



Streamlines

Newsletter of the Pullen Pullen Catchments Group Inc.

August 2014

Welcome to the August edition of Streamlines – a little late due to my gadding around the countryside. Apologies!

First of all, thank you to readers who have provided feedback on the Newsletter. I'm very glad you enjoy reading it. The item on Feral Deer elicited several responses. One reader commented that deer pass regularly through their property and are very adept at slipping through three strand wire fences!

Our feature article this issue is a report by Brian Dean on a lecture given by Professor Carla Catterall of Griffith University. Professor Catterall challenges us to reconsider our current thinking on the 'goodness' of native species and the 'badness' of introduced species. She cites two examples and suggests a change of mindset.

Following on with this theme, I've included a very brief report on the changes that ensued when wolves, formerly regarded as 'baddies', were reintroduced into an environment from which they had been eliminated. The results were quite surprising and very beneficial to the environment.

Parts I edited out of the item by John Ness in the last issue reappear as comments on the world's tallest trees. John has also supplied a photograph of an interesting stick insect he found along Pullen Pullen Creek. Another interesting insect, the leaf cutter bee, is also featured.

Amanda Maggs, our BCC Creek Catchment Officer, has very kindly supplied details of a number of plant and wildlife apps for Smart phones, many of which are free. In addition, she points out that the SEQ Land for Wildlife monthly newsletter does regular app reviews.

I hope you enjoy the items in this issue.

Helen Ogle, Editor

Contents

News.....	3
Fifty Shades of Grey.....	4
World's Tallest Tree Species?.....	5
Leaf cutter Bees.....	6
'Stick Insect'	6
Apps	7
A Concise Pictorial History of Bushcare	7
The Wolves of Yellowstone National Park.....	8





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 – 4th Sunday of the month, 8.30 -11 am

Pullenvale Forest Park – 2nd Sunday of the month, temporarily in recess

Committee Members 2013-14

President:	John Ness	32027556	
V. President:	Richard Ponsonby	3202 9484	members@pullenpullencatchment.org.au
Treasurer:	Tracy Barrie	3202 6219	
Secretary:	Liz Dominguez	3202 7967	contactus@pullenpullencatchment.org.au
Members:	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)	
	Ray Krafft	3202 6470	<i>Bushcare Coordinator, Anstead</i>
	Dean Beaumont	0409 326 667	
	Margaret O'Grady	3202 5115	
Website	Nola Dean	3202 8553	
Coordinator:			
Streamlines:	Helen Ogle	3323 7407	editor@pullenpullencatchment.org.au
Coordinator:	Amanda Maggs	0408 713 450	<i>BCC Creek Catchment Officer</i>
Printing:	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.

NEWS

Working bees at Anstead have concentrated on the area between the Lookout and the water tank – weeding and clearing lower branches so a small piece of earth-moving equipment could roughly spread 80 m³ of mulch. Members then spread the mulch more evenly and continued weeding. Where do they all come from? The weeds, that is, NOT the members!

Despite the progress made, we need more helpers. Working bees are held on the fourth Sunday of each month commencing at 8.30 am. We usually work for a couple of hours then enjoy a delicious morning tea, coffee, cordial or water accompanied by homemade goodies generously provided by Nola Dean. A few members return between working bees to spray weeds.

In other news, a prescribed burn in the Anstead Reserve was delayed until suitable southerly winds to take smoke away from power lines prevailed. A fox has been seen near the tank and the sighting reported to the BCC. In view of the number of dogs walked in the area – often off-leash – the risk of laying baits for the fox was raised. It has been too dry to consider new plantings in the area.

Pullenvale Forest Park is still without a Bushcare Coordinator. However, during the Creeks as Corridors Week bushwalk, our guide Daniel Rekdahl paused at several places and talked about what needed to be done there. It is proposed that individual members each take responsibility for a small project based on Daniel's comments. Unless work continues in the area, lantana and vine weeds that originally over-ran the area will come back. A Caring for Country grant will be used to employ a contractor to remove vine weeds from Anstead Reserve and Pullenvale Forest Park.

Another Pullenvale issue that has been brought to our attention is the proposal to build a clubhouse and associated parking area for the Kenmore Bridge Club on parkland at 43 Pullenvale Road. If you are interested in finding out more about this issue, go to <https://facebook.com/groups/SavePullenvaleReserve/>.

On the wildlife front, Irene reported that because the winter break was late arriving this year, breeding cycles were not normal. There were many babies, both birds and possums, and a sudden cold change would lead to many deaths. Reptiles have not hibernated leading to problems when releasing reared animals.

Still on wildlife, Scott O'Keeffe, a PhD student at Griffith University, is seeking volunteers to help with a survey of urban Bush Stone-curlew populations between May and July 2015. He hopes to answer questions such as Can they survive?, What habitats do they prefer?, Are they increasing? and Can better urban design benefit Bush Stone-curlews? Volunteers will work in groups of three for (preferably) ten evenings (5.30-8.30 pm) during this period and will use a sound broadcast technique. If you are interested in finding out more, Scott can be contacted by phone on 3389 5716 or 0457 328 442 or by email on m.s.okeeffe@optusnet.com.au or michael.okeeffe5@griffithuni.edu.au.

The PPCG website is progressing, but slowly. Plant lists are being compiled. Can any members help with lists of plants from their localities? A recent exciting development is an offer from a local birdwatcher and keen photographer to match photos to existing lists of the birds in the area.

On a broader scale, Brisbane City Council is developing interactive catchment maps that will include links to catchment and wildlife groups, satellite views and a lot of other information. They will probably be available later this year.

On an even broader scale, local MP Bruce Flegg is pursuing with the four major supermarkets, the idea of making compostable plastic bags available at every check-out. Bruce commissioned a research paper into the issue of plastic bags which concluded that there is no simple or obvious solution but compostable bags appear to be a step in the right direction.



Fifty Shades of Grey

Brian Dean

We hear a lot about Fundamentalism nowadays. Whether it's religious, racial or indeed any form of ideological obsession, all fundamentalists have one thing in common – an absolute conviction of the total rightness of their cause, coupled with an equally firm conviction of the total wrongness of any other view or opinion. It's black & white, take-it-or-leave-it, no ifs & maybes, no grey areas, let alone as many as fifty. Has a kind of fundamentalism crept into bushcare and landscape restoration?

Professor Carla Catterall of Griffith University hinted at this in her Inaugural Lecture given on 13th June. Her lecture was titled “Must we suppress aliens to restore nature?” and she questioned what might be called the orthodox standpoint which views environmental changes “through a moral prism”, classifying plants and animals as “Native = Good; non-native = Bad”. *Full Stop: No Argument: Black & White*.

According to Carla Catterall, there is a “need for a more nuanced and realistic approach to conservation and restoration” – more shades of grey, if you like.

Having, so to speak, set the proverbial cat amongst the pigeons, Prof. Catterall then presented a formidable swathe of statistics to show that not all “aliens” are of necessity “bad”, and, conversely (and perhaps surprisingly) not all natives are *ipso facto*, “good”.

Two species (one flora and one fauna) were singled out as illustrations of the “grey areas” of relative goodness and badness. An aerial photograph taken in 1958 of part of the “Big Scrub” which once stretched from Noosa to Coolangatta showed the landscape scraped pretty clean of trees as a result of agricultural clearance. The same view taken 50 years later showed an area with strong evidence of forest regrowth – trees now covered a significant proportion of the site.

The audience at the lecture murmured in pleased appreciation of this evidence of reforestation. However, there was a shift of response among the murmuring class when the lecturer announced, with a slightly mischievous smile, that the regrowth was in fact, mainly Camphor Laurel. Oo-er! This much execrated alien was the example of “flora” which, it appears, actually performs a beneficial role in regenerative landcare.

Camphor Laurel provides, among other things, a canopy under which native rainforest species can germinate and grow. It is also a food source for those birds that do much, faecally speaking, to distribute all manner of seeds. Furthermore, where lantana (a celebrated “baddie”) had taken hold, providing temporary habitat for smaller birds, the shade of the camphor laurels eventually reduced or killed off over-populations of lantana, making way for a new generation of natives (the celebrated “goodies”).

If this all sounds like a bit of wishful thinking, all these findings were in fact backed by rigorous scientific research studies. Prof. Catterall's findings were nothing if not distinguished by academic rigour and scientific objectivity – and it was rather touching to hear this statistical botanist refer to the intrusive camphor laurel as “a beautiful tree”. The fundamentalist might demand “What's beauty got to do with it? – it's an alien”. But there's another myth: that somehow science and aesthetics are opposites; just another example of the “black & white” fundamentalist dogma.

Back to our lecture: the second example we were given was of a thoroughly native species of fauna: the (extremely) well-known noisy miner bird. OK, so “native = good”? No! Well, perhaps not all of the time.

Noisy miners, it seems, wreak havoc among smaller bird populations. They are very territorial, not to say parochial and positively xenophobic; they're inclined to fundamentalism, you might say. Their numbers are greater the closer to the edge of a forest they happen to be, and the deeper into the bush you go, the fewer miners there are. Consequently, reforestation helps the

downtrodden victims of these bullies by reducing the miners' high population zones (forest edges) and proportionately increasing the wider bush habitat where miner birds are fewer and other birds can flourish unmolested.

Once again, there were graphs and statistics and pie-charts galore to illustrate the point that no species deserves to be unassailably blessed or irredeemably damned simply on the basis of its status as native or alien. There are just too many grey areas, and even in the definitions themselves there are shades of meaning – what, exactly, is a “native”? Is a native of, say, Western Australia also a native of Queensland? Well, probably not, though both are Australian, home-grown natives. So at what point would the native become non-native or alien? In short, what is the territorial extent of “nativeness”? Again, there are extremes of opinion, some arguing for an exceedingly small area (down to square kilometres or even less) where species do or don't “belong” – where it would be a bad thing to introduce some plant or creature from another ecological “village” just a few clicks away up the river or across the hills.

It really does depend on your interpretation of “native”, and when you come to think of it, there's a good deal of semantics involved, especially in the choices of words which have a strong militaristic association. Remember those gardening manuals with sections on “The Gardener's Friends & Enemies”, “War on Weeds”, “Toad Busters!” etc. There's an almost jihad-like vehemence about the language used, as is our readiness to apply the black-&-white terms of “goodies” and “baddies” to things which have absolutely nothing to do with goodness or badness – good for whom, for what? - bad for us? for “nature”? for the Planet?

Generalisations (in general!) don't work – whether applied to people, plants or animals, to countries, populations, beliefs and customs – even bushcare! – and we certainly can't view the environment through a “moral prism” – to use Carla Catterall's term. The world's a subtle place, with infinite shades of grey – or rather, of every conceivable colour, shape, sound, smell, taste and texture. Those of us who practise landcare should embrace this, tread carefully, and mind our language.

World's Tallest Tree Species?

John Ness

Eucalyptus regnans, the Mountain Ash, grows in the mountain forests of south-eastern mainland Australia and in Tasmania. It is recognized as the tallest flowering plant and as the tallest hardwood tree in the world with specimens over 96m tall being known.

It is very likely that it was also the tallest tree species, hardwood or softwood, in the world but this honour now belongs to the Giant Redwoods, *Sequoia sempervirens* (always living), of California. However, this claim is sometimes contested by the fans of Douglas fir, *Pseudotsuga menziesii*, trees of north east America. Both redwoods and firs are conifers, cone-bearing plants, which do not have flowers but do have soft wood.

Trees are like humans and gradually slow down in growing taller and then expand in girth. The height limit is set by the ability of the capillary action inside the tree, driven by surface tension of the water, to overcome gravity.

Sequoias are the masters of this as they live for well over 1000 years and reach heights of 115m and weights around 500,000kg. The more obese version of the sequoias, *Sequoia giganteum*, contains the largest individual life forms on earth with the biggest being estimated to weigh around 1,250,000kg.

E. regnans will grow to about 90m in 100-200 years but tend to fall over after about 400 years and considerably less with human assistance. There were claims of *E. regnans* reaching the theoretical height limit of approximately 130m. However, Australians managed to cut down all the really tall trees before the claimed heights could be reliably recorded and verified.



Leaf cutter bees

Helen Ogle

Earlier in the year, we noticed numerous leaves on our plants of Pink Phyllanthus, *Phyllanthus cuscutiflorus*, had oval or circular pieces cut very neatly from their edges (see photograph on opposite page. At the same time, our neighbour commented about similar damage on his roses.

The culprit is a leaf cutter bee, a species of *Megachile*. The female cuts pieces from many varieties of soft leaves to build her nest (see photograph on opposite page). The nests are usually built in small crevices or channels such as hollow twigs and stems. In our case, the nests are built in the space between the fabric and wooden uprights in the backs of director chairs!

The cell walls are made of overlapping oval leaf pieces. Cells are placed one in front of other until the cavity is filled. Each cell is filled with pollen for the growing larva and capped with circular pieces of leaf.

There are many species of leaf-cutter bees found throughout Australia and the world. In view of their role as pollinators, control is not recommended. However, repellants can be applied to fancied plants to discourage the bees.

(Information from Queensland Museum website)

‘Stick Insect’

John Ness photographed this unusual ‘stick insect’ back in May on a fig tree, possibly a strangler fig, along Pullen Pullen Creek. From pictures on the Queensland Museum website, it looks like a Spiny Leaf Insect, *Extatosoma tiaratum*, which is native to Queensland and New South Wales.

According to Wikipedia, female adults have long (to 20 cm), rounded bodies covered with thorn-like spikes for defence and camouflage. They have very short wings so are virtually unable to fly. Males are smaller and thinner, growing only about 11 cm in length and lack the thorny growths except for spikes around their faces. They have long wings and are good flyers.

Both sexes, when threatened, stand on the front and middle legs, pointing their abdomen up or to the side in a sort of "scorpion" pose. They fold back their legs to defend themselves if anything comes in contact with their abdomen. Adults can release a defensive odor that humans might not find offensive as it "is rather reminiscent of peanut butter, vinegar or toffee".

E. tiaratum take a curved pose when they hang inverted amongst foliage curling its camouflage-coloured abdomen over its back. Like many stick insects, they sway back and forth or side to side when disturbed. They also move this way to blend with foliage rustling in the wind. Individuals vary in color and appear brown, mottled brown, fawn, green, a reddish color, a cream color, a yellowish color, and even entirely white. Anything to help them blend in.

From John’s photos on the opposite page, you can see how effective its camouflage is. Can anyone confirm or correct our tentative identification?



Leaf damage on *Phyllanthus cuscutiflorus*
(Photo: Ian Ogle)



The cigar-like nest of a leaf-cutter bee removed from a fold in a curtain
(Photo: Queensland Museum)



'Stick insect' blending in with the foliage. It is the thick 'green leaf' almost precisely in the middle of the picture



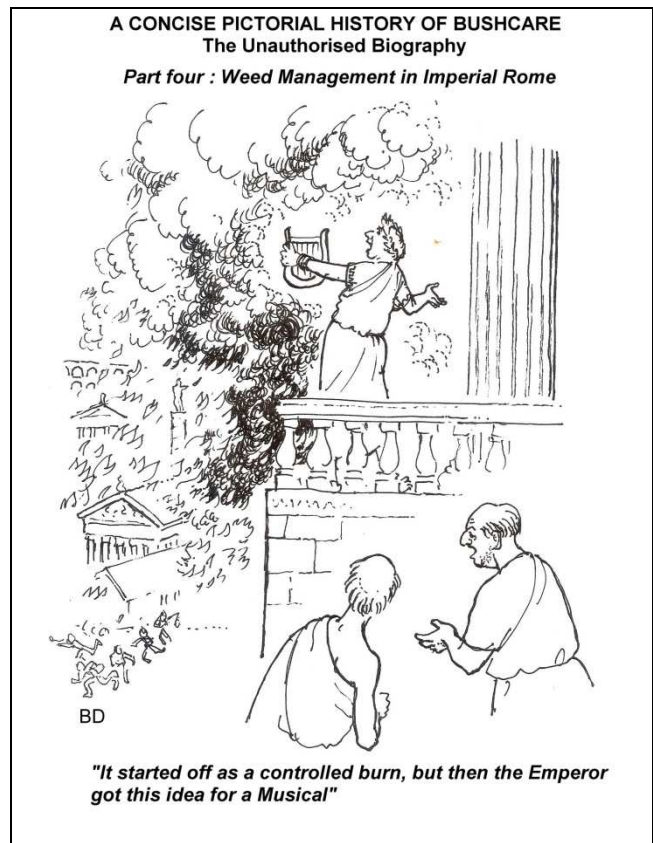
Female 'stick insect' in the typical curved pose assumed when hanging among foliage

Free Apps:

- *Frogs Field Guide* Australian Museum
- *Grows at Griffith* – native plants of Nathan campus Griffith University
- *OzAtlas* Atlas of Living Australia
- *Weeds of South-east Queensland* Lucid
- *Australian Mammals* Gaia Guide
- *Guide to Wetland Birds of South Eastern Australia*
- *Field Guide to Queensland Fauna* Qld Museum Network
- *DangerOz* (dangerous animals, snakes, spiders etc) Australian Museum
- *Field Guide to Pest Animals of Australia* Invasive Animals CRC
- *Freshwater Macro Invertebrates* Tallebudgera Beach Outdoor Environment Sustainability Training.

Apps that can be purchased:

- *Weeds of South-East Qld* Weed Society of Queensland \$1.99
- *Morcombe's Birds of Australia* \$28.60



The Wolves of Yellowstone National Park

Helen Ogle

A friend recently drew my attention to the story of the wolves in Yellowstone National Park in Wyoming, USA. It demonstrates the inter-connectedness of all things in our environment and how one action can affect so many other parts of an ecosystem. It also demonstrates how attitudes to various components of an ecosystem can change with time.

The story very briefly:- The Yellowstone National Park was created in 1872. Initially there was no protection for wildlife in the park and the Gray Wolf in particular was hunted. In 1907, political pressure from western cattle and livestock industries lead to a concerted predator control program and by 1926, it was generally accepted that Wolves had been eliminated from the Park.

Within a few years of the removal of the wolves, elk numbers had increased enormously and the condition of the range deteriorated rapidly. The land became eroded and plants were dying off. Elk overgrazed woody species such as cottonwoods (so there was no fresh green growth in spring) and aspens (reducing autumn colour).

After a number of changes of policy, wolves were re-introduced into the Park in 1995. Since then, wolf number have increased with the result that

- elk numbers have decreased and their behaviour has changed,
- beaver numbers have increased because the elks are grazing less on the willows that beavers need to survive the winter. Beaver dams counter erosion, provide cold, shaded water for fish and create new habitats for moose, otters, mink, wading birds, waterfowl, fish, amphibians, etc, etc.
- wolf kills provide food for scavengers such as ravens, wolverines, bald eagles, golden eagles, grizzly bears, black bears, jays, magpies, martens and coyotes.
- coyote behaviour has changed and their numbers have dropped leading to an increase in fox, hare, young deer, small rodent and ground-nesting bird numbers, which in turn affects how
- shoots, roots, buds, seeds and insects are eaten so willow, cottonwood and aspen populations have increased. Plants are no longer over-grazed by elk. Changes in the plant communities affect
- fungi and micro-organisms.

So reintroducing the top predator into the ecosystem has influenced biodiversity at every level of the food chain and emphasised the importance of interactions that were probably previously unrecognised.

In the early 1950s, I lived in Central Western NSW where it was very common to see wedge tail eagles, presumably the top predator in that ecosystem, shot by farmers and strung out with wings fully stretched along the fences. They were killed because they were supposedly taking too many lambs. I wonder whether they are still regarded as 'baddies' and if not, what influence an increase in their numbers has had on local biodiversity – and the number of rats and mice!

Which brings me around to the American Indian Chief Seattle who, in response to an offer from the American government to buy his native land in return for settlement on a reservation, wrote the very wise and beautiful piece of work which includes the words:-

'This we know, the earth does not belong to man; man belongs to the earth. This we know. All things are connected like the blood which unites one family. All things are connected. Whatever befalls the earth befalls the sons of earth. Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself.'