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Gecko

News from the Blue Mountains City Council Bushcare Program | Summer 2014

From Weeds to Wetland

Bushcare Success at Popes Glen

It's taken more than a decade of vision, hard work and determination, but Blackheath's Popes Glen is being transformed from a weedy wasteland into a thriving wetland filled with native plants and animals, thanks to an ambitious bush restoration project involving Popes Glen Bushcare Group, Council and the NSW Environmental Trust. The group successfully secured a \$233,000 grant from the NSW Environmental Trust. Since then, the pace of progress at the site has increased dramatically.

A team of contractors is now carrying out highly sensitive and skilled work to remove the remaining willows, stabilise the edges of the silt flat using structures built from recycled materials, and plant thousands of plants to protect the silt from future erosion. Over the last 12 years, Popes Glen Bushcare Group and Council, supported by the local Environment Levy, have removed a forest of willows and revegetated an area the size of half a football field with 7,000 local wetland plants at the headwaters of Popes Glen Creek.

The group's monitoring program shows that the restored wetland is dramatically improving water quality in Pope's Glen Creek, with faecal coliform counts reduced by up to 85%. The new wetland is also preventing a large amount of pollutants from escaping into the Blue Mountains World Heritage Area, only 2km downstream. Twenty cubic metres of sediment have already been removed from the stream since 2012.

Popes Glen Bushcare volunteers showcased the success of the project on 28 October, when Deputy Mayor, Cr Chris Van der Kley, and Councillors Anton Von Schulenburg and Don McGregor, together with Council's General Manager and NSW Environmental Trust staff, toured the site. "We were gratified to be awarded this significant grant," says Alan Lane, Coordinator of the Popes Glen Bushcare Group. "It acknowledged our hard work to date and built upon important gains funded by Council's Environment Levy. We've almost finished converting the willow forest and the huge silt flat into a permanent wetland. Not only is water quality improving, but several species of frogs have returned and small birds are abundant. Maybe one day we'll see Giant Dragonflies!"



"Willows are beautiful trees," comments Paul Vale, Deputy Coordinator, Popes Glen Bushcare Group. "Unfortunately they are also extremely invasive weeds that choke streams and native vegetation, and destroy aquatic ecosystems. That was happening to Popes Glen Creek and urgent action was needed."

Deadline for contributions to the next Gecko due 20 January 2015



Environment Levy
Your local levy at work

Bushcare News

Together with the usual action packed events calendar and some great reading courtesy of Bushcare Officers Lyndal and Jill and volunteer Bushcarer Lesley, this issue brings a fresh new face to Gecko for the New Year! Please let us know what you think of it - after all, it's *your* newsletter and we value your feedback. All comments are welcome - go to www.bushcarebluemountains.org.au or ring Erin on 4780 5320.

Our feature story about the Popes Glen project made it in to the BM Gazette in November following a well organised and well attended Councillors' briefing. The briefing was informative and enjoyable and both it and the project are a great testament to the joint effort by volunteers, Council staff and contractors alike. Well done to the Popes Glen project steering committee and to Emma Kennedy for the media release.

In September I had the wonderful experience of trekking "The Great Ocean Walk" along Victoria's coast. It is a magnificent landscape and a highly recommended week-long walk. Sadly though, several areas it traverses are badly infected with Phytophthora. I was interested to see Parks Victoria's excellent system of hygiene control - the boot cleaning stations are well positioned (almost unavoidable) and well designed. The hygiene control is backed up with clear, information in all the tourist brochures, maps and signage associated with the walk.

I left confident that I wasn't bringing back any unwanted guests on my boots, but also made sure they were clean (I put them through the washing machine) and disinfected before I wore them again at home in the Blue Mountains. Not only are we privileged to live in one of the most spectacular world heritage areas in the country, so far we haven't seen the

Events

Remote Bushcare at Katoomba Creek **Saturday, 28 February, 2015** **8:00 am – 5:00 pm**

Come along and continue the fantastic work in another remote section of Katoomba Creek, searching out weeds. This remote has off-track walking and wading in the creek. Experience required & numbers are limited. This is a joint NPWS/BMCC event. Please book with Lyndal by 14 February. lsullivan@bmcc.nsw.gov.au

Valley View Swamp at Blackheath **Thursday, 5 March, 2015** **9:00am - 3:00pm**

This swamp is upstream of the Braeside area and an important water source for the Grose River. Come for the day or just the morning and help us get the swamp back into shape. Enjoy a delicious lunch and morning tea donated by Hominy Bakery. Please book with Lyndal by Wednesday 25 February. lsullivan@bmcc.nsw.gov.au

Remote Bushcare at Popes Glen Creek **Sunday, 8 March, 2015** **9:00 am – 3:30 pm**

Come along to extend the work of the Popes Glen Bushcare Group further downstream. We will be working in the creek for most of the day so be prepared for wading. This is a joint BMCC/NPWS activity. Please book with Lyndal by 27 February. sullivan@bmcc.nsw.gov.au

Swampcare at Kittyhawk Swamp **Wednesday, 11 March, 2015** **9:00 am – 3:00 pm**

This swamp in Nth Wentworth Falls is well on the way to recovery. Add your energies to the follow up efforts to eradicate; Erica, Honeysuckle, Agapanthus and Seaside Daisy. This combined activity with NPWS includes lunch and morning tea donated by Hominy Bakery. Please book with Lyndal by Wednesday 4 March. lsullivan@bmcc.nsw.gov.au

Habitat on Your Sites

I was lucky enough to attend Peter Ridgeway's "Restoring Native Wildlife" course way back in September. Peter is a Senior Land Services Officer (Biodiversity) at Greater Sydney Local Land Services. We visited several Cumberland Plains sites to look at ways of finding, managing and monitoring resident fauna and managing Bushcare activities to protect and benefit wildlife. It's so easy to get caught up with the problem of weeds and their removal and this course reminded me that there's more to Bushcare than weeding. Peter emphasises the importance of the soil, the micro-organisms and the macro-invertebrates that can so often be overlooked as we focus on getting rid of the big, "in-your-face" weeds.

The take-home message for me? A sustainable Bushcare site starts from the ground up. Bushland rich in floral and faunal biodiversity needs coarse woody debris. It is critical habitat for those little critters and the more well-known and loved fauna rely on them. So, for example, branches that fall to the ground after a windstorm need to stay preferably where they fall. If they need to be moved, at least leave some debris, on site. Leave



Birds nest © Peter Christmas

Tis the season to be jolly and on a festive note thank you to the volunteers who were concerned that Holly was being sold at Big W Katoomba and alerted us. The Bushcare Nursery Education Program Officer Jill Rattray identified it as a holly cultivar *Ilex Cornuta Rotunda* and discussed it with them. Bouquets to Lara for promptly removing it from the shelves. It is a dwarf cultivar and is unlikely to be fertile but there was concern about the perception that Big W would be selling weeds.



How to Compost Corms

If you are digging up lots of Montbretia or Watsonia corms, please don't throw them in the bin or the compost. You could smash them up with a hammer or try this drying/baking method! Corms need to be dried out or 'baked' to kill them. Once dried, they can be used as fire starters or will break down to almost nothing to put on the garden.

Keep them out of the regular compost as best you can, because the wet and warm compost provides perfect growing conditions. If some get caught up and start growing in your compost it is easy enough just to pull them out and put them in your drying/baking system.

How to set up your passive solar baking system:

Get a black plastic compost bin from council or hardware.

Locate the bin in a place that gets good northern sun all year round.

Sit it up off the ground, on a stand covered in mesh to allow the air to flow – eg steelmesh covered in metal fly screen, or something else that will stop the corms falling through, and still allow air to circulate.

Put your corms in the bin and they will break down to a dry ash like material.

For best results, to avoid any regrowth, before putting corms in the bin –

- ◆ knock off all soil
- ◆ let corms dry off if wet
- ◆ take off any green leaves

Lyndal Sullivan



On The Web

Weed Futures website is a decision-support tool that provides users with the ability to interrogate individual profiles for over 500 non-native naturalised and invasive plant species within Australia and assess weed threats for regions of interest under current and predicted future climates. The integration of modelling, spatial analysis and species' trait information provides a comprehensive assessment and information source for these plant species under both current and future climates.

<http://www.weedfutures.net>

News from www.bushcarebluemountains.org.au You can now manage your own subscriptions to this newsletter via the front page of the Bushcare Blue Mountains website. The form pictured is from the right hand column of the website. You just fill in your details and pick the type of correspondence you wish to receive.

The Bulletin is a monthly email that comes out that contains events and a few bits of information that does not fit in the Gecko newsletter. Gecko live is this newsletter in an online format that you click on the links to articles that you want to read with a PDF format of the paper copy of the Gecko. Bushcare Events is for those who want to participate in swampcare and remotes and keep up to date with new event based opportunities.

At the bottom of each of the emails that you receive if you would like to unsubscribe just click the unsubscribe button at the bottom of the page.

Options for your group

For those interested you can add content to the bushcare website. There are two options that you can use depending on what type of information you would like the public to see.

1. The group page that is static and has information about the group and where you work. An example of this can be found here: <http://popesglen.bushcarebluemountains.org.au/>
2. You can have a post (which is like a news stream) that you can use your phone or computer to upload pictures or text about your workday as you are out on site. An example of this can be found here: <http://explorersreserve.bushcarebluemountains.org.au/>

If you would like to discuss your options you can call the bushcare office and talk to Erin 4780 5320 or discuss at your next workday.

Holly Trial Results AUG 2014

In January 2013 the RSPCA Landcare Group presented preliminary findings in Gecko on their Holly experiment. Now 3 years after treatment (nearer 2.5 - 4 years), the results are slightly different.

A major conclusion is that you cannot be sure of the effectiveness of your treatments on Holly for at least two to four years later. So the follow up work is more time-effective if left for at least 2 years after the initial treatment.

Most bush regenerators consider Holly to be one of those weeds where the results of treatment are often inconsistent. Some of the reasons for this is believed to be: the time of year, the technique used and/or plant size. The RSPCA Landcare group started to test these theories in late 2010 by setting up 5 plots to be treated over a 15 month period – treating the holly in the four seasons. In total 275 plants were treated covering a range of plant sizes.

In July 2014 some plants were totally covered by fallen trees after the huge windstorm of July 2011. Other plants and their markers could not be found probably because both plant and marker had rotted away. So 161 plants were found and assessed. The trial found that a 100% kill rate could be achieved at any time of year as long as the chosen technique was done correctly.

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Holly trial results continued.....

The overall effectiveness of the trial was 92.5% - only 12 plants had any sign of life out of 161. The herbicide used throughout was undiluted Glyphosate. The 3 techniques used were – cut and paint, scrape and paint, and drill/fill. Approximately 50 plants were treated with each technique, covering all seasons. The results are too small to be conclusive however the indicators are that:

For plants under 10 mm diameter at the base - both cut & paint or scrape & paint works

Between 10 mm and 40 mm – the scrape & paint technique works best

For plants over 40 mm – drilling works the best

DISCUSSION OF RESULTS

Cut and paint (C&P)

Of the 53 plants treated by C&P, there was a 13% failure rate (7 Plants). One failure was due to poor technique (the cut was too high - 80 mm above ground level) resulting in 4 shoots sprouting below the cut.

Most of the failures were plants between 10 and 40 mm diameter at the base.

The highest failure rate occurred using the cut & paint technique, even using the larger sample size of plants monitored previously (Sept 2012). However it is worth noting that there was a 10 out of 10 success rate for C&P plants 40-54 mm.

Scrape and paint (S&P)

Out of the 55 plants treated by S&P, 4 were not effectively killed (7% failure or 5% compared with larger monitoring sample).

3 of the unsuccessful treatments were on multi-stemmed plants where not all stems had been scraped; the other was where the plant was larger than 40mm diameter.

Drill & inject

Of the 53 plants treated by drilling and injecting neat herbicide, only 1 was not effective (1.9% failures). This was a multiple stemmed plant with many suckers, which appeared to have not all been scrapped.

The technique used was to drill holes at about 40 mm spacing in a ring around the base. Only 5 plants treated by drilling had a base diameter less than 40 mm, so it is difficult to come to any conclusions as to the effectiveness of drilling smaller plants. However it is possible to use a smaller size drill bit.

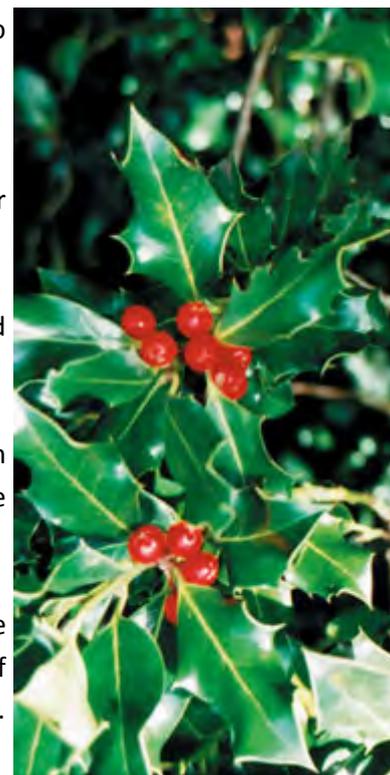
CONCLUSION

The sample size is too small for the results to be conclusive on the best technique to use for each size plant in each season.

This pilot study does indicate that:

1. Holly can be treated effectively in all seasons.
2. Both the cut and paint and the scrape and paint techniques are effective for plants less than 10mm diameter.
3. The Cut and Paint technique only works if cuts are no higher than ground level
4. Scrape and Paint is the most effective technique for plants between 10 and 40mm diameter at ground level.
5. Plants larger than 40mm are best drilled and injected.
6. Plants with multiple stems or suckers can be treated effectively by a combination of drill& inject and scrape and paint techniques, as long as all stems/suckers are treated.

On the website you will find the table recording the ground level stem size, the techniques used and the success/failure rates recorded. Full details of the results of each technique used during each season is available from Lyndal at the Bushcare Office.



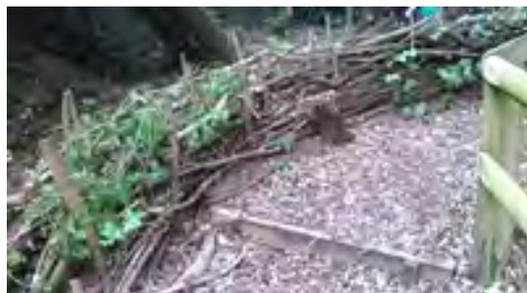
The Conservation Volunteers

This London based group has very similar aspects to Bushcare, but the name and tasks associated with it are area specific. The two pieces of interest are their deadwood hedges and their insect hotels.

Lesley volunteers for half the year with Mt Victoria Bushcare Group and the other half with a local group in Camden, Nth London that meets twice a week to care for a range of open spaces from woodlands to meadows, all in a large capital city. TCV is open to all who want to volunteer. A work session could see people building deadwood hedges, clearing weeds, building insect hotels, doing path maintenance and planting wild flower seeds. "It provides a wonderful opportunity to get outdoors and connect with nature".

TCV have been active since 1959 and more information about the history can be found here: <http://www.tcv.org.uk/greengym/how-green-gym-works>

This insect hotel is in a small green space just down the road from Lesley, which the group cares for.



This is an insect hotel (left) which is designed to provide a habitat for solitary bees and bumblebees, leaf cutters and the like. The deadwood hedge is habitat for insects and small birds.



The Problem with Feral Cats

It seems that every time I turn on our ABC lately I hear a report on the problem of feral cats; Landline, Lateline, Background Briefing, Bush Telegraph, Offtrack, to name a few of the programs that have run stories on the feral cat issue. It's as though we've reached or passed the tipping point for protection of native species from these predators, and there's a scramble to get some action.



Native mouse *Antechinus stuartii* ©Jill Dark

every frog, every bat, just about every bird in Australia and any mammal smaller than a large kangaroo, are susceptible to cat predation".

It is estimated that there are approximately 20 million feral cats in Australia, responsible for killing and eating more than 20 billion mammals, reptiles, birds and insects a year. The figures vary, but anywhere near that is alarming and tragic. Ecologist Dr John Read, who has dissected more than 1000 feral cats over 25 years, states that "they eat falcons and cockatoos, bats, centipedes, scorpions. I imagine that they would have a hard time pulling down a saltwater crocodile, or a cassowary, but virtually every lizard, every snake,

2 minutes with.... Rennae Loydell

Has been volunteering at Bee Farm Road since 2004.

1. What brought you to bushcare?

I live in a beautiful area of Springwood which has a stunning view of Sassafras Gully Reserve. A neighbour suggested we look into how we can better care for our 'bigger backyard' and so our group was formed. I enjoy gardening, so this was a great way of learning more about the native plants in our area.

2. What are the challenges?

Trying to get enough done each month to make a visible difference. Bushcare we all know is a slow process. However when I look back over the past 10 years, I see the progress we have made.

3. Favourite and disliked plants?

From a distance the bush looks green until you get closer and see the acacia wattle flowering in all its glory with beautiful yellow and cream flowers. The joy of having different varieties flower all year round is amazing. Now about a weed I don't like. Asparagus fern is deceptively nice to look at, but has bad motives. Some of my bushcare days can be spent solely just digging it out. It's definitely a weed that needs constant monitoring to stop its cycle. Unfortunately the birds don't help us with their love of the berry, but this gives you motive to keep removing it from our bush.

4. If you could invite four of the people who inspire you to dinner, who would you pick?

I can't go past my own family and it would have to be a table set for 12. They all inspire me in different ways. I value their company and what they say, so much more than anyone else.



Your Newsletter: This newsletter is compiled by Erin Hall (assisted by Sharon Huxley) from Blue Mountains City Council with contributions from volunteers 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,

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