

# MOGGILL CREEK CATCHMENT GROUP

[www.moggillcreek.org.au](http://www.moggillcreek.org.au)

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## NEWSLETTER

## WINTER 2013



▲ Approaching potting seedlings (see Kids' Day, p. 8)

Photo: Dale Borgelt



▲ Touching the turtle (see Kids' Day, p. 8)

Photo: Dale Borgelt



▲ Smith's Scrub (see p. 7)

Photo: Warren Hoey



▲ Lichens (see p. 8)

Photo: Dale Borgelt



◀ Display at Show (see p. 2)

Photo: Dale Borgelt

## Editorial

*The Chairman's report takes an honest look at our problems which demand serious attention. But we must not forget the good news which is mainly about getting vegetation under way and successful public relations activities. Over the last few months we have given out far more plants than average, and landholders are asking for and getting more advice than we had been able to give. Surely the numbers and extent of native species are going ahead.*

*As for public relations, we have a wide range of activities which lead to an ongoing increase in membership and fairly certainly a wider general community awareness and understanding of what we are on about. A striking example of this is Kid's Day at the Cottage, a brief report on this appearing elsewhere here. There is an attendance beyond our members, and particularly important are the children who, soon enough, will be the adults who determine what happens. Among the many activities on the day is the display of native animals which are discussed in relation to their environmental requirements, which connects directly with our program of restoring our environment. We don't breed and distribute animals!*

*It is difficult for us not to admire the current luxuriant vegetation on both private and public land. Let us enjoy it as it is, knowing full well what can happen following weather change. We who are involved in management of vegetation are less impressed than those who are not, because weeds are contributors to the lush growth.*

*We depend on volunteers in what we do. Most of them are conspicuous but just a few are not. There are two very important people involved in the production of our newsletter. The process reminds me of the ugly duckling fable. The editor manages to scratch together material which might be useful if subsequently processed well enough. This goes to Margaret Hastie who formats it and then on to the printer, John Gower. What you receive in your mailbox is something of which we are very proud. Our thanks to them.*

Moggill Creek Catchment Group is a volunteer action group aiming to conserve and improve the natural environment of its catchment on both private and public land.

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*Dedicated to a better Brisbane*

## Our Bigger Space at the Brookfield Show

We doubled the size of our tent space at the Brookfield Show this year and it was better all round- better for display, better for interested visitors, better for volunteers. (Photo p1)

Displays featured recent years' Newsletter front pages and articles, and the ongoing projects at Pacey Road and Smith's Scrub. Attention was also drawn to Kids' Day at the Cottage and our Annual Photography Competition which is to be held in October this year. And there was still room for the popular native plants from our Nursery. Many visitors appreciated our display over the three days.

*Dale Borgelt*



## Chairman's Report

The second period of heavy flow in our creeks in March did more damage to recent plantings and established vegetation. Extreme flows will remove even the most stubborn and flexible plants and we seem to have had a fair dose of these events in recent times. I overheard a comment that our creeks were becoming more like drains rather than waterways.

Since my childhood in this area, the upper reaches of McKay Brook have gone from a series of water holes interconnected by a small stream bed to one resembling a deep channel. The heavy flows carve out the easiest path removing tonnes of rocks and soil and any attached vegetation. What is happening? There are certainly more impervious surfaces as new houses and roads have been built thus redirecting water that would otherwise penetrate the soil. Whatever the causes, I am unable to regard our waterways as simply drains, although that is one function of a waterway. Perhaps with higher flows we need to get a bit smarter with our plantings.

There are engineering solutions for drains that run the risk of downplaying the ecological role of a waterway in a peri-urban environment. Unfortunately we hear of too many examples where creeks are treated as if they were just drains in removing unwanted liquid refuse. One of the distinguishing features of the Moggill Creek Catchment is the relatively sound state of many of our waterways albeit with many challenges to the riparian ecosystem. It is our collective business to identify and deal with those challenges.

As many would know, vine weeds are a particularly serious problem in parts of the catchment and a serious threat to a much greater area. Your committee has spent some time planning how best to address the problem at a catchment level. Considerable work has been done and is still being done at various sites. However, without a catchment perspective, we risk not using our resources to best effect. This requires that we work as closely as possible with all levels of Government and the BCC in particular. After initial discussions with them, at this point with a significant emphasis on Cat's Claw, we have identified a number of sites in Gold Creek and have secured funding from both State and Local Government to treat the infestations independently of whether they occur on public or private land. Gordon Grigg is leading this effort and working in conjunction with South East Qld Catchments and the BCC's Wildlife Conservation Partnerships program. This is a great example of working across an entire sub-catchment, identifying and treating the sites in a logical manner.

Since the last Newsletter, the Brisbane City Council has funded a number of projects under the Community Conservation Initiatives program. Two Habitat Brisbane Bushcare groups and more than 30 private landholders were successful. BCC has moved quickly to get the projects underway. This is a first for this model of funding and I look forward to seeing how effective it is.

Warren Hoey

## Bats - Best Pest Control Kept in Dark

In the fading light of dusk, you may occasionally notice tiny "birds" darting purposefully across the sky, while the flying foxes are dispersing from their roosts. These are not birds, but "microbats", tiny winged mammals and expert aerial interceptors.

Like the Night-Fighters of old, these microbats carry inbuilt "radar" known as echolocation. A microbat forms an exceptionally clear image of its environment by emitting high frequency noises and reading the echoes from objects with its superbly tuned ears. Using this "sound image", a microbat can track and capture an insect as small as a mosquito during high-speed flight. Just how much microbats contribute to the control of pest insects has only recently become appreciated. In the space of one hour, a single microbat can consume up to 1200 insects, including disease-carrying mosquitoes and agricultural pests such as fruit flies.

As the night glides on, the flying foxes have not descended in apocalyptic hordes onto defenseless orchards, but rather have dispersed into groups of less than a dozen to feed on native fruits and blossoms as far as 50km from their roost. In the process, they have dispersed seeds from remnant rainforests further than any bird, and carried the pollen of our Eucalypts and vital Mangroves further than any bee dreamed possible. It is estimated that a single flying fox can disperse up to 60,000 seeds in one night, a staggering contribution to the regeneration of our beleaguered hardwood forests and rainforests, and increasing the availability of desperately needed habitat for our native fauna.

Now consider the Eucalypt: it has not invested precious energy in colourful flowers to lure birds and insects. No, instead it produces an abundance of near-white flowers, perfectly adapted beacons to catch the keen eye of the flying fox overhead. Indeed, on its delicate wings the flying fox carries the burden of securing an air-bridge between tracts of fragmented forest. Carrying pollen, tiny packets of genetic information, flying foxes provide Eucalypts with a means to maintaining the genetic diversity so essential for resilience in an ever-changing climate.

This happy mailman may be the only one bringing our beloved koalas any good news.

Surely our irrational fears and lack of understanding has gotten old, and better news is long overdue for our under-appreciated bats. So as you relax on the patio of an evening, with the microbats ardently keeping the mosquitoes at bay, take the time to consider the humble flying fox, and the little rays of sunshine it will spread on the darkest night.

Neil Murphy

*(This article was originally published in The Western Echo and used here with their and the author's permission.)*

## Learning as we go

At the entrance to our property in Herron Road, Pullenvale, is a medium sized Pandanus planted soon after we moved here over 40 years ago. It illustrates the fact that though we were interested in growing Australian native plants we were ignorant about planting species appropriate to the soil and climate. Owing to its hardiness we still can enjoy its presence unlike the many other natives we have planted from other areas of Australia and which have died. Once we understood the logic of planting low maintenance species native to the catchment area, the process of regeneration has become much easier, rewarding and enjoyable.

Our property was part of a dairy farm, so as much vegetation as possible had been cleared for grazing. Luckily some areas were not suitable. Stands of eucalypt have been left on the slopes, and the steeper western part is so rocky and covered with large boulders that little attempt had been made to clear it. With the absence of cows, lantana had free reign and covered much of the block along with huge climbing asparagus, Chinese elm and ochona among other weeds. We helped with the dispersal of weeds by planting Tipuana and Yellow Techoma!

Mown areas were established at the front of the block and around the house which is situated in the middle of the 2 hectares. Around it we planted the usual exotic species loved by Queenslanders. Jacarandas were planted along the driveway. In the adjacent lower lying area, Tipuana seedlings had established themselves. After 20 years both species had grown into large trees. These, we thought, provided a perfect canopy to start a rainforest garden. In this area, over the next 15 years, we planted native rainforest species. Again, we did not realize the importance of sourcing local species for the prosperity of the plants especially as it coincided with a period of drought.

In 2006 we heard of Land for Wildlife and became members. By 2010 we had also become members of MCCG. Getting on in life we realized if we didn't do something drastic about regenerating the rest of the property we would soon be too old to do so. We needed help and this came in the form of Damien Egan who has been invaluable. Our first plants from MCCG, LFW and those propagated ourselves are now well established. By planting the right plants in the right areas and initial TLC these plants have grown spectacularly in 2 to 3 years.

First we needed to get rid of the weeds which we did one area at a time by the recommended methods. We then planted a batch of 20 to 30 plants with similar requirements and different growing habits to gain the layered effect. We still regularly weed each area. Our method of planting is to fill the hole with water, let it drain, and after planting, give each plant a small dose of slow release fertilizer, a shower of soil wetting agent and seaweed mix, and then water the plant in well. Last year, Cody Hochen from LFW suggested adding water crystals to the hole before planting. This has been beneficial. Provided planting is done in the wetter months no further watering is required.

At the back of the property we cleared too much lantana at a time and as a result have a crop of cobbler's pegs a farmer would be proud of. Andrew Wilson has enthusiastically helped reduce their number and in the process has identified many local species of trees, herbs, grasses and vines. These could have been destroyed had we sprayed the area with herbicide. We should have continued the practice of weeding and establishing small planted areas at a time. However, we have had success in providing a quick canopy of native plants by broadcasting, in cleared areas, seeds stripped from plants such as Poison Peach and Kangaroo Apple. Another quick method of establishing plants is by collecting seed from Womat Berry, Scrambling Lily and the various Dianella species, placing them in a tooth pick dispensing container and dropping one or two seeds in the disturbed soil next to newly planted tube stock.

We are now confident that the regeneration process is on target and the maintenance of our property will provide enjoyment for the rest of our lives.

Carol Cox

## Some very similar twining species

There is no doubt that hand-weeding is the best way to go, although I do acknowledge that on larger areas it is not always a practical proposition. Having lived on my property for 48 years, imagine my surprise on finding a species that I had never seen before whilst hand-weeding. After looking around, I found several more plants of this strange plant, *Aristolochia meridionalis*, family Aristolochiaceae (see photo on p.5).

This species, when not in flower, is very similar to slender bindweed, *Polymeria calycina* (see photo on p.5), which is quite common on my area of eucalypt woodland. *Polymeria calycina* is a member of the family Convolvulaceae. Stems are prostrate, creeping or somewhat twining and leaves are alternate, 1-8 cm long, with a cordate base (strongly indented). Flowers are about 15 mm wide and are broadly bell-shaped with five pink or white petals. To add to my confusion, I had always thought this species was the native *Ipomoea plebeia*, bellvine, which has similarly shaped leaves and flowers, although the latter are white (see photo on p.5).

Coming back to my *Aristolochia meridionalis*, it also twines, and also has cordate alternate leaves up to 9 cm long and 5 cm wide, so perhaps I can be forgiven for not noticing it until it flowered, producing slender brownish, tubular flowers about 20 mm long. Evidently this species is also favoured by larvae of the Clearwing Swallowtail butterfly, spotted on one of my plants (see photo on p.5, thank you Dale for the ID).

Bryan Hacker





*Aristolochia meridionalis* (see Similar twining species p. 4)



▲ *Polymeria* (see A nice taxonomic distinction, p. 6)



▲ *Ipomoea* (see A nice taxonomic distinction, p. 6)



◀ Comparison of stigma (see A nice taxonomic distinction, p. 6)

Photos: Bryan Hacker

## Biological changes over the years

As a palaeontologist, I know that ever since life first appeared on Earth about 3,500 million years ago it has been constantly evolving in response to changes in the physical conditions of the planet. Throughout the aeons, different communities of flora and fauna have arisen, flourished and then disappeared.

On a much smaller scale, both spatially and in time, we can recognise periods of change in our catchment area. Before 50,000 years ago the fauna and the flora had evolved in harmony with the geological and climatic conditions prevailing. We do not know the detail of that fauna and flora. Some time after 50,000 years ago, a new predator entered the area; the Australian Aboriginal Jagera tribe. These hunter-gatherers did not have a great effect. Some mammals, birds, reptiles and fish were harvested and there was a minimum of land clearing. A greater influence would have been the continuing climate fluctuations of the Pleistocene, between cool and dry and warm and wet.

A critical change occurred in the 1840s. Europeans, building a new town nearby, discovered the wealth of timber in our area and timber cutters moved in resulting in an opening up of the forest through clearings where the timber was felled and roads constructed to cart it away. These pioneers were soon followed by farmers, graziers and croppers, extending the land clearance. By the 1870s, dairying was the predominant farming practice. This use of the land led to open pastures and an abundance of fruit from the new crops cultivated. These conditions attracted different birds from those that had lived in the pristine forest. This was also the time when feral animals and non-native plants were able to establish themselves. Gold Creek Reservoir was built around 1882/1885, adding another habitat to the area and changing the regime of Moggill Ck.

This land usage continued to about the middle of the 20th century, when farming started to decline. Later, the 1970s land was being subdivided into hobby farms or more dense residential areas, thus increasing the human population. From that time, birds which had moved into the farmed land began to disappear. Was it because of more cats and dogs in the area, changed pastoral conditions from cattle to horses or for some other unknown reason?

As well as factors within the catchment there are external causes that also influence the fauna. In periods of drought when large western bodies of water dry up, many water birds migrate towards the coast and depart when conditions improve in their home lands. Similarly, when food is in short supply for some parrots in the south they may migrate north seeking flowering trees. Brian Leahy reports an influx of budgerigars in 1946. Throughout time the fauna and flora of Moggill Creek has changed in response to environmental impacts. It is changing now. Man-influenced accelerated climate change will have a huge and unknown outcome for the environment.

The present fauna and flora is just a snapshot in a continuum of change. Can we really influence how it will develop? Do we have the knowledge to change it for the better?

I would like to share with you the last paragraph of Tim Low's book "Feral Future" published in 1999.

*So there it is. I love what is natural and I don't hate the pests. I pray we find the courage to change what we can and the wisdom to accept what we can't. We will never evict all the pests we already have, but we can try much harder to keep new ones out. A new ecology is emerging, one we don't yet understand, but one that will debase the marvellously rich diversity of life on earth unless we manage it well. That is the challenge of our feral future.*

I would like to thank Tim Low for permission to quote from "Feral Future" and to Maria de Jong and Brian Leahy for discussions on their experience of changing times in the catchment.

Dawn Beck

## A nice taxonomic distinction

Taxonomists – those who classify organisms – rely on attributes which are constant within the group (family, genus, species) of plants or animals they are studying. In plants, such attributes are commonly parts of the flower or fruit. Often people say "why choose an obscure character – the differences are obvious!". Further, one can often have two superficially similar species in different genera and species that are obviously dissimilar in the same genus.

In my article on some local twining plants (p. 4) I was surprised to find the two species slender bindweed, *Polymeria calycina*, and bellvine, *Ipomoea plebeia*, are in different genera, whereas, the latter species is in the same genus as the very-different morning glory. What could be the reason for this?

Checking in the Flora of South-eastern Queensland, the two genera are separated on stigma\* characteristics, *Polymeria* having stigmas with 4-8 linear lobes whereas *Ipomoea* has a stigma lacking lobes or with two lobes. With the aid of a lens, this distinction is much more evident than I had anticipated – see photo on p 5.

Bryan Hacker

\*the surface which receives pollen of (in this case) a stalk in the centre of the flower



## Vine Weed Workshop at Smith's Scrub

More than thirty interested participants attended a half day vine weed control workshop at Smith's Scrub, hosted by John and Edie Smith. The workshop was part of a project promoted by the MCCG and funded by the Australian Government's Caring For Our Country initiative.

The shed was an ideal venue, with over a century of rainfall records on the wall and nature's greenery all around giving a great backdrop for the speakers. (See photo p1)

Kym Johnson from Biosecurity Qld gave a thorough talk about the latest scientific advice on best practice control. Some of Kym's handouts are on the MCCG website.

Mal Caddioli from Brisbane Bushcare talked about his approach as a contractor and in particular how his team tackled the vine weeds on the western boundary of the scrub. Participants later inspected the site and were able to assess the progress that had been made.

Cody Hochen from the Wildlife Conservation Partnerships program spoke about the Land for Wildlife program and the Brisbane City Council's two million trees project. As Smith's Scrub is a site for both projects, his talk gave some context to what people could see when they inspected the site.

Andrew Wilson, a highly experienced local ecologist, challenged participants to think about why people engage in such all consuming tasks as weed control and bushland restoration. It seems many of the participants actually enjoyed doing the hard work!

Warren Hoey

## Calling Local Schools & photographers of all ages

### New Dates for the MCCG Photography Competition: Easy as 1-2-3

Yes, its that time of year already: the skies are clear and temperatures ideal for spending time in the Brisbane catchments to take "that" winning photograph. During the popular display at Kenmore Village many of our volunteers hear visitors observing that they had planned to enter but had missed the date. However the date is one to remember as thanks to the generous support of our sponsors the total prize pool is valued at over \$1,800. So please tell all your friends and family to: (1) make a note of the submission date (see below), (2) visit the MCCG website to download a copy of the entry form, and (3) get their cameras out and start snapping.

The main competition has five categories: two for students (Up to Grade 7, and Grades 8-12), and three Open categories (i.e. no age restriction!). The young persons categories have the theme 'My Catchment' (*Sponsors Brookfield Produce for Grades 8-12, and Councillor Margaret de Wit for Grades 7 and under*), and the open categories are 'Native Plants and Animals' (*sponsored by Workout Indooroopilly*), 'People in their Catchment' (*Sponsored by Moggill Constructions*), and this years' Themed Category is 'Environmental Issues – The impact or effect of water' (*Sponsored by Water Solutions*). In addition to prizes for each category, prizes are awarded for The Supreme Exhibit (*Sponsored by Breeze Photos*), The Chairman's Choice (*adult award sponsored by Brisbane College of Photography and Art, Children's award sponsored by Westside Printing*), The Novices Award (*sponsored by Ingredients Deli*), and for The People's Choice (*sponsored by The Pet Chalet*). The competition is also supported by *Kenmore Village, 4MBS Classic FM, and The Local Bulletin*. Individuals can enter up to 6 photographs, and entry fees remain unchanged (Open Fees are \$5.00 for each photograph entered and Young Person's fees are \$2.00 for each photograph entered). There is no charge for entry to the School Category.

And for those of you with children at local schools don't forget about the Schools Competition. Thanks to the support of Brisbane City Council, Councillor Margaret de Wit, and Dr Bruce Flegg MP, the winning school is presented with **The Lord Mayor's Perpetual Shield** and \$100 to spend on environment-focused library resources.

#### Key dates:

- **Entries must be submitted** to The Trustees' Room, rear of Brookfield Hall, Brookfield Showgrounds, between 10.00am and 2.00pm on **Saturday 19th October, 2013**.
- **Photography exhibition at Kenmore Village** — with voting for the People's Choice winners — runs from Monday 21st October to Saturday 26th October.
- **Prize presentation:** Saturday 26th October at 2.00pm

#### Count me in—how do I enter?

Forms available online at [www.moggillcreek.org](http://www.moggillcreek.org)

*If the entry forms don't answer all your questions, please contact the organisers direct:*

*Main competition: [MCCGPhoto@gmail.com](mailto:MCCGPhoto@gmail.com), Schools queries: [MCCGPhotoSchools@gmail.com](mailto:MCCGPhotoSchools@gmail.com)*

Dale Borgelt

## ENJOYING KIDS' DAY ACTIVITIES

The photos on p1 first show a boy touching a turtle during Martin Fingland's wildlife presentation; then he is seen heading for the seedling potting activity. I have no doubt that like another 100 and more kids he had already held a giant burrowing cockroach- the biggest and friendliest cockroach in the world- and counted the camouflaged live stick insects that Geoff Monteith brought; had done a leaf rubbing in the Plant ID tent with Jan Blok co-author of *Fragments of Green*; talked to the Snail Whisperer and sorted snail shells like a scientist; crafted a creature in the Lungfish info tent; and even watched a working native bee hive. I saw no evidence of his visit to the very popular jewellery making tent where Deborah Craig helped children create unique pieces from Marjorie Welch's hand-made, kiln-fired pottery leaves and beads - but he could have been one of the many boys who wore their creations under their jumper. And he may well have enjoyed a sizzled sausage before he went home. One thing is for sure, the Kids' Day at the Cottage on Sunday 26 May 2013 was a wonderfully happy experience for all involved.

*Dale Borgelt*

## OUR BIGGER SPACE AT THE BROOKFIELD SHOW

We doubled the size of our tent space at the Brookfield Show this year and it was better all round- better for display, better for interested visitors, better for volunteers. (Photo p 1)

Displays featured recent years' Newsletter front pages and articles, and the ongoing projects at Pacey Road and Smith's Scrub. Attention was also drawn to Kids' Day at the Cottage and our Annual Photography Competition which is to be held in October this year. And there was still room for the popular native plants from our Nursery. Many visitors appreciated our display over the three days.

*Dale Borgelt*

## LICHEN EXAMPLES APLENTY AT THE NURSERY

After Jutta Godwin's very informative Talk at the Cottage about Lichen in April, we visited our Nursery and there she was able to point out many different species of lichen we already had growing on the shade cloth fencing. ( Photo p 1)

Yet another wonder in the wonderful biodiversity of our environment.

*Dale Borgelt*

## LUNGFISH TALK AT THE COTTAGE 20TH JUNE

Dr Anne Kemp will be sharing her knowledge of lungfish at our Third Thursday Talk at the Cottage on 20th June at 10am. Anne has worked with lungfish for many years, first in the Zoology Department at the University of Queensland, then at the Queensland Museum, then back at the University of Queensland, in several different departments. She now works at the Nathan campus of Griffith University.

Australian Aborigines have always known about lungfish, and even used them for food. Scientists found the first lungfish in the Burnett River in 1870, and several more came from the Mary River a year later. They were also present in the Brisbane River, and later taken to places like Enoggera Reservoir and Gold Creek Reservoir.

Let me know if you can come to this interesting talk at the Cottage, Gold Creek Dam reserve, 10 am Thursday 20th June. [daleborgelt@gmail.com](mailto:daleborgelt@gmail.com) or ph 3374 1035

## NEWS FLASH - Aquatic Weed Identification Training - June 19

Aquatic weeds are regarded as very important threats to the health of our creeks. For example, there have been several severe outbreaks of Senegal Tea in the last 3 years in Gold Creek, and more recently in Moggill Creek at Tuckett Street Park. The BCC is supporting the MGCC and PPCG to run a one day training workshop on identification of aquatic weeds for up to 15 participants.

**The event will be run on Wednesday 19 June**

Pullen Pullen Community Group are hoping to send 5 participants and we are looking for another 5 or 6 from the Moggill Creek Catchment. We urgently need to have more people able to act as early warning scouts on the location of aquatic weeds to support the existing Creek Health Monitoring Program.

**Come along and develop some skills in this interesting activity!**

If you are interested in participating please contact Adrian Webb phone 3374 1407, email: [adrian@webbnet.com.au](mailto:adrian@webbnet.com.au), or ring 3374 1407 or anyone else on the MCGC Committee.