



Welcome to the first issue of Streamlines for 2014. Margaret O'Grady resigned from the role of Editor at the Annual General Meeting and I have taken over from her very recently. This is my first attempt at producing a magazine of this type so please bear with me and the mistakes I will surely make.

I would like to begin by thanking Margaret O'Grady for the sterling work she has done as Editor of Streamlines over the last several years. She has produced a very interesting and readable magazine on time repeatedly. This is a major achievement considering she was working with volunteers who all lead busy lives apart from their interest in catchment group activities. She has also been a great support to me as I assume her role.

By way of background, I grew up in Sydney and studied Science (especially Botany) at the University of New England before moving to Brisbane in 1971. I worked with the Department of Primary Industries (as it was then) as a Plant Pathologist, left (as one did in those days) to have a family and returned to very part-time tutoring in 'Human Ecology' at the Queensland Institute of Technology. In 1984, I gained a very part-time research position in the Botany Department at the University of Queensland. Later, I was appointed to a teaching position in the Agriculture Department at the University of Queensland and taught subjects involving Botany until I retired in 2004. We moved to Bellbowrie and the Pullen Pullen Creek Catchment area in 2007 after living in Kenmore for 36 years. I joined the Pullen Pullen Catchment Group partly to be involved in catchment activities and partly to meet members of the wider community.

I'm looking forward to my new role as Editor of Streamlines and would like to invite **ALL** members of the group to contribute items for publication. Closing date for items for the next issue will be Friday 18 April.

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 Bush Reserve - 4th Sunday of the month

Pullenvale Forest Park - 2nd Sunday of the month

Committee Members 2013-14

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“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

This issue begins with articles on two very invasive weeds that threaten local ecosystems – Cat’s Claw Vine and Madeira Vine. Both were introduced into Australia from South America, possibly as attractive ornamental plants for gardens and both are difficult to eradicate because of the production of tubers. Louise and Amanda describe methods for controlling these weeds, including a biological control agent for Cat’s Claw Vine. Interestingly, this organism has been released in our local catchment and its progress is being monitored.

Another plant that may be considered a weed or a pest in some situations is the subject of our third article. You may have noticed the heavy infestation of mistletoe on the gum trees behind the Bellbowrie Shopping Centre. The mistletoe in question is the Box Mistletoe, *Amyema miquelii*, and it is flowering abundantly at the moment. It is widespread throughout Australia infecting mostly eucalypts but also some wattles. It is interesting to ponder why these trees are so heavily infected when mistletoe is rarely seen within bushlands or forests. The article on page 7 provides the answer.

On a completely different topic, Brian Dean presents some thoughts on ‘Art in the Park’ or is that ‘The Park as Art’? An idea well worth considering, perhaps in connection with an event like ‘Connect to your Creek’ (see below) which lists as one of its objectives celebrating the beauty of our waterways.

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

Helen Ogle

Coming Events

There are busy times ahead with many events scheduled for the next few months:-

- | | |
|---------------------|---|
| March 5 | PPCG Committee Meeting |
| March 9 | Pullenvale Working Bee |
| | Clean Up Australia Day |
| March 23 | Anstead Working Bee |
| April 2 | PPCG Committee Meeting |
| April 5 | SGAP Sale of Native Plants, 9am-3 pm at Grovely TAFE (enter from Woking St). Free entry, wide variety of plants, good range of sizes, expert advice, reasonable prices, books, booklets and brochures and light refreshments available |
| April 13 | Pullenvale Working Bee |
| April 18 | Deadline for Streamlines items |
| April 22-27 | Queensland Fungi Festival 2104, including forays and workshops. For more information, www.fungimap.org.au or phone Fungimap on 03 9252 2374. Brisbane Catchment Networks will provide each catchment group with \$120 worth of events |
| April 27 | Anstead Working Bee |
| May 17-25 | Connect to Your Creek Week, an opportunity to organise an event/events to celebrate the diversity and beauty of our waterways and, hopefully, increase community stewardship of our waterways |
| June 1 | Green Heart Fair, Brisbane’s premier sustainability event, promoting green living in a free, fun, family-friendly environment (their words, not mine!) |
| Jul 19-Aug 3 | Peaks to Points Festival, brings together environment and community groups from Flinders Peak to Moreton Bay, aims to highlight importance of our creeks and how we can improve the health of our catchments, see www.peakstopoints.com.au |

The dreaded Cat's Claw Vine – help is on its way

Louise Orr

The beautiful natural bushland of Pullen Pullen Catchment is under threat. Cat's claw vine, now a Weed of National Significance, is a serious threat to our native bushland, smothering trees, shrubs and groundcover plants alike. It was introduced into Australia from South America because of its spectacular yellow flowers. Pullen Pullen Catchment Group has run several projects aiming to reduce or eliminate Cat's Claw infestations and is committed to continuing this work. Many landholders have also been struggling to control this plant for years.

Now help is at hand thanks to the Queensland Government Coastal Resilience Program. SEQ Catchments, the natural resource management body for south east Queensland, is partnering with local community catchment groups to allocate substantial resources from the Coastal Resilience Program towards controlling this vine. Pullen Pullen Creek and Moggill Creek catchments have both been identified as key target areas for control of Cat's Claw through this program.

A three year program, this first year is focussing on raising awareness about the impacts of Cat's Claw vine and educating the community on how to best manage and control it. The project partners, Pullen Pullen Catchments Group, Moggill Creek Catchment Group and SEQ Catchments have a fact sheet available to interested catchment members and local residents. Produced by Biosecurity Queensland within the Department of Agriculture, Fisheries and Forestry (DAFF) the fact sheet was updated late last year and includes identification, control and management information. This factsheet is also available for free download at:

http://www.daff.qld.gov.au/data/assets/pdf_file/0003/63336/IPA-Cats-Claw-Creeper-139.pdf

The project partners are also hosting a Catchment Tour, scheduled for early 2014, which will tour local properties that are successfully managing Cat's Claw infestations. Interested catchment members and/or landholders are invited to participate in the Catchment Tour, enabling them to see how other landholders are successfully managing their Cat's Claw problems, find out what has worked, what hasn't and share any tips they may have.

The on-ground control aspect of the project has already kicked off, with the release of the Leaf Mining Jewel Beetle (*Hylaeogena jureceki*) in the upper catchment of Pullen Pullen last month. Released in two separate properties, the Jewel Beetle has the potential to cause serious damage to Cat's Claw. Native to South America and released into the Australian landscape only in 2012 after extensive trials, the beetle and its larvae are the Cat's Claw vines' natural predator, happily chewing their way through its leaves and preventing it from continuing to grow. The Jewel Beetle release sites will be monitored by volunteers to estimate how far and how fast the beetle is moving from its original location, and how much Cat's Claw it is eating on the way.

The following two years will see a team of volunteers and professional contractors moving through the catchments delivering practical on-ground help to landholders to help them get started with controlling this obnoxious pest weed.

Pullen Pullen Catchments Group, Moggill Creek Catchment Group and SEQ Catchments hope to reduce the impact of Cat's Claw vine through this project across approximately 150 hectares in their two catchments.

Meanwhile, we should all do what we can with our own resources to control Cat's Claw. Young plants are readily identified as they start to climb, as shown in the accompanying photograph, and can readily be poisoned using Glyphosate, or dug up. Plants do not flower until they are about five years old and it is critically important to get rid of them before they flower, their seed pods are formed and the wind-borne seeds blow into nearby bushland. Even in smaller acreage properties or in urbanised suburbs you could have a role to play – in a scientific study a few years ago, more than 20% of gardens in several inner suburbs had Cat's Claw growing, either planted or as a weed.

For further information on this project please contact Louise Orr, Community Partnerships Manager with SEQ Catchments on 0439 024 400 or lorry@seqcatchments.com.au.

This project has been made possible with funding through the QLD government Coastal Resilience Program. The Queensland Government is committed to the productive and responsible use of the State's natural resources.



Figure 1: Cat's claw flower and surrounding leaves



Figure 2: Cat's Claw smothering local vegetation

Photo credits: Bryan Hacker and Simone Berking



Figure 3: Louise Orr releasing the Leaf Mining Jewel Beetle locally; **Figure 4:** the Leaf Mining Jewel Beetle
Photo credits: Liz Snow and Biosecurity Queensland

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Madeira Vine – Action Needed Now!

Amanda Maggs

Madeira vine poses the most significant threat to tropical and subtropical regions of Qld and NSW with sightings of the vine in Pullen Pullen Catchment on the rise. NOW is the time to deal with isolated plants and sparse populations, while it is relatively easy to tackle and we can reduce significant future impacts. Madeira vine grows prolifically at rates of up to 1 m per week in high light environments. It can climb 40 m into the canopy, smothering and collapsing mature trees and interrupting ecological processes. When unsupported, it forms thick mats of groundcover that overwhelm low-lying vegetation and inhibit natural regeneration.

What to look for

The best time to look for and control Madeira vine is NOW. Infestations of Madeira vine are most readily identified during flowering season (late summer through autumn) with the white “lamb’s tail” flowers highly visible. Other distinctive features of Madeira vine are its fleshy, waxy green, heart-shaped leaves which are usually 4–5 cm in length, the aerial tubers which are small, light brown or green and ‘warty’ in appearance, and the ‘potato-like’ subterranean tubers.

How it spreads

Madeira vine most commonly spreads via asexual tubers formed on the roots and stems. Aerial tubers are produced prolifically throughout the year. Madeira vine is also capable of shooting from sections of severed vine. Dispersal occurs primarily via humans: cultivation for ornamental purposes, disposal in green waste, or spread by machinery during road construction. Vegetative material and tubers from Madeira vine should not be disposed of with green waste as this is a key method of spread.

What to do about it

Successful control of Madeira vine requires exhaustion of the tuber bank. Weed strategically, protecting the better quality native vegetation first. Work from the edge of the infestation toward the core and, where practical, prioritise the control of higher ground or upper catchment sites. Ideally tubers and vines should be composted on-site under thick builders black plastic for 6 months or more to reduce the risk of further spread. Alternatively, double bag the plants and tubers in non-biodegradable plastic bags and dispose of them in landfill waste. For more details on weed control methods and herbicides for Madeira vine check out:

- <http://www.weeds.org.au/WoNS/madeiravine/> (article based on this fact sheet)
- <http://www.daff.qld.gov.au/plants/weeds-pest-animals-ants/weeds/a-z-listing-of-weeds/photo-guide-to-weeds/madeira-vine> and <http://weeds.brisbane.qld.gov.au/controlling-weeds>

Most effective treatment approach

Seedlings, ground runners and regrowth	Foliar spray of herbicide
Small to medium sized vines that have begun to attach/climb host	Pull juvenile vines away from host, curl them at the base of the tree and spray with herbicide. If vines can't be removed from host – scrape and paint with concentrated herbicide.
Mature vines growing into canopy	Scrape and paint with concentrated herbicide. Or cut vine at base and place both ends of vine immediately into a jar or ice-cream bucket of diluted herbicide overnight.
Commitment to regular, long-term follow up is essential. Recommend: Follow-up at least three times a year.	



Madeira Vine leaves and flowers

Mistletoes

Helen Ogle



Mistletoes are parasitic plants that belong mainly in the families Loranthaceae (large, showy flowers) and Viscaceae (small, inconspicuous flowers). Many are stem parasites although *Nuytsia*, the Western Australian Christmas tree, is a root parasite. They are common in Australia where they parasitise many native trees. An interesting feature of many Australian mistletoes is that their leaves strongly resemble those of their host. This may be an adaptation to protect the mistletoes from predation by mammals.

Mistletoes form an important component of many ecosystems. They contribute to the overall biodiversity of the ecosystem and interact in many ways with other organisms. For example, they provide food for nectar- and fruit-eating birds as well as larvae of two major groups of butterflies.

On the other hand, mistletoes rely on animals for survival. Honeyeaters and sunbirds play a role in pollinating their flowers. However, the major role of birds is the dispersal of fruit that must reach another branch if the parasite is to survive. Mistletoe birds eat the brightly coloured fruit, digest the sweet outer layers of the fruit and either regurgitate or defecate the seed and the sticky layers around it onto a branch, effectively 'gluing' it in place, ready to germinate and invade the plant.



The answer to the question posed in the editorial lies in the nature of their parasitic habit. Many parasitic plants tap into both the phloem and the xylem tissues of their host. Phloem lies just under the bark. In the phloem, nutrients manufactured by the host travel in solution both up and down the plant and are available to the parasite so it doesn't have to photosynthesise. Xylem makes up the inner part of the stem and transports water up the plant. Parasites may tap into this source of water. Parasites that depend on their host for food **and** water are called **holoparasites**.



Habit, flowers and fruit of Box Mistletoe, *Amyema miquelii*

Mistletoes, in contrast, are **hemiparasites**. They carry out photosynthesis and need water, not nutrients, from their host. Since photosynthesis requires light, only plants exposed to adequate light are suitable for colonisation by mistletoes. Suitable host plants are isolated trees, trees around the edges of forests and exposed branches rising above the general level of the canopy.

Mistletoe infections may reduce the quality and quantity of wood produced, the amount of fruit set and predispose the plant to attack by insects and decay fungi. They also reduce tree growth and may even kill a tree. Certainly, the trees in Bellbowrie appear to be suffering severely.



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Art in the Park

Brian Dean

The “traditional” form of this function is to set up booths and stalls in a park location. The stalls are many and varied, but in our (PPCG’s) case, there is usually a theme strongly allied to conservation, wild life and environmental issues. The stalls or tents displaying art (in the form of paintings or artefacts) are presumably the reason why the function is called “Art in the Park”.

This is a good social event, and in the past has attracted many visitors and provided a very family-oriented and enjoyable morning for people in the district. There’s no reason why an event of this nature should not continue, perhaps every two years or so.

However, I would like to propose that another “Art in the Park” function might operate as a complementary event to the one described above, perhaps alternating with it year by year. The rationale behind this alternative “Art in the Park” lies in the notion of realising the aesthetic potential of an area of land such as Anstead and/or Pullenvale reserves. We might approach this as follows:

People experience the park(s) in a variety of ways. It may be a convenient place to exercise, or walk through near-natural bushland, or observe wild life, birds etc., or seek out interesting viewpoints, or gather for picnics and meetings where the environment invites relaxation and recreation. All of these activities can be pursued outside of a park or reserve, but we need to look at the unique features of a park that set it apart. There is, for instance, the very fact that a park or reserve is “set apart”. It is a place that is different from the customary home or work environment and is more often than not free from the noise, stress, and constraints which are part of “normal” living in cities or suburbs. Also, there is a sense of space and freedom in a park. Then, too, there are the sights, smells and sounds of the bush, as well as the sense, at times, of discovery and novelty of experience, and of coming across the unexpected. The park visitor can regulate his or her own pace, and choose where to stop or pause, and for how long. Why, otherwise, would parks exist at all?

One of the functions of art (perhaps the most important one) is to identify and intensify our responses to our surroundings, to raise perception and awareness. A painting can arouse an intense response to all kinds of things – to colour, shape, tonality, subject matter. Sculpture makes us more aware of form, mass, space and scale; music, sound, tonality, time and rhythm. There are artists who, rather than using the tools of depiction and representation (paint, pencil, clay, stone etc) use the actual substance of their surroundings to evoke the feelings of heightened awareness of one’s surroundings. Andy Goldsworthy comes to mind, with his manipulations of natural objects (leaves, branches, stones), but even creators such as Anish Kapoor may use what is at hand to develop their ideas (incorporating smoke, air currents and visual illusions). A work of art does not need to be static, or even permanent. It is entirely possible to have what might be called, rather pretentiously perhaps, an “aesthetic experience” (ie a response akin to what one may feel when confronted with a conventional “work of art”) by simply *walking through* a tree-lined path, or emerging at a vantage point, or coming close to running water, or stopping to hear bird calls, or feeling the breeze on one’s skin. Can “Art in the Park” identify and enhance this kind of experience? Can means be found, in the environment, which will give the “park user” this heightened “aesthetic experience”?

I believe it can, and my suggestion would be to invite a group of people (groups of artists, students at a university which offers Arts programmes, for instance) to explore one or more of our parks and devise a programme of activities and/or installations which would be a) non-destructive/intrusive and b) calculated to enhance & augment the natural aesthetics of the environment. Nothing particularly new about all this – people have been creating gardens and landscapes “set apart” for centuries. Today’s resources (electronics, computer-generated programmes etc) haven’t really had a chance to perform (if that’s the right word) in the environment of bushland spaces like our parks and reserves; maybe now’s the time.

And one final word: these parks and reserves are bequeathed to the general public; they are to be enjoyed by the people, for the people and with the people. Any activity which enhances that enjoyment is both democratic and (dare I use the word?) genuinely “artistic”. If such a programme were begun I think it would really be “Art in the Park”, or perhaps more accurately still: “The Park as Art”.

Are you a closet grant writer?

We need a little help with small grant applications

Be a valued member of the PPCG Team and keep the group active and strong

Please ring Tracy 0419 248 616