

A Look Into Reef Assist Program—Site RT4

Reef Trust 4 (RT4), is a riparian revegetation project originally started by Pioneer Catchment in 2019 with 1840 native trees planted along a vulnerable 150 meter stretch of St Helens Creek, Calen. The site is a flood plain, meaning it is a seasonally inundated flat bordering a watercourse.

Displaying a number of erosion zones and stability issues, the overall intent of the project was to reduce erosion, increase ground stability, thereby reducing the volume of fine sediment being released down the creek and onto the reef.

Vegetation plays important structural and functional roles in riparian zones. Above ground structural diversity is achieved through using a broad range of native species of varying heights and canopy shapes. Root architecture is important for bank stability and the overall function of the riparian system. Shallow-rooted sedges and rushes stabilise surface sediments and intercept subsurface flows to 1 metre depths. The surface root mats and deep roots of many woody trees and shrubs also reduce sediment runoff and stabilise soils at depth.

The original project was completed in May of 2021, however our Reef Assist team picked up the project again not long after this with continued weed maintenance and health monitoring of both the trees and soil stability. Elephant grass, castor oil plants and invasive vines were major threats to the growth and canopy development of the trees, and the overall success of the project. Weed control on this site is an important and necessary action for the long-term sustainability of this riparian zone and has assisted in the recovery of the native vegetation either existing or planted.

Due to the hard work of our Reef Assist team, today the site is looking fantastic with great tree and shrub growth and a dense canopy starting to form.

Loss of vegetation cover in riparian zones is one of the major causes of bank and in-stream erosion. Pioneer Catchment Landcare will continue to work on these valuable areas within our catchment to support our beautiful part of this country.



Photos by PCL Project Coordinator: RT4 recent photo of growth

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* ⊗

Euodia or Pink Evodia

Melicope elleryana is a beautiful ornamental tree naturally found in northern Australia from Western Australia, Northern Territory and Queensland to northern New South Wales. It is suitable for planting in medium to large gardens for a tropical effect or as a specimen tree and flowers in about 2 to 3 years.

Form: Medium tree to 10m with an open canopy. **Bark:** Cream coloured and corky, fissured.

Leaves: Compound (trifoliate with centre leaflet longest), opposite, leaflet margin entire. Numerous small translucent oil glands visible with a hand lens; produce a pleasant aroma when crushed.

Flowers: Inflorescence is dense lateral panicle produced from old leaf axils below or back from the leaves. Masses of bright pink flowers appear in summer; petals are 5-6.5mm long, smooth on the outer surface with fine hairs on the inner surface. **Fruits/Seeds:** Small green to brown capsule consisting of 2—4 carpels each containing one egg-shaped dark brown seed up to 4mm long. Seeds are enclosed by an aril and are attractive to birds, particularly pigeons.

Growing notes: Suited to warm to subtropical conditions, grows in a wide range of well-drained fertile soils with reliable moisture. Prefers an open sunny position. Drought tolerant but frost tender. Medium water requirement, once established. Grown for its attractive foliage and fruits, and used as a shade or screen tree. The flowers and seeds attracts birds and it is the larval food plant for the Ulysses Butterfly *Papilio ulysses*.

Sources: https://apps.lucidcentral.org/rainforest/text/entities/melicope_elleryana.htm, <http://tropical.theferns.info/viewtropical.php?id=Melicope+elleryana>, Melzer, R & Plumb, J 2007 'Plants of Capricornia', Capricorn Conservation Council

Family: Rutaceae



Images: Nadine Hamill & Judith Wake

Pest Spotting

Neptunia oleracea

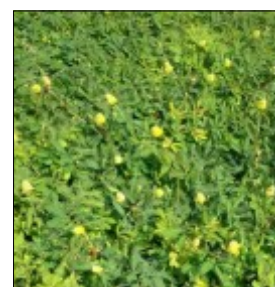
Water Mimosa

Family: Leguminosae (Mimosaceae)

Water Mimosa, a native to Mexico, Central America and northern South America, poses an extreme threat to Queensland's waterways and wetlands. Under favourable conditions, Water Mimosa grows out from the banks to form floating rafts of dense interwoven stems. The rafts are so dense they can reduce water quality by preventing light penetration, and reducing oxygenation of water leading to the death of submerged native water plants and native fish. It creates a favourable habitat for mosquitoes and reduces fish activity. Release of nitrogen into the water stimulates algal blooms with further decrease water quality.

Form: Aquatic floating perennial that attaches to the bank at the water's edge and sends down a taproot. Stems to 1.5m long, prostrate at the water's edge, rarely branched, becoming detached from the primary root system, forming a spongy-fibrous covering between the nodes. **Leaves:** Olive green, in opposite pairs along the stem. Leaves have 8–20 pairs of leaflets per pinna. These are very sensitive to touch and close quickly. **Flowers:** Yellow, ball-shaped growing from the base of the leaves. Each flower is 7–16mm long, 0.5–1mm broad. **Fruit/Seed:** Oval, brown, 4–8 per pod. Each seed is, 4–5.1mm x 2.7–3.5mm .

Spread By: Water Mimosa forms floating rafts of dense inter woven stems which can be dislodged by water movement (especially during floods) and re-establish further downstream. **Control:** In most cases the best management approach combines herbicide, mechanical and biological control methods with land management changes. It is essential to choose control methods that suit the particular situation. All suspected sightings of water mimosa must be reported to Biosecurity Queensland, which will work with the relevant people to control the plant using the appropriate herbicides. Anyone finding the plant must take immediate action to minimise it spreading.



SOURCES: Department and Agriculture and Fisheries, 2020.

Do you know your scats?

Scats, faeces, or just plain poo- for anyone interested in finding out more about the animal world, scats can be a useful tool. They can reveal a lot about the things wildlife eat, where they go and even how they live. All mammals leave scats, whether native or a pest. But how do you identify them?



Possum

Larger possums such as brush tails and scaly tails produce generally dark, cylinder-shaped scats which usually contain vegetation. But possums are omnivorous so the size, shape and colour of their scats depend on what sort of food they've eaten. Colours can range from red-brown to black. Possums will notoriously get into everything, including stealing eggs. Possums further from human settlements on the other hand, will probably have a more herbivorous diet. Smaller possums such as the pygmy possum leave rat-sized pellets.

Koala

Koalas have a distinctive poo that is very hard on the outside, and has a slightly ridged and oval shape. The colour is mostly red-brown to brown but can be blue-green, grey-green or yellow-brown.



Kangaroo and Wallabies

Kangaroos have small, round, black poos and usually leave several in the same place. They are very similar to wallaby poos, but larger. Wallaby scats are also pointier than kangaroos' scats and sometimes have fibers sticking out.



Source: <https://www.abc.net.au/science/articles/2007/09/26/2044094.htm>

Gardens for Wildlife

Botanic Gardens: Not Just About the Plants

By Jenny White, 17th February 2022

Whose in the box? Find the box at the Mackay Regional Botanic Gardens and you might be lucky to spot a possum or even a nesting bird.

An Intermediate Egret in breeding plumage (green patch by its eye) feeding on a fish may catch your eye as you walk on by.

From the treetops you may hear the delightful song of our beloved Laughing Kookaburra.

On the last Friday of every month Birdlife Mackay members do a bird count at the MRBG. How many birds have been counted in the past 10 years? Volunteers Richard, Daryl and Gerry at work.

Your Botanic Garden, it's not just about the plants. Go discover...



Upcoming Events

March

Tue 1 - PCL Volunteering in the nursery 8am to 12pm;

Thu 3 - Native Plants Queensland (Mackay Branch) meeting 7:30pm at Mackay Regional Botanic Gardens meeting room

Tue 8 - PCL Volunteering in the nursery. 8am to 12pm;

Sun 6 - Birdlife Mackay outing Cape Hillsborough; meet Coningsby Roadhouse 6am enq: 0407143823

Tue 15 - PCL Volunteering: nursery/display garden. 8am to 12pm.

Thu 17 - Birdlife Mackay outing, Wetlands Walkabout, Keeleys Rd, meet 6am; enq: 0407143823

Sat 14 - Mackay Community Garden Abundance Day, 10am

Tue 22 - PCL Volunteering: nursery/display garden. 8am to 12pm.

Tue 29 - PCL Volunteering: nursery/display garden. 8am to 12pm.

April

Tue 5 - PCL Volunteering in the nursery 8am to 12pm; and Lamberts Headland from 8:30am.

Thu 7 - Native Plants Queensland (Mackay Branch) meeting 7:30pm at Mackay Regional Botanic Gardens meeting room

Sat 11 - Mackay Community Garden Abundance Day, 10am

Tue 12 - PCL Volunteering in the nursery 8am to 12pm; and Far Beach from 8:30am.

Tue 19 - PCL Volunteering in the nursery 8am to 12pm; and Lamberts from 8:30am.

Tue 26 - PCL Volunteering in the nursery 8am to 12pm; and Far Beach from 8:30am.



PCL'S ID:
C10041933

COVID SHIFTS VOLUNTEERING OPPORTUNITIES

Keen to volunteer with PCL? We are looking for new volunteers keen to get involved in Landcare planting activities, at beautiful locations like Far Beach and Lamberts Headland. Come join us! Contact projectofficer@pioneercatchment.org.au for more information.

Due to Mackay Natural Environment Centre COVID policy, there has been a temporary suspension on NEW volunteers for propagating activities at the MNEC nursery. Existing volunteers are still welcome.

Pioneer Catchment & Landcare Group Inc.

Executive

Chair | Sharon Dwyer

Deputy Chair | Judith Wake

Secretary | Fran Mann

Treasurer | SOUGHT

Committee Members

Earl Neilsen

Pioneer Catchment & Landcare Group Inc. Office contacts:

Phone | 07 4944 1979

Email | admin@pioneercatchment.org.au

Website | www.pioneercatchment.org.au

Coordinator | Nancy Pratt
coordinator@pioneercatchment.org.au

Project Officer | Tahnee Hamill
projectofficer@pioneercatchment.org.au

Administration Officer |
admin@pioneercatchment.org.au

Newsletter |

Community Spotlight

Birdlife Mackay

BirdLife Australia has over 10,000 members and a further 65,000 supporters, 30 local branches, two reserves, two observatories, a members' magazine (Australian Birdlife) and two peer-reviewed scientific journals (Emu and Australian Field Ornithology).

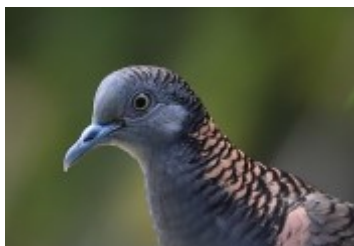
The branch organizes monthly outings to destinations throughout the region including Eungella National Park (home of Mackay and District's only endemic, the Eungella Honeyeater), Conway National Park and other rainforest, woodland, wetland and coastal sites.

Mackay is an important home for migratory shorebirds and BirdLife Mackay members carry out monthly surveys of numbers for the Queensland Wader Study Group. There are also regular surveys at the Mackay Regional Botanic Gardens.

Contact: John Morris, Mackay President

Email: john@jmorris.com.au

Source: <https://birdlife.org.au/locations/birdlife-mackay>
<https://birdlife.org.au/who-we-are/our-organisation/history>



Pioneer Catchment & Landcare Group Inc. Proudly supported by:



Printed newsletters are on 100% recycled & carbon-neutral paper.