Pioneer Catchment & Landcare News

March 2023

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PIONEER Catchment LANDCARE

Our Mission
To implement an integrated, science-based approach to natural resource management through supportive partnerships across our catchment

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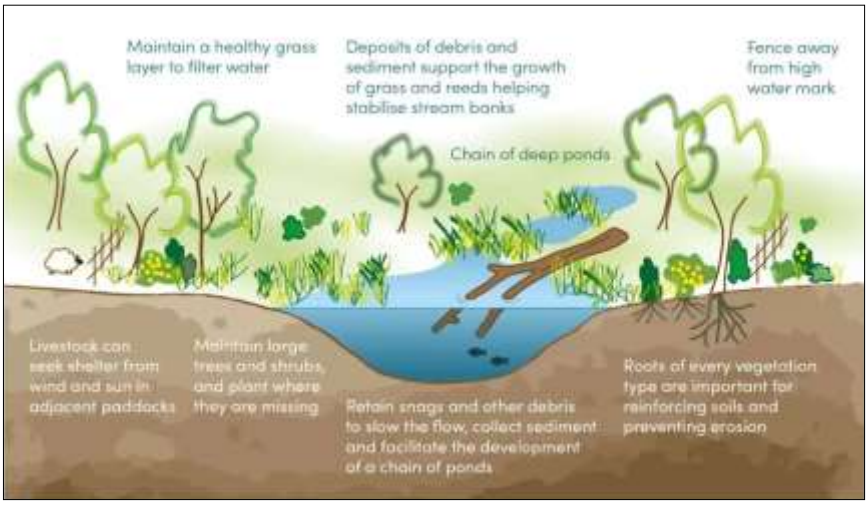
In the field with the PCL Team: Homevale National Park

Recently, the PCL team has been spending time out at the beautiful Homevale National Park to utilise monitoring cameras for the Northern Quoll project. Working alongside Qld Parks and Wildlife Service (QPWS) the goal was to identify potential nesting sites and foraging locations in hopes to snap some photos of the Quoll. The team was even lucky enough to spot a Koala at Mount Britton on one of their visits!

Minimising Creek Bank Erosion

Creek bank erosion can be detrimental to the health of our waterways. Although this is a process that occurs naturally, human activity and fragmentation of the landscape can cause erosion to occur at a much faster rate, causing the movement of large quantities of sediment downstream. This sediment loading can smother aquatic ecosystems, alter stream flow patterns and degrade water quality. Erosion can also cause loss of topsoil and farmland, damage to roads and other infrastructure and loss of important riparian habitat. Works to mitigate severe creek bank erosion can be a costly venture, requiring earthworks and stream bank reconfiguration, however, taking actions to improve creek bank stability can avoid the need for these drastic measures.

Riparian vegetation management plays an important role in maintaining healthy, stable creek banks that are more resilient to high flow events and flooding. Enhancing riparian zones alongside your creek through restoration of native vegetation and widening of riparian zones, weed management, protection from livestock through fencing and managing stormwater runoff can minimise the risk of bank erosion. However, in highly fragmented landscapes, where riparian vegetation has been cleared, erosion can become a complex issue and may require other methods to help reduce water flow and trap sediment.



Healthy Riparian Zone, Sustainable Farms 2023

A technique that PCL has recently trialled to reduce waterflow and erosion in a local creek, is the installation of DIY gabions. This type of gabion (pictured below) is a wire mesh basket that is filled with rocks and placed into a trench in the creek bed. It is very cost effective and simple to install. During recent rain events in Mackay, the gabion proved effective in preventing sediment movement downstream.

Left and Middle: Installation of DIY gabion, Right: Established gabion post weather event

Different types of stream erosion can occur to varying degrees of severity and from a number of different causes, therefore, there is not always a simple solution. Before taking any action to mitigate stream bank erosion, it's important to seek professional advice in order to find the cause of the problem. Go to the following website for more information and helpful field guides by Catchments and Creeks Ltd: www.catchmentsandcreeks.com.au/waterways_field_guides.html

Sources: <https://www.sustainablefarms.org.au/on-the-farm/riparian-restoration/>, Creeks and Catchments Ltd, 2021, Creek Erosion Field Guide, <https://www.catchmentsandcreeks.com.au/waterways_field_guides.html>, <https://gabionsupply.com/the-science-of-gabions-towards-erosion-control?>

What Tree is that? Nature Journalling and a Mini Plant ID Book

By Jennifer White

MHSC Kids Nature Journalling, Amanda Lambert

A chance meeting with Amanda Lambert from the Mackay Home School Community (MHSC) at the monthly Birdlife Mackay outing found us meeting up later and talking about trees. This year, the monthly nature walk theme for the MHSC will be on trees. Why trees? Amanda explained that a lot of people in the USA and UK take people out in nature for plant and tree identification. "With the kids, it's really exciting on nature walks, they're spotting things from previous walks. It's really exciting to see." she said.

Amanda is of the belief that if you know the name of a tree then you can build a connection. "Like meeting an old friend." There was also inspiration for the theme from a biography she read on Wangari Maathai from Kenya who was awarded the Nobel Peace Prize in 2004 for her Green Belt Movement in Kenya and subsequently other African countries, in which she assisted women in planting more than 20 million trees on their farms, in schools and in church compounds. Maathai said in her award speech "My inspiration partly comes from my childhood experiences and observations of Nature in rural Kenya."

After their monthly nature walk the children of the MHSC explore together what they have discovered through discussion, observation and nature journalling. This year their journals will be full of our local native trees and their names. They will have created a mini plant ID book and a few "friends" along the way.

Sources: https://mackayhome.school/, https://www.nobelprize.org/prizes/peace/2004/maathai/facts/

Interview with Amanda Lambert from Mackay Home School Community

Platypus Walk and Talk with Wildlife Preservation Society

Did you know that the Pioneer River is home to a significant population of Platypus (*Ornithorhynchus anatinus*)? However, there are few recorded sightings according to PlatypusWatch. On Sunday February 5th, Tamielle Brunt from the Wildlife Preservation Society hosted a Platypus walk and talk at the Mackay Regional Botanic Gardens lagoon to promote platypus conservation in the region and the importance of monitoring populations and recording sightings. In correspondence with PCL about the event, Tamielle explained how this information can aid in Platypus conservation efforts.

PlatypusWatch Walk and Talk with Tamielle Brunt

"The Pioneer catchment is a well-known area for platypuses, yet we (at Platypus Watch) don't get a lot of records sent to us. People think because they see them all the time in an area that they must be doing ok. A complacency sets in, and we start to lose interest. For a species like the platypus that is usually elusive, nocturnal (Eungella platypus have not received this memo) and hard to survey exact numbers, it can be dangerous for populations. Because we cannot grasp the full picture of their population dynamics (age, sex, juvenile recruitment), therefore how well do we actually know that they are doing ok? This is a species that can disappear right under our noses. Dots on the map are important for any species conservation, as we learn where they are, where 'hotspots' are and with enough information we can start to see changes over time. This can be vital when understanding how land development impacts freshwater waterways and platypus populations. Even though platypuses aren't listed in a threatened category in the EPBC Act, they have a lot to contend with in a modified human landscape. Monitoring information can help the stakeholders managing the land to hopefully making informed choices to reduce the impact on platypus habitat."

The event saw 31 attendees who engaged in learning and sharing local knowledge of platypuses.
If you would like to view the map of current platypus sightings, you can go to the Atlas of Living Australia here or to record a sighting you can click here and fill out the form. For more information about PlatypusWatch, you can view this brochure.

Plant of the Month — *Commersonia bartramia*

Brown Kurrajong

Family: Byttneriaceae

Commersonia bartramia is a fast-growing tree that reaches up to 15 metres in height with a wide-spreading canopy. It is characterised by its burst of small cream flowers that cover the branches in summer giving rise to its other common name of 'Scrub Christmas Tree'. Its fast growth makes it a great pioneering species for revegetation areas, particularly to create shade along riparian zones.

Leaves: Alternate, simple, ovate to broad-ovate, lamina mostly 60–190mm long, 30-110mm wide, upper surface sandpapery or sparsely clothed in minute stellate hairs; underside densely clothed in short whitish hairs; margins finely toothed hairs. Petiole usually 10–20 mm long.

Flowers: Fragrant, white or cream, about 5mm in diameter with 5 petals, borne in showy axillary, terminal or leaf-opposed sprays. Main flowering in summer, however can flower sporadically throughout the year.

Fruit: Capsule, brown or grey, hairy and covered in bristles, 10–25mm in diameter including bristles; five-valved, containing 5-10 black seeds with a yellow or orange aril at the base. Fruits Summer to Autumn,

Growing Notes: Fast growing and suitable for the larger backyard; prefers a moist position in full sun or partial shade.

Sources: https://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.plpage=nswfl&lvl=sp&name=Commersonia~bartramia, https://www.mackayregionalbotanicgardens.com.au/__data/assets/pdf_file/0007/97891/Summer_-_Whats_flowering_now_2015_WEB.pdf., Cooper & Cooper *Fruits of the Australian Tropical Rainforest , See also* https://www.mackay.qld.gov.au/__data/assets/pdf_file/0011/274475/Commersonia_bartramia.pdf

Pest Spotting — *Cinnamomum camphora*

Camphor Laurel

Family: Lauraceae

Cinnamomum camphora is a large tree to 15—30m with wide spreading root systems and a dense canopy. Its rough, light brown bark has a strong camphor scent. All parts of the plant are poisonous. Native to Eastern Asia, it is a highly invasive, opportunistic weed that takes over disturbed bushland and riparian zones. Its deep root system can damage infrastructure. Camphor Laurel trees have been growing in the Mackay Region for decades with little evidence of spreading but PCL Officers have recently spotted seedlings and it mustn't be allowed to spread as it has in other parts of Queensland and New South Wales.

Leaves: Alternate, 40-110mm long and 20-60mm wide, elliptic to broadly ovate with three distinct veins and 15-40mm long petioles; bright green, glossy upper surface, with pale green underside. The young leaf buds are enclosed in distinctive overlapping scales.

Flowers: Small with six 1.5-3mm long white, greenish-white or pale-yellow petals, and 5-9 stamens. Flowers borne in small, branched clusters (about 75mm long) in terminal panicles.

Fruit: Globular drupe (fleshy 3 layered fruit with a hard centre) 8-10mm across, glossy, turning from green to black as they mature. Attached to stem by an enlarged, greenish, cone-shaped or cup-like structure, 5mm across.

Spread by: Seeds spread by birds, other animals, water, and garden waste. Suckers readily, particularly when older trees are poisoned or cut down.

Control: The best form of management is prevention and to treat infestations when they are small and before the plant seeds. Consistent follow-up is required. When cutting down the trees, stumps need to be treated with herbicide to prevent regeneration. Effective control of trees up to 3m height can be obtained by spraying with a suitable herbicide, taking care not to spray near watercourses.
Established trees can also be killed by injecting with concentrated solutions of a suitable herbicide making sure that the chemical is administered around the entire circumference of all stems below approximately 1m from the ground. It is important to replace with fast growing native species to prevent reinfestation.
Note: There are a number of native laurels similar to Camphor Laurel in the Mackay Region. To avoid doing more harm than good it is vital that you obtain expert identification of potential infestations before removing.

Sources: https://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Cinnamomum_camphora_%28Camphor_Laurel%29.htm. Image: https://keys.lucidcentral.org

Upcoming Community Events

March

Thurs 2 - Native Plants Queensland (Mackay Branch) meeting 7:30pm at Mackay Regional Botanic gardens meeting room

Sun 5 - Birdlife Mackay Outing, Cape Hillsborough, Meet at Coningsby Roadhouse at 6:00am

- Clean Up Australia Day

Tues 7 - PCL Volunteering in the nursery, 8am to 12pm.

Tues 14 - PCL Volunteering in the nursery, 8am to 12pm.

Tues 21 - PCL Volunteering in the nursery, 8am to 12pm.

Tues 28 - PCL Volunteering in the nursery, 8am to 12pm.

April

Tues 4 - PCL Volunteering in the nursery, 8am to 12pm.

Thurs 6 - Native Plants Queensland (Mackay Branch) meeting 7:30pm at Mackay Regional Botanic gardens meeting room

Tues 11 - PCL Volunteering in the nursery, 8am to 12pm.

Tues 18 - PCL Volunteering in the nursery, 8am to 12pm.

Tues 25 - PCL Volunteering in the nursery, 8am to 12pm.

CONTAINERS FOR CHANGE

PCL'S ID: C10041933

VOLUNTEERING OPPORTUNITIES

Keen to volunteer with PCL? We are looking for new volunteers keen to get involved in Landcare planting activities at beautiful locations! Come join us! Contact projectofficer@pioneercatchment.org.au for more information.
There are no longer restrictions in place for new volunteers for propagating activities at the MNEC nursery. Existing and new volunteers are welcome.

Pioneer Catchment & Landcare Group Inc.

Executive	Committee Members
Chair | Sharon Dwyer	Earl Neilsen
Deputy Chair | Judith Wake	Paul Tippett
Secretary | Fran Mann	
Treasurer | Claire Stribbles	

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Congratulations Judith!

Our incredible Deputy Chair, Dr Judith Wake, recently received Mackay Regional Council's Environmental Achievement Award for her life's work and commitment to the preservation, protection and understanding of the local environment.

We are very proud to have Judith on PCL's executive committee, playing an important role in the functioning of our organisation. Well done Judith!

OUR VISION:
To empower our community to build biodiverse ecosystems
OUR MISSION:
To implement an integrated, science-based approach to natural resource management through supportive partnerships across our catchment.
VALUES:
◦ We are innovative, and driven by action at a grassroots level ◦
◦ Ethical ◦ Engaged ◦ Passionate ◦

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