



# AABR NEWS

Australian Association of Bush Regenerators

*working with natural processes*

## AABR Walks and Talks

**Nº 123**  
**December**  
**2014**

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**Penrhyn Estuary:** Location: Sydney region, south

**Friday 20 February 2015, 4.30 - 6.30pm (low tide)**

Ecological consultants Dr Peggy O'Donnell, Geoff Sainty and Mia Dalby-Ball will lead a tour of this saltmarsh reconstruction area that is part of the Port Botany Expansion. The work to enhance the estuary ecosystem includes weed and mangrove removal, planted saltmarsh, expansion of intertidal sand flats for shorebird feeding, creation of seagrass habitat, construction of a public access area and bird hide and extensive monitoring. Penrhyn Estuary is a small area of intertidal mudflats that represents the last remaining site for shorebirds on the northern side of Botany Bay.

Meet at the new public boat ramp and car park on Foreshore Road, Botany.

**Map:** [http://www.sydneyports.com.au/\\_\\_data/assets/pdf\\_file/0004/5719/PBE\\_-\\_Q\\_and\\_A\\_New\\_boat\\_ramp\\_and\\_facilities\\_Final\\_Oct\\_08.pdf](http://www.sydneyports.com.au/__data/assets/pdf_file/0004/5719/PBE_-_Q_and_A_New_boat_ramp_and_facilities_Final_Oct_08.pdf)



## **Australian Botanic Garden, Mount Annan** **Restoration after control of African Olive** **and PlantBank tour**

**Friday 13 March 2015, 10.00am - 2.30pm**

Dr Peter Cuneo will host a day for ecological restoration practitioners to learn more about the broad scale removal of African Olive, in particular, restoration of cleared 'ground zero' sites where it had been growing as a monoculture for decades. Using a radical approach that involves machinery and direct seeding, areas of previous Cumberland Plain woodland vegetation are starting to regenerate with the establishment of native grasses. The day will also include a 'behind the scenes' tour of the Australian PlantBank facility, which provides valuable expertise for seed conservation and ecological restoration work across Australia.

Cost: \$20.00pp for PlantBank tour

BYO lunch or buy on the day at Melaleuca House café.

Enter off Narellan Road and meet at the main visitors car park.

For further information contact the AABR Secretary: [secretary@aabr.org.au](mailto:secretary@aabr.org.au)

Photos above: John Gollings Photography

# President's Perspective

**Happy new year to all! May 2015 be a great year for all and for AABR!**

**AABR's symposium** held in Sydney on Thurs Nov 13<sup>th</sup> rounded off 2014 well. It ticked all our boxes for a successful event (although we did invite comments back and gained some good suggestions on how to make it even better next time)! The attendance was over 230 people (which is great considering it was in the same city and held on the same day as the World Parks Congress) and the venue and speakers were all excellent.

**Symposium talks already on the website.** Keen observers of AABR news bulletins will probably already be aware that videos of two of the symposium's keynote presentations are already on the AABR website, with others coming soon. This web-based platform is proving popular and is a great way for people to see and hear the actual talks (with the Powerpoint slides integrated into the videos) even if they could not attend the event itself. (Think of the potential for this sort of thing...e.g. the carbon emissions that could be reduced if people stopped flying all around the world for conferences!)

The event was followed by **AABR's AGM** which saw the addition of 4 new committee members – so we are moving along with our aim to involve more people, particularly younger people, in the running of AABR!

AABR's full range of other work continues in 2015 (see the list of AABR's achievements for 2014 on page 3, and imagine the

same again!) Additional initiatives for the coming year are that two AABR delegates will participate in the invitation-only **SERA standards workshop**—and a trip by assessors is being planned to **carry out accreditation assessments** in Queensland.

This reminds me to give a plug to the paying of **accreditation dues**. While there is some leeway in our first year of charging accreditation fees, it is really important that each accredited bush regenerator remembers to pay their \$30 annual accreditation dues. (Yes, sorry, this is on top of the membership fee.) The \$60 total is not a lot for someone earning a wage or working as a regenerator. However, if you don't have a wage and your regen work is mostly voluntary, you are entitled to the concession of \$15 (total \$30). The benefit to be gained from this is that you will be maintaining the accreditation system, which is AABR's major activity. We have over 10 assessors and 7 committee members who put lots of voluntary time into this work including attending weekend assessments which take up to 4 hours each. But there are costs including transport (particularly to Qld) and the growing demand for AABR accreditation means we are probably going to have to pay for someone to do some paid coordination hours. So your \$30 or \$15 does really count toward covering these costs and building AABR into a stronger and more relevant organisation to promote and uphold high standards for bush regeneration in the decades to come.

Note also that a **'Meeting at the Pub'** is coming up on 5th February at 6pm at the Agincourt Hotel (opp. Central, cnr Harris St and Broadway, Sydney). AABR has booked the small bar and bistro area upstairs so this will be a fun affair and will be a great chance for members who live in Sydney to socialise and have a bit of a chin wag.

Tein McDonald

President

## AABR COMMITTEE MEMBERS 2014-15

### Members of the AABR committee elected at the November 2014 Annual General Meeting are

Tein McDonald (President)  
Jane Gye (Secretary)  
Heather Stolle (Mail/Public Officer)  
Suzanne Pritchard (Minutes Secretary)  
Kirsten Vine (Co-Treasurer)  
Spencer Shaw (Facebook)  
Elisabeth Dark, Scott Meier, Kate Low  
Mark Cachia, Melanie Ledgett, Tim Baker

### Accreditation Subcommittee:

Danny, Tein, Scott, Heather

### Reconstruction Working Group;

Scott, Mark, Melanie, Tim

### The following AABR members are not committee members but assist in a variety of roles.

Danny Hirschfeld, Accreditation SC chair  
Louise Brodie, Membership, Newsletter  
Mitra Gusheh, Webmaster, Advertising  
Virginia Bear, Design  
Paul Ibbetson, Acting Treasurer

### Committee Members are from areas in NSW and SE Qld.

## Welcome to new AABR Members

Adam Baigrie	Paul Price
Joanne Barton	Suzanne Pritchard
Martin Becker	Nick Radford
Benjamin Bush	Tina Raveneau
Jen Coleman	Stan Rees
James Dalby-Ball	Peter Saunders
Ash Folster	Kara Smith
Elizabeth Graham	Isabelle Strachan
James Lownie	Scott Sumner
Elizabeth Macphee	Dean Tattle
Angel Marotte	Tristram Thomas
Natalie May	Brent Turner
Stephen McLoughlin	Sara Whitehead
Robyn Mills	Anthea Whitlam
Rebecca Mooy	Brent Whitworth
Melanie Murphy	Lindy Williams
Barry Pfitzner	Phoenix Wolfe

# AABR's ACTIVITIES SINCE LAST AGM

## November 2013- November 2014

### PUBLICATIONS

Newsletters: 4 published #119 Dec 2013, #120 March 2014, #121 June 2014, #122 October 2014. Many thanks to Virginia Bear who has edited and produced this highly regarded and valued newsletter for 11 years. Louise Brodie has recently taken over this role.

New edition of tick management review *Ticks and tick-borne diseases—protecting yourself* developed by Virginia Bear and Lynn Rees. Published on the AABR website June 2014. Media release to 224 addresses 4th Jan 2014.

### EVENTS

- Two Eucalypt identification courses run by Van Klaphake—5-6 July (Sydney) and 7-8 August (Central Coast)
- Field trip to Edna Hunt Reserve, Epping 8 Nov 2013 with Frank Gasparre
- 'Restore and Renew' workshop co-hosted with ANPC at the Royal Botanic Gardens in Sydney 12 Nov 2013
- Norah Head Field Visit 17 Jan 2014 with Scott Meier
- 'Restore and Renew' workshop hosted by northern region AABR at Murwillumbah 15 Feb 2014
- Field trip Cooper Park Woolhahra Council with Rudi Adlmayer 14 March 2014
- Planning for AABR Symposium, 'Rebuilding Ecosystems' What are the Principles? Began in August

### SERA RESTORATION STANDARDS PROJECT

- AABR became a partner in SER Australasia project 'Standards for Ecological Restoration' – Apr 2014
- Called for sponsorship for SERA project by developing flyer (Scott, Tein, Virginia) - Oct 2014 to coincide with AABR Symposium on 13 Nov 2014 and SERA Conference
- Provided comments on preliminary draft outline of SERA Standards document Oct 2014

### SUBMISSIONS AND ADVOCACY

- Nov 2013: to Federal Govt on Carbon Reduction Emissions Scheme.
- 10 Dec 2013: to NSW Weed Management Review
- 4 Feb 2014: re Green Army to Federal Government (Scott, Tein and Jane)

- Dec 2013: letter to NSW North Coast Institute of TAFE re high fees for the CLM course
- 15 Dec 2013: email to all NSW North Coast members re above
- 20 Feb 2014 to Federal Govt Emissions Reduction Fund Green Paper
- 6 Apr 2014 to NSW draft paper Weed Management review
- 27 Jun 2014: to the Proposed Framework for a NSW Biosecurity Act.
- Sep 2014: to NSW Environment Legislation review
- Nov 2013: to NSW 10/50 Bushfire vegetation code

### AWARDS

Liam Hutchins recipient of the Mark Foster Award at Ourimbah TAFE

### SPONSORSHIP

- Sponsor of Sydney Weeds Committees' Professional Forum on 4 April \$500. Kate Low gave a presentation about AABR.
- July 2014 sponsored SERA \$2000 for SERA Principles and Standards project.

### AABR BUSINESS

- Commenced discussion on business plan for AABR
- Discounts on advertising promoted Dec 2013
- Free student m'ship offered Dec 2013-June 2015
- AABR Facebook page established 31 July 2014 (Saraya Robinson and Spencer Shaw)
- Updated AABR Brochure Oct 2014
- Draft policy on Woody Weed Removal written by Maralyn Lawson
- Provided advice to enquiries on website
- Maintained website and bushjobs (Mitra Gusheh)
- Attended NSW Ministerial Roundtable meetings Dec, April, June, October (AABR rep is Jane Gye)
- AABR reps worked on sub-committees of the NSW Environmental Trust (Mary-Lou Lewis and Janet Rannard)

### SUB-COMMITTEES

AABR's seven-member Bush Regenerator Accreditation Sub-committee formed mid-2014. Since then the committee has revised procedures for managing non-standard assessments, processed 33 successful applications for AABR accreditation and declined 8 on the basis of insufficient bush regeneration field experience. A further 39 are in process.

Coffs AABR Branch—a new regional subcommittee of AABR—formed in May 2014 after the pre-existing Bush Regeneration Network Coffs Harbour (BRANCH) group voted to become part of AABR.

### New Members (cont.)

**Organisations:** Wetland Care Australia

### AABR Accreditation

Congratulations to the following members who have received AABR Accreditation since the last newsletter.

Jen Coleman	Kara Smith
James Dalby-Ball	Melanie Ledgett
Craig Whitford	Claire Gauchi

### Wollongbar TAFE Information Day

22nd January 2015

Find out about the CLM Courses and fees.

For more information phone 1300 628 233

# Restoration, Regeneration and Resilience in the Tropics

Review of talk by Nigel Tucker, Director and Principal Environmental Scientist, Biotropica Australia Pty Ltd

## Presented to the Nov 2014 AABR Symposium "Rebuilding Ecosystems"

Nigel Tucker's presentation (accessible in full on <http://www.aabr.org.au/nigel-tucker-restoration-regeneration-and-resilience-in-the-tropics/>) addressed the theme of the Symposium by showing examples of where he had rebuilt cleared tropical rainforest ecosystems from scratch. The main Australian example used was Donaghy's corridor, North Queensland, which involved replanting a 1.2 km x 100m habitat linkage between the previously isolated Lake Barrine National Park and Gadgarra State Forest. The second main example was restoration after the laying of a 300 km gas pipeline in Papua New Guinea. This project was of industrial proportions and required a stable landform to be reinstated prior to some replanting. The main mechanism of recovery in this case was natural colonisation from the nearby forest.

The case studies were effectively illustrated by images of the same sites prior to and after planting, showing a very natural-looking forest developing on the Donaghy's site some 20 years after planting. But planting was not the end of the story. Monitoring found substantial subsequent natural regeneration within the planted corridor, as well as recolonising fauna. Nigel noted that such natural regeneration is the 'acid test' of restoration; providing both a *restoration technique* and an *indicator of resilience*.

Monitoring has allowed substantial insights to be gained—from which Nigel nominates 1<sup>st</sup> and 2<sup>nd</sup> Order principles—which can be considered as guiding principles.

**First Order principles** include that recovery of species at a site, with or without intervention, is most likely to be affected by *Distance* (i.e., the distribution of habitat in the landscape), and *Disturbance* (i.e., the nature, frequency and intensity of anthropogenic and natural perturbations). These two things are fundamental to the design and outcomes of ecological restoration projects but are too frequently ignored. They profoundly affect the rate and nature of regeneration and so have a major influence on how restoration should occur. Both factors are also key criteria against which to prioritise restoration works.

Distance, for example, affects the type of colonisation and regeneration, and therefore the restoration strategy. Distance will be different for different species as some species can colonise longer distances than others. Disturbance fundamentally affects the present and the future of regeneration at any site – whether a large mine-site or arrested succession in a weed-induced forest gap. Both historical and future disturbance require consideration. Planting of pioneer species in rainforests provides a number of features which are positive for the site and the fauna which use the site. Also when they die they create disturbance (gaps) which is essential in any ecosystem.



Distance and disturbance both occur along a spectrum, and regeneration follows the same linear pattern. For any project we need to recognise where a project fits along the spectrum to recognise its potential for self-organisation through the regeneration process and how much intervention (e.g., from natural regeneration to maximum diversity methods) is required for regenerative resilience to develop. Intervention, involving synergies between planting and regeneration, can be at a variety of levels and at different times during the plant community development process.

**Second Order Principles**, i.e. after accounting for distance and disturbance, involve

- Creating a stable landform with soils that support the desired community
- Focusing on functional traits rather than species diversity or utility (the framework species concept)
- Using a diverse genetic pool of provenance-matched plants.
- Ensuring 'ecological furniture' (eg rocks, logs) for initiating vertebrate and invertebrate successions
- Managing edges—a site's face to the biological world. (Exotic species may be tolerated from time to time but a native community is the end point)
- Monitoring outcomes and lessons so that you can see what works and what doesn't (and so you can have data with which to tell your story!).
- Ensuring stakeholder and community engagement. This is essential

The talk succeeded in demonstrating that, particularly in these tropical forests, natural regeneration is both a technique and an indicator of the ecosystem resilience that develops as a result of the restoration work. Site assessment successfully included analysis of the 1<sup>st</sup> order impacts of distance and disturbance on the species involved, to identify the level of support required to achieve recovery. Application of 2<sup>nd</sup> order principles served to ensure efficient and effective interventions and strong ecological outcomes and social engagement.

# Large scale ecological reconstruction in south-west WA

Review of talk by Justin Jonson, Managing Director, Threshold Environmental Pty Ltd

Presented to the Nov 2014 AABR Symposium "Rebuilding Ecosystems"

Restoration consultant and contractor, Justin Jonson, presented one of five invited talks at the Symposium. Justin's presentation focussed on the use of direct seeding and some planting to rebuild plant communities in previously cleared and cropped portions of the 'Fitz-Stirling' section of the Gondwana Link project area. (Gondwana Link is a long term project in south-west Western Australia whose aspiration is to reconnect the wet forests of south west WA to the more arid interior near Kalgoorlie.) Justin drew on two case studies, focussing first on planning and on-ground works undertaken on the 2,404 ha 'Peniup' property, purchased specifically for the Gondwana Link project.

**Planning at Peniup.** Peniup is jointly owned by Bush Heritage Australia and Greening Australia (GA), with the southern areas of intact bushland in BHA tenure, and the northern—mainly cleared areas—owned by GA. As Restoration Manager for Greening Australia WA, Justin initiated the project with the defined objective of re-establishing a suite of self-replicating biologically-diverse plant communities, ecologically informed in their design, and consistent with the heterogeneous mosaic of plant associations found in the Fitz-Stirling landscape of Gondwana Link. The site had low resilience due to an extensive cropping/cultivation history and the fact that sclerophyll species have relatively low dispersal distances. So restoration relied on the design of a planting layout and associated seed mixes to re-establish as many species of the pre-existing communities as possible. Identifying the appropriate species and then finding the seed, however, presented major challenges.

Native vegetation in the south-west WA biodiversity hotspot is highly species rich, and the configuration of plant communities can change within distances of tens of metres. What species would have grown on the site?

Justin first tapped the knowledge of the farmer who had been the previous owner and carefully inspected the site and adjacent remnant vegetation. Information was obtained using GIS layers of soil, vegetation and digital elevation mapping to identify subtle topographic mosaics. Some existing gama radiometric

mapping that could detect subtle mineral differences in the soils was also used. Intensive soil sampling was carried out involving hand augering more than 100 pits. This



information helped define nine broad soil-landform units, which were used to assign vegetation associations. Information from seed pickers, botanists, and the odd small remnant patch or tree then helped address questions such as 'what species would grow on what type of soils?' and 'what were their positions in the landscape?' Using the soil landform maps, nine different soil vegetation associations were developed. Structure (eg low, mid, overstory) and functionality (eg N fixers, Proteaceae for habitat) were also used to refine the species selection.

Botanical assessments had recorded 240 diverse species in the location—but seed pickers were only able to collect 120 of those species. Bulk amounts of seed were needed for this 250 ha project—which was a challenge. One solution for species whose seed was in short supply was to raise seedling planting stock as an alternative to direct seeding. This was particularly useful in the case of plants from the Proteaceae family, which were planted in clusters or 'nodes', which had the additional benefit of ensuring that birds were able to access and pollinate these species.

**From Planning To Implementation.** Implementation at Peniup first involved looking at previous direct seeding projects carried out by GA to identify what could be improved. Lack of recruitment between ~3 metre seeding rows was identified as a potential problem, not least because it provided avenues for feral animal access. To address this issue, a Great Plains agricultural seeder was modified to provide a 5 row pass, with row spacing set at 1.4 m apart, and double disc opening agricultural seeding units 'precision placing' seeds at a consistent depth of 0-10 mm below the surface.

Four months after seeding, monitoring was carried out with 42 plots set up to measure all the recruitment, and provide snapshots of progress over time. The results over time were impressive, not least when considering the direct seeding was undertaken during a year of reduced rainfall. Photos of the site today show very good results in terms of vegetation cover, with a natural-appearing, and varied, distribution of vegetation including both open areas and dense smaller clusters, allowing

for both the immediate development of habitat and for further recruitment over time.

**Monjebup North.** The second project presented in Justin's talk on the reconstruction of ecosystems took place at the Monjebup North Reserve (a Bush Heritage Australia property). The planning process built and improved on lessons learned from the Peniup project, including an initial botanical field survey on 42 sites which identified 211 species. This determined that an average of only 20 species generally occurred in each 20 x 20 quadrat. Using the survey data, ten different plant communities were identified and detailed soil sampling (109 augered pits) was carried out. A map of the site with a proposed restoration design was then developed. When a contract was offered to restore 100 ha of the 400 ha project design, this change of scale enabled a more detailed view of the project area, and allowed an increase in the

number of plant seed mixes from 3 to 8. A total of 133 species were seeded or hand planted. Seed-bearing branches of some species were burnt on site to encourage regeneration, and the approach of using nodes to establish patches of target species were expanded in both size and density for this project.

The take-home message is that successful ecological restoration requires detailed planning and a combination of broad brush approaches and fine detail during implementation. This can establish a starting point for vegetation and a robust trajectory for habitat development. Although not all species have been returned, a diverse structural framework exists that is likely to slowly increase in diversity over time as fauna use the site and some measure of natural dispersal takes place.

**Justin Jonson's complete presentation can be seen at <http://www.aabr.org.au/category/aabr-conferences/>**

# Interesting stuff for regenerators

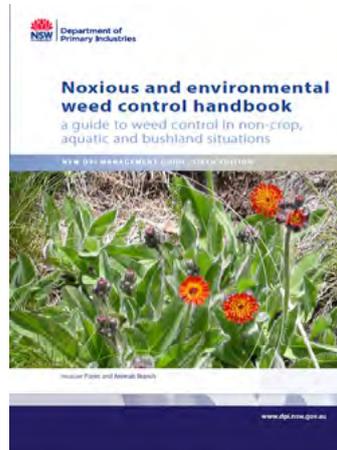
## Noxious and Environmental Weed Control Handbook - 6th edition

The NSW Department of Primary Industries has updated its *Noxious and Environmental Weed Control Handbook - a guide to weed control in non-crop, aquatic and bushland situations*.

This 6<sup>th</sup> Edition was updated in November 2014.

Contents include:

- Integrated weed management
- Legal responsibilities associated with pesticide use
- Reducing herbicide spray drift
- Using adjuvants with herbicides and Cleaning spray equipment
- Withholding periods and Herbicide resistance
- Control techniques using herbicides
- Weeds declared noxious in New South Wales
- Minor-use permits, Noxious and environmental weed control
- Appendix 1: Spray calibration methods



The Handbook can be downloaded from the DPI website at <http://www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds/publications/noxious-enviro-weed-control>

## NSW Weed Wise app



NSW Weed Wise is a free mobile weeds app from the NSW DPI which will be available from February 2015. The app will incorporate the Handbook (described above) as well as profiles and legal requirements for weeds in NSW. It will be available from the App Store and on Google Play.

## TurtleSAT

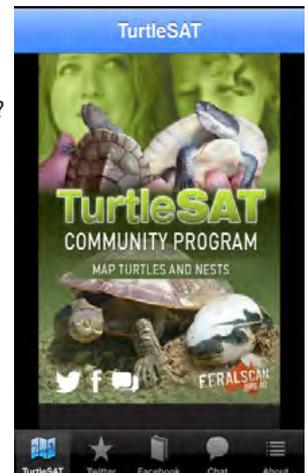
TurtleSAT (Turtle Surveying and Analysis Tools) is a project which allows you to record and map where you see turtles, where you see their nests, where turtles are seen or killed on the road, or evidence of turtles (such as skeletal remains).

Australia's freshwater turtles are under serious threat, and the community can help! Mounting evidence now suggests that many turtle species are declining across vast areas of Australia due to widespread drought, fox predation and human activities. To ensure their survival, some important evidence needs to be gathered, to ensure appropriate safeguards put in place to protect turtles into the future.

The information which needs to be gathered quickly includes

- Where do turtles live and breed?
- Are there important breeding 'hotspots'?
- What are the major causes of turtle decline and do they differ throughout Australia?
- How far do they disperse?
- Are there important 'source' populations that help to populate other areas?

See <http://www.turtlesat.org.au/turtlesat/default.aspx>



Results can be recorded on the web page or there is a **free downloadable app available called TurtleSAT**

If you see a freshwater turtle (or a turtle nest) near your local creek, farm dam or on the road, enter the location of your sighting in this APP. Your sightings will help land managers to track the movement and behaviour of turtles, to protect them and their offspring in your local area. So far there has been over 1,000 records of sightings nationally.

The TurtleSAT project is being coordinated by Dr Ricky Spencer at the University of Western Sydney in partnership with a number of organisations and community groups. The Invasive Animals CRC and NSW DPI support the project through the FeralScan program and its associated web-mapping technology.

For more information contact the project manager:

Dr Ricky Spencer, E-mail [R.spencer@uws.edu.au](mailto:R.spencer@uws.edu.au)

Or email to [turtlesat@turtlesat.org.au](mailto:turtlesat@turtlesat.org.au)

# When to use different techniques.

## The Guerilla technique for Lantana control. Is it a better alternative to Habbie Stacks?

Brenton Schwab, Bush Regenerator

Just a comment I want to make following the 'Habbie Stacks' article in AABR newsletter #122, October 2014. The point I want to make is centred on the SEQ Restoration Framework 5.2.7—"Knowledge of different techniques and when to use them" (also see newsletter #122).

I recently changed employers and for the first time find using Habbie Stacks a common practice. I was told one of the main reasons for making them is their habitat value. After visiting a number of sites where this technique has been used I have to question their value as habitat. My observations have shown no evidence of this (I would like to hear from anyone with different observations).

I have been a long time user of what I have recently started to call the 'Guerrilla Technique' where we get into the base and cut and paint the main stems, as this leaves the Lantana frame in place allowing fauna movement and recruitment. Stacks I have observed appear to be almost anaerobic or toxic environments which do not support life in the same way a lantana frame can.

The article 'Habbie Stacks' also suggests the stacks are valuable in directing people movement, and I agree no one wants to walk over a stack of spiky sticks. However, people then walk over the cleared area where regeneration is likely to occur (a lantana frame left in a tree or where it was cut stops people movement over a wider area and allows recruitment and fauna movement).

One value I see in Habbie Stacks is showing where work has occurred. Some clients or land managers like to see where work has taken place just like some gardeners like a mown lawn. As a bush lover and long-time observer of natural environments I find the more natural random patterns in the bush aesthetically

pleasing. I was recently told by a client that the site budget didn't allow the luxury of building Habbie Stacks, "just get in and kill the Lantana".

The toxic nature of lantana to stock is well documented. What happens to the toxins within the lantana, once the lantana dies? Does making a concentrated stack of toxic material compromise its habitat value?

The listing of Lantana as a Key Threatening Process under the NSW *Threatened Species Conservation Act 1995*, in point 15 notes that the ability of Lantana to inhibit growth of at least some soil microorganisms suggests it may also inhibit mycorrhizal recolonisation

Such recolonisation is an important aspect to bushland restoration. What happens to this ability when dead lantana is concentrated in piles? Although lantana is in the system, it is the concentrated stacks that are my concern.

While both a guerrilla technique and making habbie stacks have a place in bush regeneration, I believe since we are working in the bush and trying to restore it we should approach our work in the variable and dynamic method we observe in natural ecosystems.

There are many variables in natural area management that need to be considered (season, location, budget, resilience, density of weed etc.) and they are all important when applying 5.2.7 SEQ Restoration Framework - "Knowledge of different techniques and when to use them".

I appreciate the valuable contribution volunteers make to bushland restoration. The volunteers I have met and worked with are like me, and they enjoy the work because of the wonders of the bush. I let my "Knowledge of different techniques and when to use them" be directed by the bush we are trying to restore.



Left: random patterns of lantana debris after using the guerilla technique

Photo: Brenton Schwab

### What techniques do you use?

Are there situations where either of these techniques might be suitable. For example, in different vegetation types or different location of bushland and its level of use by the public.

Send an email with your thoughts plus photos to [newsletter@aabr.org.au](mailto:newsletter@aabr.org.au)

# Spring Sycamore Wars 2014



Treating Sycamores on steep slopes

19/10/2014

**Simon Day,**  
Hornsby Shire Council Bushcare volunteer

Under three hours drive west of Sydney is the Jenolan Karst Conservation Reserve, best known for its iconic limestone caves, and since 2008, as the site of the Sycamore Wars, the bush regeneration battle to contain what was an expanding 50 hectare infestation of garden ornamentals.

In October I joined the weekend war which involves bush regeneration by target weeding the Sycamore Maple (*Acer pseudoplatanus*), whose samara seed has helped to helicopter this weed up the hilly slopes above the Caves. We used cordless drills to stem-inject trees, cut and painted the smaller specimens or hand weeded seedlings for chem-free devotees—something for everyone!

Staff Trish, John, Karlene & Corey dispense with the formalities and help our group tool up. We're a bunch of 20 or so of diverse vollies (international & local students, retirees, regeneration veterans and even youngsters under 12!). Working the steep slopes requires focus, and avoiding the rookie mistake of laying down cut saplings down-slope. The time passes quickly. Back stretch breaks are a chance to admire the stunning karst scenery; interesting conversations and regeneration tips pipe up from new companions. The accompaniment of gang gang cockatoos, golden whistlers, scarlet robins, lyrebirds and wallabies all create

a real sense of breaking from suburbia.

But beware the stinging nettle! Forgoing the supplied cotton gloves, I was caught unawares wearing my own thin mesh-backed 'fine-touch' variety, and my first brush with this native scrambler was one I would remember for another few days back at the office and in my own bed!

On the Saturday evening a Cave tour precedes a delicious BBQ. It had been over 30 years since my last Caves tour, and the improvements in showcasing the Caves system are impressive. Pioneering vacuum and water cleaning techniques, stainless steel guardrails, LED lighting and music, and an attentive and enthusiastic guide made for a wondrous day's end. Sore muscles were quickly forgotten. I was surprised concerts as diverse as harp, anglo/celtic, opera, folk music, poetry reading and murder mysteries take place within the Caves! Hmm, those bones we saw...

A brushtail possum mum visited the September BBQ with a baby poking its head out of its pouch; by the October trip, bub was on mum's back and even cuter. Accommodation is taken care of Downton Abbey style in The Gatehouse, the old staff quarters. Gas heating keeps everyone toasty.

Sunday started well with a frolicking platypus sighting in the Blue Lake, a great takeaway coffee from Caves House and our friendly cave guide and jukebox-jiving bus driver Corey pumping us up on our way up to the drop-zone, exclaiming "Foreigner - Yes!" just as a tourist meandered into the middle of the road - "Hot Blooded" indeed!



The weekend could be described as friendly adventure & education conservation. It made a substantial contribution (7,200m of ground, 200hrs and \$6,000 of volunteer labour) to native species habitat and biodiversity of this part of the Greater Blue Mountains World Heritage Area. A newfound appreciation is gained of the geological and cultural features of this unique landscape, and it certainly provides a healthy mind and body tonic, all in the space of a short escape from the rat race. It would be a superb surreptitious way for bush regeneration folk wanting to encourage weed-widows or friends into the fold! Numbers are capped with accommodation constraints so bookings are essential.

Contributing organisations include the Jenolan Caves Reserve Trust, Hawkesbury Nepean Catchment Management Authority, NP&WS and Lithgow Oberon Land-care Association. Current funding has allowed four missions a year, twice each in Spring and in Autumn. The October 2014 weekend was a special black-ops 'reward' to Bushcare networks, initiated by Hawkesbury Council, who bussed in a large group up and back from Windsor.

Interested groups/people should contact [tkidd@exemail.com.au](mailto:tkidd@exemail.com.au) or [trish.kidd@environment.nsw.gov.au](mailto:trish.kidd@environment.nsw.gov.au).

For more info check out:

<http://www.jenolancaves.org.au/about/conserving-our-environment/>

<https://www.facebook.com/jenolancaveslandcare>

**Highly recommended!**



# Rediscovering the lost Cycads of Maluga Reserve

Chris Brogan

Earth Repair Ecology Pty Ltd

In May 2014 Earth Repair & Restoration Pty Ltd were commissioned by Bankstown Council to eradicate tussock paspalum, *Paspalum quadrifarium*, an invasive perennial grass, from a small bushland remnant, in Maluga Reserve at Birrong in south western Sydney. *Paspalum quadrifarium* grows to 2 metres in height and forms dense clumps which outcompete and displace native grasses and forbs. In addition asparagus fern, *Asparagus aethiopicus*, and African love grass, *Eragrostis curvula*, were also targeted.

Bushland at Maluga Reserve has been classified by the Office of Environment and Heritage NSW as Cooks River/Castlereagh Ironbark Forest. This dry sclerophyll forest plant community is listed as an Endangered Ecological Community under the NSW *Threatened Species Conservation Act 1995*. This vegetation community was once common in south western Sydney in the Auburn, Bankstown, Fairfield, Liverpool, Parramatta and Strathfield Local Government Areas. However it has largely been cleared with little over 1000 hectares remaining and is now restricted to a small number of disjunct remnants.

Works during the contract period included high volume spraying with Glyphosate using a 4WD mounted 600 Litre QuikSpray Unit in combination with manual removal. Not wanting to risk off target damage to native flora the team conducted an emu parade prior to spraying to identify and protect any native species in the area.

It was with great excitement that we discovered three small Cycads concealed by African love grass. A fourth plant was found growing



Above: Manual removal of asparagus fern

amongst a planted *Dianella caerulea*. I consulted Colin Gibson, founding member of the Bankstown Bushland Society, who confirmed that the plants were *Macrozamia spiralis* a locally rare cycad restricted to soils derived from Wianamatta Shale.

Maluga Reserve also represents significant habitat for one of the last remaining naturally occurring populations of Mugga ironbark, *Eucalyptus sideroxylon*, in the Bankstown area. While *Eucalyptus sideroxylon* has been planted extensively at the reserve, these trees were probably grown from seed collected from around Pilliga and have a blacker trunk and more erect habit. Tallowwood, *Eucalyptus microcorys*, has also been extensively planted at the reserve and these trees are out-competing the native ground layer and should be progressively removed along with non provenanced *Eucalyptus sideroxylon*.



Left: *Macrozamia spiralis* in amongst african love grass.

Photos: Earth Repair Ecology Pty Ltd.

# Asparagus Fern

## Everything you wanted to know about its identification and control

Asparagus weeds are well-known to regenerators. They are highly invasive in sub-tropical and temperate bushland and coastal ecosystems of Australia. Seven species of asparagus are recognised as Weeds of National Significance (WoNS).

Asparagus plants grow quickly and produce dense, vigorous thickets of foliage that smothers native plants. The underground tubers and extensive root system can form impenetrable root mats smothering and limiting regeneration of native plants.

### Visit YouTube for help

Pittwater Ecowarriors from Sydney via John and Lyn Illingworth have produced a youtube playlist with a comprehensive set of wonderful educational videos, filmed at locations up and down the coast: <https://www.youtube.com/playlist...>

A 20 minute video gives an overview on the identification and control of seven weed species and information on the Australian native asparagus. All are clear and easy to follow.

Shorter videos cover nine individual species being

- ground asparagus (*Asparagus aethiopicus*)
- common bridal creeper (*A. asparagoides*)
- bridal veil (*A. declinatus*)
- asparagus fern (*A. scandens*).
- climbing asparagus fern (*A. plumosus*)
- climbing asparagus (*A. africanus*)
- *Asparagus falcatus* (a newly emerging threat)
- spraying of *Asparagus aethiopicus*
- *Asparagus retrofractus* (Ming asparagus)—(see next column).

### Other resources.

The *Asparagus Weed Management Manual* provides information on biology, ecology and effective control of the seven asparagus WoNS, and highlights other new and emerging asparagus weed threats. It includes advice on planning, holistic management, restoration and monitoring, as well as case studies that provide real examples of asparagus weed control.

The *Asparagus Weeds Weed Management Guide* is an 8 page document which covers 6 of the WoNS Asparagus species.

These and other resources can be downloaded from the national asparagus weeds website - <http://www.weeds.org.au/WoNS/asparagusweeds/>.



Fruit, leaves and flowers of *Asparagus macowanii*



### But Wait.....Nomenclature changes.

A species of asparagus that is becoming weedy in NSW and south-east Queensland has been called 'Ming Asparagus' or 'Zigzag Asparagus'. However, confusion abounds here (and in countries such as the USA) because these common names have been used for several species, showing yet again the problems with a common name being applied to more than one species. In addition, two different scientific names have been used here for this species: *Asparagus retrofractus* and *Asparagus macowanii*.

Senior Research Scientist Karen Wilson at the National Herbarium of New South Wales recently investigated this to update herbarium records and the NSW Flora Online pages on the PlantNET website (<http://plantnet.rbgsyd.nsw.gov.au>). She found that the correct name for this emerging weed is *Asparagus macowanii*, which is native to southern Africa. The identification was confirmed by Dr Clare Archer (Pretoria, South Africa). Queensland botanists had also reached the same conclusion.

Images in various Australian weeds publications (such as the very useful *Asparagus Weeds Management Manual* at [www.weeds.org.au/WoNS/asparagusweeds/docs/Asparagus\\_Weeds\\_BPMM-intro.pdf](http://www.weeds.org.au/WoNS/asparagusweeds/docs/Asparagus_Weeds_BPMM-intro.pdf) and the Qld guide *Which Asparagus do I have?* at [www.qld.gov.au/environment/assets/documents/plants-animals/herbarium/weeds/weed-id-sheet-asparagus.pdf](http://www.qld.gov.au/environment/assets/documents/plants-animals/herbarium/weeds/weed-id-sheet-asparagus.pdf)) are of *A. macowanii* and NOT *A. retrofractus*; these publications are to be updated.

Karen notes that it is still possible that both species may be naturalized here, but all images and specimens seen to date are actually of *A. macowanii*

Under the PlantNET entry for *A. macowanii* now you will see the following explanation:

Often called 'Pompom Asparagus' because of the dense globose 'clusters of clusters' of cladodes, especially near the ends of stems and branches. This species has been confused here and overseas with *A. retrofractus* but they are easily separated: *A. macowanii* has its distinctive 'pompoms' of densely clustered cladodes (especially at the ends of the branches; whereas there are much sparser clusters of cladodes in *A. retrofractus*), straight smooth stems (zigzag and ribbed in *A. retrofractus*) and purplish to blackish fruits at maturity (orange-red in *A. retrofractus*). The habit differs, too: erect stems with fewer and smaller spines in the case of *A. macowanii* versus longer and rather scrambling stems with numerous obvious spines in *A. retrofractus* (C. Archer, pers. comm.).

It is recommended that in future *A. macowanii* be called Pompom Asparagus and *A. retrofractus* Zigzag Asparagus to prevent further confusion

Does your organisation have a weed websites? Weed websites and documentation should be changed to reflect this.

The Herbarium would like more specimens of this and other naturalised Asparagus, particularly the less commonly collected species: *A. africanus*, *A. falcatus*, *A. virgatus*. Specimens of flowering/fruitletting plants, along with collection details (where, when, who, etc.) and images if possible, including of the root systems, would be appreciated. Specimens can be sent 'fresh' as long as they are in paper and not in a plastic bag. Send to:

The Royal Botanic Gardens & Domain Trust  
(Attention Karen Wilson)  
Mrs Macquaries Road, Sydney NSW 2000, Australia



Ballydangan Bog. Healthy bog with low shrubs.  
Photo: Bev Debrincat

# Restoration In Ireland Bog Habitats for the Red Grouse

Bev Debrincat

[www.iewf.org](http://www.iewf.org) and [www.habitatnetwork.org](http://www.habitatnetwork.org)

On a recent trip to Ireland I was able to visit the Ballydangan Bog Red Grouse Restoration Project. This project was not only about bog restoration but also about managing the specific habitat requirements of the Red Grouse.

The Ballydangan Bog is located east of Galway in the midlands of Ireland. Raised bogs in Ireland are generally found in the midlands where rainfall is below 1200mm per year. These bogs are domed masses of peat formed from the accumulation of dead plant material and have originated from former lake basins. They contain large volumes of water at a level higher than the local water table.

It is estimated that raised bogs once covered over 310,000 hectares of Ireland, but only 18,000 hectares remain today. The loss of these bogs has occurred with the extensive harvesting of peat for fuel and horticulture, and drainage for agriculture and forestry. In addition, during the 20th century, bogs were seen as potentially suitable for commercial forestry, and planting of non-native conifer trees was done on a small proportion of raised bogs.

Awareness of the importance of preserving and restoring bogs in Ireland is increasing. They even have an **International Bog Day** which includes the **Northern Ireland Bog Snorkelling Championships!!**

The Red Grouse, *Lagopus lagopus scotica*, is a medium-sized bird which is found in heather moorland in Great Britain and Ireland. There are an estimated 1,000–5,000 pairs in Ireland. Its diet is almost exclusively ling heather and therefore its distribution is restricted to peatland habitats that have a healthy, young and hence low-growing heather landscape.

If you are not familiar with this bird, the Red Grouse is the logo of The Famous Grouse whisky



## Red Grouse numbers in decline

Red Grouse numbers have declined in recent years and birds are now absent in areas where they were once common.

Reasons for the decline include loss of heather due to overgrazing and creation of new conifer plantations.

A decline in the number of upland gamekeepers has also lead to a lack of traditional habitat management.

Some predators such as the hen harrier and mink (released when the fur coat industry failed) feed on grouse and there is ongoing controversy as to what effect the hen harrier has on grouse numbers.

The Red Grouse is on the Irish Red List and after a survey in 2006-2009, the species will remain on the list as they have lost 50% of their former historical breeding range.

The bog restoration project I visited is on land owned by Bord na Mona a company which among other things supplies energy, does resource recycling and owns a lot of peat bogs. As peat production in the bogs is phased out then rehabilitation is being undertaken at some Bord na Mona sites. Bog restoration work includes the felling and removal of the planted conifers (if present), and actions to improve the water level by blocking drains, some re-alignment, damming and ponding. It is difficult to re-establish the required water levels in raised bogs as the edges have all been cut away. As bog restoration is a new science a lot of experimentation is being undertaken. In some areas it can be seen that the processes of peat creation have started.

The Ballydangan Bog Red Grouse Restoration Project specifically targets the habitat of the red grouse. The project is being carried out by Bord na Mona in partnership with the Moore Gun Club and Roscommon Regional Game Council with financial support from a number of sources including Bord na Mona, the Heritage Council and the National Parks and Wildlife Service.

The project aims to increase the diminishing Red Grouse population on Ballydangan Bog through a range of management strategies including heather management. Grouse require a broad age range of heather to allow for cover, feeding and breeding. Heather management involves getting a balance of ages of heather and this is done through careful patch burning or cutting. Other work includes predator control, monitoring, disturbance control, public awareness, education and research. There are also numerous wider biodiversity benefits particularly for other threatened bird species. Ballydangan Bog currently has only three Red Grouse and so a process of learning how to capture and relocate birds from stable populations is also being undertaken.

Further information can be found at [www.ipcc.ie](http://www.ipcc.ie) (website for the Irish Peatland Conservation Council) <http://www.npws.ie/publications/irishwildlifemanuals/IWM50.pdf>



Above: Restoration includes work to hold water in the bog.

Below: To the left of the drain, earthworks have been carried out to dam water at various gradients.

Ballydangan Bog. Photos: Bev Debrincat



**Have you visited an interesting site or are you working on an interesting project?**

**Regeneration and restoration techniques are always of interest to other regenerators.**

**Send an email with photos and a description to [newsletter@aabr.org.au](mailto:newsletter@aabr.org.au)**

# Report on the Friends of Grasslands Forum: Grass half full or grass half empty?

Jane Gye  
AABR Secretary

The forum in Canberra on 30th October to 1st November 2014, celebrated the 20th anniversary of Friends of Grasslands (FOG)

This event attracted approximately 150 people to the CSIRO Discovery Centre in Canberra for over three days of presentations, workshops and a full day field trip focussing on grasslands. Speakers included many well-known scientists in this field, land managers, practitioners, students and members of FOG.

Several talks focused on managing, restoring or rebuilding grassy ecosystems and provided some innovative techniques. Techniques included managing grazing (by domestic animals and kangaroos), fire and biomass plus reducing nutrients, introducing indigenous management practices and large-scale reseeding of long-grazed paddocks.

Dr Phil Gibbons' talk of the pros and cons of biodiversity offsets was insightful (Phil helped develop NSW's offsets policy).

Dr John Morgan had interesting findings from 20 years of research on grasslands in Victoria: grasses can live for a century, 50% of species do not have a seedbank, and recruitment of new species occurs only once in 20 years.

'Cues for Care' was the focus of an interesting talk by Adrian Marshall, landscape architect at University of Melbourne. He showed how good design of edges in an urban grasslands context can promote positive human engagement that builds future stewardship, while minimising dumping and vandalism, regulating nutrient and water inputs and minimising weed invasion. He has developed design guidelines for grasslands with the Victorian National Parks Association and Australian Institute <http://vnpa.org.au/page/publications/reports>.



Sarah Sharpe, President of FOG and Professor Ian Lunt, Charles Sturt University in front of AABR's stand at the Grasslands Forum.

Photo: Jane Gye



Tyronne Wells and his son Jai showing us a scar tree at Stirling Park

Photo: Jane Gye

Fauna issues were prominent in management of grasslands, with concerns for a number of threatened species including the Striped Legless Lizard and Golden Sun Moth.

There was a number of posters, demonstrations and workshops, highlighting a diversity of projects—all were involved in providing better outcomes for grasslands. There were apps, photography, citizen science, community catchment projects and more.

It was apparent from the forum that in the ACT there is close cooperation between government, academia and the community with many volunteer groups being assisted by research. The extent of which is probably unique to the ACT.

The forum was ably summed up by Dr Ian Lunt, well known ecologist from CSU Albury, who directed his final words to the younger members of the audience who will take on the baton of influencing the future of grasslands.

The field trip, on the following day, visited Stirling Park, a Yellow Box grassy woodland on the shores of Lake Burley Griffin, the Jerrabomberra Grassland and Mulligans Flat, the site of a major collaborative research and restoration project, aiming to better inform restoration.

A talk by Tyronne Wells of the Ngunnawal people, traditional owners of the land, emphasised the importance of passing on to the next generation, knowledge of the plants and animals and how to look after the land under their control. Perhaps this is something that could be fostered by all Australians?

Also worth a mention is the positive move by the ACT government to declare 'cat containment areas', including all new suburbs where cats must be kept within an enclosed area 24 hours a day. Let's hope this concept spreads!

A great conference – congratulations to all involved.

FOG are putting together proceedings of the Forum. Watch their website <http://www.fog.org.au/forum2014.htm>.

# Fire Ants in Australia

Fire ants were first discovered in Australia in February 2001 in the south-western suburbs and the port area of Brisbane. The Queensland Department of Agriculture, Fisheries and Forestry is currently attempting to eradicate fire ants from Queensland.

In November 2014, a red imported fire ant nest was detected at Port Botany, the first reported incursion in NSW. Surveillance undertaken in the surrounding areas has found that all ant samples submitted as part of this have returned negative. NSW Department of Primary Industries (DPI) will continue extensive surveillance of all suitable habitat within a two kilometre radius of the nest. For more information, see the website of the DPI, who are leading the eradication and surveillance efforts. <http://www.dpi.nsw.gov.au/agriculture/pests-weeds/insects/fire-ants>

In the USA, fire ants are estimated to cause economic losses in excess of \$1 billion annually. Due to the small geographic range of fire ants in Australia, only minor impacts have been observed to date. But similar impacts are expected to occur in Australia if fire ants are not eradicated. The insects inflict a painful, burning sting, invade our backyards and parks and, injure domestic animals and damage crops and equipment.

**Identifying fire ants:** Fire ant colonies contain a number of different types of ant. These are different sizes, ranging from 2 mm to 6mm. All of them are reddish-brown and black.

People generally first notice fire ants when stung as they have a painful fiery sting! They are very aggressive, and become agitated when disturbed. If you are stung by a fire ant, apply a cold compress to relieve the swelling and pain, gently wash the area with soap and water and leave the blister intact. People who are allergic to insect stings should seek medical attention immediately. On rare occasions, fire ant stings can cause a severe allergic reaction.



**Spotting a fire ant nest:** Fire ant nests are generally domed in appearance and are up to 40 cm high. They can be various shapes and sizes, and usually have no visible entry or exit hole. The interior of the nest has a honeycomb-like appearance.

**If you think you have found fire**

**ants,** don't touch them or their nest, and don't use liquid (such as water and methylated spirits) to try and kill them. Instead, call NSW Department of Primary Industries on 1800 675 821

Go to <http://www.environment.nsw.gov.au/pestsweeds/FireAnts.htm> for more information and links.



Typical fire ant nest.

## Bushcare with Care

Bushcare with Care

A field guide for bush regenerators

Protecting and conserving Aboriginal Landscapes

Walk anywhere in Sydney bushland and you can find the landscape rich with Aboriginal objects, whether it is rock carvings in sandstone areas, middens near waterways or rockshelters.

This is highlighted by the recent finding by Sydney Water of an ancient Aboriginal rock art site, believed to be tens of thousands of years old, on Sydney's North Shore. Locals were not aware of the presence of the site because it was either obscured behind vegetation or dismissed as graffiti. The traditional owners are only now learning of the existence of the artwork left by their ancestors. (ABC 21 Nov 2014)



Left: Recently recognised ancient Aboriginal art on Sydney's North Shore.

Photo: ABC Anne Barker

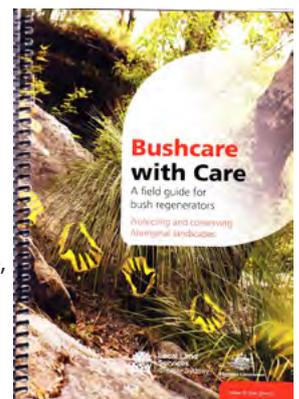
This highlights the importance of the *Bushcare with Care* field guide as an essential for those working in bushland. The guide covers many topics to inform us on how better work with Aboriginal heritage and consult with Aboriginal people

Legalities are dealt with first, followed by the description of Aboriginal places and objects, which is accompanied by photos of the aspects being described.

The book discusses how to work near Aboriginal places and objects, how to access Aboriginal heritage information and protocols for consultation with the local Aboriginal community, plus a list of references.

This small book has been produced by the Greater Sydney Local Land Services and has information which is relevant to anyone who is working in bushland anywhere. The A5 size and style of booklet makes it easily readable and able to be taken into the field. It is around 35 pages with colour photos to illustrate the things being described.

To obtain your free copy of the Guide, call the Greater Sydney Local Land Services in Penrith on 02 4725 3050



# What's happening

## 2nd February 2015

World Wetlands Day

This day marks the date of the adoption of the Convention on Wetlands on 2 February 1971, in the Iranian city of Ramsar on the shores of the Caspian Sea.

## Friday 20 February 2015

Penrhyn Estuary:

**Where:** Foreshore Road, Botany (Sydney region, south)

**Organiser** AABR

4.30 - 6.30pm (low tide)

Tour of saltmarsh reconstruction area that is part of the Port Botany Expansion.

Meet at the new public boat ramp and car park on Foreshore Road, Botany.

## Friday 13 March 2015,

A day at Australian Botanic Gardens, Mount Annan:

Restoration after control of African Olive and PlantBank tour

**Organiser** AABR

10.00am - 2.30pm

Learn more about the broad scale removal of African Olive, using a radical approach that involves machinery and direct seeding. Plus a "behind the scenes" tour of the Australian PlantBank facility.

Cost: \$20.00pp for PlantBank tour

Enter off Narellan Road and meet at the main visitors car park.

For further information contact the AABR Secretary, [secretary@aabr.org.au](mailto:secretary@aabr.org.au)

## Saturday 18 April 2015

Using fire for rehabilitation of altered native grasslands and integrated weed control

**Where:** Scheyville National Park (Sydney, north west)

**Organiser** AABR

9.00 - 11.00am

A field tour in Scheyville and Cattai national parks to look at research trials for using fire in the rehabilitation of altered native grasslands and integrated weed control of species such as African Love Grass and African Olive. Bird enthusiasts bring your binoculars!

Meet at the car park in front of the Scheyville National Park office, Scheyville.

## 26 & 27th May 2015

Fire and Restoration: working with fire for healthy lands

The Nature Conservation Council of NSW tenth Biennial Bushfire Conference.

**Where:** Surry Hills, Sydney

The conference, will present new scientific research and on the ground management issues and success stories.

Call for abstracts. Please submit by Wednesday 4th February 2015.

To submit an abstract or obtain more information please visit our website, email us ([bushfireconf2015@nature.org.au](mailto:bushfireconf2015@nature.org.au)) or call: 02 9516 0359

Conference Registrations are now open!

[http://www.nature.org.au/healthy-ecosystems/bushfire-program/conferences/?utm\\_medium=email&utm\\_campaign=Call+for+Abstracts+NCC+2015+Bushfire+...&utm\\_source=YMLP&utm\\_term=visit+our+website](http://www.nature.org.au/healthy-ecosystems/bushfire-program/conferences/?utm_medium=email&utm_campaign=Call+for+Abstracts+NCC+2015+Bushfire+...&utm_source=YMLP&utm_term=visit+our+website)

## STOP PRESS

## Thursday 5th February 2015 at 6 pm

AABR "Meeting at the Pub"

Special General Meeting

**Where** Agincourt Hotel (opp. Central, cnr Harris St and Broadway, Sydney). Five minutes walk from Central Station via Railway Square.

AABR has booked the small bar and bistro area upstairs so this will be a fun affair and will be a great chance for members who live in Sydney to socialise and have a bit of a chin wag.

Two special resolutions will be put to the meeting in order that the correct procedure is followed for dropping the NSW from the AABR name.

For further information contact the AABR secretary [secretary@aabr.org.au](mailto:secretary@aabr.org.au)

## What is happening in your area?

Send us information of events in your area. Drop us a line [newsletter@aabr.org.au](mailto:newsletter@aabr.org.au)



### President

Tein McDonald, [president@aabr.org.au](mailto:president@aabr.org.au)

**Acting Treasurer:** Paul Ibbetson

### Membership Officer

Louise Brodie, [membership@aabr.org.au](mailto:membership@aabr.org.au)

### Secretary

Jane Gye, [secretary@aabr.org.au](mailto:secretary@aabr.org.au)

### Website advertising

Mitra Gusheh, [advertise@aabr.org.au](mailto:advertise@aabr.org.au)

### Committee members

Heather Stolle, Elisabeth Dark, Spencer Shaw, Kate Low, Scott Meier, Suzanne Pritchard, Kirsten Vine, Mark Cachia, Melanie Ledgett, Tim Baker

### Northeast NSW/Southeast QLD subcommittee

Mike Delaney 02 6621 9588  
[miked@envite.org.au](mailto:miked@envite.org.au)

## Australian Association of Bush Regenerators

### The Australian Association of Bush Regenerators Inc (AABR)

was incorporated in NSW in 1986, and has several hundred members from all over Australia. AABR is pronounced 'arbor'.

Our aim is to promote the study and practice of ecological restoration, and encourage effective management of natural areas.

**All interested people and organisations are welcome to join.** AABR members include bush regeneration professionals, volunteers, natural area managers, landowners, policy makers, contractors, consultants, nursery people, local, state and commonwealth government officers—and lots of people who just love the bush and want to see it conserved.

**AABR also offers accreditation** for experienced practitioners.

**AABR News** is usually published in March, June, September and December.

**AABR C/O Total Environment Centre  
Suite 2, 89 Jones Street Ultimo NSW 2007  
0407 002 921**

[www.aabr.org.au](http://www.aabr.org.au)  
[enquiries@aabr.org.au](mailto:enquiries@aabr.org.au)

ABN: 33 053 528 029 ARBN: 059 120 802

### Membership fees

Individuals	\$30 (unwaged \$15)
Organisations ( <i>does not confer membership to individuals in that organisation</i> )	
• Business (less than 5 staff)	\$120
• Business (more than 5-20 staff)	\$300
• Business (More than 20 staff)	\$480
Government	\$60
Not for profit	\$30 ( <i>or \$0 with newsletter exchange</i> )
Students	free offer to 30 June 2015

### Benefits of Membership:

- discount admission to all AABR events
- four newsletters per year
- increased job opportunities
- discount subscription to the journal Ecological Management & Restoration
- opportunities to network with others involved in natural area restoration
- helping AABR to be a strong and effective force to promote natural area restoration, and support the industry.

### Newsletter contributions and comments are welcome

Contact Louise Brodie [newsletter@aabr.org.au](mailto:newsletter@aabr.org.au) 0407 068 688  
*Opinions expressed in this newsletter are not necessarily those of AABR*