cropping

23 SEPT Matthew Cawood reports in *The Land* the advantages of pasture cropping (direct-drilling crops into grasslands) and no-kill cropping. He states that there are actually two independently arrived at systems that are now often used together. Their authors are Col Seis and Darryl Cluff (pasture cropping) and Bruce Maynard (no-kill). He also points out that, as advocates of these systems state, the systems may lead to less production, but because input costs are lower (especially reduced use of fertilizers) profits are higher. Cawood also points out the importance of using natural grasslands with their range of naturally evolved plants (biodiversity) and the ability of such systems to store carbon (no burning or herbicide). Natural grasslands he says thrive on disturbance and require grazing. He also mentions that such systems have greater flexibility. His is a good explanation of these innovative farming practices.

FOG advocacy

Naarilla Hirsch

We've had a relatively quiet couple of months on the advocacy front.

August 2010

In June FOG provided comments on the proposed residential development in Macgregor West, submitted under the Environment Protection and Biodiversity Conservation 1999 (EPBC) Act, in particular in relation to the impact on the Golden Sun Moth (GSM) and a lack of detail in the proposal about the offsets being offered and their effectiveness.

The Commonwealth has released a draft report on this development for public comment. It approves the development subject to a number of conditions. The conditions include retention of a 42 metre buffer of undisturbed land between the GSM offset area and the residential area, development of a management plan for the offset area as GSM habitat, and the contribution of at least \$200,000 towards the implementation of university-based research into rehabilitation of Chilean needle grass areas with native grasses.

In commenting on this report, FOG was pleased to see some of the concerns expressed in its earlier submission on this development being addressed, while remaining disappointed that some GSM habitat will be lost. Other comments included noting that the proposed research may have impacts on any GSM populations currently existing in Chilean

needle grass areas, and asking for a more strategic approach to the conservation of the GSM within the ACT.

September 2010

ACTPLA invited public comment on the ACT Planning and Development (Environmental Impact Statements) Amendment Bill 2010. We were not entirely sure of the detailed implications of the proposed amendment, so submitted some general views on it. A major concern was the statement that "the amendments are aimed at ensuring that only development proposals which are likely to have a significant adverse environmental impact will require an EIS", from the point of view of both possible different interpretations of the word "significant" and sufficient time being allowed to make such assessments properly. If this proposal does proceed, FOG thinks that there needs to be a review of the process to make sure that it is working well.

Old FOG newsletters

FOG is attempting to put together its historical records so that they may be provided to official archives. In particular we appear to be missing some back copies of our newsletters. If you think you may be able to assist to supply back copies, would you kindly contact Margaret (Margaret.ning@fog.org.au).

FOG Membership

To join or renew (Note: 2011 renewals are due by 1 Jan)

FOG membership entitles you to receive our newsletter and e-Bulletin, to attend FOG's many and diverse activities, and much 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 deductible, they are always very welcome.

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

Cultivation Corner:

Winter germination

Janet Russell

This year I sowed seeds in autumn instead of spring because I decided that I needed to do more research into the horticultural needs of the plants that I was trying to grow. This was due to the gift of vittadinia seed and the simultaneous discovery of Murray Ralph's books on seed collection and growing native plants from seed. Ralph's propagation book provides concise information on a huge range of species. Vittadinia as well as a number of other species do not germinate in temperatures over 25 degrees.

I did very well germinating some species including over sixty each of the blue devils (*Eryngium rosstratum*), flax flower (*Linum marginale*), yellow burr-daisy (*Calotis lappulacea*), hoary sunray (*Leucochrysum albicans*), and the New Holland daisies (*Vittadinia muelleri* and *V. cuneata*). The chamomile daisy (*Rhodanthe anthemoides*) obliged by producing fifteen seedlings in the pot they were growing in so I potted them on as well. As you are probably thinking, this set up a series of time-consuming tasks of potting up as well as getting them into the ground. Some are already in the ground but the majority still remain unplanted and some of these need to be in the ground sooner rather than later.

I believe that the winter germination and the placing of seedlings on the north-facing verandah meant that some of the plants that are usually subject to damping off such as hoary sunray and yellow burr-daisy did very well. Because of our garden being opened early



in October, however, I had to move the seedlings into a shady spot before the weather had warmed up and we lost some seedlings. This included three *Bursaria spinosa* which were the only seeds of that species that germinated, or perhaps I should say that I had the patience to wait for. I re-read the sowing and germination information and I realised that I should have sown the seeds two months earlier than I did. *Bursaria* are notorious for damping off, and following the advice given I did pot them on as soon as the seedlings appeared. What rather stunned me when I potted them on was the length of the root system - something like 2cm. You tend to think nothing much is happening until after you see the seedlings emerge. Ralph recommends that seeds be sown directly into pots which minimises handling and the risk of damping off, and that such susceptible seedlings should be placed in full sun.

Our grassland garden is filling out and our plant collection has been supplemented by gifts from friends. We are looking forward to the coming season as many plants are budding and there is a nice flush of green from the grasses. There are

many people who have helped contribute to our garden in many different ways during the last few years to whom we are very grateful.

Photo: Janet's garden showing local forb species.

Delegate Property for Sale

2,000 acres (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 shearing 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 portions 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.

K2C Biodiversity & Farming Fair *Grasscover*

SUN 10 OCT An estimated four hundred people attended the Kosciuszko 2 Coast (K2C) Fair at Bredbo Centennial Park. There was plenty to see and do. There were almost forty stalls, displays of farm equipment and sheep herding, bus tours to Scottsdale, talks in the Speakers' Hall, short lunchtime addresses from the back of the truck, good music and lots of food. There were special kids' events such as story-telling and drawing.

The aim of the fair was to promote the theme of biodiversity and farming amongst the farming community, emphasising how the two could be synthesised, and to publicise the work of K2C and its partners and associates. The largely landholder folk were keen to listen and absorb the information on offer. There was great feedback from all quarters, including from a special survey of sixty visitors. There was much about this fair that was new and innovative.

Stallholders represented a diverse range of groups and agencies, including the K2C partners, landcare, natural resource management groups and government agencies, native grass and other plant sellers, horticultural and farm consultancy groups, farming organisations, and the Rural Fire Service.

At the Speakers' Hall there was a variety of well attended presentations synthesising biodiversity and farming. An estimated 150 people attended at least one session (see separate article on this). Within the Hall, there was also a fantastic map display that has been put together by the Department of Environment, Climate Change and Water, NSW, showing the K2C area and its various vegetation communities and corridors. There was also a film showing a flyover of the K2C area.

For the eighty people who went on one of the four ninety minute Scottsdale trips, they were given a run-down of and shown a special display of Bush Heritage's Scottsdale property, shown one of the high quality grassland sites along the railway by Rainer Rehwinkel and David Eddy, and entertained by Graham Fifield who described Greening Australia's vegetation restoration work at Scottsdale.

Owen Whitaker was Master of Ceremonies and kept things going. At lunchtime he introduced Jandamurra, a local indigenous elder, who gave a welcome to country and who, with his friend Peter, put on a wonderful didgeridoo performance. He was followed by Councillor Jenny Lawlis, who provided a welcome from the Bredbo community and provided an historical backdrop to Bredbo. Next up was Sam Archer, K2C's Keynote Speaker, who provided a powerful message on ecosystem services. He was followed by a song from *Bredbo Boy* and then Rob Dunn spoke on the Greater Eastern Ranges Initiative. More information on the themes explored by Sam and Rob is given in the next article. Af-



Some familiar faces at the fair.

ter lunch, MLA Mike Kelly spoke from the truck. A local group, the *Finger Pluckers* provided entertaining music before and after lunch.

K2C Project Facilitator, Lauren Van Dyke, said, "It was really positive to have Mike Kelly MP participate and support the day in his new role as Parliamentary Secretary for Agriculture, Fisheries and Forestry for the Government. In fact the day would not have been possible without assistance from our successful Caring for our Country grant from the Australian Government."

"It was also encouraging to see the Bredbo Hall, which was set up as a speakers' room, full of people listening intently to the nine speakers, including the key presenter Sam Archer who explained how he manages his property concurrently for production and environmental outcomes.

The Bredbo Community came out in force to help give the day variety both in terms of food and entertainment including the efforts of the Bredbo Rural Fire Service, CWA, Progress Association, and P&C. Bredbo Boy, Steve Carter, provided some classic John Williamson songs and the seven strong Numeralla Finger Plunkers had people really tapping their toes.

The day had a real warm community feel about it and having the support of the local landholders from surrounding properties gave the event a real sense that we can make big advances to benefit the landscape if we all work together. The Fair also provided the other groups and government agencies invited along time to network and get to know each other", Ms Van Dyke said.

She said "the K2C Partnership consists of eleven active groups and government agencies, all committed to working in collaboration with each other. The K2C Partnership is keen to engage landholders in the region and provide them with a suite of on-ground opportunities to benefit the future of our countryside".

FOG, as a K2C partner, would like to thank Lauren and her K2C team of volunteers, and the numerous people, stall holders, speakers, vendors, etc. who also put their shoulder to the wheel. Funds raised went to Beyond Blue.

Speakers' Hut at the K2C Fair

Geoff Robertson

At the Kosciuszko to Coast (K2C) Biodiversity and Farming Fair I took responsibility for arranging the talks in the Speakers' Hut. While this task is a little onerous, it was made easy by having a superb set of speakers who were just great presenters, informative and disciplined, and having the backup by the other members of the K2C team who put the show together. It was also a great opportunity on the day to listen to what each speaker had to say and to fill out the gaps in my own knowledge. It certainly demonstrated that K2C and FOG, who organised this, can put on a great show. The bulk of sessions were well attended, particularly considering there was much competition on the day. For a couple of sessions, the numbers started small but built up as people drifted in. The aim of each session was to connect the dots between biodiversity and sustainable farm management practice. Landowners were pretty impressed and there was an eagerness to learn. I would estimate that about 150 people attended one or more Speakers' Hut sessions.

It is not possible to report fully on each session but just a few thoughts on each. The opener was Luke Johnston who explained the native fish strategy. The goal of the strategy, which started in 2004, is to rehabilitate native fish communities in the Murray-Darling Basin, currently estimated to be ten percent of pre-European settlement level, back to sixty percent over the next 50 years. Luke outlined the science behind the strategy and the practical actions that are being undertaken to commence the work of recovery. He explained the *demonstration reach* concept and its implementation in the K2C area. The Upper Murrumbidgee Demonstration Reach between Bredbo and Casuarina Sands in the ACT aims to improve native fish habitat and populations through holistic river health rehabilitation, community engagement and monitoring over the coming decade. Luke had some stunning visuals to underscore his presentation.

I followed Luke with a presentation on native grasses in the local region, focusing on their habits and habitats to make identification easier. Many landowners attended to learn how to identify and use native grasses in their pasture management. Participants were inter-

ested in the different pasture value of individual grasses and how to establish and encourage them.

The third session was given by Lauren van Dyke on K2C providing an explanation of its history, how it has devised its strategy, what each of the partners is contributing and where to from here. She explained the six key focus areas for K2C namely, grasslands, woodlands, threatened bogs and swamps, small bush birds, valley floor watercourses, and threatened communities and species within forests. Much of these target areas are on private land and hence K2C is keen to work with landowners to achieve good farming and biodiversity outcomes – the theme for the fair. The immediate issues facing K2C are how to build an organisation that can deliver services to landowners and to biodiversity and how to fund this service.

The next talk was about weed whispering by Alison Elvin. From her long experience as a consultant in farm management, she had learnt that we should listen to the messages that weed whisper to us. If a landowner has a weed, what does this tell us

about our soils and landscape management? Concepts like a war on weeds she thought were inappropriate and lead to overuse of herbicide, bare ground, and yet more weeds. Rather we should be aiming to not leave bare ground but have techniques that reseed weedy areas and provide competition for weeds. She pointed out many examples where changes in practice can lead to better pastures and fewer weeds.

The last speaker before lunch was Nicki Taws who spoke on the partnership between the Canberra Ornithologists Group and K2C to conduct bird surveys between Williamsdale and Bredbo. The first survey took place in autumn 2010 and there are plans to conduct the survey twice annually. Using standard bird measuring techniques, 38 sites on 23 properties were included. In the first survey, when many summer migrant species were absent, eighty-four species, including eight threatened species, were observed. Nicki said that these results were very encouraging. The region, with its large number of areas of remnant vegetation, particularly good quality grassy woodlands, is important to maintaining viable populations of bush birds that are suffering a general and serious decline. Nicki's presentation also showed a number of different bird species and discussed their habitat requirements.



The first speaker after lunch was the keynote speaker, Sam Archer. Sam is Chair of Murrumbidgee Landcare, representing 140 landcare groups in the Murrumbidgee catchment, a member of the Australian Farm Institute's Research Advisory Committee, the Bio-Banking Ministerial Reference Group, a Board Director of the NSW Farmers Association, Chair of the Association's Business, Economics and Trade Committee, and one of eight MLA Environmental Advocates chosen to promote the sustainable practices livestock producers are undertaking to effectively manage the environment. Sam said that he considered that all farmers were greenies under the surface and he presented an excellent talk on ecological services and how they assist farmers, conservation, and consumers. He presented what could be called a synthesis of farming and biodiversity: the theme of the fair. The challenge he said was to determine how the community might fund these services so that land managers could optimise returns to production and the environment. Mike Kelly MHR, who was present, talked about how Sam's thinking was in harmony with the current Federal Government's approach to farming, climate change and biodiversity. This was a very powerful session.



Dave Hunter is the threatened species officer with the Department of Environment, Climate Change and Water in this region and he talked about the threatened frogs and reptiles on the Southern Tablelands. He pointed out that fifty percent of threatened frog species and one hundred percent of threatened reptiles species primarily occur on private property.

He provided wonderful profiles of the characteristics and habitats of each species: Booroolong frog, green and golden bell frog, Tablelands bell frog, southern bell frog, grassland earless dragon, striped legless lizard, pink tailed worm lizard, little whip snake and Rosenberg's goanna. It was important to have landowners learn about these species. Having threatened species is compatible with good business and property management planning, he said, and he outlined some success stories of community participation in recovery programs aimed at finding populations of these species and improving their habitat. While there were some good news stories, there was a concern about the future of the grassland earless dragon, as their numbers have greatly declined since the onset of severe drought in 2003, he said.



For the final talk we moved outdoors. David Freudenberger gave a guts and all presentation on sheep nutrition and

pasture biodiversity. While this was advertised as not for the faint hearted, I found that it was no worse than going to any butcher shop, and much more fascinating. As we arrived, David had the stomachs and other internal organs set out in a large tray and there was David with a clean apron over his clothes. There were many lessons about biodiversity to be learnt from David's presentation as he cut into the various stomachs to reveal what was inside, and how the whole digestion system worked. We tend to think of biodiversity as a variety of life, but he suggested we should think of it as a process – how does a sheep, or any other herbivore, turn grass into food? This gives rise to the question of what is selected for eating and how the sheep responds to different grasses and other flora on the menu. One thing he pointed out is that a good length of grass, compared to very short grass, requires less energy on the part of the sheep – hence a better product. His take home message was: pasture diversity based on native grasses and forbs is good for sustained sheep nutrition and good for conservation. Truly a fascinating talk!



Rob Dunn, Director, Great Eastern Ranges (GER) Initiative, spoke next. The GER Initiative, he said, is an ambitious continental scale connectivity corridor, extending over 2,800 km, along the great eastern ranges from the Australian Alps to Atherton Tablelands and beyond,

covering all land tenures. The emphasis is on voluntary involvement and integrating the efforts of many. On this scale it captures many natural resources and includes many standout species, communities and landscapes which Rob showed, but also faces many challenges. Rob showed many powerful maps of these natural resources, including of vegetation formations and condition, and connectivity analysis of woody vegetation. He spent some time on the concept and practice of *connectivity conservation*. He then outlined what each of the five regional groups, Border Ranges, Hunter Valley, Southern Highlands, Slopes to Summit, and K2C, that make up GER Initiative are doing, and combined achievements to-date. This presentation was followed by a lively discussion of the challenges facing the GER Initiative.

Preliminary Determination for Snow Gum Woodland

Grasscover

For many years now there has been ongoing work in NSW to list the extensive snow gum grassy woodland.

In July this year, the NSW Scientific Committee made a preliminary determination listing *Tablelands Frost Hollow Grassy Woodlands*, or to give it its longer title, *Tablelands Frost Hollow Grassy Woodlands in the South Eastern Highlands, Sydney Basin, South East Corner and NSW South western Slopes Bioregions*, as an Endangered Ecological Community. Submissions closed on 3 September. Even the short title is a bit of a mouthful and many of us would think of this community as simply snow gum woodland.

As the preliminary determination states *Tablelands Frost Hollow Grassy Woodlands* typically forms an open-forest, woodland or open woodland that transitions into grassland at low tree cover. The canopy is dominated by snow gum (*Eucalyptus pauciflora*), candlebark (*E. rubida*), black sallee (*E. stellulata*) and ribbon gum (*E. viminalis*), either as single species or in combinations. Other more localized eucalypt species may also occur in this woodland such as *E. aggregata* and *E. parvula*. A shrub layer may be present and subshrubs are often a component of the ground stratum. Characteristic shrub species include *Hymenanthera dentata*, and *Melichrus urceolatus*. The ground layer is dominated by grasses and other herbaceous species including *Themeda australis*, *Poa* spp., *Austrostipa* spp., *Austrodanthonia* spp., *Leptorhynchus squamatus*, *Chrysocephalum apiculatum*, and *Asperula conferta*. There are many more familiar species that characterise this community, including 44 threatened flora and fauna species.

This woodland community mainly occurs on valley floors, margins of frost hollows, foot slopes and undulating terrain approximately between 600 and 1400m in altitude. It occurs on a variety of substrates including granite, basalt, metasediments and Quaternary alluvium. Snow gum woodland occurs as a part of a mosaic of native vegetation communities including swamps, bogs, wetlands, grasslands and sclerophyll forests. For those familiar with David Keith's NSW native vegetation classification (found in his book *Ocean Shores to Desert Dunes*), *Tablelands Frost Hollow Grassy Woodlands* falls within the general formation of *Grassy Woodlands* and the vegetation class of *Subalpine*



Snow gum woodland, as Garuwanga NSW, now covered by the preliminary determination.

Woodlands and Tableland Clay Grassy Woodlands.

The woodlands are extensive and are found within the South Eastern Highlands, Sydney Basin, South East Corner, and NSW South Western Slopes Bioregions.

Tablelands Frost Hollow Grassy Woodlands occupies a total estimated extent of 14,100ha which is estimated to be a 72 per cent decline in area since European settlement. Less than 4,000ha is currently represented in conservation reserves in NSW. Clearing for agriculture has fragmented the community and in the Lake Bathurst region no current patch exceeds 60 ha and 70 per cent of patches are smaller than 20 ha.

The Scientific Committee notes that this community intergrades with a number of other threatened ecological communities such as box woodland, natural temperate grassland and montane peatlands and swamps.

The Scientific Committee has listed the threats to these woodlands. These include climate change, clearing, fragmentation, fertilizer application, tree dieback, trampling and grazing by domestic stock, weed invasion and altered fire regimes. It states that "these threats are escalating due to the intensification of agriculture, pine plantations, and residential development in southern NSW".

This determination does not include sub-alpine snow gum woodlands dominated by *Eucalyptus pauciflora* subsp. *niphophila*, *E. pauciflora* subsp. *debeuzevillei*, and *E. lacrimans*.

Swamp foxtail grass - an attractive native with some disreputable relations

Michael Bedingfield



Swamp foxtail grass is a beautiful native with a large, feathery, cylindrical, maroon-purple coloured flower-head. This is 10 to 15 cm long, and turns to an ochre or light brown colour when mature, and hence we get the foxtail part to its name. It prefers to grow in places with above average moisture, such as the edges of creeks and in drainage lines, and with full sun. It is perennial, has a stout tussock, and grows up to about a metre high. The botanical name is *Pennisetum alopecuroides* and it has some relatives in this genus which can be troublesome, and have been declared noxious weeds.

African fountain grass (*P. setaceum*) is a declared noxious weed in NSW, and is prohibited for sale in the ACT, but has recently been discovered growing here. In 2009 ACT Parks, Conservation and Lands (PC&L) issued a weed alert concerning it. It is very similar to swamp foxtail grass, but its plume-like flower heads have a paler colour, being purplish-cream, and tend to have a more drooping habit. It also grows to about a metre tall, but is drought tolerant and thrives in warm, dry areas. The concern by authorities is that

it is highly invasive, and it could compete with native grasses and other plants, and become yet another problem weed in our nature reserves.

Last summer I found a specimen of African fountain grass growing on the edge of Banks in Tuggeranong. It was on a very dry slope and I was immediately suspicious. I removed the plant and took part of it to be positively identified by staff at the Australian National Botanic Gardens. My suspicions were confirmed, so I contacted Jenny Conolly, who is a park ranger for PC&L and their Weeds Officer. She came out to the location where I gave her the remainder of the plant, so she could check it and later destroy it. She also took a GPS reading to identify the location for future reference, and explained her intention to monitor the area for new occurrences of the plant.

Another similar looking grass is feathertop or white fox-tail (*P. villosum*) which has a whitish flower-head. It is also invasive and has been declared a noxious weed in some parts of Australia. Both of these exotic grasses are popular in landscaping and gardening in parts of the world, and images of them can be easily found by doing a "Google" on the internet.

Swamp foxtail grass can be found growing in the Murrumbidgee River corridor between Point Hut Crossing and Pine Island, next to creeks which drain into the river. It is widely distributed, occurring naturally from SE Asia down into the eastern states of Australia. It has also been introduced to all other states. It occurs in all parts of NSW except the Northern and Central Western Plains, but mainly in the east. The wild patches of this grass I have observed in southern Tuggeranong seem to behave quite well, where they are restricted to some damp places and don't seem to spread. However, it is a problem elsewhere, particularly in places where it is not native, and expert opinion suggests that it can spread rapidly in damp conditions. It is not a plant to be cultivated for gardening or landscaping purposes. It is used in gardens in other parts of the world, and the cultivated varieties look slightly different to the local wild specimens.

In the framed drawing, I have shown the local wild plant at reduced size, with a seed shown at about half size, and a seed-head shown separately. Swamp foxtail grass - another interesting chapter in the saga of our complex grassy ecosystems.



SWAMP FOXTAIL GRASS *Pennisetum alopecuroides* (Height - 1 metre) Michael BEDINGFIELD, 1995

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 7). 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.