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AABR NEWS

Australian Association of Bush Regenerators

working with natural processes

National Landcare Award for AABR

The Australian Association of Bush Regenerators was announced as the National WINNER of the Partnerships for Landcare Award at the National Landcare Awards Gala Dinner in Sydney on 24 August 2022.

Each year, this award recognises an innovative partnership of individuals, groups, or organisations that have demonstrated leadership and achievement in Landcare related activities.

AABR was granted the award for their outstanding efforts in implementing the *First Aid for Burned Bushland* initiative alongside partners and sponsors.

Virginia Bear and Peter Dixon from AABR receiving the award. Photo provided by: Landcare Australia

How did *First Aid for Burned Bushland* come about

After the 2019-20 bushfires (Black Summer fires) across much of Australia, the AABR Board recognised the need to form partnerships with land managers to advocate for assisted regeneration practices that would allow the bushland time to recover, and focus on strategic management of weeds rather than unnecessary and potentially damaging planting. This view was championed at the Federal Ministerial Roundtable early in 2020, and AABR played a key role in establishing a post-fire environmental NGO network to continue collaboration.

On 25 January 2020 a facebook post by AABR, 'Give the bush a chance to regenerate', rapidly reached 31,000 people, highlighting the community hunger for education for managing a fire-ravaged landscape.

Two articles, one in The Conversation 12/2/2020 and one by AABR in Newsletter 143, set the scene for a more thoughtful approach.

Following on, AABR initiated an innovative, rapid response outreach and educational program, FABB, in January 2020 to assist in the post-fire recovery.

On-ground assistance : AABR organised practical assistance by linking skilled regenerators with volunteers and using a site locator map to connect volunteers with sites. Members also contacted and visited organisations and groups to assess sites for assistance.

260 volunteers registered and 15 sites needing support were listed. Three sites (Scottsdale, Crowdy Bay and Barrington Tops) in NSW had teams of trained and experienced volunteers who assisted in post-fire weed control. The volunteers have retained an ongoing connection with these sites. Covid restrictions limited further on-site assistance.

Resources : FABB developed educational resources to provide volunteers (whose work was restricted because of COVID) with basic but sufficient understanding of bush regeneration principles so they were ready to work once restrictions were eased. These resources can be seen at https://www.aabr.org.au/do/post-fire-bush-regeneration-map-and-resources/ and included.

- Production of six short sponsored videos to increase knowledge of burnt bushland areas and weed control.
- Two information sheets for assisting recovery of vegetation
- Post–fire Workshops in NSW at Eurobodalla, Mid North Coast and the Hunter region.
- Social Media - Facilitation of two groups on facebook
- Webinars - 2 held by AABR
- AABR presentations at other webinars and conference.

Partnerships: A wide range of partnerships were developed with landcare/bushcare groups, landholder groups, funders, agencies, local government, organisations, businesses, and strategic partnerships with Landcare Australia, WWF and Conservation Volunteers Australia.
Grants valued at $21,500 were obtained.

FIRST AID for burned bushland

Sponsors: AABR members provided $15,000 of donations and sponsorships from both businesses and 6 individuals.

President's Perspective

Biodiversity Market

Some of you may have noticed the public consultation by the Australian Government on a proposal to introduce a Biodiversity Market to Australia. The consultation document was very light-on, with little information from which to be able to make decisive comments. The AABR response expressed fundamental support of policy and program initiatives that led to increased investment in ecological restoration, including those relying on financial instruments, but we expressed significant emphasis about the need to have a design which avoided the perverse outcomes seen in some existing models that use a "market" to improve biodiversity outcomes, especially offset programs. We also strongly stated that any program introduced should reflect the true cost of ecological restoration, the need for maintenance and monitoring into the long term, and that any ecological restoration was measured against the restored areas' resilience and ability to recover from impacts such as drought or fire. The discussion paper did not instill any great comfort in the AABR reviewers, referring to activities such as "fencing or weeding" being sufficient to generate certificates. We know from past history that the Australian Government rarely delivers programs that encourage best practice ecological restoration, so AABR feels that it is important that it stays engaged on this and other issues relating to how the Australian Government funds restoration. We hope that with the new government, we and others can have some influence to improve how and what the Commonwealth funds.

Bushcare

There are hundreds of thousands of Australians who volunteer for the environment. While many of them may only get involved on special days like National Tree Day or Clean up Australia Day, many are also regularly involved on an ongoing basis in biodiversity works. While Landcare groups are supported in each territory and state by a governance structure which involves a peak body (which in turn is a member of the National Landcare Network), most of the local government, national parks or NGO supported groups such as Bushcare, Dunecare, 'Friends of' groups and others, have no central point of contact or networking, nor are represented at territory, state or national levels. Over the years, AABR has been involved with some of these programs and undertaken specific roles: facilitating projects, hosting material on our website and running networks.

Some recent media attention has shown how misunderstood this cohort of community programs is and how little they are represented. Discussions within the AABR Board have identified an interest for AABR to engage with these programs to see if there is a desire amongst their coordinators and volunteers for AABR to engage with them on an ongoing basis and what that engagement could look like. Potentially, we could develop education and training resource material, provide a single point of contact on the net, and be an advocate.

Knowing that many of our members belong to this type of group (I certainly do!), we would be keen for members to contact us if they are interested in becoming involved or to be kept informed of progress.

Landcare and Landcare

I have to finish off this President's Report with a bit of crowing. At the recent National Landcare Conference, AABR and bush regeneration had a strong presence, with a strong contingent of AABR members and other regenerators in attendance, a number of field trips and presentations on bush regeneration (including one by yours truly) and to top it off, we won the Australian Government Partnerships for Landcare Award for the First Aid for Burned Bushland project. Virginia Bear and I got to go on stage to collect the award. Costa from Gardening Australia made special mention of Virginia and her video making prowess (he had previously attended the launch of Renewal in the Desert), and Virginia was seen dancing the evening away with the Award firmly in hand. I wasn't involved in the original project, so felt a bit of a fraud, but it was a fantastic recognition of all the AABR Board and members who put such an effort into the project.

The Conference was also an excellent opportunity to network, and we came away with many offers of collaboration and interest from other NGOs, councils and agencies to learn more and to keep in contact.

Peter Dixon, President AABR

Vale Carl Fulton

The NSW Hunter region lost a trailblazing icon in Carl Fulton on 29/9/22. Carl's legacy is a significant one, a kind, humble and generous man who touched the lives of so many and made a substantial difference to the environment of the Lower Hunter and beyond, he will be missed but not forgotten.

Carl was instrumental in laying the groundwork for Lake Macquarie Landcare, providing bush regen focussed action plans and comprehensive species lists that have guided hundreds of groups in their restoration efforts. Carl was steadfast is ensuring we were regenerating bushland habitat not gardening, the integrity of the pant communities uppermost in mind.

Carl was also a significant cog in the wheels that turned Trees In Newcastle (a community organisation working to improve biodiversity and vegetation cover in the NSW Hunter Region). His encyclopaedic botanical knowledge and commitment to best practice bush regeneration and seed collection supported the growth of not only many plants, but the people who cared for them.

For many who worked with Carl, we were the fortunate ones to have been bolstered by his passion, nurtured in our understanding and supported in his kindness.

Suzanne Pritchard

"AABR acknowledges Australian Aboriginal and Torres Strait Islander peoples as the First Nations of this continent and recognises their custodianship and continuing connection to its land, waters and community.

We pay our respects to the Elders past and present and future, for they hold the memories, traditions, culture and hopes of Indigenous peoples across the nation."

AABR Events

Heroes of the Big Scrub. Online Video Premiere

Wednesday 26 October 2022, 6-7pm

Heroes of the Big Scrub is an inspiring story of landscape scale restoration. The video showcases the people who understood the processes of rainforest restoration ecology, and integrates the social understandings with the theoretical knowledge that has enabled the Big Scrub to survive. The video looks at the role of assisted natural regeneration and revegetation in supporting and expanding remnants. We see and hear how 'the heroes' created strategic pathways, processes and resources so that others could follow on this epic restoration adventure.

Speakers include Nancy Pallin, Virginia Bear, Tein McDonald and Tony Parkes. Cohosted with Big Scrub Landcare.

Webinar Registration https://us06web.zoom.us/webinar/register/WN_J0Sm4-7iS3ykQuHrajnrNg

AABR Website Link https://www.aabr.org.au/event/premiere-heroes-of-the-big-scrub/ AABR AGM

AABR AGM - Online

Saturday 5th November 2022, 10am-12 midday

(Eastern Standard Time)

Speaker: Dr Andy Baker, Southern Cross University ***Demystifying reference ecosystems for bush regenerators - how their use is critical to best practice regen.***

Dr Baker will be discussing the following scenarios

- Grassland – What happens if we let woody species migrate?
- Sclerophyll – What are the triggers for mesic shifts? What happens if common groundcovers are allowed to dominate? Where does resilience fit in?
- All ecosystems (including rainforest) – What are the resilience limits? What happens if individual species numbers are low or some flora groups are missing? Is reintroduction a solution?

Following the presentation there will be a panel discussion drawn from experienced practitioners on AABR's Board, and time to answer questions.

Registrations & donations Zoom: https://us06web.zoom.us/meeting/register/tZMlc-2uqzwpG9zpa-fvgfosCzpT8yzRwVZH

AABR website event https://www.aabr.org.au/event/agm-guest-speaker-dr-andy-baker/

Barrington Tops NSW - Scotch broom control - Volunteer program

One of the post fire activities which AABR members and friends participated in was helping NPWS control Scotch Broom in Barrington Tops National Park. This park is located north of the Hunter Valley in NSW. Access to the sites is via Scone.

Places are now open for the end of year Barrington Scotch Broom events. (Get in quick - places are limited!).

This year and next there are 4wd-events and 2wd-events. Please click the links below for more information.

Bookings are Essential:

Register for the 4wd event at Little Murray:

8th till 11th of December 2022
2nd till the 5th February 2023

For information and bookings go here: http://bttr.im/olrqf.

Register for the 2wd event at Polblue:

10th till 13th of November 2022
23rd till 16th February 2023

For information and bookings go here: http://bttr.im/3td13.

If you still have queries please contact NPWS via email: conservation.hccb@environment.nsw.gov.au.

Nicola Booth & Boyd Carney and the NPWS Barrington Tops team
Hunter Central Coast Branch, NSW National Parks and Wildlife Service

Field Day NSW Mid North Coast with Scott Meier AABR Board Member

Friday 11th November at Killabakh

Learning about Grasses part 2

Following on from Newsletter No 152, Harry Rose provides more information on grass related things. Harry ran the Grass ID workshops in 2022 for AABR.

Coolatai Grass (*Hyparrhenia hirta*) – trouble is coming!

Of the invasive grasses in Australia, this is one grass you should definitely be wary of!

It was brought from Africa around the late 1800s to Coolatai Station on the NSW northwest slopes. Since then, it has invaded most parts of Australia, but its occurrence is massively under-reported. On the NSW north coast it occurs on nearly every roadside, but there are few records for this region and I've seen it in every area of NSW I've visited. In the Hunter Valley it has invaded many pastures and is a major weed of mine rehabilitation.

So, what are some features which make it so bad?

- All parts of the plant are allelopathic (i.e., it produces chemicals as parts die which suppress the germination and growth of other species) allowing it to form monocultures and reduce biodiversity.
- Invasive in disturbed and undisturbed situations. Its spread has been relentless in NSW.
- Occurs on most roadsides on the coast. So don't bother asking for it to be classed as a priority weed or for council to control it on roadsides.
- Does well on low-fertility well-drained soils (i.e., most country where natives grow on the coast).
- Can flower for up to 365 days a year on many parts of the coast and there is a very short interval between cutting and flowering.
- Seed is light, fluffy and easily spread by cars, trucks, roadside slashers and animals.
- Plants are self-fertile, enabling new populations to arise from a single plant.
- Seed can be viable for around 5-7 years in the soil.
- Outcompetes most (all?) other grass species. If you want to get African lovegrass, this is a species that will do it!
- Plants have low palatability (i.e. animals really don't like eating it) except when young.
- Growing points and energy stores are at or below ground level, so cutting it of at ground level really doesn't affect it.
- Fire and drought tolerant.
- Naturally tolerant to many commonly used chemicals, so that higher rates and more applications are needed for its control.
- And just to top it off, there is another invasive *Hyparrhenia* species which is proving just as bad, but is in a much earlier stage of invasion, Giant Coolatai grass (*Hyparrhenia rufa*).

Above: Coolatai grass

Right Coolatai grass seed heads

Photos: John Tann

So, who doesn't have to worry about the Coolatai grasses?

If you have undisturbed closed forest or a dense shrub understorey it won't invade. Also, if you have wet soils, clay soils, fertile soils and/or undertake intensive agriculture it shouldn't be a problem. Elsewhere, watch out!

How can you recognise Coolatai Grass?

- Leaves (spathes) in the flowerhead.
- Paired flowerhead branches 15-50mm long, with 5-7 awns and white hairs.
- Tufted grass, usually with bluey-green leaves and growing to a bit above waist height.

Grass breeding systems - reference

During the grass identification field days this year Harry talked about breeding systems in grasses. This is the paper referred to:

RDB Whalley, IH Chivers and CM Waters (2013) Revegetation with Australian native grasses – a reassessment of the importance of using local provenances. The Rangeland Journal, 35, 155–166.

Further information: Contact Harry Rose on 0428437158 or hrose.nswdpi@gmail.com.

Purchasing hand lenses

As you'll only ever need to purchase these once in your life, buy a good quality Japanese lens with a large 21mm viewing field. They can be purchased from Australian Entomological Supplies (https://www.entosupplies.com.au/equipment/magnification/magnifiers-field-lab-magnification/hand-lens-magnifiers-jewellers-loupes-10x-magnification/).

The E276 Jewellers Loupe Folding Hand Lens has 10x magnification (more than enough for grasses), 21mm diameter viewing field, metal body and glass lenses ($28 each).

If you often work in poor light a hand lens with a light might be useful. In this case, the E276VLED Illuminated Jewellers Loupe Folding Hand Lens with 10x magnification and 2 light emitting diodes (LED) might be the go (strangely only $18 each at the moment).

A professional grade illuminated hand lens (E276Q10 - triple lens with white and UV lighting) would set you back $74 and probably isn't worth the price.

AABR Victoria Webinar Program

AABR Victoria recently held a webinar which was co-hosted with Ecological Consultants Association of Victoria https://ecavic.org.au/ . The aim of this series of co-hosted presentations is to improve outcomes in biodiversity restoration management. This will involve better design and provision of guidelines together with presentation of both successful and less successful aspects of past projects.

The speaker for the first lunchtime webinar in August, was Lincoln Kern who talked about management planning for conservation sites.

Notes from AABR Webinar - Management planning for conservation sites

The Webinar covered a number of aspects and included practical examples of how a management plan tied in with implementation and monitoring.

Triggers for Land Management Plans

These are often required under a legal framework and often there is a need to prepare an integrated land management plan for peri-urban or rural blocks as part of planning permits or development approvals, an Offset Management Plan to demonstrate protection and habitat quality gain or a Bushland Reserve Management Plan.

Complications of Land Management Plans

Plans should be simple and practical but there can be complications. Clients have different motivations and objectives for their land and plan. Different agencies and stakeholders have different requirements and expectations. Reconciling these objectives can be challenging.

Individual landowners vary in their motivation, aspirations, and experience etc and they are the people required to implement and live with them.

There is also a need for a balance between detail and flexibility as adaptive management principles will need support to guide future decisions in most sites where reality won't mesh with expectations.

Management Plan Issues

Includes what portion of site you need to survey. There is a need to select an appropriate scope for a site to lead to a better outcome. Too often in development applications only the impact zone is assessed when an entire property is affected.

A management plan usually means that the site will change with new development that has to be managed or you are looking for change, eg improving ecological values. It should have clear objectives – zoning, a program of works and timing.

Adaptive Management and Monitoring

What are Land Management Plans for? Key outcomes are important but it is how you get to them that is also important in adaptive management. Management needs to be able to change and adjust.

Monitoring

It can be easy to go to standard methods, but you have to work out if these standard methods are fit for purpose. The monitoring procedures need to fit into the adaptive management process and hopefully directly inform and facilitate decision making for future management. Data collection should be designed to be as objective as possible for accuracy and also added to larger databases to support larger scale management and research.

Ideas for Future Events/Discussions

Consultants and practitioners working together to improve conservation management planning

Adaptive Management and Effective Monitoring

Using the National Ecological Restoration Standards to guide ecological restoration projects and management plans.

Lincoln Kern is the Managing Director of Practical Ecology. His work has involved providing expertise in flora and fauna surveying, environmental planning, bushland and grassland restoration, bushfire risk analysis and planning law, environmental and noxious weed control, revegetation and general land management services with the business operating since 1993. Since starting work in the ecological restoration and environmental industry in 1990 based in Victoria, Lincoln has developed his ecological consulting business as a small and impactful environmental consultancy in planning and land management. Lincoln also edited Indigenotes, newsletter of the Indigenous Flora and Fauna Association https://www.iffa.org.au/, for many years.

The Webinar is on youtube at https://youtu.be/NT1IQkhtNnY

The next webinar is planned for November. Information will be sent once this has been finalised

We are keen to hear from any AABR members who have a restoration project they would like to present that has or is using the National Standards.

Contact Rob Scott robscott@naturelinks.com.au
or Suzanne at education@aabr.org.au

Postponement of Visit to Ben Ricketts Environmental Preserve, Jamberoo NSW

The AABR visit to Ben Ricketts Environmental Preserve in November has been postponed. The property is on Jamberoo Mountain Road and due to heavy rain and landslips the road is closed for some time.

Fire in Eastern Suburbs Banksia Scrub at Manly (Sydney) - AABR Walk and Talk.

Eastern Suburbs Banksia Scrub (ESBS) at North Head Sanctuary in Sydney was the focus of a visit by AABR members and friends on Sunday 21st August 2022. This vegetation is a threatened ecological community, and the visit was to demonstrate and learn about the use of fire to manage natural regeneration, and to see what happened when a fire got out of control in October 2020.

Peter Jensen, Environment Officer for Sydney Harbour Federation Trust, led the walk. Peter is an experienced bush regenerator and has managed the site for the past 19 years.

The spectacular North Head Sanctuary, overlooking Sydney Harbour at North Manly, is the best site to visit ESBS, which was the 1st ecological community listed as threatened in NSW. The Sanctuary is located on Sydney Harbour Federation Trust (SHFT) land and was historically used by the Australian Defence Force prior to and during World War II, and the School of Artillery up until 1998. It was opened to the public in 2007. Past and current use of the site has resulted in a network of well-maintained tracks passing through ESBS in various condition categories, with different burn histories. The area includes several lookouts.

ESBS is an ecological community that occupied between 5,300 and 9,600 hectares of land in the Sydney coastal area between North Head and Royal National Park in 1788. Surviving stands totalling approximately 512 hectares have been recorded from the local government areas of Bayside, Northern Beaches, Randwick, Sutherland, and Waverley, with the largest and most intact remnant occurring at North Head.

Due, in part, to the loss of >90% of its pre-1788 extent, ESBS is listed as critically endangered by the Australian Government under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and in NSW under the NSW *Biodiversity Conservation Act 2016.*

Across the Sydney region, ESBS occurs on land owned by around 20 landholders. with all but a few of these being state and commonwealth government departments. Some departments own multiple sites, and 5 of these are leased to golf clubs.

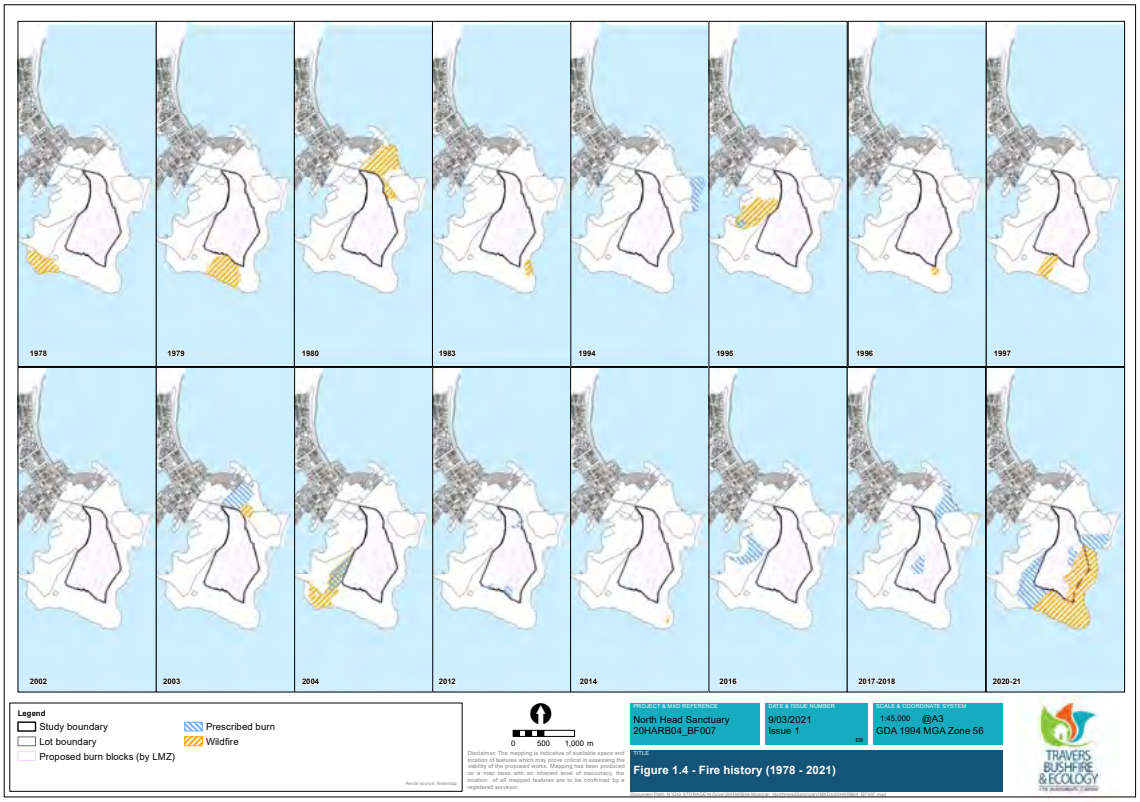
ESBS occurs on gently undulating plains to rolling dunes. The soil is highly leached, low nutrient, white sand of Quaternary age. The origin of the sands/dunes is aeolian (wind-formed), not marine.

The vegetation structure is typically heath or scrub (i.e. the canopy is made up of shrubs, less than or greater than 2m high, respectively) and occasionally low woodland (sparsely treed). Some of the characteristic taller plant species include B*anksia ericifolia, Banksia marginata, Banksia aemula, Kunzea ambigua* and *Leptospermum laevigatum*. More ESBS species are listed on https://www.environment.nsw.gov.au in the final determination.

Weed control is implemented by SHFT contractors, and the North Head Sanctuary Foundation assist with propagating and planting local provenance species in areas of previously mown lawn where regeneration was not occurring.

Fire at North Head

It is interesting to note that the first burn by Aboriginal people witnessed by Europeans was at North Head, possibly in ESBS. The map made available by the SHST, is from the Bushfire Management Plan by Travers Bushfire and Ecology written for the Trust. This map shows the recent fire history of North Head and includes both planned burns and wildfires.



Maps showing fire history at North Head from 1978 to 2021.

Blue hatch shows prescribed burns and orange hatch shows wildfires.

The map made available by the Sydney Harbour Federation Trust, is from the Bushfire Management Plan by Travers Bushfire and Ecology written for the Trust.

A prescribed burn by the SHFT at North Head in 2007.

This was an area of teatree and shows the flame heights and intensity of the burn.

Photo: Peter Jensen

Until a decade ago, North Head Sanctuary had no record of fire for more than 50 years with large tracts of the bushland being mechanically cleared by the army for military exercises and training from the 1930s to the 1990s. Subsequent regrowth and absence of fire led to large areas of Leptospermum-dominated bushland, but recent fires have been found to regenerate many species not previously recorded.

Fire on North Head is coordinated between Fire & Rescue NSW on SHFT land, and New South Wales National Parks and Wildlife Service (NPWS) on the adjoining Sydney Harbour National Park.

In October 2020, a planned NPWS hazard reduction burn jumped containment lines and resulted in 62.86 ha of the 304 ha headland being burnt instead of the intended 8.7 ha. Around 45.99 ha was NPWS estate and 16.87 ha was SHFT estate, equating to 20% of the total North Head area.

The NPWS and SHFT produced a North Head Joint Recovery Plan to guide recovery of the burnt area. It outlined strategies and projects to restore the natural, historic and indigenous cultural values and the visitor facilities at North Head.

The red hatched area in the fire history map for 2020-21 (the final map) shows the extent of the fire in 2020.

Recovery after the fire has been good for both the flora and fauna. Weeds were targeted by bush regeneration contractors, and these included those expected after fire, such as bitou bush, pampas grass, African lovegrass and inkweed. The site was in a relatively good condition prior to the burn so weeds have been controllable.

Bush at the cemetery after clearing of tall shrubs. North Head has spectacular view across Sydney Harbour with the city in the distance.

Control of rabbits at the Sanctuary has been carried out by the SHFT and foxes are controlled by NPWS across the headland.

The SHFT has carried out various ecological surveys in the Sanctuary, including flora and fauna surveys and a three-year bird survey (2007-9). A recent Environmental Trust grant for ESBS includes photo-point monitoring of the post-fire regeneration over a three year period.

Australian Wildlife Conservancy (AWC)

AWC is contracted by SHFT to deliver a suite of science projects within North Head Sanctuary. This includes wildlife translocation and monitoring. Native bush rats, eastern pygmy possums and the brown antechinus have been reintroduced into the Sanctuary over the past 14 years.

Post fire work by AWC and NPWS was to implement strategies to assist in the survival of fire affected wildlife, through provision of food and construction of artificial shelter structures.

Post fire regeneration after the 2020 fire.

Other disturbance

The site visit also covered the the heritage listed 3rd Quarantine Cemetery at North Head. This is an area where manual clearance of the taller ESBS species has been ongoing over the past 20 years to provide a fuel-reduced asset protection zone to protect the graves from unplanned fire. It was interesting to see the high species diversity of low shrubs and groundcovers in the cemetery, compared to the surrounding unburnt area of Leptospermum-dominated bushland. Regeneration has occurred showing that disturbance other than fire can assist regeneration.

Capacity for ESBS to naturally regenerate

- Original soil is critical for ESBS to survive. It contains seeds, rhizomes, bulbs and other plant stem material which plant species use to recover after disturbance, e.g. fire or light soil disturbance. The original soil is also likely to contain fungi which form mycorrhizal associations with plants, without which many native plants cannot survive.
- Seed of many species may remain viable in the soil for decades, as the soil is, in most places, dry and porous (almost pure sand).
- Planting is unlikely to be a useful conservation action in regard to re-establishing naturally regenerating ESBS. Many ESBS plant species produce little or no seed, often relying on resprouting to recover after disturbance. Seed that is collectable is often difficult to propagate. Some species may be grown by cuttings, but this produces genetic clones of donor plants and isn't ideal for a plant community with a restricted and fragmentated distribution, and which contains plant species with small populations. Some species may be grown by division (involving digging up rhizomes), but

again, this produces genetic clones, and it also involves greater disturbance to donor plants. Perhaps only 5% of ESBS plant species produce seed that is readily collectable and propagatable, however, many of these grow faster and taller than most other ESBS species and, if planted close to a remnant patch of ESBS, are likely to outcompete plants in the remnant – a likely negative biodiversity outcome.

- Many ESBS species grow very slowly. One *Hypolaena fastigiata* plant (a species which spreads rhizomatously) growing in the ESBS patch at Wassel St, Matraville, had a 1m diameter in 1994. In 2022 it has a 2m diameter, despite having apparently little competition from adjacent plants and being in full sun. Expecting ESBS to recover as quickly as other plant communities is unrealistic.

Ecological restoration actions to trigger ESBS to naturally regenerate

Fire

- For ESBS to survive, it needs to be burnt, preferably at 8 to 15 year intervals, but no greater than 30 year intervals. Too frequent fires will exclude species that only recover via seed germination (not resprouting), and which take many years to first bear fruit, e.g. *Banksia ericifolia*. Too infrequent fires will result in a few tall shrub species (i.e. those which grow >2m in height) dominating, with eventually few, if any, other species growing beneath.
- Burns shouldn't include entire ESBS patches, unless the patches are small, e.g. in order to provide a variety of habitat for native fauna.
- Burn intervals should vary within different parts of the same ESBS patch, e.g. in order to provide a variety of recovery responses, hence the conservation of a greater number of plant species.
- Burns are likely to have greatest benefit to conservation of ESBS where it is largely intact, i.e. where the original soil is largely intact. Such areas are characterised by a species rich layer of plants growing <1m in height.
- Burns may need to be hot to have greatest benefit to conservation of ESBS. Cool burns are unlikely to have occurred in such a combustible plant community, i.e. abundant, thin-branches shrubs <2m high. In October 1998, a hot fire burnt much of vegetation in the southern part of Botany Bay NP (north) and NSW Golf Course, La Perouse. A 1ha patch of ESBS on the golf course, prior to the burn, consisted of

The AABR group in the previously burnt area

Leptospermum laevigatum – Monotoca elliptica closed scrub to 4m height with sparse ground layer of *Lomandra longifolia* and *Dianella caerulea*. ~1 year after the burn, 52 ESBS species were recorded.

Minor Soil Disturbance

Minor soil disturbance, perhaps to 300mm depth, is likely to be of greater benefit to conservation of ESBS where it is not intact, i.e. where the original soil has been highly disturbed in the past to a depth / frequency at which most species don't recover. Such areas are characterised by a few species growing <1m in height. An example of soil disturbance stimulating natural regeneration: the digging of a fence post hole at the York Road ESBS patch, Queens Park, resulted in germination of a *Hibbertia fasciculata*. This small shrub grows <0.5m high and its seeds are unlikely to disperse more than a few metres from the parent plant. The next nearest known *Hibbertia fasciculata* plant recorded was 3.4km away in Randwick.

Clearing of taller ESBS species

Clearing taller ESBS shrubs (>2m in height) can benefit conservation of ESBS. Clearing *Leptospermum laevigatum* at 1 of the historic cemeteries at North Head, Manly, achieved a species rich response.

Smoke Water

Smoke water application is likely to benefit some ESBS plant species, though this hasn't been tested.

Written by Peter Jensen, Louise Brodie and other AABR members.

Regeneration of Eastern Suburbs Banksia Scrub after fire

All Photos: Virginia Bear

Gardening Responsibly
A new approach to stopping weeds

Project Manager, Aimee Freimanis and her team are aiming high here. They want to kick start a new movement, where its common to for people involved in plant production and purchase to check new plants for low invasiveness risk. They have developed a potentially powerful brand, and a new accreditation system, and are backing it with solid science.

The publicity material has a strong focus on gardening, and less on the project's drivers of protecting biodiversity and agriculture. It's a deliberate choice. The focus is firmly on the things that the largest group of people enjoy and are familiar and comfortable with.

According to the Gardening Responsibly team "At the heart of this is our Certified Gardening Responsibly eco-label — the gardening responsibly tick of approval!

Only ornamental plants that have been assessed through our Research Portal as having a low future-invasive risk can get the tick, and only suppliers who have joined the Gardening Responsibly Scheme can sell or provide plants with the tick.

The result? You can feel confident that when you choose a Certified Gardening Responsibly plant for your garden or project it will look great in place — and it will stay in place!"

Over 70% of Australia's weeds are garden escapes, and there are many more with potential to join them, so it makes good sense to try and stop them at the source. Bush regenerators have been wishing for, and working towards, this sort of attitude chance since our industry began, without great success.

This is the pilot phase with 600 plants surveyed (out of over 30,000 ornamental garden plants sold in Australian nurseries), and a small group of suppliers trialing the eco label.

It has started in NSW with a grant from the NSW Government's Environmental Trust, but a nationwide rollout is planned.

Key partners are the Nursery and Gardening Industry Association of NSW and ACT, the Australian Institute of Horticulture.

They have set up a research portal where anyone can check risks for particular plants, contribute additional plant knowledge or nominate a plant for assessment.

Their research shows that a significant percentage of plant shoppers will choose a plant with the Plantsafe tick over one without even pay a bit more for it. So there is clear incentive for the nursery and garden industry to supply plants with the eco label.

Abovr: Research by Macquarie University to identify plants with the characteristics that mean they have the potential to invade bushland.

Costa from Gardening Australia, above with Professor Michelle Leishman, Macquarie University (and AABR member) and left, with Aimee from Gardening Responsibly. Photo Gardening Australia.

But success depends on the demand for eco labelled plants increasing. We can help by spreading the word among our networks. And Aimee and the team are encouraging us to try out the research portal and give feedback.

Gardening Responsibly featured on ABC TV's Gardening Australia on September 30, 2022 and is on iview now.

Gardening responsibly website: www.gardeningresponsibly.org.au/

Read the article here on the research carried out by Macquarie University about the project.

Virginia Bear, AABR

Myrtle Rust survey

Now is your chance to help with Myrtle Rust!

The Council of Heads of Australian Botanic Gardens and BGANZ are running a Myrtle Rust survey. The survey will take stock of Myrtaceae species currently in collections across the country to inform future actions to conserve myrtle rust-affected species. If you or your organisation holds conservation collections of Myrtaceae species please take the time to fill in their survey found at https://chabg.org.au/myrtle-rust-survey/

It closes Monday 31 October 2022.

The 2022 National Landcare Conference

The 2022 Landcare Conference was held at the International Convention Centre Darling Harbour in Sydney from 23 - 25 August. The Sydney Conference was initially planned for 2020 but postponed until 2021 due to the COVID Pandemic when it was held online due to the Sydney lockdown. Third time lucky.

Landcare champion and ABC TV presenter Costa Georgiadis hosted the three-day conference event. Themes included Soil Conservation, Climate Change, Cultural Land Management and Intergenerational Landcare.

Bush Regeneration at the Conference

This conference was an amazing success for both Bush Regeneration and Bushcarers. It included a whole field trip program dedicated to Bushcare site visits within the Greater Sydney Region and on the Central Coast, at least three session stream talks on bush regeneration, and a major award given to AABR. This event was filmed for educational purposes.

At the Welcome Reception the Australian Centre for International Agricultural Research launched the book '*Building global sustainability through local self-reliance – Lessons from Landcare*'; the central theme being 'subsidiarity' - interpreted as the democratisation of decision making. Copies can be downloaded or ordered from https://www.aciar.gov.au/publication/lessons-global-landcare .

The highlight of the Conference was witnessing Peter Dixon and Virginia Bear accept the Australian Government Partnerships for Landcare Award (a handsome hardwood trophy) on behalf of AABR for the '*First Aid for Burned Bushland*' program – a response to the black summer fires, so well deserved. (See Newsletter Page 1 for a description of the program, and see the AABR website for a 1 minute video which gives a picture of what this program involved https://www.aabr.org.au/nsw-landcare-partnerships-winner/).

The conference included at least three stream session talks on bush regeneration, including:

- Urban Landcare: Kate Eccles: the *Bradleys Sisters – The Origin and Development of Bush Regeneration and its ongoing relevance*.

AABR attendees - Peter Dixon, President , Virginia Bear and Andrew Scott.

- Urban Landcare: V*ols on Hot Coals: How Ecological Hazard Reduction Burning has Rekindled the flame within Bushcare Volunteers* with Phil Sarkies and Geoff Scheutrim of Willoughby Council.
- Environment and Climate Change: Peter Dixon AABR: *Bush Regeneration in a changing climate – from resilience to response.*

The conference also presented many opportunities for AABR to raise its profile, engage with Landcare and other NGOs and to identify a range of potential collaborations. Let's hope bush regeneration remains a staple of Landcare conferences to come.

Above: Costa Georgiadis - host of the 2022 National Landcare Conference, with Anne Cook and Kate Eccles from Mosman Parks and Bushland Association Photos supplied by Andrew Scott

Field Trip 1: Battlers for the Bush - Community Action for Bushland Conservation in Sydney

This field trip highlighted bush regeneration in Sydney and included sites where conservation of bushland and early bush regeneration took place. This site visit was facilitated by North Sydney Council's Bushland Team with their partners Lane Cove, Hunters Hill, and Mosman Councils.

First stop on the bus excursion was at Mosman with a talk about the Bradley Sisters by Anne Cook and Kate Eccles of Mosman Parks and Bushland Association, and a walk through Chowder Head to view the NPWS Bushcare site below Morella Rd Mosman (supported primarily by Kate and her husband since 1994) on the way to Clifton Gardens. Kate was a presenter at the Conference where she talked about the Bradley sisters and the early development of bush regeneration. The Mosman Parks and Bushland Association remain active in the area carrying out bush regeneration. https://mosman-parks-and-bushland.squarespace.com/bush-regeneration .

From there the group visited Lane Cove Bushland Park to hear from Norma Stuart and Shauna Forrest of Lane Cove Bushland and Conservation Society (formerly Land Cove Bushland Preservation Society) and learn about community activism in the 1970s to save this precious bushland remnant. In 1971, Lane Cove Country Club approached Lane Cove Council with a plan to extend the golf course into adjoining remnant bushland located in the eastern arm of the y-shaped Gore Creek Valley. The club occupies the western arm - tributaries of Gore Creek that extend beyond River Road into the Lane Cove River. Concerned neighbours and local residents met in opposition to the proposed development and destruction of precious bushland where their children played. This led to the formation of the Society. Petitions to Council were ignored, work began, and community members jumped in front of the bulldozers to prevent further damage. A media campaign ensued. The former owner of the land, Mr Cogen, applied for a court injunction to stop work. Both parties prepared for a legal battle that was eventually settled out of court. The bushland had been saved! Lane Cove Bushland Park was declared a wildlife refuge under National Parks & Wildlife Service in 1980. It is a site of ecological importance and was listed on the Register of the National Estate

in 2000 due to its rare and endangered community of Hygrophoraceae fungi, also with a remnant of critically endangered Blue Gum High Forest. https://lanecovebushland.org.au/lane-cove-bushland-park/ .

Hygrocybe lanecovensis an endangered species of fungi found at Lane Cove Bushland Park

We lunched at the Coal Loader (North Sydney Council's Centre for Sustainability) with a talk by Karen Smith, Aboriginal Heritage Officer, on Aboriginal Cultural and Heritage and Dr. Ian Hoskins on changing land use on the Lower Shore. At the Aboriginal engraving in front of the Coal Loader Sustainability Centre in Waverton, Karen acknowledged the Gammaraygal people (also known as Cammeraygal and Gamaragal), the traditional owners, and custodians of the North Sydney area and Lower North Shore. She said the carving resembled a human figure (or magic man) within a mythical marine creature. However its true meaning remains a mystery as the Cammeraygal had been displaced through war and disease. Dr Ian Hoskins spoke about the working harbour, and mentioned that Balls Head had been cleared of timber during the depression about the time the Coal Loader was built, and this had been captured in a poem written by the great Australian poet Henry Lawson 'The Sacrifice of Balls Head'.

The final stop was a visit to Kelly's Bush to hear from Maureen Flowers, from Friends of Kelly's Bush, talk about the Battle for Kelly's Bush where the first Green Ban in the world was imposed in 1971. 'The Battlers' were 13 women, who spent 13 years to save this special parcel of bushland on the Hunters Hill peninsula from development. With the assistance of the Unions, on 16th June 1971, the Green Ban came into effect. It led to 42 further 'Green Bans' and over 100 heritage buildings stand in Sydney today because of this first historic Green Ban at Kelly's Bush.

Here, during the pouring rain, we also heard from Bev Debrincat about the Habitat Network and the Hunters Hill small bird habitat corridor and network project. The Habitat Network is a community based and volunteer led network, which runs a community native plant nursery and community food garden, "The Habitat", in Ryde, in Sydney. The Network is also involved with surrounding councils in the improvement and creation of corridors and habitat especially for small birds. This work has seen 9 km of habitat corridors worked on to date in Hunters Hill since 2009. Currently a network through private land to connect public natural areas is underway. The Habitat Network also has an educational role which involves working with schools and landowners giving advice and producing educational material for wider use. Topics covered include creating habitat in your garden, linear corridors, and bush turkeys. For more information go to https://www.habitatnetwork.org/ . This network also provides online weed related resources on its website http://www.iewf.org/ .

Habitat Network extending habitat by planting in areas subject to adverse impacts

Articles by Andrew Scott – North Sydney Council Bushcare Officer and proud board member of AABR.

2022 National Landcare Conference talks and resources available

Peter Dixon, AABR President's talk

Peter Dixon, AABR President, spoke at the Landcare Conference. His talk is available on line *Bush Regeneration in a Changing Climate – from Resilience to Response.*

In his talk, Peter defines the terms that AABR members may be familiar with such as 'resilience' and 'facilitated natural regeneration'. He looks at the restoration spectrum – from regeneration to reintroduction. The role of planting is discussed (why is it done when natural regeneration will produce good result?) where it fits and the limitations of planting into the future. Peter goes through climate considerations for landcare biodiversity projects and how funding for projects should ensure that the parameters ensure success.

You can also download Peter's Powerpoint presentation.

All Resources from the Conference

The link to see the presentations etc from the National Landcare Conference is https://www.landcarer.com.au/blogs/melanie-hartley/2022/08/18/landcareconf22-education-resources .

The resources available are listed and cover all talks - the welcome sessions, introductions and wrap-ups; the plenary sessions; and landcare awards; plus the sessions from the different streams which were Landcare Farming; Environment & Climate Change; Community Partnerships; Landcare Impacts; Urban Landcare; and First Nations.

Posters: copies of the posters are also available via the link above.

AABR Policies, Position Statements and Submissions

AABR makes submissions to the relevant people/organisations on topics that affect best practice restoration and the funding thereof.

Our most recent submission was to the Australian Government on the proposed National Biodiversity Market. (See the President's Report on Page 3 of this newsletter for more information on the AABR submission). This submission, plus previous submissions can be found on AABRs website at https://www.aabr.org.au/about-aabr/policies/. AABR's policies and position statements to date are also at this webpage .

Topics addressed include *Bikes and Motorcycles, Cultural Planting,* and *Revegetation*, plus AABR specific policies on *Copyright* and *Privacy*.

The *Bicycles in Bushland* Policy has stood the test of time for over a decade. The latest addition is a position statement on the *Management of Linear Corridors*.

AABR is endeavouring to draw together the collective wisdom of its members to further develop position statements and policies. The sharing of these and the submissions enables others to use the information to support protection and best practise restoration of native ecosystems by bushland practitioners and land managers.

If you have a Position Statement or a policy you'd like to explore with the AABR Policies Working Group get in touch with Peter president@aabr.org.au.

AABR Walk and Talk: Ropes Creek Reserve

Sue Pritchard, AABR

On Saturday 18 June 2022, the AABR *Understanding the Understorey of the Cumberland Plain* field trip took place at Ropes Creek Reserve with a site visit to learn about the Reserve. The group of enthusiastic AABR field trippers joined regular Friends of Ropes Creek Bushcare volunteers for a Bushcare working bee.

Ropes Creek Reserve is in St Marys in Greater Western Sydney, about 35 km west of Sydney CBD. Ropes Creek is in the Hawkesbury-Nepean catchment within the Cumberland Plain. The site is owned by the state government and currently under the care and control of Penrith City Council. The site has a Biobanking Agreement, which allows the site to be used as an offset for development elsewhere in Western Sydney.

The site includes two Critically Endangered Ecological Communities listed under the NSW *Biodiversity Conservation Act 2016*. These are Cumberland Plain Woodland in the Sydney Basin Bioregion and River Flat Eucalyptus Forest on Coastal Floodplains of the Sydney Basin Bioregion.

The reserve consists of a mixture of remnant and regenerating vegetation, with plantings carried out by government and non-government initiatives over the years. Plantings undertaken on the volunteer area are mostly from known provenance seed collected on site.

Friends of Ropes Creek Bushcare volunteers work on part of the 20 hectare site. *Eragrostis curvula* (African lovegrass) is removed by the group using crowning. *Anredera cordifolia* (Madeira vine) is dug out by volunteers and teams or scrape-painted. *Ipomoea cairica* (morning glory – coastal) is also controlled by digging it out or cut/paint. Native regeneration is encouraged, and this approach is proving successful. The protection of the endangered *Grevillea juniperina* is a responsibility of Council.

Lead volunteer Georgina San Roque, acknowledged the traditional custodians of the land – the Gomerrigal-Tongarra clan of the Dharug nation — and welcomed the group. Georgina also spoke about the legacy of the late John Diamond who was central to protection and restoration efforts at Ropes Creek over many decades (see inset box for more details).

On hand to provide technical and practical assistance was Penrith Council Bushcare Officer Ben Lloyd, Cumberland Plain specialist Peter Mobbs who grew up in the area, and Yogesh Nair who has been associated with the reserve in various capacities over the years.

Our enthusiastic group of AABR field trippers joined regular Friends of Ropes Creek Bushcare volunteers for a Bushcare working bee. Following an initial welcome and introduction to the site, the group headed off for a morning session in an open area where efforts focused on the removal of *Eragrostis curvula* (African lovegrass) using crowning. The species has been a long running issue at the site – both in terms of its dominance as well as being an attractant for arsonists. Removal efforts dating back to 1998 have helped reduce arson incidents. *Senecio madagascariensis* (fireweed) was also a weed of interest for the morning session and is pulled out by hand. We also discussed look-alikes, which include the non-native *Setaria incrassata* and the local native *Cymbopogon refractus*, which look similar due to their alternating purple-green stems.

Learning about Disturbance History

At lunchtime, Peter Mobbs spoke to the group about his childhood spent in the local area and his memories of the vegetation of the past. He spoke of some of the past disturbances which have led to the condition of some of the vegetation today.

To the south east (the area now known as Whalan Reserve) is a large, cleared area which ran almost to the rail line. This was an airfield built in the period of the second World War. The vegetation to the east is/was Shale Plains Woodland.

Housing estates were developed in the 1960s on land that was mostly Castlereagh Ironbark Forest. A light industry area was developed later at around 1970 on a narrow portion of Castlereagh Scribbly Gum Woodland.

It was around the mid-1960s that the construction of the major power lines was undertaken on the flood plain. They run in a north/south direction extending for most of the length of Ropes Creek and beyond. The construction of the power lines led to major clearing of the vegetation; the ground was scalped of its topsoils in most parts. It may be that African lovegrass could have been introduced to this area at this time.

There was one swimming hole found near the rail line which was worth exploring. In the summer, kids would avoid the tall grass (African love grass) and take the longer route for a swim. Sometimes some would burn the grass to make access easier.

Towards the end of the 1960s, a couple of factories, several kilometres upstream to the south, were discharging their waste directly into the creek. Although they had been in that location for a long time, it wasn't until later that the local kids found that if you happened to come in contact with the bottom of the creek, this waste would percolate to the surface - not a nice experience. Pollution has long-lasting damaging effects to our ecosystem. A couple of years on and both these enterprises moved out.

Ropes Creek vegetation. Left: Love grass 1999 Right: The site in 2022 shows the control of love grass has been effective Photos supplied. G San Roque

Dunheved High School was opened around the mid-1970s and the kids in this area would light up the bush at least once a year. Peter said that from memory, this was one of the sites chosen for Penny Watson's fire regime study of the Cumberland Plain - it was chosen because of its recent fire history. https://researchdirect.westernsydney.edu.au/islandora/object/uws:3609 and https://www.hotspotsfireproject.org.au/download/case-study-is-fire-key-to-remnant-diversity-cumberland-plain.pdf

Of course, and probably the most important part along the creek, very close to John's regen area, there are several known Aboriginal occupation sites that have been identified. Peter also spoke about the uniqueness of the Reserve due to it being adjacent to multiple vegetation communities including Cumberland Shale Plains Woodland, Castlereagh Ironbark Forest, Coastal Valleys Swamp Oak Riparian Forest and Cumberland Red Gum Riverflat Forest. This has resulted in multiple influences and transition zones on the site and an associated high diversity of species.

The second session

In the second session, the mornings' stories were echoed by Yogesh Nair who commented that the species diversity is something that brings him back to the site again and again.

The session was spent at a more sheltered site with understorey that included *Dichondra repens, Glycine clandestine, Microlaena stipoides* and *Echinopogon ovatus* to name a few well-known favourites. This area is impacted by garden waste being dumped on the edge of the site. This has resulted in the weed species *Ehrharta erecta, Anredera cordifolia, Bidens pilosa* and *Sida rhombifolia* appearing on site in recent years. Large amounts of these weeds (particularly *Anredera cordifolia*) have been removed and a sediment fence has been erected to minimise ongoing dispersal of the dumped weeds into the site. Weeds were added to on-site compost piles with any unsuitable species removed for offsite disposal.

The sediment fence to minimise weed dispersal Photo Sue Pritchard

Plant and animal sightings of note included an eastern grey kangaroo (*Macropus giganteus*), and birds including a female golden whistler (*Pachycephala pectoralis*) and the native plant *Grevillea juniperina*, which is listed as vulnerable under the NSW *Biodiversity Conservation Act 2016*.

Attendees were very grateful to be given spiral bound copies of the Native Flora on the Cumberland Plain, Western Sydney – An Identification Guide by Teresa James. Peter Ridgeway's A Wide and Open Land was also mentioned as useful Cumberland Plain reading.

The field trip was a great success with AABR attendees exchanging contact details at the end of the day and expressing a desire to return to volunteer at the site in the future.

Friends of Rope Creek hold monthly working bees on the third Saturday of the month and welcome new volunteers. Contact Council at bushcare@penrith.city or enquire at https://www.penrithcity.nsw.gov.au/contact-us/have-your-say/volunteer .

The Power of One - John Diamond's legacy at Ropes Creek, North St Marys

John at Ropes Creek

John Diamond started the Friends of Ropes Creek in 1991 as a volunteer bush regeneration group. This was a follow up to his *Management Plan for Ropes Creek* written for his TAFE Bush Regeneration course. He recognised the importance of conserving Cumberland Plain Woodland before it was listed in 1995 as a Threatened Ecological Community. He loved being and working at Ropes and he longed for wider recognition of the value of Cumberland Plain vegetation by people and government authorities.

In 1998 he was instrumental in obtaining the first grant for Ropes Creek to fence a large area on the Blacktown and Penrith sides of the Creek. He knew that areas of bushland should be linked for better conservation, and he understood the need to involve local organisations and volunteers together with Councils and government bodies. As a volunteer, he was the one co-ordinating with consistentcy over the years, as so many volunteers find they must be. He also involved the local press, who loved headline puns on his name "A gem of an idea" etc.

John delighted in involving and teaching local school children with excursions to Ropes Creek (including crossing the creek on a high log! definitely not allowed these days). Each child was given a particular plant species to photograph and research back at school. We met a young man who years later, still knew his plant!

John - second from left - with the Ropes Creek Group. Photos supplied by G. San Roque

John, as a volunteer and professional bush regenerator, worked at Ropes Creek between 1991 and 2019. He mattocked out love grass in all weathers; worked on bush regeneration strategies; wrote grants; delivered leaflets; checked species and tried to co-ordinate the many people and organisations. There are many to thank for helping him: people from the National Trust, the Environmental Trust, Penrith Council, and staff from the bush regeneration company he helped direct.

Since his death in 2019, now a very small band of Friends continue in his honour and, quite simply, because we love the place too.

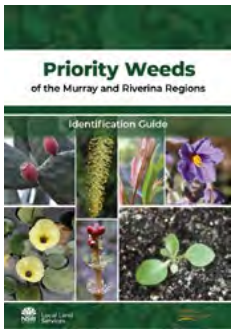
Georgina San Roque

Weeds to watch in the Murray Region

Petaurus Education Group based in Albury NSW, partnered with Murray Local Land Services to develop an interactive educational resources about *Weeds to Watch in the Murray Region*.

This is an online interactive resource. Although developed for schools to learn more about the weeds in the Murray area, it is not just for children.

This resource includes background information about weeds, their impacts and how they spread. There are over 20 inside and outside learning activity ideas, a glossary of Weedy Words, and an entertaining call to action to join the local Weed Warriors.



Available at the website: https://www.wirraminna.org.au/portfolio/weeds-to-watch/

See also Priority Weeds of the Murray and Riverina Regiions - Identification Guide

Clarification re NSW *Pesticides Regulation 2017* - Ground Applicator Licence

In NSW, from 1 July 2018 individuals who spray weeds for a fee or reward are required to hold a ground applicator licence under the *Pesticides Regulation 2017* [NSW].

The *Pesticides Regulation 2017* is ambiguous as in s.6(2)(c), it talks about "the use of pesticides by an individual for bush care purposes…"

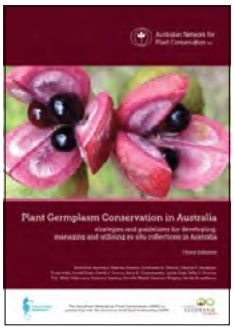
There is an exemption under this regulation for bush regeneration. The EPA's "Ground Applicator Licence Fact Sheet", August 2018, available on line, states in a Q&A section:

> *Q5. I am a contractor carrying out bush regeneration work. Do I need a licence?*
>
> *No. The Regulation provides an exemption for activities relating to **bush care**. Anyone using pesticides as part of work to maintain or restore native vegetation communities, including bush regeneration activities, does not require a licence.*

There is ambiguity in this use of '***bush care***' in the *Pesticide Regulation*. The industry would assume this is volunteer work. The EPA has clarified that their use of the term '***bush care***' also includes paid work. Personal Communication with the EPA states:

> *The licence does not apply to persons who are involved in undertaking bush care regeneration (S6 (2)(c). Bushcare work generally means where the primary purpose of the pesticide application relates to the regeneration and/or rehabilitation of native bushland. The fact that there may be a presence of native grassland or other native vegetation does not automatically mean that noxious weed control work in the area being sprayed can be considered bush regeneration work.*
>
> ***If the work being performed is genuine bush care regeneration work then one does not need an EPA ground applicator licence.***

Videos and webinar recordings support new plant conservation guidelines



The 3rd edition of ***Plant Germplasm Conservation in Australia*** shares knowledge about ex situ plant conservation, such as seed storage, which helps safeguard plant diversity for future use in restoration, translocation, horticulture and research.

The Germplasm Guidelines are a joint publication of the Australian Network for Plant Conservation and the Australian Seed Bank Partnership.

Did you know? **Germplasm is any living tissue - such as seeds, cuttings or spores - from which new plants can be grown.** A video series and webinar recordings, both based on the guideline's chapters, support this release and are available on our YouTube channel (https://www.youtube.com/c/AnpcAsnAu).

Videos:

- Plant Treasures: showcasing the ex situ conservation of Australia's national plant treasures (Figure 4)
- Assessing seed storage behaviour: hallmarks of non-orthodox seeds and alternatives to seed banking
- The role of the nursery and living collections in ex situ conservation
- Using ex situ collections of Australian native species: Translocation and other end uses
- Techniques including:
  - cutting propagation
  - collection and processing of fern spores

Webinar recordings:

- Recordings of 'Plant Treasures' webinars co-hosted with the support of Botanic Gardens Australian and New Zealand (BGANZ). Themes include:
  - data collection and record keeping;
  - biosecurity in ex situ collections;
  - the role of the nursery and living collections in conserving native plants species (3 hr special); and
  - an introduction to seed testing and germination.
- Recordings of the Australian Academy of Science Fenner Conference on the Environment: 'Exceptional times, exceptional plants'

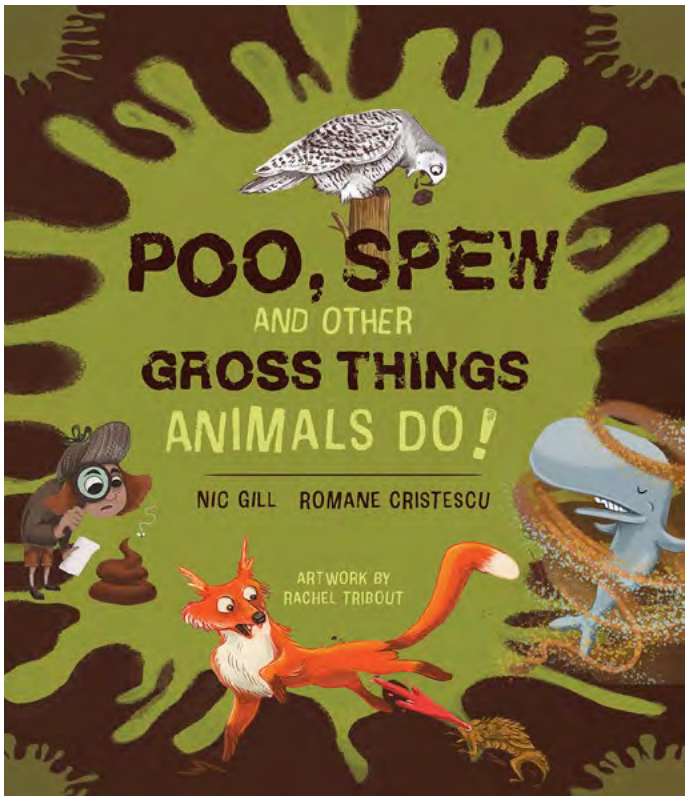
Scan to download the full Guidelines for free or purchase a hard copy.

www.anpc.asn.au/germplasm-guidelines-review

BOOKS

Poo, Spew and Other Gross Things Animals Do!

Nic Gill, Romane Cristescu, Illustrated by Rachel Tribout



This book is recommended for children ages 8 to 12.

Those of you with children, grandchildren, nieces, nephews and friends of that age will instantly see how this book would appeal.

The Chapter titles will be an instant attraction to children that age – and even younger.

Chapter 1: Animal grossness
Chapter 2: You ate what?
Chapter 3: Home, stinky home
Chapter 4: Love is gross
Chapter 5: Grossness as self-defence
Chapter 6: Poo detectives
Chapter 7: Gross stuff makes the world go round
Chapter 8: World's grossest animals revealed

The book is beautifully presented and illustrated. Readers can enter into the world of not just poo, but also spew, snot and all the other gross things animals do to survive and thrive. Readers can discover a whole world of poo, learn how to be a poo detective, and meet some of the great scientists doing gross and yucky work!

How could you resist this book? Of course Christmas is coming up – an ideal present.

Note: Reading level varies from child to child, but it is recommended for ages 8 to 12.

CSIRO Publishing April 2022 $ 29.99
ISBN: 9781486314867 Paperback | 92 pages | 250 x 215 mm
Also available as ePDF and ePUB from eRetailers

Reviewed by Louise Brodie, AABR

Welcome to new AABR Members

Alex Burmeister
Alicia Privitera
Alistair Smith
Ana Sofia Assis
Andrew Brophy
Andrew Comey
Angus Whillas
Anika Korren
Ann Bennett
Antonia Desousa
Ashleigh Hallinan
Callum McKercher
Carmel Darcy
Cassius Growns
Chi Ta
Clare McPhee
Daniel Garcia
Darby Atkins
Elizabeth Smith
George Paras
Immogene Keert
Jack Kingston
Jackson Waters
Jade Philipson
James Hiscock
Jaryd Smith
Jim Wilson
Joseph Mackinnon
Justin Djuric
Karen Hutchings
Lisa Amberntsson
Louise Finch
Luke Hardy
Matt Lee
Matt Tudor
Melvin Xu
Michael Towle
Mia Johnston
Monique Doust
Nathan Edis
Nick Griffiths
Patrick Santos
Paul Reisenberger
Rajendra Shilpakar
Regan Logan
Rochelle Dennis
Roy Barnes
Sam Blackburn
Samantha Bean
Sonya Herasemiuk
Stephen Daniels
Sue Pritchard
Susanne Gildea
Tess Huntley
Tony Wales
William Cuthbert
Zac Adie
Zenobia Smith

Not for Profit

Australian Trust for Conservation Volunteers

Business

Felix Botanica Pty Ltd

Lone Fig Environmental

Agency

Lake Macquarie City Council - Landcare

Brimbank City Council

Congratulations on Accreditation - Including our batch of 6 from Victoria.

Patrick Lennon
Josie Vincart
Alexandra Kalivodova
Patrick Mitchell
Chris Geary
Steven Llewellyn
Michael Longmore
Sharon Mason
Kylie Robertson
Gidja Lee Walker

What's happening

See Page 3 for other events

17th to 23 October

Aussie Bird Count 2022

Download the app

https://aussiebirdcount.org.au/

Monday 28 November – Friday 2 December 2022

2022 Conference of the Ecological Society of Australia (ESA-SCBO 2022)

Location: Wollongong NSW

In 2022, the Ecological Society of Australia is pleased to be co-hosting a conference with the Society for Conservation Biology Oceania.

ESA-SCBO 2022 will be an in-person conference but a limited number of online options will be offered, including live-streamed plenaries, some live-streamed symposia and some of the presentations being made available online after the conference.

The 2022 Conference theme is 'Reconnecting'.

For more information visit the Conference Website

Tuesday 26th September to Saturday 30th 2023

SER 2023

10th World Conference on Ecological Restoration

Location: Darwin
More information Soon

DARWIN AUSTRALIA SER2023

Australian Association of Bush Regenerators

Australian Association of Bush Regenerators
Working with natural processes

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Secretary
Jane Gye secretary@aabr.org.au

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Victorian Branch
Enquiries please contact Rob at robscott@naturelinks.com.au or phone 0412 865 027

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 January, April, July, and November.

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Membership fees

Individuals	$35 (unwaged $20)
Organisations *(does not confer membership to individuals in the organisation)*	
• business (< 5 staff)	$120
• business (5-20 staff)	$300
• business (> 20 staff)	$480
Government	$60
Not for profit	$30 *(or $0 with newsletter exchange)*

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 0407 068 688
Opinions expressed in this newsletter are not necessarily those of AABR