



ANPC Conference

AABR walks and talks

Wolli Creek Regional Park

Led by: Paul Ibbetson, DECC This is a joint event with the Wolli Creek Preservation Society, the Department of Environment and Climate Change and AABR

When: Wednesday April 23 1:00-3:00

Where: Meet Corner of Hartill-Law Avenue and Bray Avenue, Earlwood. (a short walk from Bardwell Park station).

What: Wolli Creek flows from Beverly Hills to Botany Bay through heavily urbanised areas. Some remnant vegetation remains along parts of the lower section and is regionally significant as a wildlife corridor. It has survived plans to put it under a freeway and decades of neglect. The site visit will look at some of the many issues facing the Park including weed invasion, stormwater and landscaping and look at what has been achieved in bringing back the bush.

Cost: free

Bring: closed shoes, hat, water, raincoat, jumper

RSVP: Paul Ibbetson, 02 9337 7023, 0438 274 749, ibb56@yahoo.com.au

Honeysuckle Reserve

Led by: Jason Salmon, Sutherland Shire Council

When: Friday June 13 1:00-3:00

Where: Honeysuckle Reserve, Wiak Rd Jannali

What: Highlighting the problems of a small reserve with a bird population and clearing of weeds for regeneration without overclearing. A local bird enthusiast, Steve Anyon-Smith will be there to pass on his valuable knowledge of local birds and ecosystems.

Cost: free

Bring: closed shoes, hat, water, raincoat, jumper

RSVP: Jason Salmon, Sutherland Shire Bushcare
02 9524 5672 0414 193 874 jsalmon@ssc.nsw.gov.au

Sandstone outcrops at Undercliff, overlooking Wolli Creek. By Virginia Bear, from Missing Jigsaw Pieces The Bushplants of the Cooks River Valley

... and don't forget the Australian Network for Plant Conservation Conference:

Our declining flora - tackling the threats

A stimulating program,, bringing together plant conservation practitioners from around Australia and New Zealand, with presentations, field trips, workshops, posters, social events

April 21-24

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www.anpc.asn.au

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President's Perspective

Hi Folks,

I recently had it proclaimed to me by a very experienced (and frustrated) bush regenerator and Bushcare volunteer that bush regeneration is now a dirty word and that the Bradley method is dead! Now I gather that debate in these circles has been going on far longer than my time in the industry (14 years this year) and I'm not going to get involved with semantics and strict definitions. However while I'd say that methods and techniques have changed and evolved, I am definitely one to disagree with these statements. The volunteer was referring to an apparent prevalence of the spray, mulch and plant projects which are often favoured by those with more of a landscape architecture approach to natural area management. I call it the Backyard Blitz approach – an impatient response to an apparently overwhelming problem of weeds and bushland degradation with the philosophy of "if we don't do anything now it's all over in 5/10/20 years". Throw enough people and resources at something over a short period of time and "there you go, all fixed!" Except, it's usually not, especially a year or two down the track when the maintenance funds are drying up and the weeds are still threatening.

The answer to this is something I see as the universal principle of bush regeneration and environmental weed control. It's simple – work from good to bad. It's the common sense approach that the Bradley sisters understood and taught. This is not to say you necessarily just work in the areas with more native vegetation and less weeds instead of more degraded areas, but that these better areas get the priority attention. Meanwhile the more degraded areas aren't left totally alone but are worked enough to try and contain their spread somewhat and, more importantly, that some work is undertaken to alleviate the negative impacts on any surviving native vegetation in that area, such as canopy protection (a form of "triage" as a colleague recently put it). I refer to it as a universal principle as it works across many scales, whether in a 5x5m patch of native grasses, groundcovers and regenerating seedlings immersed in weeds, or across an entire site, catchment, region or state.

The recent Bitou Bush Threat Abatement Program took this approach without having come from a bush regeneration background, whether they knew it or not. For a weed spread across the east coast from the NSW south coast up into Queensland the basic plan was to work around the edges, with some priority projects in high conservation and biodiversity value areas. Hence we have projects such as the Southern Containment line near Batemans Bay which is pushing the southern extent northwards, and funding for much needed follow up on all sites to deal with what comes up afterwards. Good to bad and a bit of triage! The National Lantana Plan currently under development is taking the same approach on a national scale, and this strategy is garnering much interest from weed controlling folk around the world.

The other point I'd make here is that while bush regenerators do a lot of weeding (I know – A LOT of weeding!) what we're about is protecting and recovering native vegetation and biodiversity, not just getting rid of the weeds per say. It's a slight change of focus but one easily misunderstood in this busy modern world where it's all go, go and go. The bottom line – I don't think the Bradley method is dead, just a bit modified perhaps – the basic principles live on and whether you call yourself a Bradley Regener, or you revel in techniques the Bradley sisters never used - if you are working mostly from "good to bad", and have the patience to give natural or assisted regeneration a chance before rushing in to plant, then you're a bush regenerator to me. And bush regeneration isn't a dirty word, we just get dirty!

In August next year the Society for Ecological Restoration International is holding their world conference in Perth. We're planning to hold a supplementary 2 day conference here in Sydney around the same time, with the hope of attracting some of the speakers to the east coast. We've put together a steering committee with representatives from different sections of the industry but we would welcome as much support from interested parties as possible. We're keen to attract sponsorship to help subsidise the costs and keep the price down so that we can make it more affordable to the average bush regenerator. We've got over a year to get organised so if you would like to assist in any way please contact me.

And a last, quick good news bite. Some of you may have heard that Ku-ring-gai Council recently purchased a block of private land that is part of the largest remnant of Blue Gum High Forest left in the world (at St Ives in northern Sydney where we held a field day in 2005). Well done to all involved. The Blue Gum High Forest working group worked incredibly hard to have this land included in the reserve system. This should give heart to everyone fighting for their local biodiversity, and if you're in a similar situation somewhere then remember – it can happen! Good luck and good work to you all.

Cheers

Matt

Welcome
to new members

Mick Marr
John May

We are growing!
33 new members
joined us in 2007 -
the most in 15 years

Environmental restoration conference proceedings available

A valuable collection of regen information, with particular reference to Northern New South Wales and South East Queensland region is now easily accessible online at www.envite.org.au.

Look for the proceedings of Environmental Restoration Conference, Past Present and Future, held in May 2006 in Ballina, and hosted by Environmental Training and Employment Inc (EnvITE NSW)

Time is running out for Weeds CRC

The national weed organisation Weeds CRC (Weeds Cooperative Research Centre) is set to close at the end of June 2008. It was notified in November 2006 that its application for funding for a third, seven year term, was unsuccessful. The organisation was to become the Invasive Plants CRC however the then Federal Dept. of Education, Science and Training, determined the proposal did not meet the selection criteria on delivering returns to taxpayers, scientific capabilities and capacity to commercialise research results and secure their uptake.

Please go to the website below for further information and how to help. They suggest people contact their local Federal member and also give contact details for relevant ministers and shadow ministers.

www.weeds.crc.org.au

From the (AABRWA) newsletter March 2008

Plant species name changes

Some of these are not recent, but old names appear to be lingering:

- *Araujia hortorum* now *Araujia sericifera*
- *Olea europaea* subsp. *africana* now *Olea europaea* subsp. *cuspidata*
- *Omalanthus nutans* and *Omalanthus populifolius* both now *Homalanthus populifolius*
- *Rapanea variabilis* now *Myrsine variabilis*
- *Trema aspera* now *Trema tomentosa*

For those in NSW, you can check the latest names on the website of the National Herbarium of NSW (i.e. Royal Botanic Gardens Sydney) at plantnet.rbgsyd.nsw.gov.au

If you know of more recent changes, email newsletter@aabr.org.au and we'll publish them.

EMR journal to facilitate Australasian restoration reporting through the Global Restoration Network

In August 2009, the International Congress for Ecology INTECOL and Society for Ecological Restoration International (SERI) conferences are being held in Brisbane and Perth respectively. To take advantage of the potential of these conferences to improve the flow of information about ecological restoration both internationally and regionally, ESA's management-oriented journal Ecological Management & Restoration (EMR) is hosting a working group to facilitate the reporting of Australasian ecological restoration cases on SERI's Global Restoration Network (GRN) website by early 2009 (See www.globalrestorationnetwork.org/).

The journal's Chair, Jann Williams, and its Editor, Tein McDonald, believe that the project will raise the profile of restoration among Australian managers and researchers, assist regional information exchange and provide a 'window' onto Australasian restoration for interested people around the globe.

EMR also hopes that the project will facilitate links to potential feature authors for EMR – as selected features will be compiled into a 'virtual issue' of EMR to be published by the date of the conferences in 2009.

The Working Group will be preparing criteria for selection of projects to nominate for linking to the GRN website and will commence the facilitation process by mid 2008.

Any interested AABR person who would like to enquire about the project or suggest outstanding projects for consideration is welcome to talk to Tein McDonald (02 6682 2885 or teinm@ozemail.com.au).

Tein McDonald and Larelle McMillan
November 18th 2007

New AABR Sub-committee in NSW Hunter Region

The Hunter Sub committee has recently held its inaugural meeting.

Yes folks we are up and running. Hoping to promote good bushland management in the region, provide a forum for regenerators to share ideas and raise the local profile of AABR.

We plan a picnic open day in the near future and welcome any interested individuals to join us.

Contacts: Trisha Barker - 0423 490 757
Mark Evans - 0427 859 714



Bush Regen Holidays

The terrible conditions you will be working in.

Invitation to Arakoon

South West Rocks Dune Care, have undertaken to control some major invasive weeds, mainly Bitou, Lantana, Passion Vine and Senna over an extensive area in Hat Head National Park. We have been working on the project for many years and in the last couple of years we have received some grants. The grants have enabled us to employ contractors to assist us in some of the very heavy infestations and areas that are difficult for us to access. We have had marked success over a large part of the area we have targeted, however it would be great if we could get a hand doing some of the follow-up work and consolidating what has already been achieved. We are co-ordinating our efforts with National Parks, and their ranger Cath Ireland.

2007 has been a very productive year for us. We received two grants this year totaling \$46,000.00, in recognition for the success we have achieved to date. The bulk of this money will be used to employ contractors to continue the excellent work they have done so far. More importantly, volunteers have contributed over 2000 volunteer hours in the 2007-08 calendar year! Which is fantastic!

So our offer to anyone, or group of people, who may be interested in helping us, is free accommodation at Historic Arakoon House in exchange for bush regeneration (usually 4-5 hours per day, but longer if you like!).

As a background, Arakoon House was built as a guest house in 1886, and has now been converted to four self contained apartments. Each apartment has 2 bedrooms, one with a double/queen and the other with 2-3 single beds. It is located in walking distance of the beaches and Trial Bay Gaol. The only things people would need to bring are linen, towels and food (although in the past few years NPWS has provided some of the food basics). South West Rocks township is about two km away from Arakoon House. The town has several supermarkets, restaurants, a pub and a tavern. Some beautiful surfing and swimming beaches are in easy walking distance from the house, others are easily accessible by car.

There are a range of work sites we can offer this year from dramatic coastal areas to relatively flat and easily accessible sand dunes, rainforest to banksia woodlands. There will be something for everyone, whatever your fitness levels!



Could you really stay here?

So the offer is that we will make all four units at Arakoon House available between the end of March to the end of September 2008 for groups of up to 16 (larger groups may be possible but we would need to discuss it first). Individuals and couples are of course welcome, however we will try to group the bookings to the following dates so we can better co-ordinate our support. At this stage we have set aside the following dates, the first Sunday for each week listed coincides with our regular Sunday dune Care workdays.

- 19th April to 26th April 2008
- 17th May to 25 th May 2008 (already heavily booked by the group from McMasters Beach, but I think there are still a few places left)
- 14th June to 21st June 2008
- 19th July to 26th July 2008
- 16th August 23 August 2008
- 20th Sept To 27th Sept 2008

Other dates may be possible, so contact me if you can't make these dates.

If you are interested, could you let me know as soon as possible so we can book the units and plan for any support which may be required from NPWS.

Please contact me, so that I can arrange bookings.

Regards and thanks

Alan Hill

hillyuille@bigpond.com
02 99976973 (Sydney, with answer phone)
0419012640 (mobile)
 or **0265667013 (Arakoon,**



Want to join the next Korinderie Ridge regen week?

Bookings are now open for the Korinderie Ridge community's 5th annual bush regen volunteers camp (Aug 4-8, 2008).

The idea is that, in exchange for some not-too-strenuous pulling of scattered Lantana for about 3 hours each morning (over 5 days), the host Korinderie Ridge community provides delicious meals and great campsites, as well as guiding short bushwalks each afternoon in interesting local areas including the (adjacent) Bundjalung National Park. (Volunteers will need to bring their own tent, sleeping mat and sleeping bag etc.)

Last year, for the fourth Korinderie regen week, 13 visitors camped at Korinderie, joining 6 resident volunteers working on lantana scattered through Korinderie's sclerophyll forest landscape. All up, about 12 Korinderie volunteers were involved in physical support, especially cooking, cleaning and shopping.

A great time was had by all, knowing that the Lantana efforts were a key to conserving these otherwise pristine grassy open forests. The atmosphere was similar to previous years – with the volunteers enjoying discovering the beauty of the bush and its rocky creeks and making it fun for all by pitching in with helping chop up lunch and wash up after meals. Many friendships were formed or strengthened (as over half were returnees) and many indicated an interest in returning next year.

Enquiries: Tein or Graeme 02 6682 2885

Above: Regenerators Tim Stephen, Len Stanley and Sue Kitchen tucking in on Thai curry night, with resident chef's assistant Jo Kijas in the background

Left: David Meggitt, repeat offender at Korinderie, displaying large Lantana Root he managed to pull out



Lismore's 'Crematorium bushland'

While substantial patches of Kangaroo Grass were present at the cleared edges of this small remnant, the healthy condition of the understorey was hard to imagine as it was so dominated by Lantana and Camphor Laurel. That is, until some radical Lantana and Camphor clearing took place and the site has been consistently treated for weed. What has been revealed now, is that the remnant has a highly diverse and now surprisingly healthy grassy understorey.

Tucked behind the Lismore Memorial Gardens and crematorium, in the basalt soil ranges overlooking Lismore in northern NSW, lies a small remnant Forest Red Gum open woodland which has intrigued me since I first assessed the site with a group of students from Wollongbar TAFE in 2001. The students and I found the bushland to contain zones of condition ranging from healthy, through intermediate condition to low condition, largely due to weed and fire-exclusion. Despite this (and previous partial clearing for horses many decades earlier) tree cover was good and the soil profile intact; suggesting substantial regeneration potential.

While we could see that the tree layer was made up of Forest Red Gum, Bloodwood, Tallowwood, Brush Box and the occasional Coast Banksia, we were unsure whether the understorey would be shrubby, grassy – or even mesic as the site is not far from rainforest areas occurs in a high fertility, high rainfall zone. An assessment and set of recommendations for rehabilitating these areas was undertaken by TAFE bush regeneration students, with the support of Crematorium management and the completed plan was passed on to Crematorium management. The response at the time was that no funding was be available to undertake rehabilitation works but that a community group would be welcome to initiate such works should resources be available.

The land is zoned for cemetery uses and in 2006 it emerged that Council was seeking areas for future

cemetery extension. Because the site is mapped as Primary Habitat in Council's SEPP 44 Plan of Management (on the basis of the koala food trees present and the use of the site by Koalas) a survey of the site was undertaken. To facilitate the survey, the Lantana was mechanically cleared using a front-end loader. As all regenerators know, such extensive clearing triggers enormous weed response – and this site was no exception. Extensive areas became dominated by weed including Blue Billygoat Weed, Farmers Friends, Fat Head and many others, but between these weeds were also many native grasses and forbs.

Discussions with site management led to an informal agreement that, while a feasibility study for the development of a bushland cemetery proceeded, TAFE students would maintain the site, supported by volunteers. Since mid 2006, TAFE has taken natural area restoration students to the site to gain experience in plant recognition and grassland regeneration techniques, as well as Camphor Laurel stem injection. Supported by the volunteer group, treatments have been regular, after each major rainfall event.

As a result, the treatments have managed to consolidate what have turned out to be three major grassland (remnant) patches set within more degraded edges that are now converting to native colonizers. (See photos). Native species include 18 grasses and sedges and 30 forbs, which is a high number for such a small area (about 1.5 ha). The site is now a pleasure to be in and is a wonderful demonstration site for not only restoration techniques but also the district's grassy understorey species, once so widespread but now rarely conserved (because soils on which this vegetation grows have been highly sought after for agriculture initially and later for flood free residential development).

The challenges of maintaining the site over an extraordinarily wet summer in northern NSW have been difficult, particularly as the site depends on herbicide

spraying, given such a large area was cleared 'all at once'. It is not easy to find regenerators skilled (and qualified) in chemical use who have time to do voluntary work on weekends and so many of our volunteers are students, gaining extra experience. Given the choice, however, I'd give the thumbs up to the technique of mechanical clearing of Lantana in grassy areas, given the regeneration results are so

good. However, our experiences show that vehicular entry needs to be minimized (to avoid compaction) and sufficient follow up resources must be available to meet the needs of the regenerating plant community.

Potential volunteers are welcome to phone Tein McDonald on 06 6682 2885 or email teinm@ozemail.com.au

Tein McDonald

Over page: Typical herbaceous response prior to selective spraying after the first and second mechanical clearing of Lantana (As many native species are adapted to disturbance, mechanical clearing is not fatal to the persistence of bushland if the site is followed up by skilled bushland weed operators)

Top right: Old growth Eucalypt after initial clearing in Oct 2006

Bottom right: Same view in 2008, after 14 months of comprehensive and systematic treatment of weed.





Some germination after original windrowing of Lantana - May 2006



Same view nearly 2 years later. This particular site was the barest and yet regenerated with the highest number of native species.

Biodiversity research

Extracts from the newsletter of the NSW Biodiversity Research Network January 08

Web2Spider- a New Tool for Monitoring Biodiversity

By Rebecca Hancock

A team at the Australian Museum has developed a cost-effective, user-friendly method of assessing the effectiveness of habitat restoration using spider webs as an indicator of invertebrate biodiversity. Invertebrates provide a good indicator of overall biodiversity since they represent the majority of terrestrial biodiversity and are fundamental to ecosystem function.

Web2Spider, the flagship product of BugWise, is a joint project between the Australian Museum, Coal and Allied Community Trust and NSW Environmental Trust. It is a biodiversity monitoring tool that does not require high levels of expertise or costly equipment to use. The BugWise team is conducting a number of workshops in NSW to train people in the use of Web2Spider and increase community awareness of the importance of invertebrates. The next workshop is on 19th January 2008 in Nowra. The team is also looking to recruit land managers and other groups interested in engaging volunteers to apply the methodology in the Upper Hunter. Contact John Gollan (john.gollan@austrmus.gov.au) or visit the website (www.bugwise.net.au) for more details.

How Much Habitat and What Configuration Maintain Natural Levels of Connectivity for Southeast Australian Native Birds?

By Paul Sunnucks. Awardees: Paul Sunnucks (Monash Uni), Jim Radford (Deakin U), Jane Meville (Museum of Victoria), Graeme Newell (Arthur Rylah Inst.), Leo Joseph. Partners: Dept. Sustainability & Env, Museum Vic, Dept Primary Ind., Parks Vic, North Central and Goulburn CMAs.

In fragmented landscapes, wildlife must move between habitat patches to exchange genes, supplement declining populations and recolonise vacant habitat. The realised movement of individuals (functional connectivity) may not correspond with the physical continuity of habitat as is often assumed. Building on the work of Jim Radford, Andrew Bennett and others in their 'How much habitat is enough?' investigation of bird occupancy of multiple 10 x 10 km 'landscapes', collaborators from several universities and Victorian government departments will use molecular techniques to quantify functional connectivity for selected bird species in agricultural landscapes with different levels of habitat loss and fragmentation. The research will aim to relate effective population sizes and population trajectories to landscape attributes. This information will be used to evaluate restoration scenarios designed to improve ecological sustainability in agricultural landscapes leading to improved conservation strategies. For more information, contact co-Chief investigator, Paul Sunnucks (Monash University: Paul.sunnucks@sci.monash.edu.au). This project is funded by the Australian Research Council and the Partners listed above.

Rock Wallaby Numbers Bouncing Back in Wollemi

Recent surveys by NPWS rangers and volunteers in Wollemi National Park have indicated a population increase in the local colonies of the endangered Brush Tailed Rock Wallaby (*Petrogale penicillata*). The NPWS area Manager Richard Kingswood said that searches have revealed sightings in four areas where wallabies haven't been seen for many years. Kingswood attributes the increase in numbers to the success of an intensive fox baiting program. Foxes in the lower Wolgan Valley are thought to be a major influence in the decline of the species in the area and Kingswood states that the pest animal is now rarely encountered in the lower Wolgan. Neighbouring landholders have supported the expansion of fox baiting in the area and a partnership has developed between the NPWS, Rural Lands Protection Board and a number of landholders to further reduce the risk to wallabies and other wildlife by regular baiting. Read more in the media release at: www3.environment.nsw.gov.au/npws.nsf/Content/dec_media_071207_06

The Importance of Vegetation Remnants on Private Land.

By Gianni W D'Addario

The Friends of Oolong (FOO), a southeastern New South Wales and ACT environmental organisation, are trying to stop the sale of remnant vegetation by promoting the survival and protection of remnants and the links between them. Native vegetation remnants are small pockets of marginal land, of up to a few hundred hectares in size, found mostly on private land. Land clearing traps wildlife within these remnants which, because of their high concentration of endangered flora and fauna, are areas of high nature heritage and conservation value. FOO is lobbying to have small vegetation remnants in the upper Lachlan region recognised as nature reserves in a solution to wilderness management, by the creation of a "Fund for Nature Reserves". The Fund will be used to promote donations towards the purchase of selected habitats and remnants of high heritage and conservation value. To find out more information or donate to FOO see: gianni.pcu.org.au

Restoration of Lake Talbot Wetland

The Murrumbidgee Catchment Management Authority (CMA) has announced a half million dollar project to enhance Lake Talbot wetlands in Narrandera to improve biodiversity, water quality, and fish habitat. Project works include planting of native vegetation and willow control as willows in and around the lake are reducing water flow and water quality. Narrandera Shire Council has agreed to a 10 year maintenance schedule with the Murrumbidgee CMA to ensure the restoration works are maintained. Source: mbc.gov.au/communications/s-cribe/eLetter_menu/e-letter_november_2007

Wildlife Corridors Reconstructed Using Crown Roads in Southern NSW

By Gianni W D'Addario

FOO and Landcare are promoting programs which will produce reforestation and wildlife protection on large tracts of private land cleared for agriculture, with the cooperation of local communities and incentives to landholders. A network of crown roads, which are about 20m wide and in the majority of cases abandoned, provide access to and connect parcels of land within the area. The idea is that Landholders in cooperation with local communities select any vegetation remnants on their properties, choosing the most suitable crown road as links and develop a Landcare project of reforesting the roads and maintaining them as wildlife corridors. This initiative will be known as "The Oolong Challenge" and FOO will try to make available free allocations of endemic seeds and trees to the relevant local communities involved. The supply of seeds from species within Grassy Box Woodlands is a contribution by the Friends of Oolong in support of reforestation of this ecosystem. The Challenge is under the patronage of the Hon. Katrina Hodgkinson MP member for Burrinjuck. For further information about the Challenge and maps of the study area click on the Habitat/Remnants link on the following website: www.pcug.org.au/~gianni

Are Pines our Next Sleeper Weed?

By Moira Williams

Early recognition of plant invaders is critical to their effective management, yet species often receive adequate attention only when already widespread and after control has become difficult and costly. Research at the University of Sydney on the invasion of *Pinus radiata* from plantations into Eucalypt woodland examined the extent of spread across NSW and quantified some of the ecological impacts of invasion. Many areas adjacent to plantations remain free from invasion, but the dense infestations recorded at several sites in areas of high conservation value demand the implementation of adequate control measures. Evidence of factors that facilitate pine wildling establishment, i.e. open, dry forest and a plantation residence time of more than 40 years, contribute to our knowledge on the negative, and positive, impacts of plantations on biodiversity. Generally the patterns of invasion in Australia mirror those in New Zealand and South Africa, two countries where invasive pines are considered major threats to biodiversity. Therefore, measures to minimise the risk of spread should be incorporated into the establishment and management of plantations to avoid an escalation of pine invasion within Australia. A review of pine invasion in Australia was recently published in *Austral Ecology* (2007) 32, 721-739. To get a pdf version of this manuscript and other papers published on the topic email moira.williams@gmail.com. This research was also presented at the EMAPi9 conference in Perth last September. The powerpoint is available online at: www.hear.org/emapi/2007/pdfs/emapi2007williams.pdf

Sustainable Farms: Tree Regeneration and the Future of Farmland Biodiversity.

By Joern Fischer

Joern Fischer and Jenny Stott from the Australian National University have recently started a new Australian Research Council Discovery Project on regional-scale patterns in tree regeneration in the Upper Lachlan catchment. Different livestock grazing regimes will be compared, including both set stocking and rotational grazing, and high and low stocking rates. Future tree cover will be modelled under different management scenarios. On the basis of likely changes in tree cover, possible trends in fauna populations will be assessed. So far, 140 hours of bird surveys have been conducted, and over 3000 trees have been measured on 33 different properties. The project will run until 2010. Further information is available at: cres10.anu.edu.au/~joern/sust_farms/sust_farms.html, http://cres10.anu.edu.au/~joern/sust_farms/07Nov_update.pdf

New Bush Heritage Reserve in Eastern NSW

A generous supporter of Bush Heritage, Louise Sylvan, has donated her 55ha property 'Nameless' to become a Bush Heritage reserve called Nameless Sylvan Reserve. The property is situated on the steep slopes of the Illawarra escarpment approximately 10km north of Berry and close to Barren Grounds Nature Reserve. It protects one of the few remnants of endangered Illawarra Subtropical Rainforest and supports both cool temperate and warm temperate rainforest. Some of the known plant species on the property include the Giant Stinging Tree (*Dendrocnide excelsa*), Red Cedar (*Toona ciliata*), various figs (*Ficus* spp.) and the Brush Bloodwood (*Baloghia inophylla*). Flora and fauna surveys have yet to be conducted but when the Bush Heritage team visited the property they noted Platypus (*Ornithorhynchus anatinus*) and native Water Rats (*Hydromys chrysogaster*) in the pools and many dragon flies and freshwater crayfish. For a full description of the bequeathment, read: www.bushheritage.org.au/newsletters/2007Summer/new_reserve_f.html

Charles Darwin Reserve – Bouncing Back after Goat Control

Charles Darwin Reserve, located to the north-east of Perth, has been impacted heavily in the past by sheep and goats. The animals have caused localised erosion and grazing has caused the loss of many plant species that provide food and habitat for birds and small mammals. In the clay-pan country, researchers have noted an absence of healthy populations of ruby saltbush (*Enchylaena tomentosa*), sandalwood (*Santalum spicatum*) and pixie bush (*Eremophila oldfieldii*). However since the de-stocking of the Reserve and Bush Heritage's commitment to controlling feral goats, researchers have noticed seedlings of many 'palatable' species like saltbush emerging around the clay pans, despite the dry weather. To read more, go to: http://www.bushheritage.org.au/newsletters/2007Summer/land_recovering_f.html

Weed Warriors Hit the North Coast

By Mark Fisher

The NSW DECCs Biodiversity and Conservation Section in Coffs Harbour teamed up with Raleigh Primary School in November to tackle Bitou Bush as part of the NSW Department of Primary Industry's (DPI) Weed Warrior program. This is the first time this program has been implemented on the north coast and the kids loved it. The program utilises a biological control agent, being the leaf roller moth (*Tortrix* sp.) in this case, to help halt the spread of Bitou. Lynn Baker and Mark Fisher together with Bellingen Council introduced the kids to concepts involving biodiversity, threatened species, weeds and survey techniques as part of an educational training session before the kids began to collect food to breed and grow the *Tortrix* sp. This was a great opportunity for the kids to learn about what native species and threats are operating in their surrounding environment and to be involved in practical solutions that introduce scientific concepts. For more information on the project, contact Mark Fisher on Mark.Fisher@environment.nsw.gov.au. See the kids at work in the photo at the end of the Newsletter

Biodiversity on the Farm - Beyond Remnant Vegetation

Selected measures of biodiversity, ie birds, surface invertebrates, vegetation and soil microbial activity, were studied on active farms with varying paddock histories and management strategies. Researchers found that on-farm biodiversity indicators varied significantly with land use. For example bird sightings were recorded in remnant vegetation and perennial pasture; ant species richness was highest in remnant vegetation but beetle species richness was highest in the pastures, while spiders showed no difference over the four land uses. The researchers include Susie Murphy White and Kerry Bridle. For more information, contact Susie Murphy White on smurphywhite@agric.wa.gov.au

Fire Frequency Affects Composition and Diversity of Temperate Grassy Woodlands

An ongoing 12 year study of remnant grassy woodlands in central NSW has studied the effects of fire frequency on the grassy understoreys in cleared and uncleared sites. The researchers found that fire frequency dramatically affects the relative abundance of the dominant grass species (in this case, *Themeda australis* and *Poa sieberiana*) and results suggest that both species have an important function with differing fire regimes. *Themeda australis* was found to be important for imparting resilience to burning, whilst *Poa sieberiana* was important for maintaining sward health with infrequent fire regimes. Effects of fire frequency on diversity and abundance of other woodland species were relatively minor but included declining forb abundance in undisturbed *Themeda* grassland, however the same effect was not found in *Poa* dominated woodland. Researchers also found there was a temporarily enhanced abundance of exotic annuals after fire and differential recruitment of native forbs. The researchers include Suzanne Prober, Kevin Thiele and Ian Lunt. For more information, contact Suzanne Prober on Suzanne.prober@csiro.au

Captive Galaxias Returned to Improved Habitat

Critically endangered native fish removed from Victoria's Alpine country after the 2006-07 bushfires have been returned to their natural habitat after several months in captivity at the Arthur Rylah Institute for Environmental Research. About 450 Barred Galaxias (*Galaxias fuscus*) from seven populations were removed because they faced a serious threat from sediment, ash and reduced oxygen levels, as well as ongoing drought with some streams no longer flowing and some pools completely dried up. There are only 18 known remaining populations of Barred Galaxias in a small area of the very upper reaches of the Goulburn River system, all small in size and isolated from each other. Almost all the captured fish improved in captivity and in October about 70 of them were returned to their habitat near Mount Buller where streamflow and water quality have recovered. Remaining fish will be returned to their creeks when conditions are suitable. For more information, contact Tarmo Raadik at Tarmo.Raadik@dse.vic.gov.au.

Biodiversity in Cotton Landscapes Calendar 2008

Submitted by Jane Macfarlane

Practical tips on ways to manage biodiversity within productive cotton landscapes will be presented in the 2008 "Biodiversity in Cotton Landscapes – Maintaining our Natural Workforce" calendar. The calendar is filled with practical tips on how you can manage biodiversity on cotton farms and within landscapes where cotton is grown. The calendar showcases cotton growers who have taken action to restore rivers and riparian areas and encourage birds and bats onto their farms – illustrating often simple steps can make a big difference. The calendar has been distributed to the cotton industry and in cotton-growing catchments of Queensland and NSW. The calendar is also online on the Cotton Catchment Communities CRC website. Fact sheets providing more information on the management tips featured in the calendar will be available on the Cotton CRC website in January 2008. The project is funded by the Namoi CMA, Greening Australia, Cotton CRC, and the "Extending Natural Resource Management in the Australian Cotton Industry" project (funded by the Department of Agriculture, Fisheries and Forestry through the Sustainable Industries Initiative Program). The project draws on previous and current research supported by Cotton Research and Development Corporation and Cotton CRC, its partners and affiliates. For more information contact Jane Macfarlane Namoi CMA /Cotton CRC on 02 67992417 or visit the Cotton CRC website: www.cottoncrc.org.au

For newsletter subscriptions please email **Suzette.Rodoreda@environment.nsw.gov.au**

Events and Conferences

Date	Title / Details	Venue	Organiser	Contact
Wednesday March 12 1:00-3:00	Walk and Talk Jamison Creek restoration project	Emu Plains, NSW	AABR	Janet Rannard, Penrith City Council 02 4732 8088 0407926386, jrannard@penrithcity.nsw.gov.au.
April 21-24	Australian Network for Plant Conservation Inc (ANPC) 7th National Conference - Our declining flora - tackling the threats. Threatening processes include human factors like land-clearing, fire mismanagement, and poor planning, geophysical ones like climate change, and biological ones like invasive weeds, animals and pathogens. They interact and operate at the smallest of local scales up to landscape level. Tackling threatening processes is essential, whether for local patch preservation, threatened species management or whole-landscape protection. It requires pooling the best available science and practical experience. This conference will bring together scientists, conservation managers and on-ground practitioners to demonstrate and discuss techniques for managing threats, share experience and identify knowledge gaps. Papers, workshops and field trips will present the latest science and case studies from Australia and New Zealand.	Mulgoa NSW	ANPC, Mount Annan Botanic Garden	ANPC GPO Box 1777 Canberra ACT 2601, Australia Ph: 02 6250 9509 Fax: 02 6250 9528 anpc@anpc.asn.au www.anpc.asn.au
Wednesday April 23 1:00-3:00	Walk and Talk Wolli Creek Regional Park	Earlwood, Sydney	Wolli Creek Preservation Society, DECC and AABR	RSVP: Paul Ibbetson, DECC 02 9337 7023 0438 274 749 ibb56@yahoo.com.au
May 18-22	16th Australian Weeds Conference Weed Management in 2008 - Hot Topics in the Tropics.	Cairns Convention Centre QLD		16awc@eventcorp.com.au
June 5	World Environment day			
June 13	Walk and Talk Honeysuckle Reserve	Jannali, Sydney	AABR	Jason Salmon, Sutherland Shire Bushcare 9524 5672 0414 193 874 jsalmon@ssc.nsw.gov.au
July 27	National Tree Day			
September	Biodiversity month. Various community events. Free publications and resources available from DEWR.		Dept of Environment and Water Resources	www.environment.gov.au 1800 803 772
September 3-7	Landcare Week			
September 7	National Threatened Species Day. To raise community awareness about the plight of threatened species in Australia and encourage participation in conservation activities. Exhibitions and festivals, displays, guided walks, workshops etc.			Free information kits from DECC environment@environment.gov.au, or freecall 1800 803 772.
August 2009	Society for Ecological Restoration International (SERI) conference	Brisbane		
August 2009	International Association for Ecology INTECOL conference	Perth		

AABR

was established in 1986 out of concern for the continuing survival and integrity of bushland and its dependent fauna in or near bushland areas, and seeks new members and friends for promoting good work practices in natural areas. The Association's aim is to foster and encourage sound ecological practices of bushland management by qualified people, and to promote the study and practice of Bush Regeneration.

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To keep in touch and be notified about events subscribe to **Bush Regeneration**, or **Bushcare** List Servers and check out **Solutions**, the Bush Regeneration Bulletin Board. See website for details

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AABR Membership	(Open to appropriately qualified & experienced bush regenerators)	\$25:00
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