

MOGGILL CREEK CATCHMENT GROUP

www.moggillcreek.org.au



Print Post Approved PP 100003123

NEWSLETTER

SPRING 2014



▲ Yellow Robin (see p 2 Going Bush)



▲ Paperbark damage (see p. 8 Grub Hunting)
Photo: Dale Borgelt



▲ Glider (see p. 8 Creatures of the Night) *Photo: John Stanisic*



▲ Asparagus (see p. 7 Asparagus) *Photo: Andrew Wilson*



▲ Red Neck Wallaby (see p. 7 Asparagus)
Photo: H.B. Hines QPWS

Editorial

Having decided some issues back to stop talking here about the weather, what we have experienced during the last three months or so does not let us get our minds off it. No sooner had your scribe (the Latin language did not provide for our having abandoned the pen in favour of the computer) decided to deal with the drought, than rain has commenced. But the consequences of the dry remain with us and there is no certainty that it won't return. There has been substantial reduction of planting by our landholders. Usually our nursery gave out about 1000 plants a month but this has fallen to half that over the last few months. That is not a total loss to us if the landholders used the opportunity to remove weeds or prepare sites for planting when favourable conditions return. It has resulted in overstocking in the nursery.

*We can not avoid some thinking about what changes might be appropriate should we be entering long-term changed weather (climate change?). If so, the plants we use on the basis of adaptation to present environmental conditions will be less suitable for the new. Perhaps we might be more liberal in what we propagate; by sourcing, from beyond our catchment, seed of species we already have. Thus we may increase genetic diversity within which new adaptive capacity exists. Bringing in new species which appear to be suitable is hazardous. Remember *Eucalyptus torrelliana*?*

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.

Chairman: Warren Hoey
Secretary: Cathi Mortimer

Correspondence to be addressed to the Secretary at:
P.O. Box 657, Kenmore 4069
E-mail mccgsecretary@live.com.au:

This Newsletter is published quarterly, scheduled for early March, June, September and December. It is distributed to members. Articles may be cited but should not be reproduced without consent of the authors who alone are responsible for the views expressed. Illustrations are copyright and should not be reproduced without permission of the author and MCCG.

Editor: Graeme Wilson, Ph. 3374 1218
Email: zzzgrw@bigpond.com
Formatting: Margaret Hastie
Printing: John Gower
Website: www.moggillcreek.org

Proudly supported by Brisbane City Council



Dedicated to a better Brisbane

Going Bush

There are many reasons why I might go in to my bush but there is one that I particularly like (and regrettably now that I am less mobile, it is one of very few that I can undertake). I simply go there, make myself comfortable and look and listen. It has only recently come to my notice that the pleasure of doing so has become something of scientific interest, leading to much publication with a largely Japanese basis. It is reported that exposure to the bush results in measurable health benefits, both physical and mental. You might be interested reading some of this via Google, under *Shin-rin*. Remember that all which is written is not necessarily valid and I am not going to pursue that. All that matters to me is that I enjoy the experience and feel the better for it.

Only a few days ago I was sitting on one of the stumps I have had scattered around my bush, not bothering to think of anything much, when a few wallabies hopped by and then a yellow robin (see photo p.1), a species notorious for being inquisitive, left its search for food in the litter and took up a perch beside me. After a thorough inspection it returned to what it was doing. Little things, perhaps, but it made my day. Such can incidentally happen here because our revegetation has provided a habitat.

Graeme Wilson

Chairman's Report

In order to conduct many of our activities, the MCCG has to compete with other organisations to fund most of our projects. Preparing submissions outlining the merits of our particular projects and how these will meet the priorities of the funder allows us to carry out important practical environmental work in the Moggill Creek catchment. If we are successful, the work goes ahead and we provide reports according to the funding agreement. While this can be quite a bureaucratic load for an organisation of volunteers, it has to be a normal part of our work as it assures the investors that they are getting best value for money, most of which is ultimately raised from taxes. We also report to you, our members, on what we have been able to achieve each year.

One such project for which we will receive funding over the next four years involves rehabilitation of certain areas of the Rafting Ground Reserve at the very end of Moggill Creek, and will be led by Malcolm Frost. The Rafting Ground Reserve Restoration Project is part of the \$2.1M Brisbane-wide What's your nature? urban waterway restoration initiative, funded by SEQ Catchments through the Australian Government.

Currently managed as parkland by Brisbane City Council (BCC), many people enjoy the picnic facilities near the entrance perhaps unaware of the history of the area. Janet Spillman (2013) in her book, "History of Mt Coot-tha" mentions its use as a site from where felled timber was once rafted down the river to Brisbane sawmills.

As part of this initiative, we will rehabilitate an important riparian habitat and corridor that is under threat from exotic weeds and improve the resilience of the landscape to flooding and inundation. A critical part of this project is to engage and involve the local community in the project. Watch this space.

The work will nicely complement the excellent work done further upstream by Judy Petroschewsky's Bushcare group and ultimately improve the habitat connectivity along Moggill creek: another reason to be very thankful to all of those people working in these Bushcare groups.

Our annual gathering at the Brookfield Hall on the 28th July was very well attended. The audience enjoyed excellent presentations by Dr John Stanisic, the snail whisperer and Martin Fingland with a range of his 'night 'creatures. Many thanks to the set-up crew of Dale Borgelt, Geoff Lawrence, Cathie and Adrian Mortimer, and Bryan and Jenny Hacker. We hope you enjoyed the presentations.

Warren Hoey

Original DRF

Our revegetation activities are largely on former Dry Rainforest sites because they were the most damaged in consequence of the main European uses, and have since come to be the most occupied by landholders. We (MCCG) assist the revegetators by giving them native plants and advice, which is largely about what plants to use and where. In practice, soil degradation is a major limitation to progress. Attention has been drawn to that in articles by Andrew Wilson in our recent Summer and Autumn issues, these leading to some guidance in revegetation. It is not intended to add to this here. However, because we have the objective of, in the long (probably very long) term, of bringing back something like what was there, it is at least interesting to visualize that and for revegetators to avoid activities which might hinder progress towards it.

Depending on original factors such as soils, rainfall, aspect etc. a canopy of tall trees provided substantial shade, within which were smaller stunted species of trees and shrubs, and below them again, largely herbaceous species. In addition, there were, in the lower layers, well established species of the taller but held in a permanently suppressed condition by lack of light. When a gap in the canopy occurred following tree fall, suppressed plants rushed to occupy it. This describes the dynamics of the vegetation, which is at the mercy of the soil. So let's have a look at what goes on there, at its surface and in its depth.

Leaf, twig and branch fall decomposes, releasing mineral nutrients (the sort of things you buy as fertilizer) which are taken up by the growing plants, the cycle continuing. There may be some loss (e.g. surface erosion) for which there is compensation by root uptake from deeper soil layers. But the nutrient cycle is by no means the end of it.

The organic component of the decomposing material is reduced to fine particulate matter which enters the soil. This has a dramatic effect on not only the physical character of the soil but also organisms in it. Worms and insects move the soil, opening it up to aeration and water penetration, as does the organic material alone. Beyond this, the soil becomes home to goodness knows how many species of fungi and bacteria. We know of some important associations between these and plants but no doubt there are many more. (Remember as we go along here that while we add plants to the system, we do nothing towards these soil-dwelling species.)

Then there is the matter of water penetration, enhanced by all the foregoing. Note here that surface "roughness", provided by living plants and fallen material, is also important in minimizing rain runoff. Thus water which would have been lost moves down to depth and is available to plants in dry periods. And incidentally, surface erosion, at least on slopes, is minimized.

The above does not address the problem of weeds. They were not here before the Europeans who brought them in as ornamental, cultivated and pasture species, not to mention accidents. It is not the place here to discuss the problem.

Graeme Wilson



Indigofera australis

▲ ▲
(see p. 7 Two Indigos)
Photos: Bryan Hacker



Indigofera spicata



◀ Owl displayed
(See page 8 Creatures of the Night)
Photos: Glenn McBride

▼ Martin and enthusiastic audience



What Was, Is and Can Be

Patrick Pacey was, around 1850, granted a 10 year timber concession for the Brookfield area. Brisbane Town was no longer a convict settlement and open to free settlers. It is said the timber of the day went straight to the British Navy, although there was also a huge demand for building material by the rapidly expanding town. The navy required the highest quality White Beech, Red Cedar and Hoop Pine. Logs were pulled out by bullock teams and rafted down the Brisbane River. Today we have no concept of what these virgin forests would have been like or their species diversification. To complicate matters, when the area was opened up for free settlement, in order to retain the freehold title, "improvements" had to be carried out, including clearing of vegetation for pasture and fencing, so the whole nature of the landscape changed. One only has to view aerial photos of Gold Creek valley taken in 1940 to see the extensive areas of pasture and small remnant spots of vegetation.

Becoming basically a cropping area, there was extensive culling of wildlife. Even up to the 1960's the vast flying fox colonies of the Enoggera Creek scrubs were shot to near extinction for the price of threepence per claw. The great flocks of Topknot (Flock) Pigeons that once blackened the sky have been reduced to less than 50, occasionally heard whirring overhead and resembling the flight of the redundant F111. There used to be numerous Pademelons at different locations and there are many stories from the 50's and 60's of Quolls in the chook pens.

Then there is the disappearance of plant species. Here we are on difficult ground in the absence of reliable information on what was here and can only speculate. The magnificent *Eleocarpus grandis* (Blue Quandong), the fastest growing tree on alluvial riparian soils, does not appear in our catchment these days, although such a sought after timber, resistant to white ants, splitting true along the trunk and light weight wood, if here, have been continually cut out, possibly to extinction because its rapid growth would lead to logging before seed production. We have suitable sites, many having now been planted here and growing well, the bright blue seeds providing a great food source for the slowly increasing Flock and White Headed Pigeon populations, and the scarlet dead leaves providing great colour on the tree. Hopefully, these pigeons will slowly become more numerous with these increasing food supplies. On the other hand there are species abundant in the neighbouring Enoggera Creek catchment not here such as Lancewood (*Disilliarina*) but that may be due to particular site requirements.

Another cause of change is the introduction of exotic pests, plant and animal. Recently, our Land for Wildlife officer informed me of a neighbour reporting 20 grazing deer on his property, and there is the constant presence of feral pigs. Weeds are not only increasing in species number but also spreading at an alarming rate. The dreaded "weed from hell", Cats Claw Creeper has now been recorded, with the Geographical Information System (GIS) and plotted cadastrally in over 70 locations in our catchment so far, with 15 more sites recorded in the Gold Creek Reservoir Catchment. These are only locations that have been found; there are no doubt many more infestations yet to be located. The escalation of serious weeds damaging our natural environment has increased probably tenfold in as many years. There are over 50 known serious weed species affecting our area with more "garden escapees" being identified all the time.

What has changed for the better is the restoration and regeneration of much riparian, hillside and hilltop vegetation with consequent improved and new habitat for bird and animal species.

So much has changed since Pacey's era of 150 years ago. What does the future 150 years hold? Are we holding our own? It is all change but Moggill Creek Catchment Group is going a long way to address the problems. In the times ahead, can we save our natural bushland and restore areas from the ravages of weeds like Cats Claw Creeper and Madera Vine? To me, it will take the communal and cooperative effort that MCCG has proven it can provide, with the cooperation and help from the local and S-E Qld municipalities controlling public lands.

Richard Tumman

Changes in the Cemetery Paddock

The Cemetery Paddock is that area of land across Brookfield Road from the Brookfield Showgrounds. It is the only public equestrian reserve in Brisbane and is used by the Brookfield Horse and Pony Club for its monthly musters.

The land is administered for equestrian purposes by the Brisbane City Council as trustee. The Pony Club received in 2012 a substantial grant from the Council to build a training cross-country course on the land. Before work began, a survey found, in amongst the weeds, over 37 species of trees, shrubs, vines and native grasses in this small area. Plans were developed for removal of trees and managing the works and re-vegetation, although some native plants had to be removed. The most obvious one was the cockspur, *Maclura cochinchinensis*. All timber cut has been left in situ to assist in erosion control and over 300 plants have been planted in prepared 'gardens', mostly *Lomandra longifolia* and *Lomandra hystrix*, with some *Dianella*, *Acacias* and native grasses also. The bush on either side of the cross-country track has been left in as natural a state as possible, so that horses and their riders will not stray off it. The native grasses are already multiplying and native grass seed will be sown in early Spring to facilitate a more rapid regrowth. A fence has been built along the Boscombe Road frontage.

The project is almost finished and will be opened for general use in October.

Ros Macdonald

Physical removal of weeds

Before we begin the management/control of any weed infestation we should ideally be looking at a range of available options rather than the all too common indiscriminate use of chemicals. Factors which will influence your decision will vary but may include the specific site, weed species and whether they are annual or perennial, density (percentage of site infested) and your short and long term plans for the area. The last of these in my opinion is crucial. If the site has little or no existing vegetation and you have no immediate intention of planting or mulching then doing nothing may well be an excellent choice. Don't ever think that your initial slaughter, whatever the method, is a victory. The only weeds requiring urgent attention are those that are smothering trees or new, threatening species. If only I'd spent half an hour removing that juvenile *Madiera* down in the gully twenty years ago! Having assessed your situation one method available is to remove the weeds physically by hand or with the assistance of tools. As always this method has consequences both good and bad and these are discussed here.

Physical removal can be a very simple target-specific method. It requires minimal or no resources and can be implemented spontaneously any time of day or year on any scale. It targets only the weeds we intend to control and allows us to identify native species for future protection by either staking, marking with coloured tape or spray paint on ground. If your plant identification skills don't allow for this then initially target only one or two known weed species and commit to a policy of "when in doubt leave it". Another subconscious and perhaps undervalued benefit is that we are brought closer to our land physically and are required to observe the little things of soil, flora and fauna which in turn may lead to an improved understanding and respect for the land. This slightly romantic view is far harder to appreciate when it's 40 degrees and hasn't rained in months.

There are some less desirable aspects of physical removal. It can require a large amount of effort and time, stimulate germination of previously dormant weed seed, cause erosion due to soil disturbance and be detrimental to soil structure through exposure to rain drops and the physical act of tearing roots from the ground. The more natural scenario of plants dying in situ with roots still in the ground opening up channels for water and oxygen entry as they rot is ironically achieved best by using chemicals.

Large areas infested with deeply rooted or larger woody perennial species would not usually be considered. The amount of time and effort required on a large site heavily infested with cats claw for example is not an option, especially when combined with the required soil disturbance caused by removing tubers.

Natural forms of disturbance occur mostly along watercourses, uprooting of trees and occasional small land slips on steep slopes in areas still protected by surrounding vegetation and a soil seed bank of native plant seeds. Any soil disturbance around creeks, gullies or very steep slopes is a high risk for erosion and should preferably be avoided. In the absence of native plants some weeds may be of short term benefit if left in these types of area's Seeds of many species, both weed and native, may remain viable for a hundred years or more buried deep in the soil and will germinate when brought nearer to the surface.

The above are all factors to be considered along with how much time you have for ongoing maintenance, possible uprooting of desirable species while removing the more woody weeds and some people's very relevant concerns on the long term use of herbicides which may outweigh the detrimental side of physical removal.

One last concern if removing large quantities of weeds by hand is disposal. Personally, I avoid removal of any organic material from a site unless absolutely necessary. It contains nutrients and organic matter equal to any mulch you may choose to buy, it's free and it's already on site. I do not agree that removal of weeds bearing seed contributes significantly to its eradication . If the weed in question is seeding and well established, it's current crop is likely to be small compared with the existing soil seed bank. They can be piled or composted within the area in which they were most prevalent In addition, labour is required to take them away with an increased risk of distributing the seed. Most plants, given suitable conditions, have the potential to take root if left lying on the ground. Warm wet humid conditions are most conducive to this along with plants that are adapted to store water in their roots or foliage e.g. *Madiera*, *Asparagus* and *Sansevieria*.

Bearing in mind that light is eventually essential in maintaining plant life, creating piles of weeds and covering with black plastic, cardboard, old carpet etc is effective. I have also found that the more succulent and well adapted a plant is to dry conditions the lower it's tolerance to water and have successfully destroyed *Madiera* in 44 gallon drums on site, partially filled with water, later using the nutrient- rich soup to water plants.

In conclusion, your choices should relate specifically to your unique situation. However, it may be that physical removal lends itself to more sensitive areas where native plants are beginning to gain dominance.

Andrew Wilson

REMINDER ABOUT MEMBERSHIPS

All memberships become due after November for the following year. Renewal forms are enclosed with this Newsletter for members who have yet to renew for 2014 and it is possible to pay for 2015 membership at the same time.

Learning from each other's experiences

Our Newsletter provides an opportunity for members to share experiences and to learn from each other.

In our last newsletter an article was published entitled *Restoring a property on Gap Creek Road*, written by Pia du Pradal. Quoting Pia, she wrote, referring to asparagus ferns, "I later learnt [after digging them up] that I could just have turned the plants upside down and let them rot in situ." Not long after publication I received an email from one of our members stating "But from my experience, this is a really bad idea as I've seen it stay viable for months & years, esp if mulch eventually covers it. [Esp on Stradbroke Island where it is very bad at the point & costs the Council heaps. They remove every bit of it when they clear it.]"

I must admit that it was I who suggested to Pia that she could have left her asparagus ferns (ground asparagus) upside down to die. I confess I have not had personal experience of treating this weed and there was no doubt that she was erring on the safe side, consigning them to the rubbish bin.

In general leaving dug-up weeds upside down and scattered (assuming they do not bear seeds) is a good way to kill them. If left in heaps dug-up weeds stand a better chance of survival. However, this varies with species, subsequent rainfall and soil type. The asparagus genus is undoubtedly very hardy. It would be interesting to learn from other members' experiences. What do you think?

Bryan Hacker

An immediate response, from a landholder who being the Editor, sees this before publication.

If it is thought necessary that *Asparagus* "roots" (in the present context, the crown, comprising a cluster of rhizomes from which new shoots and roots can be formed) be dug out, hang it in some place (e.g. fork of a tree) where it will soon die. There are however quicker ways to kill one without the hard work of digging and the consequent soil disturbance leading to new weeds.

Graeme Wilson

Two indigos

We have several species of low shrubs and herbaceous plants in our Catchment with pinnate leaves – that is, leaves with several leaflets borne along a stalk (rachis). Those seen most frequently are in the genera *Senna* (previously *Cassia*) and *Indigofera*. These genera are readily distinguished in that *Senna* always have an even number of leaflets (lacking a terminal leaflet), whereas *Indigofera* have an odd number (that is, with a terminal leaflet). This is clearly evident in the photo of the native *I. australis*, with 11 leaflets, shown on p. 5.

The genus *Indigofera* was so named by Linnaeus in the late 1700s. The name means 'bearer of indigo', indigo being a dye extracted from the species *I. tinctoria*, which used to be widely grown as a crop in the Americas. The genus has a world-wide distribution and comprises about 750 species, mostly shrubs and herbs and mostly with pinnate leaves. It is in the pea family, with flowers and pods which are characteristic of that family. Twelve species are known to occur in SE Queensland, with the native *I. australis*, *I. hirsuta* and the exotic *I. spicata* occurring in our Catchment.

Indigofera australis is a shrub growing to about 1.5 m, well branched and with axillary stalks of purplish flowers about 7 mm long; these are followed by narrow pods 2-3.5 cm long. It is to be found in eucalypt woodlands and is quick-growing, though comparatively short-lived, in my experience not surviving more than 4-5 years. Although plants seed prolifically, the species seems to be slow to regenerate, perhaps because of a need for heat to break dormancy in the seed. *Indigofera spicata* (see photo on p. 5.) is a prostrate herb with bright orange flowers, introduced from South Africa in the hope that it would find a use as a pasture plant tolerant of heavy grazing. Regrettably it was found to contain the hepatotoxin indospicine (which was subsequently shown also to occur in native indigos from SW Queensland), which precluded its release as a pasture cultivar.

Bryan Hacker

Asparagus

We like our wallabies, (photo p1), although preferring that they did not nip the tops off some of our younger native plants. Now, in this severely dry weather when the grass has browned off, they have turned to eating the leaves of climbing asparagus, our worst and abundant vine. We know that wallabies do this because we have seen them doing so, although it is possible that deer (and pademelons, if there; we are not sure) which are also on our land, are involved. The photograph on p1 is from a dense scrambling patch where there were few trees to climb and a complete ground cover of foliage. There are only a few leaves remaining on the stems which are not eaten. (A cloth has been placed on the ground below the stems for the photo to show these features.)

We are not so optimistic as to expect that following rain and restoration of normal food that the wallabies will continue with their current liking for asparagus. However, any growth check on weeds helps. We can add that the disease we reported in our Autumn 2014 issue continues to spread, and although we do not expect it to kill asparagus, it is certainly checking growth.

Graeme Wilson

Creatures of the Night – a Rare Night Out with Night Creatures

Martin Finland (the Geckoes Man) and Dr John Stanisc ('the snail whisperer') presented a night out with a variety of native nocturnal fauna at the Brookfield Hall in an event hosted by the Moggill Creek Catchment Group. An audience of close to 100 were entertained by Martin's entourage of night animals consisting of a croaking frog, a silent native gecko, a brown tree snake doing a herpetological version of the Indian rope trick, a host of furries and a range of local night birds (owls and a tawny frogmouth). As usual, Martin's collection of furry, feathered and scaly creatures were the hit of the night, especially with the younger brigade. (One photo on p1 and two on p5 are from the occasion.) However, just to redress the biodiversity balance in favour of the other 99% (invertebrates), 'the snail whisperer' brought along a range of native banded snails collected in the Childers-Biggenden-Maryborough region. These silent invertebrates slithered their way through the evening whilst munching on a combination of commercial mushrooms and cucumber peelings. A rare night indeed and an event thoroughly enjoyed by all who attended including the presenters. Thanks Dale!!

John Stanisc

It's that time again...

Moggill Creek Catchment Group's Annual Platypus Survey is nearly here

Survey Date: Sunday 14th September 2014. **Time:** 04:30 am sharp – 07:30 am.

Place: meet at Brookfield Store on Brookfield Rd, Brookfield (beside the Showground). *From there you will be led to your survey site*

Bring: Quietness, watchfulness, warm comfortable clothes, hat, solid shoes, folding chair, drink, binoculars (optional), and camera (optional).

Post-survey debrief: At the Brookfield Hall from 07.45 am, with free cooked breakfast provided by the MCGG.

Deadline for Registration: Wednesday 10th September 2014
Preferably via email to Christine Hosking c.hosking@uq.edu.au or (phone 0410 685382)

All registered volunteers will be sent final info including Observation Sheet to be filled out during the survey.

Don't Miss Out This Year: Photography Competition Dates

The MCGG Photography Competition is a popular highlight of the annual calendar—an opportunity to promote MCGG activities and the natural environment. As October is just round the corner, it's time to get the cameras out now! Thanks to wonderful sponsors and supporters, cash prizes total over **\$1,500**. Entry costs only \$5 for each photograph entered in the Open categories and \$2 for a picture entered in the Young Person's categories.

Thanks to the support of Brisbane City Council, Cr Margaret de Wit, and Dr Bruce Flegg MP, all Schools in the Pullenvale Ward can enter the Schools Competition for **The Lord Mayor's Perpetual Shield** plus money to spend on environment-focused library resources. Dr Flegg has generously increased that money to **\$250** this year—so we hope that all members will encourage participation by more of our local schools.

Entries must be submitted to The Trustees' Room, rear of Brookfield Hall, Brookfield Showgrounds, between 10.00am and 2.00pm on **Saturday 18th October, 2014.**

Photo Display at Kenmore Village: Monday 20th October to Saturday 25th October, 2014.

Forms available online at www.moggillcreek.org.au

*If the entry forms don't answer all your questions, please contact the organisers direct:
Main competition: MCCGPhoto@gmail.com Schools queries: MCCGPhotoSchools@gmail.com*

Geoff Lawrence

Grub hunting

An observant member wondered why so much bark had been peeled from a paperbark tree. The photo on p1 reveals why. Some animal has known that insects were eating the live tissue below, leaving their tracks, and so in turn would have been eaten.