

Gecko Newsletter

Summer Edition 2018

Blue Mountains City Council Bushcare Program

Bushcare Picnic 2018

A celebration of volunteers

Masters, Legends and Rising Stars

The annual Bushcare Picnic was held in June to celebrate the hardworking Bushcare volunteers. It was a fantastic day and our way of saying thank you for your commitment and enthusiasm throughout the year in helping to keep our bushland healthy.

Congratulations to those volunteers who were recognised as Masters, Legends and Rising stars. Individual awards went to:

Legend – Roger Walker
Hard Yakka – Malcolm McPherson
Landcare – Jessica Yullie
Masters – Bea Pavlicek
Junior – Daniel Oakey

A number of Bushcare groups also received recognition for service in the Bushcare Program.

5 YEARS: Upper Katoomba Creek Bushcare Group

10 YEARS: Woodford Glen Landcare Group and Marmion Swamp Bushcare Group

15 YEARS: Wilson Glen Bushcare Group and Brahma Kumaris Landcare Group

20 YEARS: Three Gullies Landcare Group, WWF Lake Bushcare Group, Leura Cascades Bushcare Group, Cox Reserve Bushcare Group, Sutton Park Bushcare Group, Vale Street Bushcare Group, Redgum Park Bushcare Group.

25 YEARS: Else-Mitchell Park and Gordon Falls Reserve Bushcare Groups



Wilson Glen Bushcare group 15 years and going strong, from the left Clr Mick Fells, Andy and Marion Cairns Photo: Lachlan Garland



Three Gullies Bushcare group awarded for 20 years service, from the left Clr Brent Hoare, Ann Peters, Dan Marshall, Don Bullard, Dennis Whyte Photo: Lachland Garland

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Future Bushcarers

Bushcarers in the making

Blacktown Youth College

The Blacktown Youth College (Lawson campus) have been getting involved in a number of land restoration activities on various sites throughout the Blue Mountains over winter, learning about Bushcare and Bush Regeneration techniques.

Blacktown Youth College is an alternative community school for young people which focusses on a diverse holistic program. A number of sessions were undertaken where the students (in years 9 and 10) got first hand experience of the range of tasks involved with bushland restoration, from physical works and site monitoring to learning about the landscape and the cultural background of a number of sites.

The sites this group were involved in included North Lawson, Wentworth Falls, The Gully (Katoomba), Deanei Reserve (Springwood), and Sun Valley in the Fitzgerald Ck catchment.

Some specific experiences included:

- Constructing a stormwater drain with 'soft' engineering
- Bushland restoration
- Water quality testing
- Earthwork remediation
- Walking the landscape and learning of the flora, fauna and the human history and management

The kids really enjoyed getting out into the bush and experiencing nature at its best and what we need to do to keep it that way. We wish them all the best in the future and hope to see them again next year.



Else-Mitchell Bushcare group awarded for 25 years service, from the left Clr Chris Van der Kley, Anna Morrison, Malcolm Hughes, Philip Morrison, Jennifer Morrison, Sean Morrison, Mike Purtell and Liz Kabanoff



Jasmine Payget and Laurie Strathdee awarding Daniel Oakey the Junior Bushcare award in memory of Rian Strathdee.



Dino's mobile pizza's went down a treat
Photo: Lachlan Garland



Installing coir logs to slow down storm-water water flow into the swamp system in Leura.



Installing perch poles and mounding rocks as frog habitat in the Gargaree Landcare site.

Bushcare Picnic trivia question answered:

Voted as the top coffee shops found in the Blue Mountains by the Blue Mountains Bushcare Community

1. Cassiopeia Katoomba
2. The Red Door Café Leura
3. Elephant Bean Katoomba
4. At home it's free!
5. Vincent Diner Glenbrook
6. Aroma Café Springwood
7. Pink Papaya Springwood
8. 20 Mile Hollow Woodford
9. DCH Blaxland

Editorial

I'd like to take this opportunity to wish everyone a Merry Christmas and a Happy New Year and to personally thank each and every one of you for your important contribution in keeping up the good environment fight, we couldn't achieve the great outcomes we do without you.

We have an exciting year planned so keep an eye out for some new training opportunities aimed at broadening our volunteer skill set.

Sandy Benson - Bushcare Team Leader sbenson@bmcc.nsw.gov.au

Expanding Horizons

Article by Karen Hising (On behalf of Jackson Park and Else-Mitchell Park Bushcare Groups)

The ongoing efforts of the Jackson Park Bushcare Group at Faulconbridge have come to the point where their site is now on minimal maintenance – mostly just weedy grasses/groundlayer and monitoring. So, in liaison with the Council Urban Weeds Team, the Group has been offered other sites to work in within the Catchment: remnant bushland near the Faulconbridge Railway Station and below the Faulconbridge Cemetery and a beautiful reserve behind properties in Springwood, near Crane Street and Macquarie Road. There is a substantial amount of weeds to tackle in both easy and challenging areas.

The Group has already made great progress near the Railway Station and has enjoyed the primary work again, particularly felling a lot of large Privet! This work not only improves those areas, but reduces the spread of weeds back to Jackson Park and the local vicinity. We will always return to Jackson Park on a regular basis to tackle the weedy grasses/groundlayer and monitor the site, particularly the creekline tributaries into the more remote parts of the Reserve, but it is great to have other options and challenges to retain the ongoing energy of this wonderful Group.

Else-Mitchell Park Bushcare Group has also expanded their site. In consultation with Council Parks and Gardens, the Group has reclaimed some steep and shady parkland around groups of remnant local native trees and just up from the creek, as well as a small pocket area to encompass a beautiful *Eucalyptus deanei*. These areas were not used by park visitors, the lawn growth was limited and included tree stumps and a large inspection pit and were difficult to mow. By planting a range of local provenanced species around the groups of trees (climbers to small and large shrubs), we have not only reduced some difficult areas of mowing for the Parks and Gardens staff, but we have provided varying strata of vegetation, which offers different types of habitat for local wildlife, particularly for birds in regard to perching and food sources of grasses, insects and invertebrates. Access areas were included between the planted zones for visitors to easily move around the park.

The Group also enjoyed the activities of seed collecting from the reserve, planting and watching the plants grow over time. The planted areas have required little maintenance and weeding and by simply not mowing, it has been wonderful to see the natural regeneration of native grasses and Angophora, Eucalypt and Acacia juveniles. Thanks to the Council Bush Regeneration Team for their support with watering during the establishment phase, particularly in recent dry periods.

Thanks to both Groups for their open minds, ideas, teamwork, energy, efforts, time and wonderful company!

If you are not already a Bushcarer

Join Bushcare Blue Mountains

We would not exist without the ongoing commitment and dedication of volunteers and are excited about the prospect of you joining us!

We have Bushcare groups across the entire Blue Mountains meeting at various times and days and usually right in your own. If you like:

- being in the bush
- meeting interesting people
- helping the local environment
- and learning about the Blue Mountains

For further details on volunteering with Blue Mountains Bushcare go to:

www.bushcarebluemountains.org.au/join-bushcare/



Planted areas at Else-Mitchell Park – on left, the most recent in 2018 and on the right, in 2016. Photo: BMCC



Log Pile Fauna Habitat

Article by Stephanie Chew

The role of coarse woody debris in ecosystems

One of the main objectives of bushland restoration projects is the retention of fauna habitat for a range of species. Vegetation restoration is a critical first step in ecosystem recovery, and one that we as Bushcarers dedicate most of our time to achieve. It is essential to provide a variety of habitat to ensure diversity of species. However, there is generally a significant time lag before a woody ecosystem can fully function and cater for an optimum number of species. In some cases, it could take centuries for vital components of an ecosystem to accumulate.

One major component of natural woody ecosystems is deadwood, or 'coarse woody debris'. It plays a vital function not only in providing shelter and habitat for animals, but also acts as nursery sites for plants, contributes to nutrient cycling and storage, soil forming processes, soil retention, retaining moisture and enhancing water infiltration.

The problem...

Unfortunately many woody ecosystems are devoid of coarse woody debris as a result of past and present clearing practices, burning regimes and firewood collection.

Given the growth rates of trees, it could take new plantings of trees at least 200 years to produce high amounts of large coarse woody debris, and established trees at least 100 years. This means that in the short to medium term, recovering ecosystems are deficient in the essential ecosystem processes provided by deadwood.

A solution to bring back habitat

A method of accelerating the recovery of woody ecosystems is to introduce coarse woody debris to sites that are deficient and are likely to take a long time to accumulate it. This has been shown to significantly increase the abundance of certain animal species in a short period of time.

A study in Victoria found that artificially placed log refuges are rapidly colonised by many terrestrial vertebrate fauna, including some rare species. Another study in Canberra concluded that restoring logs in woodland ecosystem would assist in increasing the number of beetle species present, which in turn provide a food source for insectivorous fauna species.

One significant factor that can influence the utilisation of log refuges is the age of the refuge, with many species preferring to use older refuges over newer refuges. This suggests that it is important to install new refuges as they will become more valuable as fauna habitat in future as they age.

Another significant factor that influences the habitat value of coarse woody debris piles include physical characteristics, with many species preferring large, complex logs containing numerous splits and cavities. However, most species use a wide variety of log types, so the introduction of logs covering a range of sizes, shapes and ages will help to cater to the needs of a range of fauna species.

Every year, many trees are removed in the urban landscape for a variety of reasons. Most of this material is chipped, turned into firewood, or discarded at landfill. If we can direct some of this log material towards bushland sites that are being restored, not only will this reduce the amount of woody material that goes to waste, but it will provide essential habitat for the fauna species that live in these sites.



Examples of log pile habitat, perch poles and rock pile frog habitat installed in Garguree Swamp Photo: Jane Anderson



We would love to hear from you and encourage Bushcare Volunteers to submit stories for publication in the Gecko. For more info please contact your local Bushcare Officer.

Bee Business

DIY Bee Motels

Creating nesting material for cavity-nesting bees

The simplest nest is a bundle of hollow and pithy stems. You can harvest long canes of bamboo, lantana, or other hollow or pithy stemmed weeds. You can also use the prunings from your garden. Just check the stems when you start tidying your garden to see if they have hollow or pithy centres.

Cut them to about 200 mm long, wire them together at each end, and hang them in a tree. These may attract reed bees and masked bees.



Bamboo garden stakes cut into lengths, tied together, then hung in trees as an easy option

Mixed Materials Bee Motel

A mix of materials is the most complex nest. First find or make a small box, at least 100 mm deep. Put a back on it made of plywood or fine mesh, to stop materials falling through. Cut 1-3 blocks of wood (not treated) to a length of 100 mm and drill with a variety of holes (as above). Cut hollow and/or pithy stems to fit the depth of the box. Bundle with wire or elastic bands, for ease of handling. Add layers of bark, gum nuts or rotten wood. Pack the box tightly with the materials, so the openings are facing out (for easy access and it looks good). Close the front of the box using wire mesh, with a gauge no smaller than 10 mm (to allow insects to enter), using a staple gun or tacks.

Hang the nest with hooks and wire or keep it as a free-standing nest, not on the ground. These may attract reed bees, masked bees, resin bees, leafcutter bees, solitary wasps, ants, ladybeetles, lace bugs and other pollinators.

It is recommended that nests be placed in a sunny position, to best attract the insects.



Example of a mixed material bee motel made of a combination of cut logs drilled with 100mm holes, bamboo canes, bark and any other materials which can include broken terracotta pots

We would like to acknowledge Bees Business for providing this information, for more information follow the link below www.beesbusiness.com.au

Bee Hotel Workshop at Glenbrook Spring Festival

Article by Jane Anderson

Spring had definitely sprung for the Glenbrook Spring Festival where the lower mountains groups Glenbrook Lagoon, Darks Common, Bush Place, Links View, Three Gullies, Beefarm Road and Benoit Park came together for a Bee Hotel making workshop.

We have over 350 species of native bees from Western Sydney to Penrith, who are under threat due to habitat loss, pesticide use and loss of food sources ie. native flowering plants.

So to encourage native bee's back into Bushcare sites the groups made a variety of bee hotels specifically designed for egg laying. The groups will monitor their bee hotels to see which species are most prominent.

Native bees are fantastic pollinators so it was exciting that our workshop coincided with Pollinator Week and we got to spread the Buzz!!

Bushcare Volunteers also had a chance to engage with the local community sharing with them what they do on their Bushcare sites and how to get involved with Bushcare.

It was a fantastic day and we hope to do it again next year, a huge thank you to all the volunteers that par-



Mary and Wayne Read with their completed bee hotel destined for Glenbrook Lagoon

Blue Mountains Fauna Project



Blue Mountains City Council Bushcare

Seed Collection Group
Presents

SEED COLLECTION WORKSHOP

*Protocols,
Principles and Practices*

Presenter:

**Richard Johnstone, Seed
Collector: BMWPR
(Formally Mount Annan
Botanic Gardens)**

**Tuesday 12th February 2019
10am - 3pm
Blaxland Library
Sharon Burrige Hall**

LIMITED NUMBERS

**REGISTRATION ESSENTIAL
BOOKINGS (Email preferred)**

FOR DETAILS

tabbas@bmcc.nsw.gov.au
or 0428 777 141

This is a free workshop.
Morning tea and lunch provided.
Please bring water and a hat for
field activities.
Suggest long trousers, good boots
or shoes.



Blue Mountains bushcare volunteers and other residents have been pulling out their binoculars and spotlights, and putting on their detective hats, as part of the Blue Mountains Fauna Project.

Imagine you're cleaning out your gutters and you find a micro bat amongst the leaf litter. Local Blue Mountains resident William Lewis did just that and made sure to log his find with the Blue Mountains Fauna Project.

The Blue Mountains Fauna Project is a joint project between Blue Mountains City Council and the Blue Mountains Bushcare Network, with grant funding from the Greater Sydney Local Land Services.

Mayor, Cr Mark Greenhill said: "We want members of the Blue Mountains community to observe and share their knowledge of local wildlife. This will allow for better management of animals in our local bushland reserves." Reports and sightings can be historic or recent, as all recordings will help add to what we know about where animals live and what animals have disappeared, or are moving into the area.

There are over 6,500 hectares of bushland reserves around our towns and villages and the reserves could be home to over 300 species of vertebrate fauna (animals with backbones).

This project will run until June 2019 when the final report and species maps will be available through Council. Blue Mountains Bushcare will be running a series of community walks and talks, surveys and spotlights during Spring. Details can be found at www.bushcarebluemountains.org.au/events/

If you would like to submit a record or to find out more, go to Council's Have your say on www.bluemountainshaveyoursay.com.au/faunaproject



Steel Conry holding a Mountain Dragon found near Medlow Bath

Lesser Long Eared Micro Bat found in amongst leaf litter while cleaning out gutters.
Photo: Sarah



Blue Mountains Swamps

Swamps act like giant sponges that supply water to Blue Mountains Waterfalls. Our waterfalls can only keep flowing because these natural sponges release water gradually over time.

Swamps also act as filters, purifying water prior to release into creeks and rivers helping to keep our aquatic species alive. Two threatened animal species rely on swamps for their survival - the Giant Dragonfly and the Blue Mountains Water Skink.

Swamps rely on the slow flow of ground water stored in layers of sandstone (aquifers) to survive.

What you can do to help?

- Avoid buying spring water and using bore water
- Avoid planting species that spread into swamps such as Tutsan, Seaside daisy and Spanish heath.
- Avoid using fertilisers
- If you have a swamp on or next to your property, make sure you have a wide strip of native vegetation round it to act as a buffer against weed invasion and sediment movement.
- NEVER MOW a swamp or near a swamp
- Always walk around not through swamps

Swampcare

The Swampcare program is for people interested in preserving the Blue Mountains Swamps.

Swampcare runs practical workshops to provide community volunteers with the specialised skills needed to rehabilitate fragile and degraded swamps.

Volunteers are welcome to attend any or all of these events. The beauty of swamps attracts regular experienced volunteers. It is not always, or even often, working in

the mud!

Most Swampcare events are suitable for new volunteers as training is provided on site. All tools and safety equipment are provided by the Bushcare officer in attendance.

Hominy Bakery have kindly supported the Swampcare Program by donating delicious morning teas and lunches for 22 years and we are extremely grateful for their support.

So if you have a swamp in or near your property or interested in swamp restoration come join us in Swampcare.

How can I get involved?

Get on the swampcare email distribution list to receive updates on swampcare workshops, presentations, monitoring programs and workdays by emailing bushcare@bmcc.nsw.gov.au



Swampcare volunteer Kathleen Gurrán on site at Kitty Hawke West

Holly Cow!

The Blue Mountains Bush Renovation Team has enjoyed seeing the bushland open up in a dazzling display of native flora in all sizes shapes and colours, but a real standout and treat has been the wonderful display and array of orchids this year.

Some of them have been beautifully captured by Tamara Venables our resident Natural Area Operations photographer who has shared some photos with Bushcare and include the *Chyptostylus subulata* – Cow orchid and the stunning *Calochilus robertsonii* – Purple Bearded orchid.

We must thank the Bush Regen team for all their support on Bushcare sites either with additional weed work being done or watering our newly planted seedlings.



Photo: Tamara Venables
Calochilus robertsonii – Purple Bearded



Photo: Tamara Venables
Chyptostylus subulata – cow orchid



Poem

Mountain Blueberry

Landcare Morning

by Kerry Healey-Binns

Brahma Kumaris Landcare

There is a place in the forest
where nearby buildings are
invisible.

Parabolic hills rise out of sight on
either side.
Govetts Creek trickles past
over rocks and under logs
forms little sandy beaches
green pools of summer reflections.

I stood among the trees the ferny
slope on the other side looking up
into the grey trunks on mine.
This is how it looked hundreds of
years ago.
How it sounded, how it smelt.

Cicadas scream, tiny birds twitter, a
lizard squints.
Everything is tinted in warm grey
light by the brilliant clouds above.
Fallen timber lies rotting on the
ground grass clumps are
flattened in the dry.
Tiny flowers hide beneath
bushes.

My companions were nearby but out
of sight.
Umar moved into view then dis-
appeared so easily he seemed to
vanish.
The forest is a tricky place.

Article by Monica Nugent

Elaeocarpus holopetalus in Gordon Falls Reserve Leura, a collaboration.

Elaeocarpus holopetalus (Mountain Blueberry or Black Olive Berry) is closely related to Blueberry Ash (*Elaeocarpus reticulatus*), a tree familiar to many gardeners and landscapers. It is a small rainforest tree that only grows in and on the margins of rainforest gullies at altitudes up to 1500m. Lyrebird Dell, on Gordon Creek in Leura is one such location. In 2002 cuttings were taken from mature specimens located in Lyrebird Dell under licence by Alex Strachan whilst working with Blue Mountains Wildplant Rescue Service, (BMWRS). Specific permission was given by NPWS to propagate and supply the *Elaeocarpus* to Blue Mountains residents as a less fire prone species for Blue Mountains gardens.



Source: Hiveminer

Since the initial work with BMWRS and with Alex's guidance, Wentworth Falls TAFE students studying Certificate III in Natural Area Restoration, propagated the cuttings. This year students studying CIII in Horticulture potted them up and grew them to a stage where they could be planted by Blue Mountains City Council and NPWS Bushcare volunteers.

The resulting young trees have been planted in selected locations in Gordon Falls Reserve where it is hoped they will become a more natural food source for local birds and outcompete the introduced Bird Cherry that has invaded the reserve. Several *Elaeocarpus holopetalus* were also donated to the Everglades gardens for planting by National Trust volunteers.



Brahma Kumaris Landcare site
Photo: Monica Nugent



Gordon Falls Bushcare volunteers from left Ian Power, Nancy Oosterhoff, Jim Garvey and Alex Strachan (Wentworth Falls TAFE) planting *Elaeocarpus holopetalus* in Gordon Falls Reserve Photo: Monica Nugent



Broken Hill success continued...

Article by Peter Ardill

Exciting news: Albert Morris also worked on natural regeneration projects in South Australia!

Albert Morris (1886-1939) is widely acclaimed for the innovative role that he played in the development of the pioneering ecological restoration Broken Hill regeneration area project, a zone of naturally regenerated indigenous flora that has surrounded and protected Broken Hill from sand drifts and localised dust storms since the inception of the project in 1936. Recent research now reveals that Morris also developed two environmental repair projects in Whyalla, South Australia, in the 1930s, utilising natural regeneration techniques on both of them.

In 1932 Albert was invited to visit Whyalla, then a BHP mining town, and advise on the establishment of plantations of hardy, drought resistant trees that would provide amenity benefits for the residents of that community. This aspect of the South Australian work was, essentially, an early Australian urban landscaping project. During several visits between 1932 and 1937 Albert established a successful native plant nursery in Whyalla and using the trees and shrubs propagated in it, many of which were local (indigenous) species, landscaped the local streets, schools and parks. Unfortunately, it is now difficult to identify the exact locations of this work. He also undertook landscaping activities in nearby Iron Knob.

Albert also initiated two natural regeneration projects in Whyalla, but the exact date of commencement of these projects can only be narrowed down to the period 1935-1937. The first project was located on a local coastal headland, Hummock Hill, previously eaten bare by dairy cows. The second project was located on a site near Hummock Hill and adjacent to the beach, where disturbance of the dune vegetation had permitted an incursion of massive sand dunes that were threatening housing. In both cases, the construction of fencing that excluded cows, rabbits and other herbivores allowed the naturally dispersed and germinated seed of local flora that was present on each site to thrive and re-vegetate the previously barren sites. Although the locations of these projects can be specifically identified, no evidence of the actual work remains today.

Today natural regeneration sounds like a simple and obvious re-vegetation strategy, but it was only via the acquisition of extensive specialist arid zone botanical knowledge, and years of field research and trials, that Albert was able to nurture the development of this method throughout the 1920s and 1930s, and to confidently apply it! By 1939 the two Whyalla regeneration projects were being hailed as successes. However, the historical documentation of the projects does not provide enough information to justify a conclusion that these were ecological restoration projects, which aimed to restore a high degree of ecological function to the sites.

If you would like to read more about Albert's South Australian projects and view some dramatic historical before and after photographs of the natural regeneration projects then visit <http://www.aabr.org.au/morris-broken-hill/> . The same site also holds articles outlining his natural regeneration and ecological restoration projects in Broken Hill.

These South Australian projects graphically illustrate the tragedy of Morris's early death from illness in 1939. By then his natural regeneration technique and projects had achieved significant successes, word of his expertise was spreading and many more environmental repair projects awaited him. It should also be noted that Albert worked with and benefited from the contributions of numerous restoration colleagues: Margaret Morris (1887-1957), Dr William MacGillivray, many members of the Barrier Field Naturalists Club and administrators of the stature of AJ Keast, Maurice Mawby and Essington Lewis.

Blue Mountains bushcarers who visited Broken Hill last year for the inaugural celebration of the Albert Morris Award for an Outstanding Ecological Restoration Project will be interested to know that the second Award has just been presented to Murray Local Land Services for its Murray Riverina Travelling Stock Reserves (TSR) project.

If you would like to read more about the South Australian and Broken Hill projects of Albert Morris then visit <http://www.aabr.org.au/morris-broken-hill/> for a selection of articles describing these projects. Membership of the Australian Association of Bush Regenerators (AABR) is open to all and the quarterly Newsletter is packed with the latest developments in the fields of bush regeneration, bushcare, natural regeneration, ecological restoration and much more. The Newsletter also contains details of forthcoming field trips and tours.



A strip of natural regeneration at South Lawson Park bushcare site created by excluding mowing
Photo: P Ardill 2014 Source: Peter Ardill



Creekline Restoration

TRICKY HANDS OR KNEES?

Are you thinking of retiring from Bushcare?

If Bushcare is getting harder because those hands, knees rother bits don't work like they used to, you are not alone and this is for you!

Your knowledge and experience are valued and we would hate to see you leave because it is getting harder.

With the help of an Occupational Therapist, together we can look at techniques and specialised tools that may help you.

Are there any Bushcarers who are OT's or retired OT's who are also interested?

If you are interested in meeting up and exploring the options:

Contact Sandy Benson at

sbenson@bmcc.nsw.gov.au....
or call 4780 5528

Art at Glenbrook Lagoon

Article by Nathan Summers

Over the past year, a group of experienced artists have been coming to Glenbrook Lagoon to complete a series of works depicting this landscape. This group included people involved with Bushcare. The works are now on exhibition at the Braemar Gallery in Springwood until the 2nd of December, featuring a range of styles from paintings to prints and sculpture.

This exhibition also promotes the story of Glenbrook Lagoon, including its ecosystems and aquatic fauna, its people, the investment put into restoring the water and land, and also from its geological formation from the buckle of the lapstone monocline. The works are of a good standard, with known artists, and are well worth looking at if you get the chance.

This exhibition coincides with

er mountains artist, Corrine Loxton, who also has done a series of works on Glenbrook Lagoon, and has these on display at the Rex Livingston Gallery.

In line with the inspiration from upland water features created by the Lapstone monocline, the group have been inspired to consider a further series of works which is something to look out for.



Glenbrook Lagoon
Photo: Nathan Summers

Three Gullies Creek Restoration

Article by Tracy Abbas

Three Gullies Group have hosted several Creekline Restoration Workshops, at Bruce Road, Glenbrook. The aim of the workshops is to skill up Bushcare Group members on the construction of small scale solutions to simple stormwater issues that affect this site above the Railway line at Glenbrook.

There are three gullies in a relatively small area which experience quite significant issues due to stormwater flowing from the urban edge, under the railway line and into Glenbrook Creek catchment.

The construction consists of small ponds to collect water and contain sediment in the upper part of the creek, repair of undercut sections of creek bank and simple low tech structures to stabilise and reduce the velocity of stormwater entering the site.

From 2016-2018 we have noticed significant improvements in the structure of the creek banks, reduced weed issues associated with the nutrients washed through the system and a more varied composition of native vegetation is now establishing itself in the completed

sections.

This site has proved to be a very good demonstration site, and the vision is to provide these workshops to other sites throughout the mountains in the future.



Clearing out silt buildup from the stormwater outlet Photos: Tracy Abbas



Bushcare volunteers removing wire from the stormwater outlet



Three Gullies Bushcare volunteers reinforcing creekline banks (rock armouring)



A series of check dams slows stormwater velocity



Bushcare logo

Bushcare Logo

The Bushcare logo is getting a makeover! This is a great opportunity to refresh the logo as part of the ongoing evolution of Bushcare. The logo needs to be a reflection of who we are today, including the history of this great organisation. It also needs to look to the future, to ensure we encourage a new generation to join. This change will also bring the Bushcare logo in line with the Blue Mountains City Council Branding Guidelines, making sure we continue to present as professional, consistent and engaging.

We are looking at two options for this refresh. Both include changes to the colours and the type of font. However at the heart of this refresh is the historic value of the Bushcare Gecko.

Bushcare logo option 1 keeps the familiar Gecko in its current form, on the leaf, but has updated colours and fonts, OR

Bushcare logo option 2 is a modern version of the Gecko, minus the leaf. It too includes updated colours and fonts.

So far, 80 per cent of Bushcare volunteers have voted for Option 1. We will continue to take feedback until the end of the year. The preferred logo will then start rolling out from January, on all new collateral. Changes will occur over time.

Blue Mountains City Council
Brand Concept: Bushcare logo 1



Logo Concept: Bushcare Logo option 1

Blue Mountains City Council
Brand Concept: Bushcare logo 2



Logo Concept: Bushcare Logo option 2

REVIEW - The Gully Aboriginal Place - Plan of Management

The Plan of Management for the Gully is being updated after 14 years to reflect the contemporary approach to Caring for Country (Ngurra) and of the Traditional Owners aspirations for the management of the Gully Aboriginal Place.

A survey has been prepared and aims to assist Council understand how the community uses The Gully, what the community values about the Gully, and what the community thinks is important regarding the Gully's future. The information gained from the survey will be used to guide the revision and update of The Gully Plan of Management. For more information and to complete the survey log onto:

www.bluemountainshaveyoursay.com.au/gully-plan

Bushcare Website help

Is your bushcare group interesting in setting up or enhancing its very own website?

Practical help is available

All bushcare groups have the potential to access and develop their own website, but due to time constraints, membership size, etc., many have not taken advantage of this great resource. The Blue Mountains Bushcare Website is a great resource; a place to record and publicise your activities, the history of your group, the features and importance of your site, to display the beautiful Blue Mountains natural environment and to attract new members.

This website development project particularly aims to assist the smaller, well-established groups in the Bushcare Network, consisting of around 2-6 regular members, but larger groups are welcome to apply too. If you think that your bushcare group could benefit from this project then do discuss it with your fellow team members and Bushcare Officer at your next bushcare session. The project conditions can be varied to suit individual bushcare group needs.

To apply contact Bushcare Team Leader Sandy Benson at sbenson@bmcc.nsw.gov.au

What Bug Is That?

Article by Karen Hising

Ever wondered what insect or butterfly that might be? I noticed this beautiful larva on the back of Jenny Hill (volunteer at Vale Street Bushcare site, Katoomba) recently.

I took a photo and Liz Kabanoff (volunteer at Else-Mitchell Park Bushcare Group, Springwood) kindly asked members of the Amateur Entomology Australia Facebook Group for their feedback.

Liz was advised that it was *Chlenias* species.

If you have an interest in insects and butterflies, you might like to check out or join the Amateur Entomology Australia Facebook Group or the Blue Mountains Butterflies, Bugs And Insects Facebook Group – see links below:

www.facebook.com/groups/AmateurEntomologyAustralia/
www.facebook.com/groups/297116890692029/

Thanks to Jenny and Liz!



Watch out for koalas in the Lower Mountains

Koalas are back in the mountains. Not long after the exciting report of a male koala at Govetts Leap in Blackheath, a run of koala sightings in Winmalee has caused quite a stir. It's not all good news though, as many of these koalas are at risk.

The Winmalee sightings have all been close to the busy Hawkesbury Road, and also to people's backyards.

Science for Wildlife has been running the Blue Mountains Koala Project for four years and is mapping koalas and their habitats in the region to identify threats and help conserve them. Dr Kellie Leigh, Executive Director, says it is good news that koala populations appear to be growing, but it's up to the community to help protect them.

Locals can help by slowing down and keeping a look out for koalas crossing on Hawkesbury Road around Winmalee, then down into the Hawkesbury, and also up back to Bilpin on Bell's Line of Road.

Little is known about the koalas in the region, and they aren't the only species that we need more information on. Blue Mountains City Council, with support from Greater Sydney Local Land Services is running a city-wide citizen science fauna survey, collecting community sighting records on all native animals, great and small from across the Blue Mountains. Community sightings help to gain a better understanding of what animals live where, which helps inform wildlife management.

Please report any koala sightings to Science for Wildlife at: <http://scienceforwildlife.org/how-to-help/join-our-koala-project/>



Volunteers in action

Gordon Falls

The Gordon Falls Bushcare Group celebrated its 25th anniversary this year and in June the group was presented with a Mayoral Certificate in recognition of the hard work done by the volunteers. The collaboration of Blue Mountains TAFE, Blue Mountains City Council Bushcare and National Parks and Wildlife Service has ensured the continued significant natural area restoration of Gordon Falls in Leura.



Gordon Falls Bushcare Group celebrating their 25th anniversary Photo: Maree Giddens

A Celebration of Popes Glen Environmental Restoration Project

Congratulations to the Pope's Glen Bushcare group, Blackheath for their efforts in completing this remarkable environmental restoration project.

The unveiling of the new interpretive signs on Saturday November 24 marked the completion of a six year project, where volunteers restored the ecological integrity of the highly degraded landscape located in Popes Glen.

The project was a collaboration between the volunteers of the Popes Glen Bushcare group, the Blue Mountains Bushcare Network, BMCC, local bush regeneration contractor The Bush Doctor, and funded through the NSW Govt Environmental Trust.

65 volunteers have contributed 4,257 hours to the project since 2012. The efforts of this long standing Bushcare group exemplify the Bushcare spirit and the proud history of community involvement in conservation and land management in the Blue Mountains. Thank you!



From left: Alan Lane, Eric Mahony, Paul Vale, David Manning, Trish Kidd, Ilse Blignault, Mayor Clr Mark Greenhill Photo: BMCC

Call for volunteers

The Seed Collection Group is hosting a series of workshops in 2019 the first of which is in February.

The workshop will be offered to those people who would like to join the seed collection group, or seed collection group members who are keen to update their skills.

The seed collection group meet on the 2nd Tuesday of each month and the occasional the 1st Saturday of the month.

Approvals must be obtained to collect native seed and these workshops provide an opportunity to receive instruction regarding the ethics and protocols for collection of plant specimens. The seed collected is then used for specific projects for our Bushland Operations Teams (including Bushcare) and Aquatics Systems teams.

Other activities which the seed collection group are involved in are:

- Plant Rescues - along with members of Wildplant Rescue to collect and grow on plants that are usually destroyed by track maintenance and construction activities.
- Workshops for seed collection and propagation
- Seed cleaning activities
- Visit Botanic Gardens seed bank
- Propagation activities at Community Nurseries in our LGA and outside our LGA.

If you have any enquiries about the workshop or seed collectors group, please contact Tracy Abbas on tabbas@bmcc.nsw.gov.au or call 02 47 80 5623



Citizen Science - Brush Turkey

Report your Turkey sightings!

The Blue Mountains Bird Observer reported that an Australian Brush Turkey was found in the front paddock of home in Winmalee.

Research is currently under way that involves wing-tagging Australian Brush-turkey's (*Alectura lathami*) within the Sydney region. The aim of the study is to learn about Turkey's behaviour: site-loyalty, population size and foraging, roosting and breeding habitat preferences.

Some Brush Turkey's have been wingtagged to allow the public and researchers to identify and learn about individual birds and the populations behaviour. 'We encourage everyone who sees a Turkey with or without wingtags to report their sighting using the Wingtags app – even if it's the same bird day after day, we are interested!'

To report sightings of Turkeys, their communal nocturnal roosts and their breeding mounds download the Brush Turkeys In Suburbia app or go onto the website, Report A Turkey or brush.turkey2@gmail.com.

The Australian Brush-turkey is also known as a 'Bush-turkey' and 'Scrub-turkey' in different parts of their range. This species is endemic to Australia; 'endemic' means a species does not occur in any other country. Brush-turkeys occur along the eastern States of Australia from the Illawarra region, south of Sydney, to Cape York, North Queensland, and inland to Narrabri, New South Wales, and Upper Dawson, Queensland.



A bird to admire

Brush-turkeys (*Alectura lathami*) are 'mound builders'. Their closest relatives now live only on islands of Indonesia, the Philippines, New Guinea and the Pacific region. Australia is lucky enough to have three "mound builders"—the other two being the orange-footed scrubfowl and the mallee fowl.

Small children love the brush-turkey with its large size and unusual appearance. It is easily recognised by its deep black plumage, bare red head and neck and its broad, flat, fan-like tail. The bird's wattle (a fleshy lobe hanging down from the base of its neck) varies in colour with its age, gender and location.

Breeding occurs from August to December or January. The male brush-turkey builds a very large mound of decomposing vegetation, leaf litter and soil. This can be up to 4 to 6 m wide and 1 to 1.5 m high. The females are attracted by a well-maintained mound and one or more birds will then lay eggs inside the mound. The eggs are a bit larger than a chicken's egg and are laid in intervals of two to three days.

The decomposition of the vegetation in the mound produces heat. The male brush-turkey checks the temperature of the mound by digging holes and inserting his bill. He then removes or adds layers to the mound to ensure the optimum temperature is maintained being between 33° C and 35° C.

Mounds are re-used every year with the dominant male bird maintaining the best locality. Males defend their nest and the territory around it from other males. However, quite often the eggs that the male tends in his mound have been fertilised by another male.

Incubation and temperature regulation is the only assistance the parents provide to their off spring. After around 50 days, the young brush-turkeys hatch. They are fully feathered and able to run and even fly. However their first job is to dig their way through the layers of the mound, into the open air. This can take a few days. Newly hatched young resemble quail.

Eggs and chicks are vulnerable, and losses are high. Animals such as large goannas often raid the mounds, stealing the eggs and disrupting the incubation temperature. The chicks fall prey to goannas, snakes, birds of prey, foxes and domestic cats and dogs.

This information was produced by the Habitat Network, Connecting people and habitat www.habitatnetwork.org or info@iewf.org



Australian Brush-turkey and a giant mound built by a Brush-turkey in a suburban yard. Photo: Ann Wayne



What's on

January

**Fitzgerald Creek
Catchment Group
to be advised**

5:00 pm – 7:00 pm

Venue: Warrimoo RFS Brigade
Fitzgeralds Catchment Group meet to discuss what is happening and make plans for the future of the catchment. To find out more contact Steve Barratt on 47 536 339 or Sandy Benson sbenson@bmcc.nsw.gov.au or 4780 5623.



**Jamison Creek
Catchment Group
Monday 14 January**

3:00 pm - 5:00 pm

Venue: Jamison Room BMCC HQ

Meet in the foyer at 2.50pm. Our newest Catchment Group meets to explore the environmental issues impacting on the Jamison Creek ecosystems and to implement strategies to improve the overall catchment health.

For more information please get in touch with Lachlan Garland 0415 317 078 or email lachlan.a.garland@bigpond.com.

February

**Leura Falls Creek
Catchment Group**

Monday 11th February

2 pm - 4 pm

Venue: Jamison Room BMCC HQ

Meet in the foyer at 1:50pm. Receive updates on progress and participate in making plans for work in the Catchment. For more information and confirm the venue and RSVP please email Jenny Hill jhill9228@gmail.com.

Seed Collection Workshop

Tuesday 12th February 2019

10am - 3pm

**Venue: Blaxland Library
Sharon Burridge Hall**

Presenter:

Richard Johnstone, Seed

Collector: BMWPR

(Formerly Mount Annan

Botanic Gardens)

Limited numbers, registration essential

tabbas@bmcc.nsw.gov.au

or 0428 777 141

March

**Great Grose Weed Walk
Saturday March 8th 2019**

Location: Popes Glen Creek

Spend the day assisting the Popes Glen Bushcare Group by working downstream to stop the weeds spreading further into the National Park. Some work is in the creek so be prepared for wading. This is a joint NPWS and BMCC activity. Morning tea and Lunch provided. Book by Mon 18th Feb with Grant on (02) 4787 3112 or vanessa.richardson@environment.nsw.gov.au

March

**Katoomba/Govetts Creek
Monday 18th March 2019**

2:00 pm - 4:00 pm

**Venue: NPWS Office, Whitton
Street Katoomba**

Participate in making plans for the catchment and find out what is going on. For more information contact on bushcare@bmcc.nsw.gov.au or Lyndal Sullivan on 47821635

**Great Grose Weed Walk
Saturday 16th March 2019**

**Location: Katoomba Creek
(Katoomba - remote)**

9am-5pm

Continue the great work done by volunteers over 16 years in a remote section of Katoomba Creek. Bush regeneration and bushwalking experience is essential. Off-track walking and wading along the creek. Morning tea and lunch supplied. This is a joint NPWS and BMCC activity, and numbers are limited. Book by Monday 11th March on bushcare@bmcc.nsw.gov.au or 4780 5623

**Woody Weed Wander
Saturday, 30 March 2019**

Location: Blackheath

9.00 am – 3.30 pm

Join us in removing/treating a range of woody weeds, but primarily Holly. We will be working up on the ridge above Popes Glen. Easy and short access from the road. Includes some easy and challenging terrain. Morning tea provided. BYO lunch.

For RSVP and further information contact Karen Hising on 4780 5623 or khising@bmcc.nsw.gov.au.

**Great Grose Weed Walk
23rd- 25th March 2019**

**Location: Grose Valley Remote
(Blackheath) – 3 days**

This multiday activity is ideal for the fit and adventurous who want to spend a full 3 days rock hopping and weeding along the Grose River. Some experience at overnight self-reliant camping is required and numbers are limited. Book by Mon 18th March with Grant on (02) 4787 3112 or grant.purcell@environment.nsw.gov.au

**Are there any groups that would like help with their
Bushcare Website?**

If you are having trouble working out how to put up information or photos of your hardwork on the Bushcare Website we are offering assistance to one person per group. If you think this may help please contact Sandy Benson at: sbenson@bmcc.nsw.gov.au



Summer Calendar

December, January, February

Weather:

December - January: Hottest months, hot NW winds can fan bushfires.

December: Hailstorms

February: Wettest month, violent storms, high rainfall helps disperse seed.

Plants:

Sundew flowers (early Summer)

Persoonia leavis and P.chaemaepitys flowers

Miscellaneous flowers: Callistemon, Banksia serrata, Trigger plants, Flannel Flowers, Cymbidium suave orchid.

Flowering Gums: Sydney Peppermint (January, Scribbly Gum (late January)

Bark Shedding Gums: *Angophora costata*: new orange-bark, darkens later (Late Summer)

Scribbly Gum; new years pattern of moth larvae trails (late Summer)

Grey Gum; new orange bark (late Summer)

Rainforest canopy changes;

Acacia elata flowers carpet ground at Christmas

Coachwood sepals exposed (after Christmas)

February rains; Christmas Bush/Coachwood sepals drop, seed dispersal, wattle flowers destroyed.

Source: A timeline for the Upper Blue Mountains

Compiled by Jim Smith for the Blue Mountains Conservation Society

Mammals:

Baby ringtail possums on mothers backs

Reptiles and Frogs:

Baby lizards eg Mountain Dragons and Blue Tongue Lizards (Jan - Feb)

Broad Headed snakes move from rock shelters to tree hollows eg Peppermint Gums, which are vulnerable to fire. (January - February)

Many snakes are born in February

Perons Tree Frogs and many other species call and breed.

Birds:

December: White-throated Needletails arrive from Asia, Cuckoos call louder and more frequently

Yellow-tailed black cockatoos break up into smaller groups

January: Many young birds, baby cuckoos, fed by hosts

(eg Channel-billed Cuckoos are fed by Currawongs)

Red Wattlebirds and Noisy Friarbirds feeding on *Banksia serrata* flowers

Immature Bowerbirds form mixed sex flocks

February: Mixed species feeding flocks begin to form until Spring

Insects:

December: Male Funnel web spiders wander looking for females, mud wasps nesting, crickets calling, Buprestids(Jewel Beetles) out

January - February: Brown butterflies eg Bright Eyed Brown, Heteronympha cordace feed on Button Grass sedge (*Carex appressa*), Rock Ringlet and Skipper.



Your Newsletter is compiled by Bushcare Staff from Blue Mountains City Council with contributions from volunteers and Council's Environment Branch Staff. Contributions and suggestions are always welcome, as are requests for alterations to the mailing list. Please contact the Bushcare Team Leader at Bushcare, Blue Mountains City Council, Locked Bag 1005, Katoomba NSW 2780; phone 47805528 or email bushcare@bmcc.nsw.gov.au

If undelivered please return to:
Locked Bag 1005, Katoomba NSW

