**Friends of Mount Majura (FoMM) 2008/2009 report**

I just read the article "Restoring weed-invaded woodlands: the importance of Kangaroo grass" published in the Austral Bugle, Newsletter of the Southern Tableland (Vol 2, Issue 1, Winter 2009). The authors, Suzanne Prober (CSIRO Sustainable Ecosystems) and Ian Lund (Institute for Land, Water and Society, Charles Sturt University) found that reducing high soil nitrate levels, which favour weed growth, is the key to restore the natural resistance of grassy ecosystems to weed invasion. They show in addition that the reduction of nitrate levels - in other words creating an environment that is unfavourable to weeds - can be achieved by establishing a healthy sward of Kangaroo grass. The big question is: how do you establish Kangaroo grass when every seedling that pops up is immediately grazed by abundant rabbits and kangaroos?

In the past years FoMM undertook a number of projects aimed to restore native understorey at degraded weed-infested or actively eroding sites, for instance, the rehabilitation of an old stock camp at the Mt Majura ridge or the control of erosion uphill of the Majura dams as part of Project "Dragonfly". However, our efforts to establish native grass cover failed, no matter how well we prepared the sites and whether we planted tube stock or broadcasted seeds. We observed germination at a number of sites, but the grass seedlings subsequently disappeared and we never observed flower or seed set, unless we kept the grass plants covered with guards. On the other hand, direct seeding of non-grass species such as New Holland daisies (*Vittadinia sp*) achieved spectacular results. We concluded that the failure to establish a native grass understorey is due to overgrazing by overabundant rabbits, hares and Eastern grey kangaroos, and not by lack of rainfall. A closer look around in the reserve revealed a concerning lack of recruitment of many native species including of colonizers such as *Cassinia longifolia*. At a tree hollow survey conducted in an area with mature hollow-bearing trees we found virtually no tree seedlings and young trees. If this trend continues we will lose the hollow-dependant fauna species, such as the Gang-gang cockatoos that currently breed at the survey site.

Based on these and similar observations, we decided to give highest priority to the control of overgrazing. We believe that without reducing the impact of vertebrate herbivore grazing, our attempts to remove weeds, address erosion and assist the re-establishment of local native plant species are in vain, unsustainable and a waste of time and of resources. From this realization, the rabbit mapping project was born (see report by Margaret Clough) and our discussions from then on revolved around educating the public on the impact of overgrazing on biodiversity and other conservation values such as soil and functioning ecosystems. We developed a proposal that we named *Explaining Change in the Mount Majura Nature Reserve*. This project aims to increase the understanding of factors, such as climatic and grazing, that affect the diversity and abundance of the ground cover layer in our nature reserves. The plan is to exclude small plots of land from kangaroo and rabbit grazing and to monitor and document the effect this has on ground vegetation over a number of years. We are pleased that the project has attracted a 2009/2010 ACT Environment grant and we are grateful for the support from PCL, the Molonglo Catchment Group and local community associations.

In the past year the relationship with our neighbouring ParkCare groups, the Mount Ainslie Weeders and the Watson Woodland Working Group has flourished. We teamed up to tackle herbaceous and woody weeds, to conduct the large scale project of mapping rabbit warrens, to hold our first bush clean up at Clean-up Australia Day in March 2009 and to run two major planting events at the National Tree Days in the winter of 2008 and 2009. The planting events turned out to be very popular, each attracting over 140 participants, in addition to media attention and the support from local communities and from politicians; a report and picture album of the 2009 planting event is published on our website at www.majura.org. In both years, ADFA cadets volunteered to dig the planting holes prior to the events and the Majura Mountain Scouts and the Rotary Club of Canberra North rewarded participants with a BBQ. Local schools joined in to help with watering and planting at National Tree School Day. The result of this combined effort is the planting of 850 local

trees and shrubs at two cleared and degraded areas within the endangered grassy woodlands of Mt Ainslie and Mt Majura.

By working together, our three ParkCare groups greatly benefit from sharing skills, experience and equipment. In the past year we purchased a number of knapsacks and GPS units with funds received from the North Canberra Community Council. The use of this equipment increases the efficiency of weed control and enables us to map conservation-relevant items such as rabbit warrens or serrated tussock.

The well-structured and diverse vegetation of drainage lines and gullies of Mt Majura provide important wildlife habitat. However, the lower parts close to suburban backyards have become overgrown with woody and other weeds. In autumn 2004 we started to remove a huge amount of woody weeds at the lowest part of a major drainage line close to the Hackett reservoir and in the following year we replanted the weeded site with local ground-cover plants and shrubs. Every year since, we've removed more weeds and subsequently replaced them with natives. Finally this year, we extended the planting to the upper-most part of the project site. For the first time, we added a large number of *Bursaria* to our plantings. We collected the seeds from a few remnant shrubs scattered along the drainage line. We also planted a small number of Scribbly gum and Yellow box seedlings at a cleared slope behind the reservoir, as we did last year. I call this project our *west slope challenge* and when you see the steep and rocky site, you know why. We know that our weeding and replanting efforts will be only successful and sustainable when the rabbit numbers can be kept low.

In the past year I was approached by teachers of local schools who wanted to be involved in conservation work on Mt Majura. Students and teachers of the Hackett Blue Gum School have adopted a degraded site with three large Yellow box trees. They remove weeds, plant local understorey and learn about the precious woodland, its inhabitants and the processes that threaten its integrity. The students learn to see and interpret and have worked on a small exhibition of their work for a noticeboard situated close to the adopted site. Several schools engage with us on a one-off basis and currently we are planning two workouts in November with up to 50 students of the Marist College. We will tackle woody weeds on one day and map rabbit warrens as part of the follow-up control program on a second day. Again, it pays off to work together as we now have a sufficient number of Chemcert qualified volunteers and experienced GPS trained mappers to assist the large number of students.

In November 2008, Jerry Olson of the Canberra University concluded our "Hilltop to Backfence" lecture series with a fantastic talk on Southern Boobook Owls. The lecture series was part of FoMM's campaign to increase public awareness of local environmental and conservation issues. According to the feed-back from participants and with an average participation rate of 42 the lecture series was a great success and I think the lectures hit the right balance between conservation, natural history, biodiversity and science. Many people have asked for a continuation of the talks and I'd be tempted if I only had more time.

A set-back in the past year was the discovery of a small amount of bonded asbestos in the form of old construction material on one of our major planting sites. We were informed that the contamination was classified as low risk. However, this meant that we could not attend to the site to look after our seedlings. Consequently, a number of the young plants that lost their guards succumbed to rabbit grazing. In the mean time, PCL contractors carried out remedial work and we have now resumed work such as replacing gurads, mulching and spraying weeds.

At the beginning of August 2008, the Conservator for Flora and Fauna informed FoMM in writing that a part of the Majura horse grazing paddocks will be returned to nature reserve. The area contains a large number of hollow-bearing trees and is a known breeding habitat for Gang-gang cockatoos. FoMM had been lobbying Government for years to include the area into nature reserve. In May 2008, we learned that the area had in fact previously been nature reserve and had been changed to horse paddock by a variation of the Territory Plan that was enacted in 2002. This change was based on the advice by ACT Environment that the land contained no valuable tree habitat, but

suitable pasture for grazing. Both assessments are utterly and outrageously wrong. Since the time we received the letter from the Conservator we have not heard of any progress regarding the return. After more than a year of inaction we think that we have to kick into action again.

In the financial year 2008/2009, volunteers spent over 4100 hours caring for the assets of our nature reserves. This includes hours spent at a number of working bees jointly held with the Mount Ainslie Weeders at the old Ainslie tip site. We organised 5 expert guided walks, 6 talks, and 26 working parties to control weeds, collect seeds, clean up the bushland, and plant and maintain seedlings. Six working parties involved schools, four involved ADFA cadets, one Conservation Volunteers Australia and one the participants of the Canberra Rat Race.

As usual, some of us worked in their own time on various projects. Volunteers spent over 380 hours mapping rabbit warrens and processing the collected data. We continued to control and map Serrated tussock in the nature reserve. Realizing that collecting and processing spatial data adds much value to conservation work, I proposed and outlined a workshop on the use of GPS and mapping tools for members of Land- and ParkCare groups. I also suggested the purchase GPS units for volunteers.

We lodged a submission on the draft EIS for the Majura Parkway proposal, and liaised with Parks, Conservation and Lands on the repair of Casuarina trail at Mt Majura, which will be officially launched at the beginning of October. Our small exhibitions on biodiversity for the notice boards located in the Mt Ainslie and Mt Majura nature reserves are well received by the public. Interested people can subscribe to our mailing list and will receive a monthly newsletter, updates on events and other news. We write regular contributions for the local Hackett Neighbourhood Watch newsletter and produce posters for the nature park entrances to inform the public on events. To my regret, administration, including maintaining our website, takes more and more time - time which I'd rather like to spend working in the field.

I have to thank many people and organisations for their continuous support. First of all I'd like to thank all our volunteers for their time. We owe a great deal to the Molonglo Catchment Group and its coordinator Andy Westcott and to the North Canberra Community Council. Thank you to the Hackett Community Association and the Hackett Neighbourhood Watch for help. I'm particularly grateful to Greening Australia and their staff for their outstanding support and for being responsive to our short notice requests. Without our rangers and our community program officer Sally McIntosh we would have not achieved the results we have. Many thanks.

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