

Gecko Newsletter



Winter 2019 | No 77

Blue Mountains City Council Bushcare Program

Bushcare Calendar

June

Kodala Lane Working Bee

Sunday 2 June, 1:30pm - 4:30pm

Pitt Park Weed Workout

Friday 14 June, 9am - 2pm

Biodiversity Camp

Friday 28 June, from 3pm

Biodiversity Camp: Fauna Monitoring set up

Saturday 29 June, 3- 5pm

Biodiversity Camp: Sunrise Bird Survey and Fauna Monitoring

Saturday 30 June, 7:30am - 8:30am

Bushcare / Landcare Picnic

Saturday 29 June, 11:30am - 3pm

July

Horseshoe Falls, Hazelbrook

Sunday 28 July, 1:30pm - 4:30pm

August

Marmion Swamp Planting Day

Wednesday 28 August, 9am - 12 Noon

Holly Walk – Blackheath

Saturday 31 August, 9am - 3pm

Bushcare Update

Connecting with our natural environment benefits our wellbeing through many different ways; it keeps us physically fit, improves our mental health, supports healthy ageing and builds stronger communities.

Bushcare volunteers are among the most important people in our community. Promoting healthy activities outdoors while making an actual difference to our natural environment, the bush really is our medicine. By promoting lifelong physical activity, young people will have the opportunity to contribute to both the environment and their own health.

Over the past year we have had a marked increase in young adults joining Bushcare through the Duke of Edinburgh Program. These young adults are making a real difference to society with their positive contributions and involvement connecting and actively engaging within their immediate community, they are doing their part to help the environment. They are learning practical work skills, gaining knowledge of bushland vegetation and how to protect the Blue Mountains. So let's inspire, connect and empower young people to join local environmental initiatives in our communities. For those of you lucky enough to have these kids in your group please encourage them by passing on your extensive bushland knowledge.

It's been a busy period for Blue Mountains Bushcare, especially planning this year's Bushcare Picnic. We have been working on the upcoming Bushcare Picnic featuring our very own production of *Bushcare the Musical*.

There will be a live reptile show with an emphasis on snake awareness that's not to be missed. Plus a thank you gift for volunteers for all your hard work throughout the year.

Come and join us for a memorable Bushcare experience.

In this addition...

- Protecting our Places Grant
- Blackheath Botanical
- Remote Bushcare
- Broken Hill cont.
- Fungi Foray
- Scoop a Poop
- Beetastic
- Turtle Habitat
- Volunteer Ventures



Protecting our Places Grant



Garguree Swampcare receives grant funding

By Jane Anderson

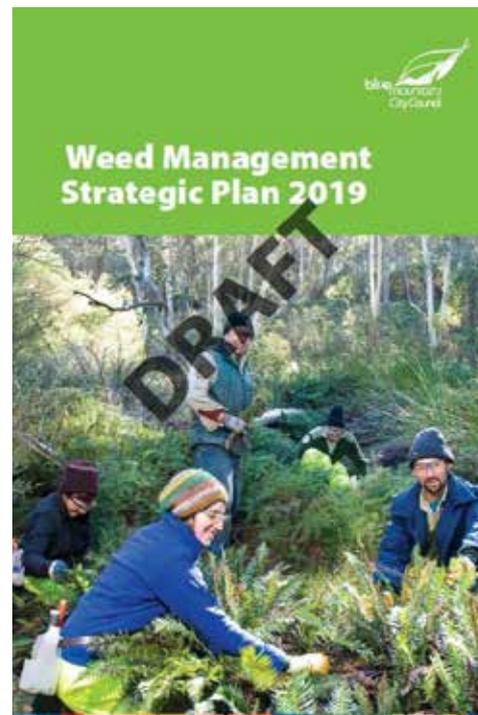
Garguree Swampcare has been successful in receiving funding from the NSW Environmental Trust's Protecting our Places Program for the protection of Aboriginal Places in the Gully and McCrae's Paddock, Katoomba. This is stage 4 of an ongoing project supported by NSW Environmental Trust and will support restoration works to the Threatened Ecological Communities and riparian corridor in the Gully. This project will include bush regeneration, streambank stabilisation, habitat enhancement and cultural workshops where the Gundungurra Traditional Owners can share their stories and cultural knowledge with the Blue Mountains community.

These grants have enabled us to make a huge difference in the landscape and community of the Gully by enabling major restoration projects in the areas we call Middle Swamp, Fire Fly Corner and Nellies Fishing. We have removed thousands of woody weeds and weedy annuals, planted thousands of locally endemic plants and started a bushtucker garden featuring plants significant to the The Gully Traditional Owners (GTO). We are always busy and it seems to be growing as more people realise the significance and importance of this living vital place. The Gully is an Aboriginal Place full of the past, the present and the future. The grant will support the creation of habitat pockets around Catalina Lake with a significant planting project of around 2000 plants to protect our aquatic fauna and birds. The plants will provide habitat as well as safe refuge.

The GTO will be hosting cultural workshops where they will share their stories and knowledge with the community, focusing on the Bushtucker Garden and weaving with native species such as Lomandra and Dianella as well as weeds found in The Gully.

All of this great work contributes to Garguree being recognised last year winning The Regional and State Indigenous Landcare awards. David King, The GTO Garguree Swampcare coordinator, accepted these awards and brought them back to the community. It was a great achievement and a huge step in the continuation and recognition of how The Gully is healing through working on country, listening on country, sharing on country and always Caring for Country.

Weed Management Strategic Plan 2019



The draft Weed Management Strategic Plan 2019 outlines Council's management response to the multiple threats of weeds within our local government area (LGA), within the context of current Federal, State and regional weed policy and recent legislative changes.

The strategy explains the legislative changes that have taken place, the role of Council as regulators of weeds and how weeds are now referred to as Priority Weeds and not Noxious Weeds (the *Noxious Weeds Act 1999* has been replaced by the *Biosecurity Act 2015*).

What will happen next?

Submissions received will be considered for incorporation into the strategy. The strategy will then be presented to the Council for final adoption.



A big thank you to The Co-op for donating a delicious morning tea to the Garguree Swampcare Group every month. The volunteers always look forward to what's on offer!



Blue Mountains
Bushcare Website

www.bushcarebluemountains.org.au

Blackheath Botanical Beauty



By Karen Hising and the members of the Blackheath Centenary Reserve Bushcare Group

Blackheath Centenary Reserve is a small area of bushland of just over two hectares, which lies between Brentwood Avenue and Cleopatra Street, Blackheath. The site was originally retained by the Department of Education. However, in 1985, at the close of celebrations for the Blackheath Village and School Centenary, the Organising Committee had suggested this site as a natural bushland reserve. Acting through the Mayor, Mr Peter Quirk, the Committee applied to the State Government for the site to be set aside for this purpose. This was achieved in May 1987, the Reserve thus being under Council management.

Although totally surrounded by houses and streets and only a small area, the Reserve contains a good biodiversity of native plants indicative of ridgetop vegetation. Much of this type of vegetation has been removed over time for housing development, so it is an important remnant in the area.

Thanks to Joyce Brister and others, a community initiated landcare group was established in 1987, making it the oldest group operating in the Blue Mountains.

Historically, the site had been affected by serious infestations of Gorse and Broom, a number of mature Pines and a range of other weeds, as well as dumping, encroachment and illegal vehicle access. With grant funding, more than twenty large Pine trees were felled, which greatly improved the understorey biodiversity. In 2011, with assistance from local RFS Brigades, Council conducted a hazard reduction burn in one part of the site for fire mitigation purposes. However, the planned burn also provided the opportunity to reduce the Gorse and Broom seedbank in the soil (stimulating their growth, allowing many seedlings to die out naturally and others to be handweeded in the following years). Being an "island" site, where biodiversity recruitment is limited, the burn also stimulated the growth of a range of native plant species.

Many of the other problems have now been controlled and although the Reserve continues to require ongoing maintenance weeding and monitoring, we have been very pleased with the wonderful regeneration that has occurred.

Although landlocked between housing, the Reserve is also an important area of habitat for some local native wildlife, particularly birds. Local residents often enjoy walking through the Reserve too! And despite its small size, the site always surprises us with some beautiful plant species. Whilst there are a number of spectacular flowering Waratahs in the Reserve, of particular interest are the Orchids. We are fortunate to have some dedicated Bushcare Group members, who often monitor the Reserve and report and document their amazing finds. Some photos are noted below, but there are more in the Group's webpage: <https://centenaryreserve.bushcarebluemountains.org.au/photos/> and in the blog. Blackheath Centenary Reserve proves that despite being small in size and surrounded by development, with lots of edges and some tracks, it is still important habitat for local native wildlife and plants.

The following article from *The Conversation* is an interesting read and can be viewed online at <http://bit.ly/2WprLbp>.



Dipodium roseum
Photo credit: J Allen



Caleana major Double Duck Orchid
Photo credit: K Brister



Gastrodia procera Potato Orchid
Photo credit: J Allen



Popes Glen Remote Bushcare

By Steve Fleischmann

The Blue Mountains City Council remote Bushcare Program began 16 years ago, working in partnership with National Parks and Wildlife Services (NPWS) across several adjoining land tenures.

These remote events are planned with Bushcare/Landcare Groups to extend their work further into parts of the catchment that are difficult to access. It provides an opportunity for group members to gain a better understanding of their sub catchments and the issues they face such as seed dispersal.

Broom and Gorse have the ability to shoot their seeds some metres away which allows infestations to thicken quickly and to spread, particularly along water courses. Their pods burst open in hot weather during spring and summer, scattering seeds up to several metres from the plant. Seeds of these species have a hard coat that can delay germination for months or years, allowing large seed banks to develop. Seeds can remain viable in the soil for many years (<https://weeds.dpi.nsw.gov.au/Weeds/ScotchBroom>).

These weed seeds are carried along streams and rivers by water and sediment resulting in long distance dispersal downstream and germination at new sites, especially in gullies. This is particularly true of Broom and Gorse.

A coordinated approach has been undertaken with the NPWS as part of the Great Grose Weed Walk program, in order to reduce the volume of weed propagules entering the Grose Valley and other wilderness areas.

Bushcare, BMCC staff and contractors have been working in the upper parts of Popes Glen for many years treating Gorse, Montbretia, Holly, Broom, Rhododendrons, Tutsan and whatever else they find hiding in the ferns.

Recently, Bushcare volunteers, Steve Fleischmann (Bushcare Officer) and Grant Purcell (Ranger) from NPWS worked as a team in the lower parts of Popes Glen. The team met at the NPWS Heritage Centre, tooled up and made their way downstream with half the volunteers working upstream near the Cliff tops while the other half worked downstream along and in the creek treating Montbretia.

Due to recent rains many weeds had been flattened by water flowing down the creekline which in turn made it difficult to spot them. Many slow sweeps of the riparian zones were required to locate and treat weeds such as Gorse, Broom and Montbretia. This Remote Program made up of volunteers has made a significant impact

on the weed density in the lower parts of Pope's Glen Creek. If you are looking for a challenging but interesting day out where you can make a difference join our Remote Program.



Volunteers searching for Montbretia in Pope's Glen bushland
Photo credit Steve Fleischmann

Blue Mountains Bushcare Picnic Saturday 29th June 2019



As a thankyou for all your hard work this year we would like to invite Bushcare Volunteers to this year's Bushcare Picnic in the Megalong Valley

So don't forget to book your place for the Bushcare Picnic.

You have the option of just attending the picnic or camping with us overnight and taking part in a range of activities we have on offer. If you would like to join the Biodiversity Camp activities you must book into each activity separately on the Blue Mountains Bushcare Website event page or here:

<https://www.bushcarebluemountains.org.au/event/bushcare-picnic-2/>

Additionally there is a bus available to transport you to the picnic. If you need a lift please contact us as bookings are essential at bushcare@bmcc.nsw.gov.au or 4780 5623

Self catered camping is available Friday night in the Megalong Valley the night before the picnic. Facilities available include community hall, electricity, hot & cold water, gas oven and toilets

Broken Hill & Margaret Morris



The continued story of the Broken Hill regeneration area

By Peter Ardill

Albert Morris (1886-1939) is correctly credited with being the instigator of the Broken Hill regeneration area project (1936-58), a re-vegetation initiative that established a belt of naturally regenerated indigenous flora around Broken Hill. However, new research demonstrates that Margaret Morris (1887-1957), spouse of Albert, played a far more significant role in the project than previously thought.

Margaret was a 1920 founding member of the Barrier Field Naturalists Club (BFN), a natural science organisation that strongly lobbied for the establishment of the regeneration area in the 1930s. With tutelage from Albert, she developed into a competent amateur botanist and was undoubtedly involved, during the 1920s and 1930s, with the collection of plants for Albert's herbarium, which eventually consisted of 7000 mostly arid-zone flora specimens, and is now predominantly housed in the State Herbarium of South Australia. She worked with Albert in the c1930 establishment of an extensive plantation of trees in Broken Hill, a pioneering landscaping undertaking for that dry and dusty city.

Following the commencement of the regeneration area project in 1936, it is very likely that Margaret was active with the botanical aspects of the work, collecting native seed, propagating plants and contributing to the management of the project's plant nursery as well as the Morris home nursery. With the death of Albert in 1939 due to illness, she seamlessly continued with these roles, her knowledge and skills playing a crucial role in maintaining the momentum of the project.

Margaret studied and surveyed the botanical recovery of the indigenous flora in the regeneration reserves. In October, 1939, the Australian Journal of Science published her timely article, *Plant Regeneration in the Broken Hill District*, an early example of Australian environmental repair reporting which recorded the development stages of the regeneration project and its significant botanical success. She also assisted University of Sydney academics with their 1939-40 study of the recovery of the indigenous flora in the regeneration reserves.

Margaret wrote articles for the local and inter-state print media of c1940 in which she extolled the various benefits of the regeneration area. She noted the amenity advantages for local residents, as sand no longer smothered their homes. Tourists visited the city, as the restored landscape was now covered in a carpet of brilliantly flowering flora during spring and summer, instead of bare sand. She acknowledged all the people who had contributed to the development of the project, emphasising its community connections and outcomes. Finally, she expounded on the actual botanical success of the various regeneration reserves and emphasised the importance of utilising a natural regeneration technique and the local flora in the reserves, predicting that they would withstand the fierce drought of 1940...and they did!

A talented, yet modest person, who spoke little of her own achievements and, like Albert, led by example, persuasion and logical arguments. Margaret's role in the development of the Broken Hill regeneration area project, one of the first of its kind in the world, was significant, especially during the middle stages of its development. In partnership with her restoration colleagues, her continual verification of the project contributed strongly to its resumption after the Second World War and ultimate completion in 1958.

References and further reading www.aabr.org.au/morris-broken-hill/

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, natural regeneration, ecological restoration and details of forthcoming field trips and tours.

Read past copies online at www.aabr.org.au/learn/publications-presentations/aabr-newsletters/



Margaret and Albert Morris
Photo Credit: BFN/Outback Archives



Fungi Foray



Fungi Foray, Coachwood Glen 6th April 2019

By Liz Kabanoff

Coachwood Glen Nature Trail, on the road down to the Megalong Valley, is a beautiful walk around rainforest vegetation. In autumn the forest erupts with a multitude of colourful fungi, in a spectacular variety of forms. Earth stars, Earth tongues, Corals, Cups, Brackets, Jellies, Clubs and Polypores adorn the forest floor and fallen trees, each one playing its part in the cycle that helps to keep an ecosystem stable.

In April volunteers Liz Kabanoff and Gemma Williams led a group of fifteen enthusiastic volunteers and community members on a fungi walk around the rainforest. Recent rain and cooler autumn weather meant that we were rewarded with more than 40 species of fungi in every colour of the rainbow. The two hour activity flew by, and was an eye-opener into the 'forgotten kingdom'.

Fungi perform a variety of roles in nature. They may be nutrient recyclers, decomposing fallen trees, leaves and animal scats, and releasing nutrients to the environment. Many fungi form mycorrhizal relationships with the roots of plants, passing on inorganic nutrients in exchange for carbohydrates that the plant produces via photosynthesis. Substances secreted by mycorrhizal fungi aid in building better soil structure.

Fungi provide food for invertebrates such as our native slugs and snails. Lyrebirds, Potoroos, Bandicoots and some Wallabies also eat certain types of fungi. The fungal spores pass through their digestive systems and are distributed to other areas in their faeces. Certain species of fungi also have a role in producing hollows in trees, providing homes for birds and mammals. After bushfire, fungal mycelial mats form on burnt ground, helping to stabilise soil and prevent erosion.

iNaturalist is a citizen science project and online social network of naturalists, citizen scientists, and biologists built on the concept of mapping and sharing observations of biodiversity across the globe.

The Fungi in the Blue Mountains project aims to document the biodiversity of fungi found in the Blue Mountains NSW, and focuses primarily on bushcare sites. It is an umbrella project for a number of other projects (Fungi in Fairy Dell, Fungi in Birdwood Gully, Fungi in Else Mitchell Park, Fungi in the Deanei reserve and Fungi in Coachwood Glen).

If your Bushcare Group is interested in being part of Fungi of the Blue Mountains project, Liz can assist you in starting your own **iNaturalist** group.

For more info on how to start please contact asteele@bmcc.nsw.gov.au or 4780 5320



Genus *Marasmius* also found in Fairy Dell, Springwood



Collared Earthstar
Geastrum triplex



Stunning purple fungi
Clavaria zollingeri



Clavulinopsis is a coral fungus in the family Clavariaceae, this fungi was found in abundance in Coachwood Glen, Megalong Valley



'The Hidden World'



Hericium - species in this genus are white and fleshy and grow on dead or dying wood

Additional Information

We have found some interesting fungal specimens in the Blue Mountains, some of which are only known from Tasmania, New Zealand, and some from Queensland. We have only been able to identify some other specimens down to genus level, as they don't appear in any of the fungi field guides. The family Boletaceae is particularly under-represented in field guides, though we have many different genera in the Blue Mountains.

We will be collecting some of these fungi to send to the Plant Pathology Herbarium at Orange for confirmation of the species. This herbarium holds a large collection of fungi from NSW, more than 113,000 specimens, <https://www.anbg.gov.au/chah/resources/herbaria/dar.html>

Bushcare website – Fungi of the Blue mountains. This webpage was set up for Liz to add her information.

<https://www.bushcareblue-mountains.org.au/groups/fungi-of-the-blue-mountains/?highlight=fungiFollowing>

By Sandy Benson

No one thinks twice about the tiny world we walk on everyday but a hidden world exists right below your feet.

'What, that is amazing!!!' were the words I heard all morning as we discovered what was living on and underneath the tiny fungi. Sean Moore was the hit of the day bringing his hand held microscope that attached to his phone. The detail was so clear that he was able to identify several species including Hexapoda and Harvestman living on fungi the size of a matchstick head. One of the fungi inspected looked as though it was absorbing a tiny insect. I was so suprised by the amazing fungi we found in Coachwood Glen, but I was equally suprised by what we couldn't see with the naked eye.

Sean also recorded their movements on his phone. These video's will be available to view on the Bushcare Website.

www.bushcarebluemountains.org.au/



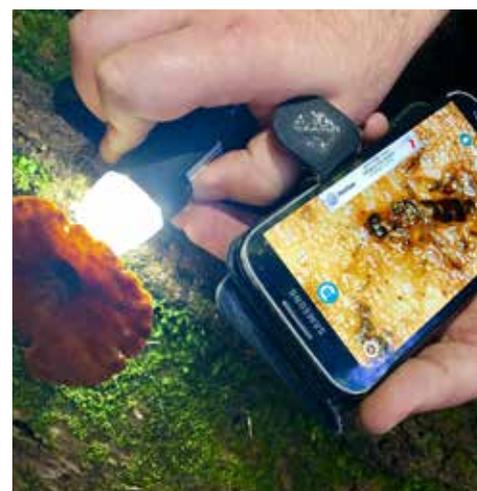
Sean Moore and a volunteer discovering what lives beneath



A close up of an insect crawling around the small brown fungi



Here volunteers are looking at the underside of a fungi growing on a fallen decaying tree



A closeup of the fungi absorbing a tiny insect. Photo credit Sandy Benson

If you missed out on attending the last Fungi Foray, we will be holding another Fungi Foray in Fairy Dell, Springwood later in the year, so please keep an eye out for dates.

To view fungi observations in the Blue Mountains follow this link
www.inaturalist.org/projects/fungi-in-the-blue-mountains-nsw

Scoop a Poop



Tackling antimicrobial resistance in wildlife

By Michelle Power

Many of us feel lucky that we share our cities and homes with wildlife. But did you know we also share our bacteria? Antibiotic resistant bacteria are those that have overcome the effect of antibiotics (medicines used to treat or prevent infections) are spreading to wildlife. And although we mainly think of antibiotic resistance as a human health issue, increasing reports of resistant bacteria in our wildlife raises questions about whether these bacteria affect their health too.

Through the Scoop a Poop project, citizen scientists can now contribute to a study of antibiotic resistance in Australian wildlife, specifically possums. How? By collecting possum poop from backyards and submitting it for testing for antimicrobial resistance.

Bushcare Blue Mountains hosted a Scoop a Poop workshop on April 13, which was also Citizen Science Day. The Scoop a Poop team discussed brushtail possum ecology and their different personalities (Clare McArthur, University of Sydney) and explained how connectivity between people, wildlife and the environment we share, facilitates the spread of antibiotic resistant bacteria (Michelle Power, Macquarie University).

Ann Tierney from WIRES talked about the important role of WIRES in rehabilitating wildlife and the growing need for the use of antibiotics to treat the increasing number of injuries presenting in our wildlife. The workshop highlights how the local community, WIRES, Blue Mountains Council and universities are working together, and the necessity for partnerships to address environmental issues through scientific research.

Koa Webster (Macquarie University) and the team then gave participants hands-on experience in identifying wildlife scats (using playdough models!), and in using the Scoop a Poop kit and its smartphone app. Poop-collectors can use the app to record where they collected each possum-poop sample. Using the Scatlas app feature, they can also follow the testing process of samples, and even track their own submission. The group also discussed antibiotic stewardship - actions we can all take to preserve the effectiveness of antibiotics and reduce antibiotic resistance. Workshop participants then took Scoop a Poop kits to collect possum poop from their yards for testing.

Scoop a Poop's pilot study detected antibiotic resistance genes, where we discovered bacteria resistant to some antibiotics in 27% of Possum poop samples. The team is still working out which bacteria are resistant and to what antibiotics. The Possum poop samples from the Blue Mountains will contribute to samples from other parts of NSW, Victoria and South Australia and help answer questions about geographic of resistance in wildlife.



Sarah Delaney and her son Ben demonstrating scoop a poop protocols.



From the right Associate Professor Clare McArthur, Associate Professor Michelle Power and Scoop a Poop Project Leader Dr Koa Webster

WIRES has recently joined the Scoop a Poop project, and the Blue Mountains wildlife carers will begin to contribute possum poop samples from the many possums they care for. Michelle Power, the Scoop a Poop project leader, explains why working with WIRES is super important for working out how these resistant bacteria in possums may impact their health. "WIRES has information from the possums coming into care, which allows us to examine relationships between possum health and carriage of resistant bacteria," says Michelle.

Michelle also explains that antibiotics are important for treating injuries in wildlife, and if they have resistant bacteria already in their bacterial communities then treatments may not work. "There is really a lot we do not know about antibiotic resistant bacteria in wildlife, and understanding this is not only important for our wildlife but it is also connected to human health," says Michelle.

You can read more about the project at the Scoop a Poop website. The Scoop a Poop team also run lessons in schools for Years 6-12 and students can also get involved in collecting possum poop samples.

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For more information:
www.scoopapoop.net

Download the Scoop a Poop App to upload your collection results then deliver your Scoop a Poop collection kit to Blue Mountains City Council front desk.



Bee-tastic Workshop



Native BEEtastic workshop with Megan Halcroft

By Jane Anderson

Members of Upper Kedumba Bushcare group had a lovely morning attending a workshop with the fantastic Megan Halcroft, of Bees Business, hosted by the Blackheath Rhododendron Garden for their 50th Anniversary.

The Upper Kedumba group site is the centre for the Upper Mountains bee metropolis, where we have built mud homes for ground dwelling bees and hotels of hardwood and reed for our cavity dwellers. We have planted a good selection of pollinator plants with plans for expansion. So with a keen interest in native bees it was a great opportunity to expand our bee knowledge.

Super interesting things we learnt:

- Bees see on the ultra violet light spectrum
- Bee's have short or long tongues and pollinate flowers relevant to their tongue design
- Petals have cone cells on them specifically for bees to hang on to
- The best time to see bees is early morning or late afternoon
- Bees build up a positive charge as they fly where flowers have a negative charge, the bees and flowers are attracted to each other. But when the bee pollinates the flower (takes nectar and pollen) the charges are neutralised so the next bee knows not to go to that flower and waste its energy
- The charge, nectar and pollen build up again throughout the day hence the afternoon sessions
- Habitat should be increased every year for your native bee population, so if you have 1 bee hotel now you need 2 the following year and so on
- Lots of little homes in full sun are better than one big home

For more information on bee's www.beesbusiness.com.au



Picnic 2019 & Biodiversity Camp



You're invited!

Megalong Valley Reserve

Saturday 29 June, 2019 • 11:30 - 3pm

Picnic Activities

- Wood Fired Pizza Lunch • Soup and Sweets • Local Snake Show • Kids Craft and Activities • The Trad Band • Bushcare Awards • 'Bushcare' the Musical

Biodiversity Camp

Friday 28 June from 3pm

Wildlife spotlighting, fauna survey plus a star presentation with our resident expert.

Saturday 29 June

Sunrise fauna survey and bird walk

Self catered camping is available Friday night in the Megalong Valley the night before the picnic.

Bookings essential

RSVP online at <http://bit.ly/bushcare-picnic>



Pollinator Week

Australian Pollinator Week acknowledges our important and unique insect pollinators during Spring (November) where group activities and community members can learn and laugh together as they help to support our pollinators.

As part of this year's Australian Pollinator Week, Bushcare will be holding a combined event with Wildplant Rescue for Pollinator Week in early November. Come along and make a bee hotel, learn about bees and buy some plants specifically for your new bee friends.

Scoop a Poop

We have already had a great response to the collection of possum poo with participant Max saying "I was happy to attend the Scoop A Poop event yesterday which turned out to be a great success with the hall filled with enthusiastic people!

The issues were well presented and discussed & I managed to collect fresh samples this morning from my own backyard.

I have already notified the group via the app and scanning my code plus photo of the poo from a breeding adult female Brushtail Possum which frequents the area and has surely checked out my compost area in backyard!

I saw a baby last year initially in her pouch then wandering near her a couple of weeks later. I have noticed smaller males and ringtail possums in the past who are just occasional visitors. They all come out at night and a backyard light and/or torch is required to see them clearly.

On rare occasions I hear the female possum become quite vocal as part of a suspected territorial display and screech at and possibly chase off other possums.

The two lots of possum poo I found were under a peach tree and on a pavement in my backyard".



Volunteers sewing up the jute mesh and planting sedges into the coir

Glenbrook Lagoon Floating Turtle Habitat

By Sandy Benson

An amazing pilot program constructing and installing a floating turtle habitat in Glenbrook Lagoon is the first of its kind for the Blue Mountains.

The Glenbrook Lagoon Bushcare group, along with community members came together to construct the floating turtle island. The aim of the project which was funded by the NSW Premier's Office, is to provide a safe nesting environment away from predation for the several species of turtle found at Glenbrook Lagoon.

The turtle population Australia-wide is ageing and declining, with few young recruits, thanks to predation on eggs and hatchlings. This is no different to the challenges faced by the Glenbrook Lagoon turtles.

The joint project team involving Bushcare, Council's Healthy Waterways team and the University of Western Sydney are keen to work on this pilot project to provide a sanctuary for the turtles to breed on. This floating island will have easy access from the water for the turtles to climb on to rest, bask and lay their eggs on.

The base structure is built from a combination of PVC piping, foam and mesh. The whole island is covered with jute matting, with wetland species tubestock planted into a coconut coir substrate. Worm farms filled with sand sit on top of the structure to ensure that the sand is dry, perfect for egg laying. The submerged and free floating wetland plants create a marsh environment which captures and stores organic material in the peat leading to high quality water treatment as well as providing an ideal habitat.

The project will be assessed and if successful additional turtle islands may be considered.



Volunteers from Glenbrook Lagoon Bushcare and corporate volunteers from Salesforce working together to build the base structure



Turtle Island being moved into place off the Glenbrook Lagoon sand bank

June

Kodala Lane Working Bee

Sunday, 2 June
1:30 - 4:30pm

Come and join us to restore the bushland at Kodala Lane. Learn more about the area and meet your neighbours. We meet four times a year for an afternoon. To register your interest go to www.bushcarebluemountains.org.au/events or email Nathan at nsummers@bmcc.nsw.gov.au

Pitt Park Weed Workout

Friday 14 June
9:00am- 2:00pm

Come and join local Bushcare groups working in the Jamison Creek Catchment on their annual combined day.

A colony of invasive weeds has established a stronghold near the playing fields and is taking over the natural bushland. Help restore the bushland by lending a hand to bring back the bush for our local wildlife.

Morning tea and lunch provided. Bookings essential with Jane jlanderson@bmcc.nsw.gov.au
4780 5623

Biodiversity Camp

Friday 28 June from 3pm
Megalong Reserve

Get involved in the fauna survey including birdwatching, fauna monitoring and spotlighting.

Session 1 Monitoring set up 3pm -5pm

Setting up monitoring. Book here: www.bushcarebluemountains.org.au/event/biodiversity-camp-fauna-setup-megalong-valley/

Session 2- Spotlighting 7pm- 8:30pm

Saturday 29 June

'Wildlife spotlighting' book here: www.bushcarebluemountains.org.au/event/spotlighting-and-stargazing-megalong-valley/

June Continued

Session 3 - Sunrise Bird and Fauna Monitoring

Saturday 29 June
7:30am - 8:30am

Sunrise bird survey and fauna monitoring. Book your interest here: www.bushcarebluemountains.org.au/event/sunrise-bird-walk-meg-along-valley/

Bushcare / Landcare Picnic

Saturday 29 June
11:30am -3:00pm

Megalong Valley Community Hall
The picnic this year will have plenty of activities for everyone. Starting at 11:30 there will be wood fired pizza, a local snake show, the trad band performing, the Bushcare awards and *Bushcare* the Musical.

To book in for catering: www.bushcarebluemountains.org.au/event/bushcare-picnic-2/

July

Hazelbrook Walk and Talk

Sunday 22 September
1:30pm - 4:30pm

Come and learn about the bushland in Hazelbrook. This series of walking and weeding involving some easy weeding followed by an interesting walk in the local area.

Bookings essential at www.bushcarebluemountains.org.au/events or contact Nathan at nsummers@bmcc.nsw.gov.au

August

Marmion Swamp Planting Event

Wednesday, 28 August
9:00 am – 12:00 Noon

Come and join the Marmion Swamp Bushcare Group for some planting to increase the buffer to protect a magnificent swamp system. Flat, dry and easy access. Delicious morning tea provided. Contact Karen Hising on khising@bmcc.nsw.gov.au or 4780 5623.

Blackheath, Holly Walk

Saturday, 31 August
9:00am - 3:00pm

A short walk to a tributary of the Centennial Glen Creek to treat/remove small and large Holly. This is our fifth year and we have made an impressive impact, but still more to do! Morning tea provided. BYO lunch. For RSVP and further information contact Karen Hising on khising@bmcc.nsw.gov.au or 4780 5623

September

Kodala Lane, Glenbrook Lagoon

Sunday 1 September
1:30pm - 4:30pm

Come and join us to restore the bushland at Kodala Lane. Learn more about the area and meet your neighbours. We meet four times a year for an afternoon. To register your interest go to www.bushcarebluemountains.org.au/events or email Nathan at nsummers@bmcc.nsw.gov.au

Powerful Owl Project

The Powerful Owl Project is looking for volunteers in Sydney to monitor owls in the suburbs. For more details on the Powerful Owl and how to get involved in this amazing citizen science project email powerfulowl@birdlife or [facebook.com/ThePowerfulOwlProject](https://www.facebook.com/ThePowerfulOwlProject)

Seasonal Calendar

Source: A timeline for the Upper Blue Mountains. Compiled by Jim Smith for the Blue Mountains Conservation Society.



Weather

- *July/August*: Coldest months, frosts, snowfalls, waterfalls may freeze.
- *August*: Westerly winds, often have effects on plants growth and form, and on bird behaviour.

Mammals

- *June*: Swamp Rat, *Rattus lutreolus*, numbers peak (born May/June). Many young present.
- Pygmy Possums and Feathertail Gliders in torpor.
- Quoll breeding season. Males wander.
- *July*: Bush Rat and Swamp Rat, *Rattus fuscipes* and *Rattus lutreolus*, numbers lowest, adults die off.
- *August*: Marsupial mice, *Antechinus*, mating. Males die at end of mating season.

Reptiles and Frogs

- Broad-headed Snakes shelter under rocks (will bask in sun).
- Most reptiles in torpor.
- Goannas bask in sun.
- Whistling Tree Frogs continue to call.

Insects

- Ghost Moths fly.
- Nellies Glen Butterflies, *Pseudalmenus chlorinda*, pupate on wattles. Gnats swarm over heaths.
- Blue Spotted Painted Ladies, *Vanessa kershawii*, migrating southbrown butterfly (Late August).

Aquatic

- *August*: Trout spawn.
- *August - September*: Eels migrate from sea up Hawkesbury River to mountain streams.
- On upper Blue Mountains plateau only in Greaves Creek. Mountain Minnows, *Galaxias*, hibernate in mud.
- Clam Shrimps, *Conchostracans*, dormant in pools as eggs.

Birds

- *June*: Lyrebird calls peak breeding season.
- Flocking: Black Cockatoos, Satin Bowerbirds (males) and Red Wattlebirds.
- Crescent Honeyeaters seen on escarpments, influx from south, can breed in area.
- Breeding: New Holland Honeyeaters, Powerful Owls, Wedge-tailed Eagles.
- Influx of Eastern Spinebills (June to September). In lower mountains influx is in May to July.
- *July*: 'Spring' begins for birds.
- Resident birds (insectivores) form territories, begin to breed. Tree Martins return.
- Male Superb Fairy Wrens turn blue. Lyrebird eggs laid. Many juvenile New Holland Honeyeaters.
- *August*: Many breeding birds, territorial calls, eg. Fantail Cuckoo, Grey Shrike Thrush.
- Night calls (Boobook Owls, Tawny Frogmouths, Masked Lapwings) through to November.
- Young Lyrebirds in nests. Migrants reappear. Noisy Friarbirds, Grey Fantails, Flame Robins. Major Honeyeater migration back from north begins. Magpie nesting and bombing can begin.

Plants

- *Banksia spinulosa*, *Banksia ericifolia* nectar flow.
- Winter wattles flower: *Sunshine Wattle*, *Acacia terminalis*, first, then *Acacia longifolia*.
- Greenhood Orchids flower, e.g. *Pterostylis longiflora*, *Pterostylis grandiflora*.
- *August*: Lady's Fingers Orchids, *Caladenia catenata*, flower. Red bird pollinated flowers abundant - *Styphelia*, *Epacris reclinata*, some *Lambertia formosa*, *Grevillea acanthifolia*.
- *Dracophyllum secundum* flowers until spring.
- *Boronia ledifolia* flowers.
- Lilly Pilly berries carpet rainforest floor.
- Foliage of *Dilwynnia retorta* and *Isopogon anemonifolius* turns red.



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:
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