AABR NEWS

Australian Association of Bush Regenerators NSW

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renewal ahead for AABR

"AABR's new constitution is now registered, enabling the committee to enact the proposed renewal of AABR—opening membership to all interested parties and separating accreditation from membership"

Showcase your project at AABR's relaunch

We are seeking brief powerpoint presentations for our launch in spring.

Does your project demonstrate the importance of ecological restoration—particularly assisted natural regeneration?

Can you help us show that this is essential for the future management of Australia's natural heritage?

Talk to us! More on page 2.

President's Perspective

Spring launch of the 'New AABR'

The big news this issue is that AABR's new constitution is now registered, enabling the committee to enact the proposed renewal of AABR—opening membership to all interested parties and separating accreditation from membership. Three main steps are in train:

1 upgrading the AABR website so that all the changes are clearly conveyed and the website can better illustrate the 'new AABR'

2 implementing the promotion campaign, with the assistance of contractors

3 establishing new membership processes and accreditation committees.

It is clear that this work won't be done by the first quarter, as earlier hoped. So we are working towards a spring event to publically launch the changes.

The precise location and date of the launch is yet to be decided, but we know it will be one of four shortlisted sites in Sydney where excellent bush regeneration work is integrated within other restoration activities to make a difference at a landscape scale. A guided walk around the site will be preceded by four short presentations of outstanding cases of ecological restoration where regeneration figures prominently. Lunch and cuppas will be provided.

Tein McDonald
AABR President

Showcase your project at the launch?

Have you an outstanding project to feature at the launch?

To ensure the launch highlights some of the most exciting projects going on around NSW and Australia, we are calling for expressions of interest from people prepared to put together a <10 minute powerpoint presentation on their project.

The project needs to:

(i) have had successful long term bush regeneration

(ii) be set within other necessary restoration and management activities and

(iii) have ongoing commitment to excellent conservation management.

Please help us show, through this launch, that ecological restoration, and particularly assisted natural regeneration, is a practice essential to the future management of Australia's natural heritage.

Email your expressions of interest, ideas and questions to: president@aabr.org.au or secretary@aabr.org.au

The cut-off date is April 30. The launch will be in Sydney in spring—location and date to be announced.

Welcome to new members

Sybilla Brown

Daniel Cox

Danielle O'Hara

Environmental Trust Grant representation

Many thanks to Sue Brunskill who gave up her time last year to be AABR's rep on the Environmental Trust's Restoration and Rehabilitation Grant technical committee for state and local government applications. Janet Rannard has generously volunteered to take on the role this year. Mary-Lou Lewis will continue on the committee for the community applications. These AABR members bring invaluable skills to this important task, helping to ensure that grant money is spent on projects which achieve good biodiversity outcomes.

AABR Sydney plant identification courses

We are pleased to announce that Van Klaphake is back! And he is running his famous identification workshops on plants of the Sydney Region again.

AABR will host all three of his courses this year.

Grasses—May 18-19

Sedges & Rushes—June 22-23

Eucalypts—July 20-21

All three will be held in our usual venue Cecal Hall, corner of Clarke and Lewin St, Earlwood.

AABR members will get priority in bookings and a discount on the course cost.

The courses have always sold out so please book early.

To book and for any enquiries please email Paul at ibb56@yahoo.com.au

Before and after photo competition

Last year we ran a competition for the best before and after photo. The winner was Saul Hondow from Gold Coast City council whose series on Numinbah Conservation Area featured in News 115.

Congratultions Saul, your $200 prize is on its way.

Ecological Restoration Framework for South East Queensland

This new free resource is well worth a look. It has some very useful decision-making tools, and is valuable for managers, contractors and volunteers. Even if you are not in SEQ —most of the concepts and methods are widely applicable.

Jen Ford, AABR member, was a major driver of this 4-year effort, with substantial behind-the-scenes assistance from Rhonda James, also an AABR member. Jen gave a presentation on it at the SERA (Society for Ecological Restoration Australasia) in Perth last November.

The South East Queensland (SEQ) Ecological Restoration Framework Project was originally proposed by the Environmental Managers Technical Reference Group (EMTRG), a group of environmental managers representing SEQ Councils. The EMTRG recognised that the high growth experienced in SEQ, combined with the diversity of stakeholders undertaking ecological restoration, required the development of a standard to ensure consistent ecological restoration delivery. In April 2011, the Council of Mayors (SEQ) subsequently endorsed the Framework as a regional standard for undertaking restoration projects.

The hoped for outcome is that, ultimately, ecological restoration projects delivered under the Framework will:

- conserve and enhance biodiversity through increasing the extent and improving the condition of native vegetation
- ensure long-term environmental and economic sustainability
- ensure ongoing improvement and maintenance of ecosystem services.

This framework was delivered in partnership with local councils and SEQ Catchments.

The Framework is comprised of three key documents to guide the delivery of vegetation/ecological restoration works in the SEQ region including:

Code of Practice

A policy document providing a head of power for the subsequent Guidelines and Manual. The code of practice reflects the SEQ policy environments where it is to be housed.

Guidelines

A decision making tool to guide users to the most appropriate course of action for their project. This document guides application of the policy and links to current best practice and examples demonstrated in the Manual element.

Manual

A technical but easy to use guide to all aspects of ecological restoration. This document is reflective of current best practice, and provides the minimum acceptable solutions to ecological restoration.

Find them at: www.seqcatchments.com.au/seq-ecological-restoration-framework

AABR's draft philosophic statement

AABR is calling for comments on its *Draft Philosophic Statement on Ecological Restoration.*

As members will know, the change process within AABR pivots around an integrated philosophy of ecological restoration that places assisted natural regeneration front and centre. We need a document describing this, that will help guide our work and interpretation of restoration for our industry sector.

Our statement needs to go through substantial consultation with members and stakeholders prior to adoption. This version is currently on the website—and we have already received some excellent comments and suggestions about how this could be improved.

Please have your say on this important document. Closing dates for comments is May 31 2013.

Email comments to secretary@aabr.org.au

Due date extended for comments

AABR is now extending the time for further comments on AABR's draft Philosophic Statement—with the due date now the end of May.

Email Jane at secretary@aabr.org.au

Philosophic Statement Reference group

Anyone who would like to be on the reference group for receiving and commenting on the final draft should email Tein at president@aabr.org.au

AABR's philosophic statement on ecological restoration and management—DRAFT 1

Introduction

AABR recognises that human societies are part of nature and have influenced and shaped ecosystems throughout human history. While some of that influence falls within sustainable boundaries, the relatively recent scale, degree and increasing pace of impact has caused and continues to cause high levels of damage to most of the world's terrestrial and aquatic ecosystems. This unprecedented situation threatens not only the sustainability of those ecosystems but the sustainability of human societies and cultures.

AABR considers that one priority response to this is to endorse and actively support the practice of 'ecological restoration'; which we define as 'the intentional practice of assisting the recovery of damaged ecosystems to the highest practicable extent, taking into account intrinsic ecosystem change'. This translates as the cessation of damage and the reinstatement of the health, structure and function of the plant and animal communities that would occur on the sites had ecosystem damage not occurred, taking into account current and anticipated ecological change.

AABR states strong allegiance to our partner organisations in this mission, including the Society for Ecological Restoration (SER), whose philosophies (as stated in the SER Primer on Ecological Restoration, (SER 2004)) we endorse. We do, however, bring to the conversation our own particular philosophic clarifications and emphases, which we detail in this statement.

Ecological restoration, rehabilitation and management

AABR is primarily concerned with the conservation-based management of natural areas and promotes management that aims to protect, maintain and, where impaired, improve the health of ecosystems.

Ecological restoration fits within this broader field of conservation management and is of special interest to AABR. We see ecological restoration as a continuum—with full ecological restoration at one end of the continuum and at least some progress towards full restoration at its other end. Projects that occur at any point along this continuum could be considered 'ecological restoration' if (a) the short and medium term goals represent the highest practicable ecological outcome under current circumstances; (b) full restoration of the indigenous ecosystem is conceivable in the long term; and (c) the opportunity for full restoration at some time in the future is not impeded by the current or ongoing on-ground activities.

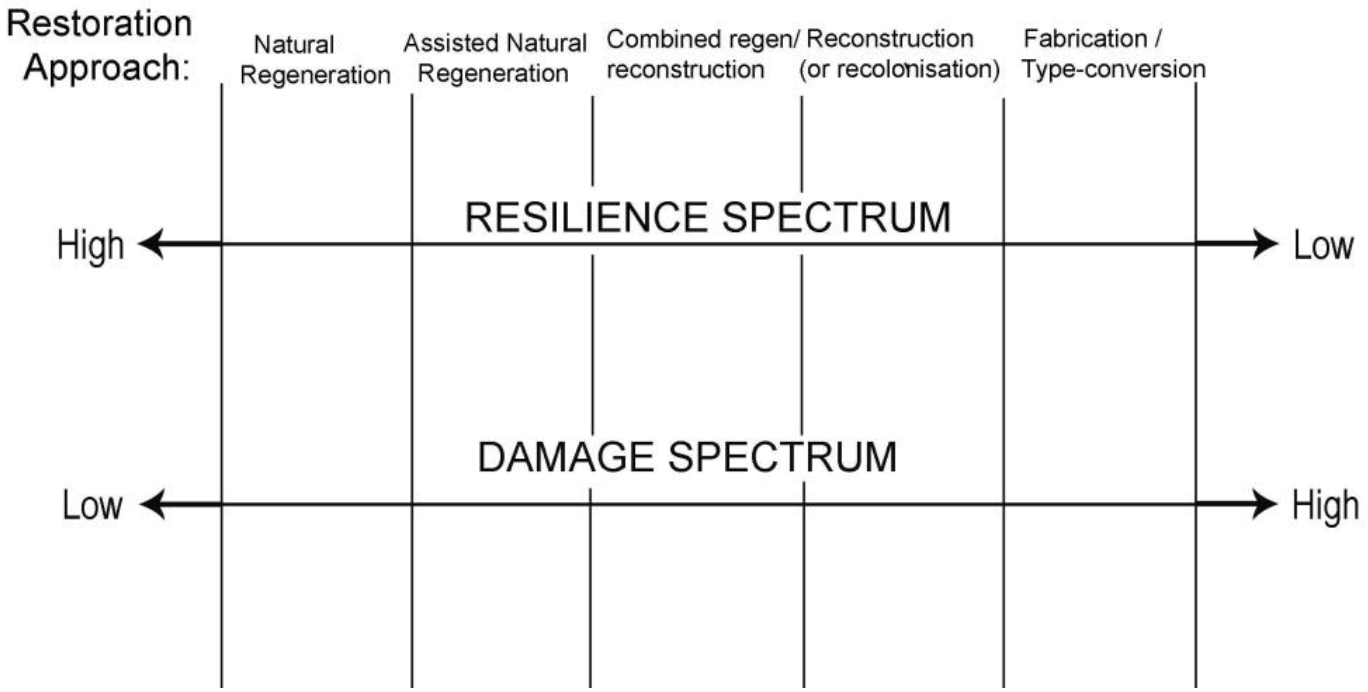

Figure 1. Conceptual framework showing the spectrum of recovery capacity that can occur across restoration sites and their 'matching' restoration approaches.

There are some sites in highly modified landscapes where full restoration is inconceivable—i.e. either impossible (due to extreme level of degradation) or undesirable (due to the value of the changes to human society). Even in such sites, however, at least ecological 'rehabilitation' should be aimed for, within practicable limits. Such rehabilitation is particularly relevant in terrestrial and aquatic systems primarily managed for production, industry or urban purposes. Because these areas have a range of intrinsic ecosystem functions and values which contribute to the function of all ecosystems, ecological rehabilitation of these areas is considered to be at least of equal importance to, if not also critical to, ecological restoration in other areas.

Role of natural regeneration

AABR draws specific attention to the pivotal role that natural regeneration plays in ecological restoration and ecological rehabilitation; a role which we assert needs to be taken into account in all restoration projects. This position is based on 25 years of restoration practice by our members and the ecological premise that natural regeneration capacity is a key attribute of ecosystems, conferred to them by the species that make up those ecosystems. This capacity includes recruitment capacity as well as resilience (i.e. capacity to recover after natural or similar disturbances).

Reinstatement of these capacities is therefore a:

(i) primary goal

(ii) measure of success; and

(iii) mechanism of restoration.

To elaborate:

(i) Natural recovery as a goal of restoration and rehabilitation. The goals of any restoration project must include the goal of reinstating a functioning ecological community complete with the desired structures and functions. Because a key function of ecosystems is their capacity for natural regeneration, all restoration projects must aim to reinstate the ecological community's natural regeneration capacity.

(ii) Natural recovery as a measure of success of restoration and rehabilitation. In cases where natural regeneration can occur as a result of restoration interventions, that regeneration can provide an early indication of the success of the restoration project (i.e. if regeneration has happened once, it could happen again, with appropriate management).

In 'reconstruction' or 'fabrication' cases (see below and Figure 1), however, it may take longer to achieve regeneration. Conditions for such regeneration need to be designed into a project from the outset.

(iii) Natural recovery as a mechanism of restoration and rehabilitation. Where it has not been irretrievably damaged, residual recovery capacity itself can function as a primary mechanism of restoration, either with the removal of the impact (in low damage cases) or with additional assistance from restoration practitioners (in somewhat higher damage cases). A suite of methods and techniques to trigger recovery and promote recruitment (e.g. fire and soil disturbance) are often most important in the early 'recovery response' phase of a restoration project in disturbance-adapted communities. Proliferation of species with short life cycles can also occur during the early years of a restoration project, assisting with the revegetation. Appropriate further interventions can also be usefully applied at all stages in the restoration process to trigger regeneration as needed.

This cannot be determined without skilled and sound site assessment. *(Adapted by AABR from McDonald 1994, 2000.)*

Lessons from bush regeneration practice relevant to all restoration

1. Addressing threats and the causes of degradation

AABR recognises that ceasing impacts and threats is a first principle of restoration, although this cannot always be achieved, particularly if threats (such as industrial development and climate change) arise at a higher scale than the restoration work can influence. However all restoration projects should devote resources to addressing the problems at their sources prior to expending resources on mitigating symptoms.

AABR recognises that unless there is a dramatic decrease in impacts and expanding restoration programs throughout the globe - including addressing causal problems and restoring ecological health to the highest extent practicable in already utilized lands—the restoration movement will not make an impression on reducing levels of degradation.

Human-induced global warming is both a degrading factor to be mitigated and an environmental factor to which taxa and restorationists alike must adapt. Therefore, we endorse the use of ecological restoration to: foster society to develop more sustainable and 'restorative' values and lifestyles; increase appropriate native vegetation cover to store more carbon; and, encourage restoration practitioners to identify reference communities and goals that take anticipated unavoidable climate conditions (as well as potential for return of prior climate conditions) into account.

2. Clearly identifying project goals

The second most important step in developing a restoration program is to identify appropriate restoration goals (See also Buchanan 1990, SER 1994, Clewell & Aronson 2013). While restoration is fundamentally the activity of reinstating the health of ecological communities, 'health' needs to be interpreted in more specific terms, with clear and measurable ecological goals identified at the start of any project.

During the late 20th Century, pre-existing structure, floristics and dynamics were considered a reliable guide to the setting of restoration goals. It was generally agreed that restorationists were seeking to reinstate functioning examples of the communities that we believed would have been on site had the degradation not occurred; including their capacity for flux and change. In such scenarios, goal setting would involve the assessment of surrounding ecosystems and indicators remaining on site to identify a suitable 'reference' community.

Restoration goals for the 21st Century, however, are less straightforward. No longer can we assume that climate conditions will remain suitable for all species, even within a period as short as 50 years. Where changes are anticipated to be dramatically different (e.g. due to sea level change), fabrication and/or type conversion may be required. In inland areas where changes may be more subtle, care needs to be taken to balance the need to retain floristic integrity with the need for adaptation.

That is, restoration of pre-existing structure and function of the community as a whole is likely to remain the appropriate broad goal, particularly for species and genotypes with wide climate envelopes. Careful consideration is needed, however, of whether some species and genotypes may not be suited to anticipated changed climate conditions. In particular, this calls for careful consideration of any need for assisted migration where habitats are fragmented or tightly circumscribed (making species and genotype migrations impossible), particularly at the poleward or higher elevation edge of an affected species' range. Where reintroductions or introductions are necessary, Identifying appropriate species and genotype selection requires sound scientific information and collaboration between practitioners and researchers.

3. Sound site assessment prior to deciding which restoration approaches to use

All restoration actions need to be informed by an ecological assessment of the natural recovery capacity of the site's residual and nearby species, taking into account the potential for restoration intervention to 'assist' this recovery process.

The approach selected to assist recovery will depend on the degree to which natural recovery capacity has been damaged due to changed environmental conditions and any direct impacts on the site and its species. If there has been relatively little damage, a 'natural regeneration' or 'assisted natural regeneration' approach will be the most optimal. On sites that have been more highly or extremely damaged, 'reconstruction' or 'fabrication' approaches, respectively, may be needed at either whole of community or individual species levels (Fig 1).a

AABR does not recommend the planting of species within remnants where suitable natural regeneration can occur (unless there are important ecological reasons such as restricted gene pool for some species). However, AABR actively promotes the reintroduction of communities or species by planting and other means where natural regeneration capacity is very low or non-existent. In such situations, careful design of floristics and careful manipulation of site conditions is needed to ensure that natural regeneration and appropriate successional development is able to occur as would be expected in a functioning example of that community.

Sound site assessment by experienced assessors is needed to ensure the approach matches the resilience level remaining on a site, as applying reconstruction or fabrication approaches where natural regeneration is possible can supress natural recovery and therefore be counter-productive.

4. Monitoring to check if goals are being met

Monitoring is important to see if our treatments and approaches are working and need adjustment, to test new ones. Monitoring to be undertaken by practitioners needs to be streamlined enough to replicate at a range of sites and costed into a project from the outset. To ensure that the data collected is both ecologically meaningful and relevant to practice, the design of the monitoring needs to be checked with experienced people with science training and practical experience prior to commencement of the project. Wherever possible, standard quadrat sizes and sampling methodologies should be used on restoration sites so that small amounts of data collected at each can be compatible when pooled. It is AABR's intention to continue to work with partners to develop simple and low cost sampling strategies for restoration sites and to conduct workshops for practitioners in these methods.

5. Importance of follow-up

AABR recognises that a key to success is nurturing the recovery process to ensure that desirable species develop on the site and undesirable ones do not compete with this process. In

practice this means that a site needs to be revisited for numerous 'secondary' treatments after the initial 'primary' treatment. This more frequent, if decreasing, input should ideally occur for at least the first 3 years of a project, particularly during the growing seasons and after rain (although more damaged sites will require more follow-up than less damaged sites). As natives recapture the site and weeds lessen in density over time, the duration of each follow-up treatment will lessen to a point where the site can be considered on a stable 'maintenance' regime. After any further natural or other disturbance occurs on a site, however, a similar attention to follow-up is then required.

The requirement for follow up must be costed into all projects and the area of primary work limited to that which can be reasonably subjected to multiple secondary treatments over a period of years. The long-term aim is to reach a level of management which requires regular and ongoing, but not intensive, maintenance.

6. The 'social ecology' of restoration

AABR advocates active participation in restoration by a wide range of stakeholders, as restoration is not achieved by one group in society alone. While restoration practitioners, planners, managers, policy makers and researchers play key roles, success is dependent on contributions and support from the whole of society. The more diverse the support, the stronger will be the restoration outcomes.

Role of volunteers and paid restoration practitioners. AABR advocates that skilled restoration practitioners be employed in the operation of restoration, whether they be paid or volunteer workers (the task of ecological restoration and rehabilitation is sufficiently immense that there is room for all).

Role of land managers, funding bodies, policy makers and researchers. Restoration on public land, and sometimes on private land, cannot happen without government funding or incentives, a legislative and policy framework, and facilitation from agencies—and this role can often be overlooked and understated. The contribution of ecologists can also be of primary importance to the practice of restoration and partnerships between managers, restoration practitioners, funding bodies and restoration ecologists will be critical to the ultimate success of the restoration mission.

Role of the public. All stakeholders are important in restoration and rehabilitation including the public. Leaving important community constituents out of the process, or leaving them poorly informed, particularly where some aspects of the project might be controversial, can inadvertently result in the withdrawal of public support for restoration and rehabilitation.

DEFINITIONS

Assisted natural regeneration. Recruitment that occurs after some active restoration intervention to remove obstacles and reinstate conditions suitable for natural regeneration. Interventions may be tailored to improve regeneration niches; trigger resprouting and dormant soil seed banks; and, foster colonisation. While this approach generally is typical of sites of low to intermediate damage, even some very highly damaged sites have proven capable of natural recovery after assisted natural regeneration interventions.

Bush regeneration. A form of assisted natural regeneration practice which emerged in the Sydney area and is now widespread across Australia. The practice involves skilled removal of weed and other obstacles to regeneration in a manner that triggers natural regeneration of the site's previous species.

Combined regeneration/reconstruction. Preferred restoration approach (involving mainly assisted regeneration but also some reintroduction) where some species drop out of a system earlier than others due a degrading impact.

Conservation management. Active and ongoing role adopted by humans to protect the health of ecosystems in which we live to maintain biodiversity and ecosystem function, avoiding degradation.

Degradation/damage. A level of anthropogenic impact that renders an ecosystem dysfunctional in at least some way.

Ecological restoration. The intentional practice of assisting the recovery of damaged ecosystems to the highest practicable extent, taking into account intrinsic ecosystem change.

Ecological rehabilitation. The intentional practice of reinstating ecosystem function to the highest practicable extent in highly modified landscapes where full restoration is inconceivable.

Fabrication. Preferred restoration approach, based on construction techniques, whereby an alternative regional ecosystem is installed because the original ecosystem is unable to be restored as damage is so high that conditions are no longer suitable and unable to be reinstated.

Natural recovery/regeneration. Spontaneous recruitment of species on sites left to their own devices. Examples include minimally damaged sites, grazed sites where grazing is removed and natural recovery including colonisation occurs over time. Usually occurs in cases of low to nil damage.

Reconstruction. Preferred restoration approach in sites of extreme degradation where all or most biotic components of an ecosystem have been removed and where they cannot regenerate or recolonise within feasible timeframes even, after expert assisted regeneration interventions.

Reference community. A notional or real ecosystem which acts as a model for restoration at a specific site. This represents an approximate healthy version of the ecosystem that would have existed on the site had damage not occurred. (Note 1: If the site is or includes a remnant of that ecosystem, the site itself can be said to be 'self-referencing'. Note 2: Under climate change, reference communities would need to accommodate anticipated environmental changes).

Type conversion. Same end result as 'fabrication' (as it converts it to an alternative, regionally occurring ecosystem because the conditions are no longer suitable for the pre-existing community). But the difference is that it is achieved through natural or assisted natural regeneration rather than construction techniques.

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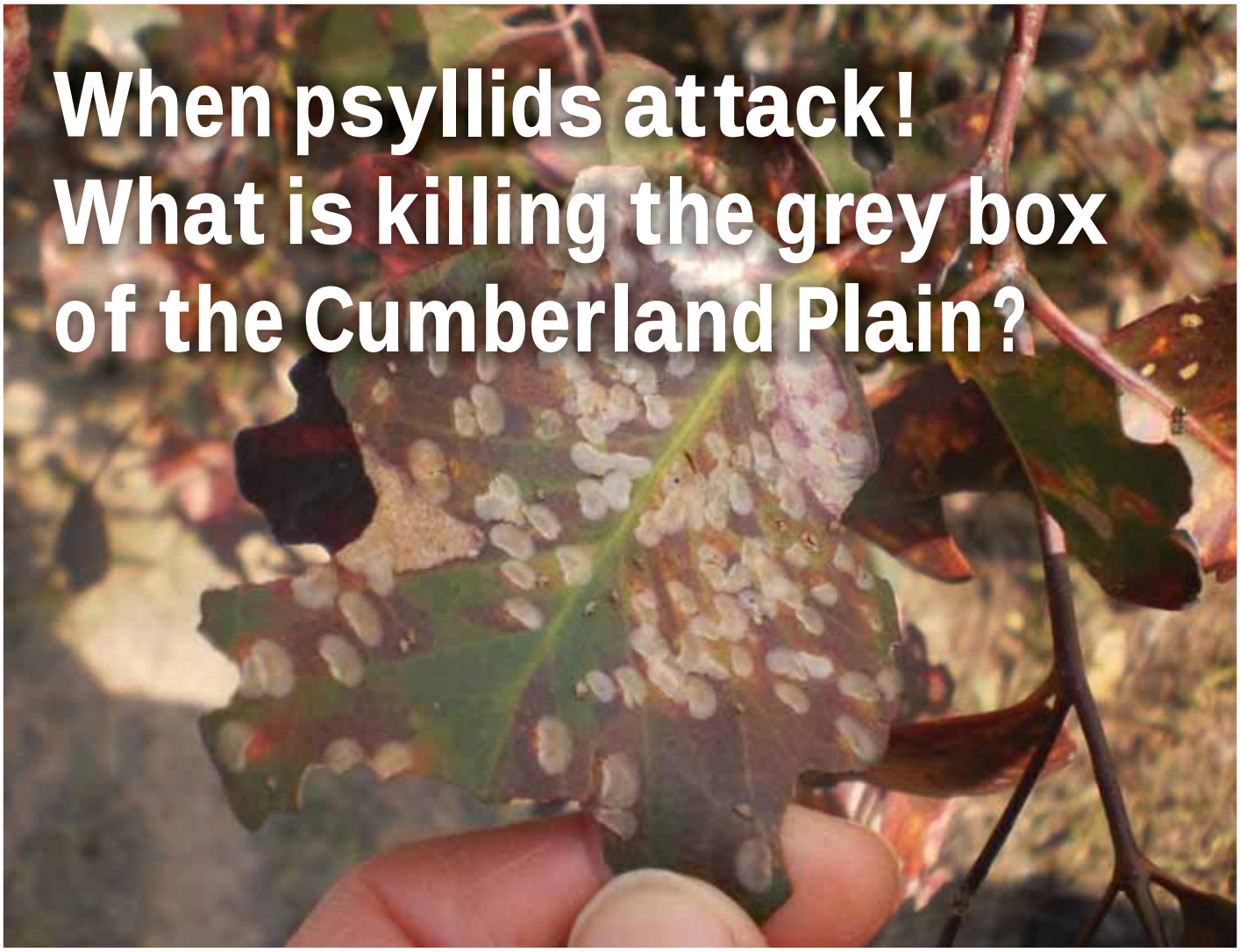
When psyllids attack! What is killing the grey box of the Cumberland Plain?



Grey box *Eucalyptus moluccana* showing signs of psyllid attack. Photo: Penrith Council

Janet Rannard
Bushland Management Officer
Penrith City Council

A highy visible new threat has emerged in Western Sydney's bushland, leaving land managers and researchers battling to work out what is going on and how to deal with it.

Background

Grey box *Eucalyptus moluccana* is the dominant tree species on the critically endangered Cumberland Plain Woodland within Western Sydney, including in the Penrith Local Government Area. It is estimated that less than 10% of this vegetation community remains in the world so it is vital that it be conserved. Over the past five years or so a number of these trees have had symptoms including necrosis (cell death), defoliation, and subsequent tree death. Trees may be dying due to changes in climatic conditions, soil changes, salinity, excess or reduced moisture, insect attack, a combination of the above or other unknown causes.

Cumberland Plain Woodland typically has a tree canopy, a shrub layer and a groundcover layer. However loss of canopy trees will increase the vulnerability of shrub and ground layer native species due to loss of shade, increased temperature, increased evaporation, dryer soils and possible increased salinity. Approximately 80% of plants are in the ground layer.

The excessive leaf fall from the *E. moluccana* reveals the leaves were covered in 100's of white lace lerp structures that are 'homes' built by psyllid insect larval stages for protection from predator attack. These psyllids are sap suckers and a likely cause (or a partial contributing cause) of tree death. The insect has been identified as a *Cardiaspina* species—a previously undescribed insect species still to be named.

Monitoring

A University of Western Sydney student is monitoring five sites throughout Western Sydney including Peppermint Reserve in Kingswood (Penrith LGA) for insect attack, using yellow sticky traps, bagging and tagging.

Potential drivers of the insect outbreak may include:

- vegetation fragmentation
- possible 'boom or bust' cycles with reinfestation
- habitat degradation by noisy miner birds and Indian mynah birds. These birds exclude insect eating small bush birds from forest areas
- water
- pollution.

It is thought that outbreaks may be more severe after a wet mild winter followed by a cooler wet summer.

Science and trials

Western Sydney Parkland Trust has trialled the insecticide Confidor®. A tree injection program is under way. When new plants are planted they are now receiving a foliar spray as protection.

Bayer is conducting trunk injecting trials as well as soil treatments. Soil injection can take three months to take effect. Note: there can be negative effects from using insecticides.

Potential consequences

- net loss of iconic *Eucalyptus moluccana* trees
- cost of tree removal
- there will be a lot of generated waste to be disposed or distributed (mulch, logs etc)
- movement of (infected) mulch between sites will spread the problem
- can the insecticide treatment be maintained?
- is the insecticide treatment working and at what financial cost?
- what non-target species impacts are there from chemicals?
- is defoliation a cause or an effect?
- increased salinity
- the need to plant salt tolerant species
- loss of canopy trees
- the need to plant other Eucalyptus species e.g. *E. tereticornis* or *E. eugenioides* in the short term (10 years?) in order to provide canopy for other native plants
- loss or the need to manage hollow bearing trees for avifauna
- the inability of infected trees to produce seed will limit seed stocks for replacement plantings
- loss of biological diversity as the tree canopy is lost and the need to protect shrubs and ground layer plants
- costs to the community of tree removal or loss of amenity
- the need for integrated pest management
- movement of insects on yellow high viz clothing of land managers and staff (insects are attracted to the colour yellow)
- the need for increased research
- the need for federal/state funding and lobbying
- the need for community education driven from the state level.

Conclusion

Further research is required to determine the exact reason the *Eucalyptus moluccana* trees are dying, particularly more research regarding the psyllid insect in order to break its lifecycle. The community needs to be better informed about the consequences of tree loss. Funding for research, tree removal and replacement planting should be sought from appropriate funding bodies e.g. State government.

23 December 2012

Views expressed in this article are those of the author at the time of printing, and are not necessarily the views of Penrith City Council.

Tree in good health April 2008, and same tree affected by lace lerp in July 2011. Photos: Penrith Council

Building a simple compost bin

Scott Meier
BARRC—Bushland & Rainforest Restoration & Consulting

Composting is a common practice within the restoration movement. Here is a simple method for constructing a long lasting, cost effective and visually acceptable compost bin.

A well constructed bin can last for more than 10 years, save on tipping fees, and reduce the likelihood of inadvertently spreading propagules during transit to a landfill or vegetation composting facility.

Materials:

1. star posts—4 to 8 depending on the size and shape preferred
2. chicken wire—long enough to complete the circumference of the bin, plus a small overlap (at least 30 cm and tall enough to reach your shoulder)
3. galvanised tie wire
4. netting clips (optional)
5. black plastic (heavy duty), width of at least 2 x waist height

All of these materials should be available at hardware stores.

Tools:

1. star post rammer (or sledge / lump hammer if you are particularly co-ordinated)
2. netting clip pliers
3. side-cutting pliers
4. knife.

Construction:

Choose a suitable location for the compost bin. Contemplate visual amenity of the bin. Consider accessibility for filling and for access with a vehicle should the bin require emptying and dismantling. Consider the proximity to flood waters.

Choose a location that has soil deep enough to retain a star post in a sturdy manner. Drive the star post in with the rammer or hammer until waist height. Any bin shape will do, but I prefer circular structures. Note that the chicken wire sits on the supporting star post structure more easily when the arrangement is gently curved, not angular. Build the bin to

Figure 1: Circular star post arrangement with chicken wire circumference. Note the wire extending above the top of the posts.

Figure 2: Chicken wire folded over the top of the posts and wired to itself.

Figure 3: Interior lining of black plastic extending over the top of the structure.

Figure 4: Completed compost bin with inner & outer lining of black plastic. This particular bin was in use for almost 10 years.

accommodate the expected quantity of propagules you wish to compost. I have used some of these bins for more than 10 years continuously, so consider the potential for long-term use.

Take the galvanised chicken wire and place it around the outside of the star posts, overlap and use netting clips or galvanised tie wire to connect the overlap. If using tie wire, twitch or twist the wire and bend the ends flat to the chicken wire so that it does not stick out, catch clothing or scratch the constructors.

The chicken wire should be at least shoulder height (i.e. the width of the roll) so that when attached around the circumference of the waist height star post arrangement, the top of the chicken wire can be folded over the top of the star posts and clipped or wired to itself on the inside of the compost bin. This fold over the top of the posts will protect the plastic from ripping on the posts and protect clothes and other things from catching when leaning over the bin to deposit compostables.

The bin is now ready for lining. Ensure that the floor is lined with unbroken plastic, extending up the interior walls of the bin, preferably to the top of the star posts. Once the interior is lined, use a single 2 x waist height length to cover the outer circumference of the bin with at least 1 m overlap. Fold the remaining half over the star post to the interior of the compost bin. You will now have 3 layers of black plastic on the bin walls. Use tie wire to poke through the 3 layers of plastic and tie the plastic to the chicken wire structure. Ensure the wire ends are tucked away safely. Poke some small holes in the bin floor to allow water to drain.

Lastly, cut a piece of plastic to cover the weeds in the bin.

VCN celebrates 20 years

In April 1993, Adam Richards, then Bushcare Officer with Ku-ring-gai Council on Sydney's North Shore, called a meeting with some fellow bushcare officers to talk about their challenges and achievements. The Volunteer Coordinators Network (VCN) was born.

'I thought it would be useful to share our experiences and find out how others were managing their volunteers. Our volunteer bushcare programs were all fairly new and we were all facing the same sort of issues', said Adam.

Twenty years and roughly 80 quarterly meetings on, a Reflections Workshop was held at the Greengate Hotel, the same venue that played host to that first meeting.

Archival VCN meeting minutes were searched for names and places and invitations sent to as many VCN members, old and new, as could be found. Three of the people from that first meeting were there, Adam himself, Karen Kennedy and Virginia Bear. Together with Rosanna Luca, already involved with Bushcare as a student volunteer in the early 90s, they cut the 20th anniversary cake.

Attendees shared fond memories of their time spent with the network.

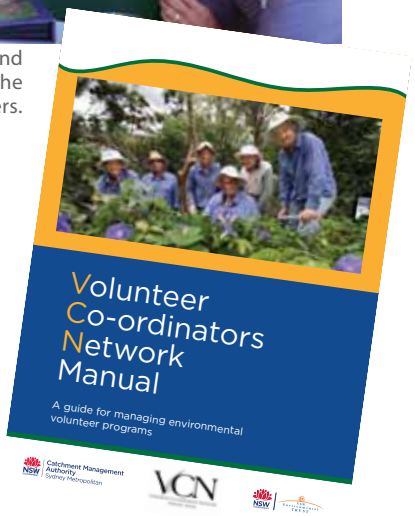
'The VCN is fantastic. I remember feeling so lost and alone when I first started as a Bushcare Officer at Waverley Council', said former member Helen Kemp. 'But then I attended my first VCN meeting and discovered this incredible group of friendly and supportive people who were dealing with the same issues as me, and was able to draw on their knowledge to find solutions.'

Geoff Hudson, Senior Policy Officer Natural Resource Management with local government NSW, agrees on the importance of the Network. 'For local government officers the VCN is a great way to be connected across different councils and help with policies and innovative ideas'.

The current network members continue to meet every quarter, and take turns to host. Anyone in Australia involved with organising volunteers in natural resource management is welcome to join. Members stay connected through the Volcoord email network and bulletin board, hosted by AABR. In the Greater Sydney region, administrative support is provided by the Hawkesbury-Nepean CMA. In 1998 VCN members pooled their resources to develop a manual, written and edited by Rosanna Luca. Last year the third edition of the manual was released.

Rosanna Luca, Adam Richards, Karen Kennedy and Virginia Bear.

Peter Dixon, Jeannette Stannard and Christine Guthrie looking through the CMA's archive of bushcare newsletters.



The next meeting is being held in June at Warringah on Sydney's Northern Beaches, and all members, past and present, are looking forward to the 25th anniversary!

(From a HNCMA press release)

What's happening

18 April

Weed Society of Victoria AGM Seminar

Where Agribio Centre, Latrobe University, Bundoora.

Contact *www.wsvic.org.au/node/95*

18-19 May

AABR Sydney Plant ID workshops with Van Klaphake—Grasses

Where Cecal Hall Earlwood. Bookings essential.

Contact email Paul at *ibb56@yahoo.com.au*

4-5 June

NCC Bushfire Conference

Where NSW Teachers' Federation Conference Centre, 37 Reservoir St Surry Hills, Sydney.

Contact *nccnsw.org.au/programs/bushfire-conference-2013*

The Nature Conservation Council of NSW presents its 9th Biennial Bushfire Conference.

This conference will explore the role holistic fire management can play in making our landscapes and communities more resilient in a changing climate. New scientific research, policy updates and on ground management issues and success stories will be presented. This year we are introducing speed talks—four minute talks intended for people wishing to: introduce a new concept, present some interim results, or share an on ground success story.

There will be four symposia:

- **resilience (environmental, social and cultural)**—what is it and how do we achieve it?
- **good fire vs bad fire?**—managing fire to meet desirable local outcomes
- **using fire for restoration**—more than burning within specific thresholds
- **strengthening community resilience**—what tools are available and how to use them.

22-23 June

AABR Sydney Plant ID workshops with Van Klaphake—Sedges & Rushes

Where Cecal Hall Earlwood. Bookings essential.

Contact email Paul at *ibb56@yahoo.com.au*

15-18 July

12th Queensland Weed Symposium—Weeds: Everyone's Business

Where The Boat Club, Hervey Bay.

Contact *www.icebergevents.com/qws2013/*

20-21 July

AABR Sydney Plant ID workshops with Van Klaphake—Eucalypts

Where Cecal Hall Earlwood. Bookings essential.

Contact email Paul at *ibb56@yahoo.com.au*

Spring 2013

AABR relaunch

Where TBA

Contact *www.aabr.org.au*

Sunday 8 September

Bushcare's Major Day Out

Where Over 100 city and country locations across Australia

Contact *bushcaresmajordayout.org/*

Everyone is invited to gather and do their bit for our remaining bushland. Specifically designed to give all of us the opportunity to find out what is being done and what can be done in our own neighbourhood. A fun day where anyone can work alongside and learn from experts and experienced volunteers. A range of activities; walks, planting, weed removal, photography workshops as well as native plant identification and well celebrated morning teas.

Sponsored by Landcare Australia and Willoughby City Council.

9-12 September

17th NSW Biennial Weeds Conference—Weeds Have No Boundaries

Where Corowa RSL Club, Corowa

Contact *nswweedsconference2013.com*

- see first hand the weed management challenges along the Murray River Region
- meet with and learn from other weed managers
- find out about the latest development in weed management, policy, research, new incursions
- network with others working in weed management at social functions
- gain an understanding of the latest technology and research findings
- link up with people/organisations in specific aspects of weed management that closely align with areas of expertise
- understand new weed threats
- make new friends or working relationships
- appreciate the broad depth of experience and knowledge of people working in weed management disciplines
- experience what Corowa has to offer.

9-15 September

2nd International Grasslands Congress—Revitalising Grasslands to Sustain Our Communities

Where Sydney

Contact *www.igc2013.com*

The program will explore the current issues facing grasslands around the world and share the latest industry developments and solutions. We are providing opportunities for early career researchers.

The proposed Congress program will be delivered in three main streams:

- improving production efficiency to revitalise grasslands
- improving grassland environment and resources
- people, rights, policies, practices and processes.

Aims to present a program which is participative, innovative, stimulating, thought-provoking and enriching by offering networking and learning opportunities to new and experienced, grassland scientists, extension workers, postgraduate students and some undergraduate students, agri-business professionals, policy makers, leading livestock producers and farmers from all over the world.

27-29 September

Queensland Landcare Conference—Healthy Habitats... Profitable Production

Where Warwick

Contact *http://headwaters.ddrlandcare.org/*

Bringing together hundreds of land managers, extension staff and researchers finding solutions for balancing healthy habitats and profitable production.

AABR News is the quarterly newsletter of the Australian Association of Bush Regenerators (NSW) AABR Inc, usually published in March, June, September and December.

AABR NSW 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.

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Stay posted in 2013 for changes to the accreditation system

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 detail.

$20:00	p.a	AABR Newsletter Subscription	(all interested people)
$10:00	p.a	AABR Newsletter Subscription	(email for 1 year for students of Certificate III CLM-Natural Area Restoration)
$25:00	p.a	AABR Membership	(appropriately qualified & experienced bush regenerators)
$50-400	p.a	AABR Contractors & Consultants List	(appropriately qualified & experienced bush regenerators)

Newsletter contributions and comments are welcome

Contact Virginia Bear newsletter@aabr.org.au 0408 468 442

Opinions expressed in this newsletter are not necessarily those of AABR NSW