



GECKO Spring 2012

The Newsletter of the Blue Mountains City Council Bushcare Program

Welcome to the Spring edition of Gecko. There are a range of topics from Native Bees, Brush Turkeys and Ticks to Bushcare Major Day Out and Stormwater. It looks as if we will all be very busy with weeding this Spring, but don't forget how much progress has been made on your Bushcare site, and all the others too.

*Lyndal Sullivan
on behalf of the Bushcare Team*



DATES TO NOTE

Wednesday 31st October Hawkesbury Nepean Catchment Action Plan, 2012-2022 deadline for having your say (See article inside for more details)

Saturday 3rd – Monday 5th November, Grose Valley overnight Great Grose Weed Walk. An opportunity for all of those who love the Grose Valley area to help control the weeds and enjoy 2 nights camping out. A strenuous and remote activity. Numbers limited. Contact Vanessa Richardson 4787 3112 or vanessa.richardson@environment.nsw.gov.au

Saturday 3rd – Friday 9th November, Colo Colossus (Wolgan and Colo Rivers) Friends of the Colo. Experienced walkers needed to follow up on Cape Ivy and Tree of Heaven patches. Contact Andy Macqueen 4757 1083 or andymacqueen@gmail.com

Sunday 4th November Garguree Swampcare, Soft Engineering Workshop at The Gully, Katoomba. 10am – 1pm. For bookings contact Peter Christmas 4780 5623, or pchristmas@bmcc.nsw.gov.au (See article inside for more details)

Sunday 11th November, Popes Glen downstream 9am – 3pm. Come along to help the work that has been done by the Popes Glen Bushcare Group over the past 15 years. We will be working in the creek for most of the day, treating a variety of weeds to prevent them going further into the National Park. Joint BMCC/NPWS activity with morning tea supplied. Contact Vanessa Richardson 4787 3112 or vanessa.richardson@environment.nsw.gov.au

Thursday 15th November, Native Bees 7 – 9 pm Evening talk (see article inside for more details)

Wednesday 21st November, Bushcare Network Meeting 6pm at the Lawson Library meeting room. All welcome. A light dinner provided RSVP by Fri 16th Nov, contact Lyndal Sullivan 4780 5528 lsullivan@bmcc.nsw.gov.au. Issues to be discussed include community education, bushcare conference, catchment coordination.

2013 Notes for the Diary

Saturday 9th March Annual Bushcare Picnic
Megalong Valley

3rd-5th May Capertee Valley Tree Planting with Capertee Valley Regent Honeyeater Recovery Group

Saturday 31st August Bushcare Conference
Mid Mountains Community Centre
organised by Bushcare Network



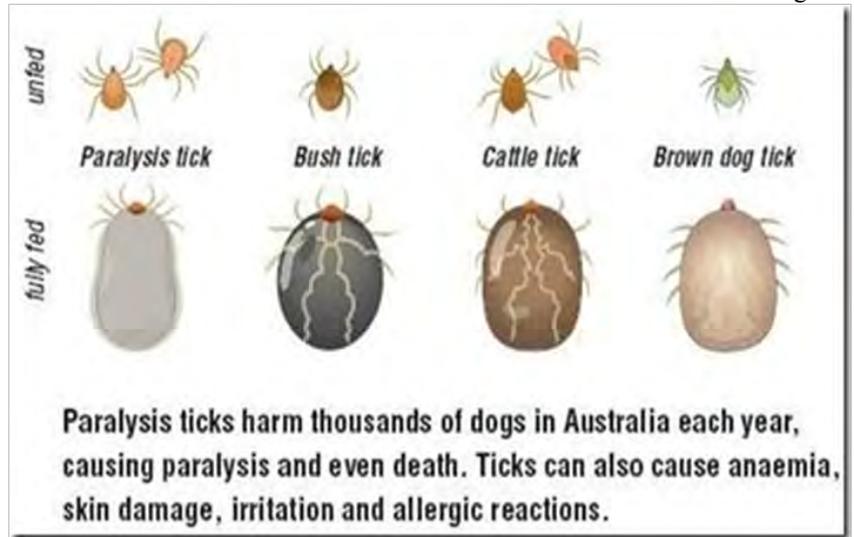
Deadline for contributions for next Gecko Monday 7th January 2013

Australian Association of Bush Regenerators (AABR) has some fantastic articles on removal of ticks and Lyme Disease. For those with web access they can be found here:

http://www.aabr.org.au/images/stories/resources/newsletters/AABR_News_112.pdf

http://www.aabr.org.au/images/stories/resources/newsletters/AABR_News_113.pdf

For those who don't, have access to the web contact the Office for a hard copy of the Newsletter for loan.



Weeds of National Significance / WoNS



Alligator Weed



Bridal Creeper

In the Winter edition of the Gecko we looked at the new Weeds of National Significance (WoNS). This edition we focus on the ten species, found in the Blue Mountains that were already listed:

- Alligator Weed (*Alternanthera philoxoides*)
- Boneseed (*Chrysanthemoides monilifera*)
- Bridal Creeper (*Asparagus asparagoides*)
- Cabomba (*Cabomba caroliniana*)
- Gorse (*Ulex europaeus*)
- Lantana (*Lantana camara*)
- Salvinia (*Salvinia molesta*)
- Serrated tussock (*Nassella trichotoma*)
- Willows (*Salix spp*)

These WoNS species have been selected as they require coordination among all levels of government, organisations and individuals with weed management responsibilities. The development of a strategic plan for each WoNS helps define responsibilities and identify strategies and actions to control the species.



Boneseed



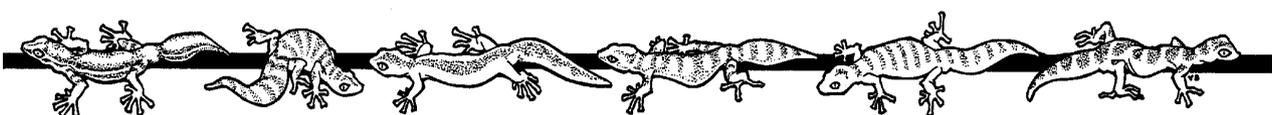
Gorse
photo: © Barbara Harley



Lantana
photo: © Barbara Harley



Pussy Willow catkins on male tree are yellow with pollen.
photo: © Barbara Harley



Trials and Tribulations : The sad story of a Montbretia treatment trial



In December 2010, after much planning, Rachelle Swindell (former Noxious Weeds Officer) and Lyndal Sullivan set up a trial to compare the effectiveness of four different herbicide mixes. Three locations were found where there was sufficient area of relatively uniform dense Montbretia which were considered reasonably safe from being disturbed. In each location, 4 plots were set up to test different herbicide mixes.

After the montbretia had died off in the plots at the North Katoomba location, they were set alight by the local youths! Radiata Pines fell on the second location in Railway Parade Medlow Bath during the huge wind storms of July 2011. These Radiatas were subsequently chipped and thoughtfully spread over the trial area. Only the last location in Medlow Bath has survived to be assessed. This was an afterthought – another four smaller plots were set up which were not ideal (each only 1.5 m x 900mm). The photo below shows the density of one plot, which was approximately equivalent to the other three.

The results can hardly be considered conclusive but may indicate the need for further trials to someone who has better luck!

For what it's worth, we found that the most effective herbicide to be Cut Out which is a commercial formulation of both Glyphosate and Metsulfuron-Methyl. This was followed by Metsulfuron-Methyl [Brush Off]. The other two herbicides tested were: Glyphosate with surfactant and a hand mixed formulation of Metsulfuron-Methyl plus Glyphosate. All plots were sprayed in December 2010. They were monitored in December 2011. A follow-up treatment was done using the same mix for that plot, however this time by wiping the leaves rather than spraying. This was due to the limited regrowth. In June 2012 (after 18 months), the plots were again monitored.

After 12 months, the least successful plot was clearly the one treated with glyphosate and surfactant – with 18 montbretia plants still alive. In contrast, the other plots were -

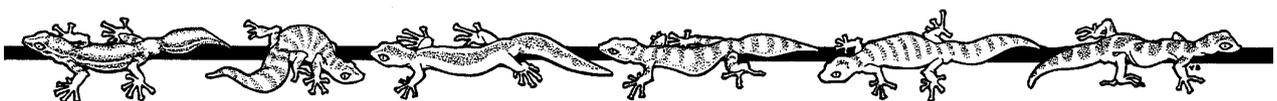
- Glyphosate + Metsulfuron-Methyl hand mixed (Round Up + Brush Off) - thirteen plants alive
- Metsulfuron-Methyl (Brush Off) - two plants
- Metsulfuron-Methyl plus Glyphosate (Cut Out) - one plant

After 18 months and the follow-up treatment the plots were monitored again and no plants were found alive on the Cut Out plot (see photo below), only one plant was alive on each glyphosate (with a surfactant) and the Metsulfuron-Methyl (Brush Off) plots. However, the markers had disappeared on the other plot!

Longer term monitoring is needed to come to any real conclusions. Do we have any takers? Do you know of a 'secure' area at least 8 sq metres of uniformly dense montbretia to try again?



June 2012 Plot after 18 months treatment with Cut Out



The Gully, Katoomba
Meet at The Gully Heritage Centre.
23 Gates Ave, Katoomba.

Sunday, 4 November 2012
9:00 am - 1:00 pm

Garguree Swampcare Group and The Gully Traditional Owners, invite bushcare and landcare volunteers to a Stormwater Solutions workshop. This event aims to give volunteers and interested people a chance to experience something a little different and meet some new people. At the same time, we will be making an important contribution to the rehabilitation of a degraded swamp, right in the heart of Katoomba.

The Workshop will demonstrate some of the practical techniques used to reduce the impacts of urban stormwater runoff in the local bushland. This is an opportunity to gain practical experience with the materials and techniques used in soft engineering projects right across the Blue Mountains. Come and see a range of "soft engineering" structures and learn how these structures manage the flow of stormwater through the area participate in constructing a wetland cell structure.



For more information on meeting place and to register to participate in this event, please contact Bushcare at Blue Mountains City Council on 4780 5623 or pchristmas@bmcc.nsw.gov.au. Booking are encouraged for catering purposes, or register on the day.

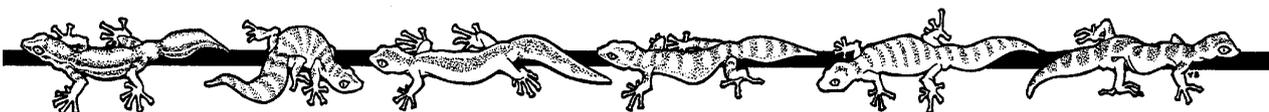
Australian Brush-turkey (Scrub Turkey) *Alectura lathami*



A sighting by the Cross Street Bushcare Group Warrimoo

Recently there has been a sighting of a brush-turkey near the end of Rickard Road, Warrimoo. The range of the Brush-turkey is changing. Historically this species was only found north of the Manning River on the mid north coast of NSW. Their range once extended to the Illawarra and so this sighting should not be lightly dismissed. If it is confirmed, it will add weight to the argument that the Fitzgerald's Creek catchment is indeed a special place.

Story from the Cross Street Newsletter by Steve Barratt





Bushcare's Major Day Out

The Blue Mountains community celebrated our first Major Day Out Event, held at Central Park in Wentworth Falls. This event was an opportunity to give interested residents an opportunity to join in an environmental project facilitated by Blue Mountains City Council, on the ground, in their local area. It was an opportunity for Bushcare volunteers to get together, meet other bushcarers, swap ideas to find out what is happening at one site and help it along with a concerted effort.

We plan to put on a similar event next year in the Lower Mountains, so any feedback from volunteers who attended this one would be appreciated and we welcome any nominations of sites. 22 people attended at Central Park and were very enthusiastic, planting, mulching, removing old tree guards from along the creek, and meeting new and existing members. All this work gave a boost to enhance the efforts already put into this little known and beautiful local reserve.

We would like to thank Jill Dark, who took small groups of participants through the Reserve and fascinated everyone with her knowledge of the local residents both floral and fauna. We value all contributions from those that attended to help make this important place a much healthier and better functioning part of our catchment system.



Central Park is a small parcel of land situated on the south side of Wentworth Falls, part of the Jamison Creek catchment, but also a low point in the landscape loaning itself to periodic flash flooding, before draining into nearby Jamison Creek

Over the last 10 years, a small and dedicated Bushcare Group has been working throughout the good bush areas and edges impacted by many things, including two quarry sites, which have been very painstakingly regenerated. With an *Erica lusitanica* infestation, Scotch and Cape Broom, Blackberry throughout, a local garden dump site, as well as lots of edges that have been heavily impacted by Japanese Honeysuckle. These areas are now largely returning to good health, but there is much work to do to make further impacts.

There is a small parcel of swamp remaining which has been worked on by for the last 5 years by local bush regeneration contractors and 4 years of TAFE involvement. The swamp is impacted by several drainage lines which have historically brought sediment and road base material into the heart of the swamp.

In order to improve the quality of water entering the swamp, over the last five years, Council has also done major work on the main drainage lines, including weed removal, reshaping of the channel, construction of a chain of ponds and

riffle zones to better accommodate the large flows in high-flow storm events. This has resulted in sediment dropping out much further up the system, leaving the water entering the swamp much less turbid, especially in larger rain events .



If you can spare a few hours on the fourth Thursday of the month between 9 am and 12 noon and would like meet some lovely people, come join us even for an hour or so and discover a lovely little slice of local bushland in Wentworth Falls.

Article by Tracy Williams Central Park's Bushcare Officer



For those of us who are becoming more mature and despair that there are not enough young people in Bushcare, worry no longer there is a new wave of young enthusiastic youngsters who are wielding trowels. This is Lenny Dewhurst from the Beefarm Road group in Springwood.



SAFE & SUSTAINABLE GARDENING

New editions of Safe and Sustainable Gardening have been printed and launched state-wide. The publication is free at your Libraries and Neighbourhood Centres across the Mountains. This booklet shows you how to modify your garden so it suits your needs and causes minimal environmental damage. It has chapters on access, design, plants, fire and water, waste, habitat, tools and chemicals.

About seven years ago the original Blue Mountains booklet started as a brochure about preventing falls in the garden. As a result of the combined efforts of professional and volunteer Bushcarers, with people involved in aged and disabled services, it grew into a resource booklet. It has been through several reviews, with feedback from the community and professionals. It has already proven to be a valuable resource, improving both garden safety and ecological sustainability.

The Safe and Sustainable Gardening Checklist is the tool for assessing gardens for safety risks and sustainability issues. By reading and filling out the Checklist (located in the centre of the booklet), you can begin developing a long-term strategy for your garden. It is recommended to have an overall plan and then prioritise according to need /urgency and affordability. When making decisions, it is critical to keep the overall plan in mind.

From humble beginnings in the Blue Mountains, it has now been adapted to suit ten botanical regions across NSW. These recent regional booklets have been funded by the NSW Dept of Ageing, Disability and Home Care. The Bushcare Office has some copies, if you can't get to the Library.



Find out how to escape the tyranny of your lawn!

Blue Mountains City Council is running a **FREE Eco Gardening Workshop** on **Saturday 17 November**, 10am – 12noon, at Blaxland Community Centre.

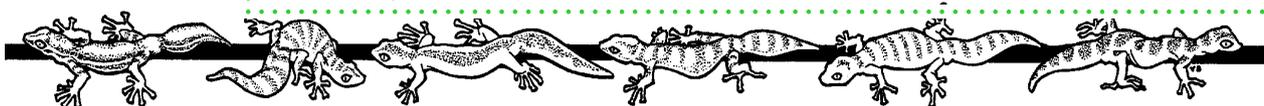
This will be the last Eco Choices Workshop for 2012.

Places are limited, so register now!

To get a copy of our registration form, or find out about our other free Eco Choices Workshops:

Call Council on 4780 5000

Go to our website: www.bmcc.nsw.gov.au





We all have stormwater of some variety running through our Bushcare sites. This article by [Walsh, C.J., Leonard, A.W., Ladson A.R. and Fletcher, T.D. (2004) *Urban Stormwater and the ecology of streams*. Cooperative Research Centre For Freshwater Ecology and Cooperative Research Centre for Catchment Hydrology, Canberra.] explains the new way of measuring impacts of stormwater. It suggests that those pipes and drains connected directly to the creeks have the highest impact, so Bushcare sites slowing water and aiding infiltration is most important to the health of our catchments.

Measuring the intensity of urban land-use Box 3

“Until recently, the most common measure of urban density used to assess impacts on aquatic ecosystems has been **total imperviousness** (TI), the proportion of a catchment’s area covered by **impervious surfaces** (surfaces such as roofs and pavements that are impermeable to water).

The observation that the ecological condition of streams broadly declines with increasing TI has led some authors to argue that stream degradation is inevitable above a certain TI (most commonly 10%: Beach 2001; Center for Watershed Protection 2003). Other authors, unsatisfied by the noisiness of relationships based on TI, suggested that indicators more inclusive of the broad range of urban impacts, such as percentage of catchment in urban land-use (Morley and Karr 2002) or a complex metric based on many aspects of urban land (McMahon and Cuffney 2000), might be better predictors of stream degradation. However, these indicators have not proven much better predictors of stream degradation than TI. Booth and Jackson (1997) suggested that **effective imperviousness** (EI, imperviousness calculated using only those impervious surfaces that are directly connected to streams by pipes or sealed drains) might be a better predictor of stream degradation as it only includes those impervious surfaces that are likely to be having the

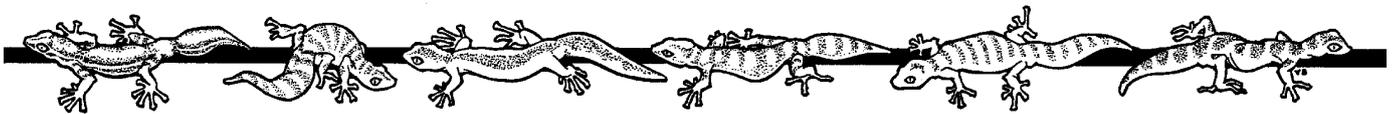
greatest direct impact on the stream. Recent research in the east of Melbourne has shown EI to be a stronger explanatory variable for a range of indicators of in-stream ecological condition (Hatt *et al.* 2004; Taylor *et al.* 2004; Walsh 2004b; Walsh *et al.* 2004; Newall and Walsh 2005; Walsh *et al.* in press). This finding suggests that replacing stormwater drainage pipes with alternative drainage systems that promote retention and infiltration of stormwater is likely to be an effective means of reducing the impact of urban stormwater on receiving waters.”

So to measure the Effective imperviousness (EI), we would need to map the impervious surfaces that are **directly connected** to receiving water form urbanite’s i.e. pipes. Water Sensitive Urban Design (WSUD) seeks to achieve low levels of EI, even in catchments that may have high total imperviousness. An good example in the Blue Mountains is at the Lawson industrial area The key is to retain water from small to moderate rain events in the catchment, rather than piping it directly to streams. Ideally water will be allowed to infiltrate into soil, evaporate or be transpired into the atmosphere. This is most effective if treatments are small-scale and located close to the impermeable surfaces generating runoff. E.g. an effective treatment at the household scale is to install a rainwater tank collecting roof runoff and plumb it into the laundry/toilet so there is always capacity for collecting more water. Terracing with a swale design on sloping blocks aids infiltration and some of the works done with stormwater solutions are examples of some small-scale designs.

The paper suggests that to protect small stream ecosystems, a limit of 5% effective impervious should be the objective. Once EI exceeds this level, the ecology of the stream is likely to deteriorate.

Bushcare has a copy of the full paper. If you would like to borrow it contact the Office 4780 5528.

Your Newsletter: This newsletter is compiled by Erin Hall (assisted by Sharon Huxley) from Blue Mountains City Council with contributions from volunteers (with special thanks to Barbara Harley) and Council’s Environmental Management Staff. It is sent to Bushcare & Landcare volunteers and other interested people. Contributions and suggestions are always welcome, as are requests for alterations to the mailing list. Contact: Bushcare, Blue Mountains City Council, Locked Bag 1005, Katoomba NSW 2780; phone 4780 5528 or email bushcare@bmcc.nsw.gov.au.



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