



November 2014

### *Message from Councillor Margaret de Wit*

*As another year passes, I would like to sincerely thank you, the members of the Pullen Pullen Catchments Group for your hard work and commitment to our environment. Whilst records are kept of the hours of work volunteers put in, the \$\$ value of that work you do removing weeds and revegetating would be massive. The provision of advice and working with schools is vital for the future of our beautiful city. The contribution PPCG and our other environment groups make to the City is substantial and I know the Lord Mayor appreciates this contribution to making Brisbane a “clean and green” city.*

*As the founder of PPCG I regret that I am unable to find the time to be as actively involved as I was all those years ago however I read the committee minutes and the most informative newsletter and keep in touch with what is happening. A special thank you to the tireless members of the Management Committee who keep the group going.*

*I wish you and your families a safe and happy Christmas and a great New Year (with some much-needed rain!)*

**Margaret de Wit**  
*Councillor for Pullenvale Ward  
Chairman of Council*

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Dedicated to a better Brisbane



Pullen Pullen Catchments Group

A Landcare Group

## Pullen Pullen Catchments Group

### Meetings

Meetings are held at 7pm on the first Wednesday of each month at Pullenvale Environmental Education Centre, 250 Grandview Road, Pullenvale.

### Working Bees

Anstead Bushland Reserve – 4<sup>th</sup> Sunday of the month, 8.30 -11 am

Pullenvale Forest Park – 2<sup>nd</sup> Sunday of the month, temporarily in recess

### Committee Members 2013-14

<b>President:</b>	John Ness	32027556	president@pullenpullencatchment.org.au
<b>V. President:</b>	Richard Ponsonby	3202 9484	
<b>Treasurer:</b>	Tracy Barrie	3202 6219	
<b>Secretary:</b>	Liz Dominguez	3202 7967	contactus@pullenpullencatchment.org.au
<b>Members:</b>	Margaret de Wit	3407 0220	
	Louise Orr	0439 024 400	LOrr@seqcatchments.com.au
	Brian Dean	3202 8553	
	Irene Darlington	3202 6883	wildlife@pullenpullencatchment.org.au
	Ron Tooth	3374 1002 (W)	
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	Dean Beaumont	0409 326 667	
	Margaret O'Grady	3202 5115	
<b>Website Coordinator:</b>	Nola Dean	3202 8553	
<b>Streamlines:</b>	Helen Ogle	3323 7407	editor@pullenpullencatchment.org.au
<b>Coordinator:</b>	Amanda Maggs	0408 713 450	<i>BCC Creek Catchment Officer</i>

“The PPCG acknowledges the support of the Brisbane City Council for costs associated with the website, the printing of Streamlines and with running the working bee mornings in Anstead Bushland Reserve and Pullenvale Forest Park.”

### Membership Options:

- Send a cheque payable to PPCG to PO Box 1390, Kenmore, 4069 or
- Transfer the funds electronically to BSB 064 152, Account 10107038 Ref: your name.

Membership fees are:

- \$5 per person for one year
- \$10 per person for 3 years
- \$50 per person for Life.

We are delighted to accept donations.

At the November Management Committee Meeting a number of matters were discussed:-

- Catchment Map – our Catchment Officer, Karen Toms, produced a draft of a Catchment Map that will be available on the Council website following corrections
- Water quality monitoring – the point was made that is cheaper and easier to monitor waterway health by checking for the presence of certain organisms than testing for chemicals. Volunteers, rather than specialists, can do such observations.
- Lord Mayor's Community Sustainability and Environment Grants are now open for applications. PPCG applies for a grant to cover administration costs and Wildlife Officer, Irene Darlington, applies for grants to assist with costs involved in animal rescue, building possum boxes, aviaries, a trailer for transporting animals to release sites, etc.
- PPCG Website – Nola Dean reported that work on the site is now progressing well. She is currently adding photos to the bird and plant lists.
- Wildlife – Irene reported that the extremely hot and dry conditions we are experiencing are having multiple detrimental effects on wildlife, especially as we are currently in the breeding season for many animals.
  - ❖ Conditions are driving animals out of the bush looking for food and water. Even ducklings and other water birds are suffering. Normally, support feeding of animals is not encouraged but under the present conditions, it is being recommended to ensure that at least some members of this generation survive. However, people need to be careful to put out appropriate food (no bread and jam!) and where they put it to ensure animals can reach it safely.
  - ❖ Leaf cover is becoming very sparse so nests are exposed posing a danger for arboreal species breeding at the moment.
  - ❖ Many possums have very severe burns to their hands, feet and the undersides of their tails because roofs and wires are still very hot when the possums emerge in the evenings.
  - ❖ Evaporation from water supplies is exceeding replacement so the concentration of organophosphates is increasing in water supplies. Birds drinking such water may be poisoned and generally have to be euthanised.
  - ❖ Some plants that are normally regarded as weeds are proving helpful now in providing food for animals. For example, the African tulip tree produces abundant flowers and seeds which are eaten by a range of animals.
  - ❖ A trailer for carrying animals to release sites has finally been found but it is a wreck. The gentleman who builds possum boxes is rebuilding the trailer for free and it will become a mobile aviary.
- Caring for Country Grant renamed 'What's your Nature? Initiative' – work on Cat's Claw Creeper control has started on 15 sites and 9 more are under contract. Work on the Pullen Pullen Catchments will go ahead next year. With the outlook for rain just 40%, and an 80% chance of a hotter than normal summer, no planting will take place until April.
- Bird Hide at Anstead Bushland Reserve – meetings continue to ascertain whether Council will apply any restrictions.
- Griffith University Ecocentre Community Organisations – PPCG has been registered on this website.
- Anstead Bushland Reserve – thirteen volunteers attended the last Working Bee cleaning up and mulching around the BBQ area. No more plantings will take place until we receive good rain. More disturbingly, mature plants from previous plantings are dying. One volunteer found a tick on her neck at a recent working bee so I've included a very brief summary of parts of an excellent 24 page review of ticks and tick-borne diseases edited by Virginia Bear and Lynn Rees from the Australian Association of Bush Regenerators. The full report is available on their website.
- Pullenvale Forest Park – meetings about the future management of this area continue with a plan for the year being drawn up to help volunteers. The first instalment of a report on the very enjoyable and informative walk through the Park in May with Botanist Daniel Rekdahl appears on pages 6 and 7. Daniel's suggestions about what needs to be done at various locations will form the basis of projects to be carried out by PPCG in Pullenvale Forest Park.
- Common (Indian) Mynas – the issue of trapping and euthanasing Common Mynas caused considerable debate. Volunteers are needed to build cage traps. Another immediate issue is finding a vet willing to euthanise trapped birds.
- Water Act Louise Orr pointed out that the Water Act and many other environmental Acts are being changed by the current government. To remain up to date with changes, register with the Environmental Defenders Office.
- Annual General Meeting will be held at 3 pm on Sunday 7<sup>th</sup> December at Pullenvale Environmental Education Centre, 250 Grandview Road, Pullenvale. It will be preceded by a Management Committee Meeting at 2 pm and followed by drinks and finger foods until 5 pm. Everyone is welcome to attend.

# Where Do Creeks Go When They Die?

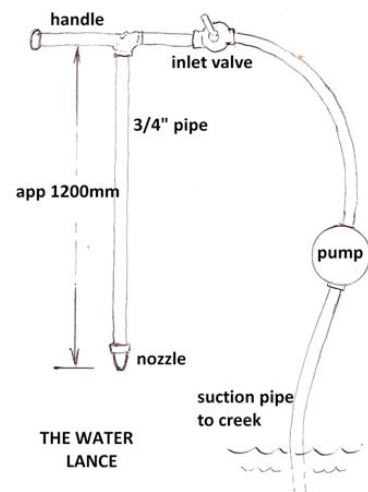
Brian Dean

Those of us whose memories stretch as far back as 2011 will recall the TV coverage of the floods that deluged Brisbane that summer. One particular image which was shown again and again had the floating restaurant, Oxley's On The River, broken loose by the force of the waters, spinning and crashing into the Go-Between bridge. You must remember it, surely. What you may not recall so readily is the name of the creek where the restaurant had been moored, or more accurately, the creek which flowed into the river just opposite the mooring site. It may even surprise you that there was any creek there at all. Where's there a creek in Milton? Rosalie? Well, there was one, Western Creek, and the first speaker in the Brisbane Biodiversity Seminar on 21<sup>st</sup> October, Angus Veitch, had resurrected the missing, presumed dead, Western Creek as part of the seminar theme "**Creeks: Past, Present, and Future.**"

Angus has done extensive research on the elusive Western Creek, having moved to Rosalie a couple of years ago and speculated on the source of the waters which, piped and channelled, discharge under Coronation Drive just next to the ill-fated "Oxley's". We were shown old maps and surveys from the 1820's onwards on which Western Creek features large as life. Angus has skilfully superimposed these old charts with recent maps and aerial views, tracing the story of the gradual building over or filling in of the creek, and, most tellingly, of the flood patterns in such years as 1974 and of course, 2011. You can hide, bury and forget about a creek and its catchment, but it never goes away, returning to reclaim its lost territory in times of flood. Even the installation of backflow valves at the mouths of creeks leaves Angus (and us!) wondering where will the water go to if the flood plain catchments, often heavily built over, are all blocked off? This was a fascinating keynote start to the seminar, and you can get much more from his website: [angus@oncewasacreek.org](mailto:angus@oncewasacreek.org)

From disappearing creeks to what lives there when they are up and running – fish – was the next topic, presented by Leo Lee. It was called: (deep breath) "Intra-species hybridisation". (note; *intra* not *inter*). We were given a lightning course in DNA as an introduction to the habits of creek fish such as the purple spot gudgeon which dwells in many waterways in the south-east. There are, it appears, minute genetic (DNA) differences between the gudgeon in, say, the Mary River, and those inhabiting nearby creeks, even though they may look identical, and this may result in little or no interbreeding between fish in Creek A and their cousins in Creek B or C. Even in times of flood when creeks overflow and join up (when you'd expect the separate clans to get together for a wild and wet orgy) the fish end up back in their own creek when the water subsides. This stand-offish behaviour means that evolutionary mutation occurs *very s l o w l y* in the fishy world, and highlights the point of this (rather technical) dissertation, namely : It's no good (and potentially harmful) re-stocking the depleted fish population in Creek X with a bucketful of the same species from Creek Y just over the hill. The New Chums may breed amongst themselves, but because the genetic differences extend way beyond a particular fish into *plants* (or "polyploids") the new "generation Y" may not eat the plants in their new home (Creek X) and the colony perishes. Complicated? Well, genetics ain't simple, and the next presentation offered some mental respite for racked brains trying to cope with the intricacies of underwater sex; Andrew Wallace of Brisbane City Council came on to show us how to do amazing things with his Water Lance and Long-Stem Plants.

Have you ever noticed how a running hose stuck in the ground tunnels its way deeper until you can hardly pull it out? This must have been the origin of the Water Lance, a bent pipe with a handle, attached to a hose + pump (the other end of the hose goes into a handy creek). Andrew illustrated how this works, its main use being to plant tube stock deep into the sub-soil, chiefly near or on creek banks, as a counter to erosion. The lance has been trialled for about eighteen months with good results so far. The crucial thing is to use "long stem" plants which have been specially prepared (12 months in advance) in such a way that their stems are very long – about 60cm – and which respond to the very deep planting by putting out root systems at points along the stem. By this means they are protected from flood damage and competition from intrusive vegetation – and also, it so happens, drought conditions. Andrew is keen to extend the use of this method of riverine conservation and it seems it would be ideally suited to future planting projects in Pullenvale Forest Park, where flooding has sometimes frustrated planting programs. Might be worth a phone call; just ring BCC and ask for Andrew of the Water Lance.



On the subject of post-flood creek rehabilitation, the seminar concluded with an in-your-face interactive presentation by Grant Witheridge who first of all lectured us sternly, but wittily, on the dangers of anthropomorphising: that is, attributing to inanimate things (such as creeks) human characteristics. Can a creek be “raging”, “gentle”, “nurturing”, “enticing”, “caring”? Of course not – these are human feelings or moods. But a creek, nonetheless, is a source of life, and does arouse feelings of pleasure, relaxation, apprehension, even fear and danger. Scarcely drawing breath, Grant plunged into the practicalities of humans nurturing and caring for creeks – how best to maintain the integrity of the creek’s environs. We saw the “Don’ts” (clearing, weeding followed by optimistic mulching, doomed to wash away next storm event, leaving trees isolated and highly vulnerable to root-level erosion, plastic mulching mats which don’t degrade etc) and the “Do’s” (coir logs to stabilise banks, pin fibre mats with rusty pegs – they hold better, use rocks to anchor matting, place debris-trapping posts about 1 metre upstream of trees, plant herbaceous plants as buffers for trees and so on). It was a whirlwind tour of creek TLC, and a fitting climax to the seminar.

Now go forth, went the message, and care for our creeks, whether gentle or raging, enticing or threatening. They are the life-giving arteries of the landscape, and a blockage, or just poor health, can be potentially disastrous, even fatal. Anthropomorphism, anyone?

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Snippets of information/news in no particular order;-

- ❖ Herbicide usage survey. ‘The Weed’s News’ reports some interesting results from its recent survey exploring attitudes towards herbicides. 73% of respondents use herbicides. Of these, 62% worry about the health effects of their use of herbicides and 67% worry about the impact of herbicides on the environment. 75% of those who currently use herbicides wanted to use less. Watch out for their workshops on ‘ChemFree Working with Weeds’
- ❖ The Hut Environmental and Community Association (THECA) has sent an advance notice and call for papers for their next environmental forum ‘Conservation Conundrums: Exploring Apparent Conflicts in Wildlife Management’ to be held at ‘The Hut’, 47 Fleming Road, Chapel Hill on 2 May 2015. The plan is to have 2-3 short talks expressing divergent views on the same environmental management issue followed by a panel discussion with 3-4 issues to be explored during the day. Further details from THECA.
- ❖ Plastic Shopping Bags. Local Member, Bruce Flegg, recently commissioned a research paper on the use of plastic shopping bags that take hundreds of years to degrade and use large amounts of oil in their manufacture. Most end up in landfill but some 50-80 million end up as litter in the environment. Very briefly, the researchers found that there is no simple or obvious solution. However, degradable or compostable bags do appear to offer protection to the environment by breaking down within weeks, not centuries. On the other hand, considerable energy and, in some cases, plant resources are used to produce degradable/compostable bags, so they are not without ‘environmental sin’. Summarised from Bruce’s Moggill Monitor, August 2014. The report can be accessed on his website.
- ❖ We have received an invitation from Beth Brunton, University of the Sunshine Coast, for members to participate in a community survey of eastern grey kangaroo populations in South East Queensland. Details are given below:-

***‘Can you help us to track the occurrence and distribution of Eastern grey kangaroos (Macropus giganteus) across South East Queensland?’***

*We have developed an online survey which allows you to share your experience and tell us where and when you have seen grey kangaroos in our region. While eastern grey kangaroos are traditionally abundant throughout Queensland, in many areas populations are declining or under threat due to urbanisation and habitat loss. There is very little sound data on the numbers of Eastern grey kangaroos across South East Queensland. Thank you for taking the time to participate in our survey and contributing to the conservation of Eastern grey kangaroos.*

*Complete the survey using the following link: <https://www.surveymonkey.com/s/3D6KYYK>. More information is available on our website: [www.usc.edu.au/kangaroo-research](http://www.usc.edu.au/kangaroo-research). To date, I have been getting an excellent response rate from the Facebook site for our survey: [www.facebook.com/SEQEasternGreys](http://www.facebook.com/SEQEasternGreys).’*

The underlying geology of this area means that the soils generally are shallow and low in fertility. However, the creek corridor contains some alluvial deposits with richer soil. These soils support rainforest which merges into wet sclerophyll forest and then into dry sclerophyll forest as we move away from the creek.

In the areas along the creek, curtains of vines buffer the area from the external environment and allow a moist microclimate to develop. However, at ground level in disturbed areas, introduced grasses like green panic suppress the growth of pioneer species such as Poison Peach which will in time allow a canopy to develop. The introduced grasses are also a fire hazard making it more difficult for rainforest species which are not adapted to fire to re-establish. Commersonia, brush kurrajong, native mulberry, even Easter cassia, lantana and macaranga are useful pioneer species that help rainforest to expand. Macaranga and native mulberry are especially useful as they proliferate by forming suckers.

The native vine, monkey rope (*Parsonsia straminea*) is widespread on the East Coast of Australia in a wide range of communities. Its cigar-shaped pods contain many seeds with 'parachutes' of hairs. These seeds are carried by the wind. They germinate and form a young plant with leaves that are purple on the underside. These seedlings cling to trunks and continue to climb upwards, spiralling around the stem and can strangle young saplings. In parts of Brisbane, monkey rope vines are strangling paperbark trees leading to loss of this canopy plant in wetland areas. In the past, monkey rope may have been controlled by aboriginal fires. Now it can be managed by cutting some of the vines off at the base. Monkey rope seedlings should be removed by hand from new plantings of rainforest species until the plants are big enough to support the growth of the vine without being adversely affected.



Monkey rope climbing over trees



Immature seed pods



Mature seedpod releasing hairy seeds

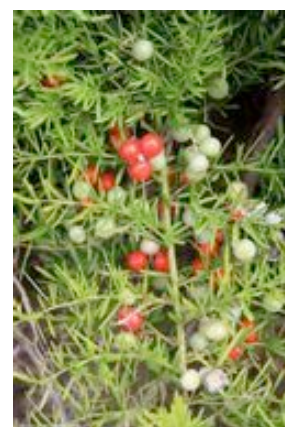
Climbing asparagus fern is a problem in parts of this Park. Recently a fungus has been found that causes a mottling on the stem and, in time, death of branches. While this is a worry to commercial asparagus growers, it is good news for bushlands.



Monkey rope seedling clinging to tree trunk



Climbing asparagus fern flowers



Climbing asparagus fern fruit

Chinese elms or *Celtis* are present along the creek. The plants have probably been here for more than 100 years. They look similar to the native elm. Both have smooth, pale trunks when young but the serrated margins of the leaves are more pronounced on the native elm. Chinese elms are deciduous so their leaves are yellowing now (May). Structurally, they are similar to many rainforest plants and provide

prolifically and the seeds are spread by birds. It is impractical because of their number and size to remove mature trees but bush regenerators can work with the canopy they provide and underplant plants such as native figs. Seedlings of Chinese elm should be removed. Recently there has been a noticeable increase in predation of mature trees by the *Celtis* beetle which is moving south as the climate warms. On more fertile soils, camphor laurels replace *Celtis* in similar locations.



Leaves of Chinese elm



Leaves of Native elm

A gap in the canopy has given both natives and weeds an opportunity to regenerate. Unfortunately, weeds such as glycine and balloon vine are overgrowing and suppressing the native plants. These vines must be removed to give the native plants time to grow.

Further along the creek is a stand of mature hoop pines which give us an indication of the original structure of the subtropical rainforest in this area. A feature of the area is 'vine towers' in which the native vine *Cissus antarctica* has grown up and over the hoop pines forming a curtain. While *Cissus* can dominate young plants, it grows over, rather than strangles, mature plants. The vine has many predators which cause defoliation so a balance between the vine and its support plant is reached.



Leaves, flowers and fruit of balloon vine

The question was asked whether the *cissus* should be removed to protect the hoop pine. This is a contentious issue. As well as *cissus*, cockspur and other native vines that provide protection and food for wildlife form part of the vine tower so it is probably best to allow growth to continue as it is. In situations like this where there are just a few large trees remaining, they are a 'target' for mistletoes and native and introduced vines. These plants are not an issue when the trees are part of a forest.

More on vines. Native vines can take over or suppress growth along the edges of forests. However, they tend to 'work' in harmony with the plants they grow on. They have their own pests and diseases to control their growth. Introduced vines do not have their own pests and diseases which is why they can become problems.



Leaves of *Cissus antarctica*

In a eucalypt forest, the cover provided by vines growing over trees is better than the cover eucalypts provide alone. The eucalypts present here are probably the result of a fire some 100 years ago and the additional cover provided by vines encourages the regeneration of rainforest underneath. The rainforest is clearly spreading out from the creek so while we are losing wet sclerophyll forest, we are gaining more rainforest.

To be continued...



Ticks are widely known for their ability to cause allergic reactions and paralysis in pets and small children but they can also transmit diseases such as Lyme disease (or a Lyme-like disease in Australia) and even induce an allergy to red meat and meat products.

Most tick bites to humans on the east coast of Australia appear to be caused by the paralysis tick, *Ixodes holocyclus*. It has four life stages – eggs, larvae, nymphs and adults. Larvae, nymphs and adults need a blood meal from a host.



Stages of tick life cycle

Ticks need moist conditions such as wet sclerophyll forest and temperate rainforest to thrive. Females lay eggs in leafy, moist ground layers. Larvae hatch after 40-110 days incubation. Larvae and nymphs are most active during the cooler months of the year and may cause hundreds of bites at a time. Adults are more active during warmer months and usually cause single bites. Adults and nymphs are usually found in vegetation below one metre in height but may also climb taller shrubs and trees.

There is considerable debate about the best ways to remove or deter ticks; choose the option that best suits your situation.

#### Removing ticks

- ticks should be removed as soon as possible to reduce the risk of disease transmission and allergic reactions. There is debate about whether ticks should be killed before removal.
- minimise the chance of the tick injecting toxins or pathogens during the removal process. Don't scratch it or try to kill it with methylated spirits, kerosene, essential oils, liquid soap, flame, etc.
- adult ticks can be removed
  - manually with fine pointed tweezers or other tick-removing devices grasping it as close to the skin as possible and not squeezing the body
  - chemically with Lyclear®, a cream used for treating scabies
  - freezing it with an ether-containing spray which kills the tick immediately
- larval and nymph ticks usually occur in large numbers and are difficult to remove without irritating or squeezing them so a chemical solution may be more effective.

#### Preventing tick bites

- wear permethrin treated clothing which offers a high level of protection and reduces or eliminates the need for other protection methods; de-tick clothing after wearing
- protect exposed skin with an insect repellent containing DEET or picaridin
- plan work schedules around tick season
- burn or treat vegetation with herbicides before weeding
- avoid crawling under dense weeds



This is the last issue of Streamlines for 2014. I hope you have enjoyed the rather varied collection of topics covered. The next issue will appear at the end of February 2015. Please remember that all members are most welcome to contribute and items for inclusion will be required by February 20.

Very best wishes to you and your families for a safe and happy festive season.

Helen Ogle, Editor