



# Streamlines

Newsletter of the Pullen Pullen Catchments Group Inc.

## May 2014

Welcome to the May issue of Streamlines. In contrast to the February issue which was decidedly plant oriented (one could even say 'weedy'), this issue is predominantly about animals.

We begin with an entertaining article by Tambo resident, Janette Lawler, who reveals the perils of vegetable gardening where wildlife rules. The article is reprinted from the Summer 2013 edition of RUTH, the magazine of the Queensland Country Women's Association with permission. Then local birdwatcher and columnist Jim Baker discusses the appearance and activities of Rose Robins in our area.

Amanda Maggs very quickly and kindly provided information from the Brisbane City Council which I have supplemented with some statistics from the Courier Mail of 15 March 2014 and compiled into an article on Feral Deer.

We round out this issue with an interesting article by John Ness on the value of trees in our environment in which he poses and answers the question "When is the best time to plant trees?" Brian Dean's Concise Pictorial History of Bushcare makes a welcome return.

Perhaps the most important item of all is the appeal for a Bushcare Coordinator for Pullenvale Forest Park (see page 5).

I invite ALL members of the group to contribute items for publication. Anything up to ONE page is welcome so it is not a major effort. Perhaps you have personal experiences or opinions on deer you would like to share. Closing date for items for the next issue will be Friday 29 August. I will be away until then so the next issue will be a little late. Apologies in advance.

Helen Ogle, Editor

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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	3202 7556	
<b>V. President:</b>	Richard Ponsonby	3202 9484	<a href="mailto:members@pullenpullencatchment.org.au">members@pullenpullencatchment.org.au</a>
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<b>Secretary:</b>	Liz Dominguez	3202 7967	<a href="mailto:contactus@pullenpullencatchment.org.au">contactus@pullenpullencatchment.org.au</a>
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<b>Coordinator:</b>	Amanda Maggs	0408 713 450	<i>Bushcare Coordinator</i>
<b>Printing:</b>	John Gower, Gynaecological Cancer Society		

“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 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.

## Editorial

Since the last edition of Streamlines, Anstead Bushland Reserve has been the fortunate recipient of a visit by Habitat Brisbane Officer Kate Flink and Botanist Ann Moran. Kate helped the group prepare a 12-month plan in which goals, achievable projects, weed threats and other problems specific to the area were identified. Then various zones within the area were examined separately and necessary tasks in each zone prioritised.

As a result, efforts are being concentrated on the Fig Tree Garden and the area between the Fountain Garden and the water tank. Tasks to be completed at each monthly Working Bee have also been documented. At the April Working Bee, weeds were removed by hand and the lower branches of shrubs trimmed so that mulch can be spread by Council workers in late April/early May.

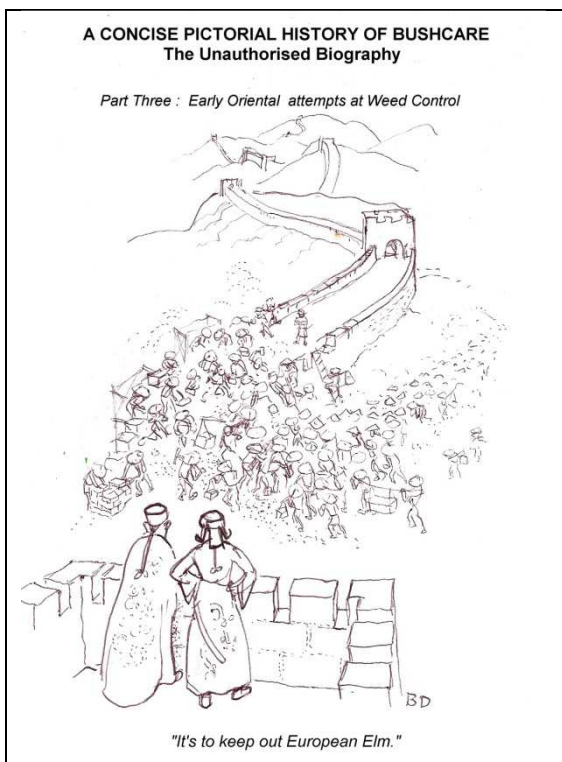
Ann prepared a plant list for the area mentioning 44 different species that were recognisable at the time of her visit. This list will be used as a basis for recommending 40 plants to be planted, weather permitting, in small clumped plantings later in the year. It is hoped this approach will result in higher plant survival rates under the hot, dry conditions in this area.

Council is no longer removing weeds pulled out at Working Bees. Instead, weeds are placed on heavyweight black plastic and covered with another layer of black plastic held in place with rocks, etc so that the weeds 'cook' under the sun. The result is mounds covered with black plastic somewhat reminiscent of the artist Christo's environmental works of art in which he and his wife wrapped various, usually very large, structures in fabric. Could this be the start of the 'Park as Art' movement proposed by Brian Dean last month?

On the other side of the Catchment Area, the Pullenvale Forest Park is still without a Bushcare Coordinator. Dean Beaumont reports that the area is very overgrown, trees are down in the carpark and overall, the park is very neglected. Kate Flink's program for the area has not been actioned. See page 5 for more information about Pullenvale Forest Park and the opportunity to become the Bushcare Coordinator for the delightful area.

Enjoy the next few months while considering what you could contribute to Streamlines!

Helen Ogle



**Do you enjoy**

**Physical activity in  
bush surroundings?**

**Meeting great people  
who do interesting things?**

**Instant reward for your efforts?**

**Great morning teas?**

**Then join a PPCG working bee  
(Dates on page 8)**

# Going to the Birds

Janette Lawler

Like many of us, I like having a garden. With the plentiful bore water in my area there is no excuse for not having one. I do have some geraniums and a climbing rose, but I grow vegetables. Our local shop does have an excellent fruit and vegetable supplier, but I love really fresh veggies, raw or cooked.

I often brag at meal times that, 15 minutes ago, these vegetables were still growing in the garden. And when I'm weeding or watering, I will munch on whatever is at hand. I freeze a lot and pickle some. I often give surplus away.

It seems ideal doesn't it? Not so. I have a friend that keeps raiding my garden, no matter what I do. A brown speckled bower bird. As it hasn't made a bower, it must be a female.

Now, I love all animals and birds. I even move frogs and other crawly things out of harm's way. I get very upset if I witness the aftermath of animal cruelty and have put myself in dicey situations in the past after seeing someone intentionally, or unintentionally, being thoughtless or cruel. I have applied this peace-loving approach to my bower-bird – unsuccessfully.



Brown speckled bower bird

The first time I saw this thief was several years ago, when it was biting holes in the middle of several snow peas that I wanted to pick. So I did what anyone would do – I ran towards it flapping my hands and shouting, “shoo shoo”. It flew away.

I was picking what was left of the untouched peas when I heard a noise behind me. There was that bird, running towards me, shaking its wings and screeching. I thought it cute and funny. Every time I saw it sampling my plants, I would shoo it away. But it would creep up on me and try to shoo me away. Clearly it regarded all the edible plants as its food supply, and has returned every year to feast on my lunch and dinner.

I tried hosing it when I was hand-watering the garden. I saw it on a low tree and aimed the nozzle at it. The water hit the trunk and sprayed back on me. I swear that bird sniggered.

I threw some rattly bottle seed pods at it. It gave an outraged squawk and flew off. That afternoon when I was collecting my evening meal, one of those same seed pods landed on my head and a sniggering bird's laugh came from that fiend in the tree above me.

Some people in Tambo feed birds, so it's not as if this bird is starving. It was born to be bad. I'm asked how I know it's the same bird every time. It has that same evil look in its eyes.

This year my small orange tree produced a bumper crop. The fruit was almost ripe. I felt each fruit to test if I should pick it. I went out next morning with a bucket and every orange had one beak stab in it. EVERY ONE OF THEM. On the roof guttering was that demon bobbing up and down laughing.

I suppose I could cover all my plants but, for watering and picking, this would cause problems. Building a greenhouse would be expensive.

I do still love animals and all but one bird. But if it keeps raiding and laughing at me, I... I will stop growing veggies. Then how will it amuse itself?

It will be my turn to laugh. Desperate times call for desperate measures. I won't have any fresh veggies, but it won't either.

# Beautiful Winter Migrant: Rose Robin

Jim Butler

Winter has its downsides! But one of its upsides is the arrival of the winter migrant birds, and one of the most beautiful is the Rose Robin.



Rose Robin photographed by Ed Frazer on his property

The male has a spectacular rose-coloured breast while the female is basically brown with a rose-wash on the breast of some females.

At the present time there are many Rose Robins in the bush and they call often with an insect-like double buzz at the end of their tinkling song.

They are insectivores and tend to forage high in the canopy which contrasts with the very common resident robin, the Eastern Yellow Robin which forages near or on the ground.

When Rose Robins are feeding they are spectacularly acrobatic as they sally out to pursue an insect; at other times they busily take insects from the leaves in the canopy with their tails cocked.

In our catchment, the Rose Robin is an altitudinal rather than a latitudinal migrant! It breeds in the summer in the high moist forests above 500m on the Great Dividing Range; and during the winter it comes down to the lowland woodlands and creek-side vegetation on our coastal side.

Look for them in the trees near a water course. It is a woodland bird and rarely, if ever, ventures into the urban environment. So to see it, in all its beauty, you need to go to the bush and our catchment has plenty of that, and at the present time the Rose Robins are celebrating their arrival and are highly visible.

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## Pullenvale Forest Park – How Can You Help?

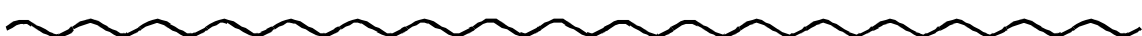
Have you been to Pullenvale Forest Park, Pullenvale Road (just down the road from the Pullenvale Hall and past the creek)? It has a number of walking tracks, the highlight being the track with a great overhead tree canopy that follows the creek. It is a haven for birds and native animals (a koala was spotted there in March). The park is very popular with runners, cyclists and walkers, as well as those with their dogs. School groups and bird watching groups also frequent the park. Of a late afternoon, it is not surprising to see up to ten vehicles parked in the car park.

The park is regularly maintained by a small group of volunteers who meet once per month for a working bee, relying on support from the Brisbane City Council (BCC). This support has deteriorated to virtually nothing in recent years, resulting in the group leader being unable to conduct any working bees during 2014, despite eager volunteers wanting to assist.

How can you help?

Pullen Pullen Catchments Group (PPCG) is looking for a new Pullenvale Bush Care Group Co-ordinator to organise and conduct monthly working bees. Persistence with the BCC by the right person may eventually lead to more support for the park in materials and manpower.

Please notify the President of the PPCG if you would like to apply for this position.





# Feral deer

Helen Ogle

On 'our' side of the Brisbane River, feral deer activity has been observed in Pullenvale (15 complaints in 2013/14), Brookfield (11), Pinjarra Hills (8), Upper Brookfield (5) and Kenmore Hills (5).

There are three species of wild deer currently found in Brisbane – Rusa, Fallow and Red. **Rusa deer** are medium sized (up to 100 cm at the shoulder) with large ears, light tufts of hair above their eyebrows and large antlers. Their body hair is coarse, sparser than other deer and varies in colour from greyish to yellowish or reddish brown with darker areas on the hindquarters and thighs.

**Fallow deer** are smaller (up to 90 cm at the shoulder) and are commonly tan or fawn with white spotting on the flanks. The tail is long, black on top, white below with a white rump patch outlined with a black horseshoe. Their winter coat is longer and greyer with indistinct spots.

**Red deer** are the largest in our area standing up to 120 cm at the shoulder. Their summer coat is reddish brown to brown and their winter coat longer and brown to grey. Mature deer have a straw-coloured patch on the rump. Their antlers have 6 or more points on each side.



Rusa deer



Fallow deer



Red deer

Feral deer damage native vegetation, residential gardens and fences and reduce water quality through browsing and trampling. They compete with native wildlife for resources and habitat and may transmit diseases and parasites to humans, domestic animals and wildlife as well as spreading weed seeds. They may also be aggressive during the breeding season, represent traffic hazards and attract illegal hunting.

Rusa deer are declared Class 2 pest animals. Landowners and managers are obliged by law to take reasonable steps to keep their land free of them. Feral and Red deer are declared Class 3 pest animals so landowners and managers are obliged by law to take reasonable steps to keep their land free of them if their land is, or is adjacent to, an environmentally significant area.

Deer management is expensive and time consuming. Exclusion fencing may be successful on private properties but is not appropriate on public lands because it restricts public access, affects wildlife movements and requires a high level of maintenance.

Repellents have been suggested but are untested in Australia. In addition, it is thought deer would adapt to their presence over time so they would become ineffective. Trapping may be effective in some circumstances but traps must be monitored closely and deer promptly relocated or euthanized after trapping.

Shooting is considered to be the most effective and humane technique currently available but must be undertaken by appropriately licensed and trained shooters. More than \$200,000 is spent on deer control each year with 63 deer culled up to 31 March in this financial year. The Council deer control program can be contacted through the Call Centre on 3403 8888.



**Do you have a great fundraising idea?**  
**to help our cute and furry friends in care**  
**PPCG's Wildlife Carers would love to hear**  
**from you!**

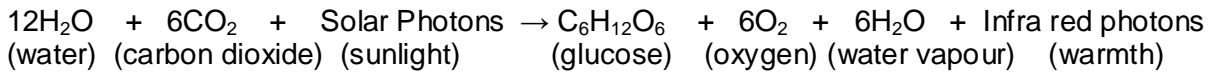
**Give Irene a call on 0409 026 883**

# Trees

John Ness

## Q. When is the best time to plant a tree?

Trees and their siblings such as grasses are the basis of life on earth. They add oxygen to the atmosphere, remove carbon dioxide, form the lowest level of the food chain and are critical to the water and carbon cycles. The formula summarised below illustrates the process (photosynthesis) by which tree leaves convert water “pumped” up from the ground and carbon dioxide from the atmosphere, under the action of solar radiation, into a series of organic molecules collectively called sugars which are then used to build the structure of the tree.



Animals cannot convert inorganic water and carbon dioxide molecules into organic ones using the energy from solar photons so are completely reliant on trees for the food and oxygen necessary to deliver the energy for life. This energy comes from the slow burn of oxygen and food fuel from trees or indirectly via other animals in a more complex reversal of the chemical equation for tree growth.

Trees use the red and/or blue ends of the visible spectrum. Leaves are green because the green wavelengths in the middle of the visible spectrum are reflected and don't participate in the photosynthesis. Under water, the situation is reversed. Corals, for example, are virtually every colour but green which means they mainly utilise green wavelengths.

Simple free-living bacteria (cyanobacteria) in the oceans originally performed this photosynthetic magic trick perhaps 3 billion years ago and around about 2.35 billion years ago the waste product (oxygen) started to build up in the atmosphere to a few percent of present levels. Interestingly enough, this was not long after the solidification and formation of the main tectonic plates whose movements determine the location of the continents, the rise of mountain ranges, the ocean basins and the burial and re-emission of carbon dioxide.

This low level of atmospheric oxygen remained relatively stable until about 700 million years ago when terrestrial plant life managed to trap the photosynthetic bacteria inside their own cells and the rate of oxygen accumulation accelerated reaching the present level of around 21% of the atmosphere by about 500 million years ago. It has fluctuated around this ever since.

It has been calculated that the tree with maximum rate of carbon fixation is *Eucalyptus regnans*. *E. regnans*, until approaching maturity, grows at over 1m per year but other eucalypts are similarly speedy (see Table 1).

**Table 1:** Comparison of the growth rates of six tree species over a 30 year period in the Pullen Pullen Creek Catchment. Data collected by the author.

Species	Height (m)	Diameter (m)	Growth rate (m/yr)	Aboveground Weight (kg)
<i>Eucalyptus grandis</i> (group)	37.5	0.55	1.25	1600
<i>E. grandis</i> (single)	33.0	0.90	1.10	4000
<i>Eucalyptus maculata</i>	21.0	0.30	0.70	400
Hoop pine	27.0	0.55	0.90	900
Bunya Pine	18.0	0.50	0.60	500
<i>Grevillea robusta</i> (Silky Oak)	20.0	0.45	0.67	570

**Notes:** The group of *E. grandis* consists of the taller trees in a block of about 20 in good alluvial soil. The single *E. grandis* is relatively isolated on the banks of Pullen Pullen creek. Consequently, it has not grown as tall but is much larger in girth hence the much greater weight. *E. maculata* grows well on shale but will be considerably stunted if grown in fertile soil. The pines and silky oaks are situated relatively close to Pullen Pullen creek and so generally have good soil moisture.



*E. regnans* will grow to about 90m in 100-200 years about 20% taller than *Eucalyptus grandis* but considerably more massive with diameters up to 5m and weighing about 350,000kg. What *E. regnans* excels at, besides stature and majesty, is the rate at which the species can convert carbon dioxide into plant tissue. The record of around 2 million kg of carbon storage per hectare is held by a stand of *E. regnans* with an accumulation rate of around 10,000kg per year.

A single very large *E. regnans* can bulk up at around 600kg of carbon per year – Australia's biggest gainer and biggest loser when cut down.

A comparison with carbon storage in the oceans is instructive. Cyanobacteria, either free swimming or incorporated into marine life forms, in the surface layers of the ocean can accumulate carbon at a rate of about 100 billion tonnes per annum or 300-400kg/ha per annum. This is only around 3% of that of a forest of *E. regnans*. Furthermore, about 90% of the carbon accumulated in plankton and larger life forms is consumed on its way to the ocean floor and reconverted to carbon dioxide so the net accumulation rate of carbon in the oceans is only around 30-40kg/ha per annum.

In Australia, the carbon stored in the 300mm surface layer of the soil ranges from about 500kg/ha in deserts to 250,000kg/ha in heavily forested areas. A hectare of large *E. regnans* would then store about 1,000,000kg (1 thousand tonnes) of carbon above and below ground after only 100 years or so of growth. It would take the oceans 20,000 years to accumulate a similar amount. However, unlike trees where the accumulation/release cycle is measured in hundreds and at most thousands of years, accumulation in the deep oceans lasts for millions to hundreds of millions of years until recycled via tectonic plate movements and volcanoes. The other and much faster recycling is, of course, humans digging up coal and oil and burning it as fast as possible.

The perplexing question then arises why people were, and many still are, so keen to cut down trees, given that they are the bedrock of our existence. One could perhaps excuse this tendency in the case of Chinese elms, but otherwise who knows why this is so. The Koala Foundation attempted to curb this destructive habit with the "No Tree No Me" campaign and it is easy to see that koalas, as they cling to eucalyptus like ticks on a thylacine, are parasitic on trees. The on-going demise of koalas is inextricably linked to the destruction of their trees.

Humans are also aboreal parasites, albeit with a larger spatial and temporal contingent dependency, but parasites that kill their hosts, even if a few steps removed, will eventually follow the same fate.

**A. Given the typical life cycle of trees the best time to plant a tree is about 30 years ago!**

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## Postscript Sunday 18/5/14

I'm just home from a fascinating walk through part of Pullenvale Forest Park with Daniel Rekdahl, botanist-in-residence at Pullenvale Environmental Education Centre. It was organised as part of Creeks as Corridors Week.

Along with identifying many plants and discussing the ecology of the Park, Daniel pointed out areas needing attention NOW and talked about what can be done. (See advertisement for a Bushcare Coordinator for this area on Page 5!) The walk ended with a magnificent morning tea. Thank you to everyone involved. Ron Tooth will prepare a report on the walk for the next issue of Streamlines.

During the walk, I also saw at first hand damage caused by deer – shrubs/small trees pushed over, others with their bark and conducting tissue so badly damaged that they have died or are dying. One of the fast-growing canopy-forming species that is needed in this area was one of the casualties. I now fully appreciate people's concern about the damage deer cause.

Editor