

Pioneer Catchment & Landcare News

February 2024



Plant of the Month -
Brown Hatpins



Pest Spotting -
Water hyacinth



GSM Moth Count



Tangaroa Blue
Monitoring



Our Mission

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

Mackay North and Pioneer State High School

PCL partnered with Mackay North and Pioneer State High Schools last week to journey into the mangroves with years 9,10 and 12. Approximately 25 students attended the day with the aim of using citizen science to contribute to Mangrove Watch data on crab numbers and forest health at an established fixed point monitoring site. Before venturing into the mangroves, the students were taken through a risk assessment and asked to identify and mitigate potential hazards in the mangroves. Responses ranged from how to recognise and treat heat stress, avoid crocodile attack (a common misconception - thankfully hardly ever seen within the mangroves, usually just on the edges near the water!). Walking into the mangroves is always exciting as the forest surrounds you.

The first activity was monitoring forest health at the Mangrove Watch quadrats. Students were taught survey methods such as tree health assessments, measuring DBH (diameter at breast height) and the use of technology including range finders to measure tree height. Also found, in mangrove logs were some ship worms. They are actually a type of clam!

The second activity was setting up crab monitoring by constructing pit fall traps, and attaching strings to leaves as bait for crabs in a quadrat and filming any activity.

Thanks to both schools for the fun and educational day and a thanks to the students who joined in and gathered all the data for Mangrove Watch! This is amazing citizen science – well done to all for making a difference in conservation and understanding of our mangroves!



Image: PCL Field Officer Angus setting up a camera to monitor crab activity.



Image: Mangrove Crab

Great Southern Bioblitz Moth Count

On a dark and stormy afternoon (27 November), PCL gathered with our amazing volunteers and participants to celebrate the last day of the Great Southern Bioblitz 2023, for a moth observation night.

The Great Southern Bioblitz (GSB) is a global citizen science event, held for 4 days in November, throughout the southern hemisphere. The iNaturalist App and website is used to record a snapshot of all living things. The records entered into the App go to the Atlas of Living Australia (ALA) and show the immense biodiversity in the southern hemisphere. The event is a chance for everyone, no matter their experience or knowledge, to engage with nature and contribute to essential scientific recording.

Why moth night?

There is very little data available about moths including species' locations, habitats, and seasonal habits, especially in Mackay, so it made sense to contribute to the ALA and increase the global records and understanding of our important moth population.

Moths are often thought of as boring in colour (not true – Zodiac and 4 O'clock) or as a pest (again not true – moths are essential pollinators and are often specific to a host plant). Did you know there are around 22,000 Lepidoptera species in Australia. Of these, only about 400 are butterflies, the other 20,600 are all moths!

Setting up a moth attracting light tent is easy and cheap to do at home, so we are hoping that after learning the method, people will do this in their own back yard and continue to contribute to important scientific data.

The moth night event was for a one-hour period, with the aim being to count some moths, do some fun and colourful face painting with UV paints, contribute to worldwide science, and really make a difference!

Our observations were interesting in that there was little moth activity until later in the evening. We're not sure if this was due to the weather conditions or time of night, or some other factor. However, absence data is also good data and can be used to make assumptions on behaviour. We did see an array of different insect species including a damsel fly, several beetles, non-biting mosquitos, a preying mantis and crickets.

We had to pack up pretty quickly at the end of the evening to avoid a huge thunderstorm which had been brewing all day! All in all, we had some fun, shared some laughs, identified some bugs, learnt a method of light trapping, shared some knowledge of the importance of iNaturalist and some simple info on how to use the App, and took away some inspiration to continue recording nature in our own back yards.

Take home message - The important thing to remember is, you can contribute to iNaturalist, and therefore understanding of our biodiversity, every day! You don't need an event, just a photo of a living thing (native and pest are both important) to upload.

Thanks to our amazing participants, PCL volunteers, and Maya Harrison who brought along some pinned specimens and her encyclopaedic knowledge of all things 'bug'!



Image: Jennifer White, John Higham observing moth activity.



Image: Maya Harrison's pinned specimens.



Image: Participants enjoying UV face paint.

Native Plant of the Month

Fringed Hatpin Sedge or Brown Hatpins Family: Cyperaceae *Fimbristylis tetragona*

This rhizomatous, tufted perennial or annual sedge grows to 100–900mm. It is distributed in wetland areas in Asia and tropical Australia, including CQCB lowlands.

Leaves: Lack leaf blade. Light bluish green culms (stems) which are smooth, and four sided.

Flowers: Brown or white oval to ellipsoid inflorescence occurs singly at tip of the culm. The apex of the inflorescence is rounded or obtuse.

Fruit: Light brown, narrowly oblong nutlets, 2.5mm long, attached to a 0.7mm stalk—like stipe (stalk that supports another structure).

Growing Notes: Beautiful addition to a pond or wetland margin planting.

Name origin: *Fimbristylis* Latin “*fimbra*” fringe/stylus—*tetragona* Greek “*tetra*” four, “*gon*” angled referring to four sided culms.



Ref: *Fimbristylis tetragona* | cqlandcarenetwork.org.au

Plant of the month chosen to celebrate World Wetlands Day—2nd February

Image: Donna Jackson

Pest Spotting

Water Hyacinth Family: Pontederiaceae *Eichornia (syn. Pontederia) crassipes*

Perennial free floating aquatic plant up to 650mm tall, trailing fibrous feathery black to purple root system to 1m long. Native to South America. Originally introduced to Australia as an aquatic ornamental plant, one of the fastest growing plants, mats can double in size in a week. Seeds remain viable for nearly 30 years.

Weed Category: Category 3, restricted invasive plant which must not be given away, sold, or released into the environment.

Leaves: Dark green, rounded 50-100mm diameter. Leaf stalks in young plants are swollen and bulbous, older plants have elongated stalks.

Flowers: Light purple flowers with yellow centres on a single spike are supported by an erect stalk. 40-60mm long and 35-50mm wide.

Fruit/Seeds: Capsules 100-150mm long containing up to 300 seeds. Seeds are egg shaped and 5-15mm long.

Spread by: Release into waterway from aquariums, seed and plant fragments **spread by flood waters and wind.**

Control: Hand pull small plants; larger plants are more difficult to remove. Will reshoot if roots are left. Removal



Ref: 'https://www.daf.qld.gov.au/_data/assets/pdf_file/0005/54680/water-hyacinth.pdf'

Image: Department of Agriculture and Fisheries Queensland.

Tangaroa Blue—Harbour Beach Monitoring

In early December, PCL field officers successfully removed 9.6 kilograms of debris during a Tangaroa Blue Foundation cleanup at Harbour Beach. The collected items included bottle tops, plastic lids, hairbrushes, bleach bottles, and confectionery wrappers. The clean-up not only addressed immediate environmental concerns but also emphasized the need for responsible waste management and heightened public awareness. The diverse array of debris, from everyday items to single use plastics, serves as a reminder of the human impact on our oceans.



Image: Senior Field Officer, Donna Jackson.



Image: Debris from one transect.

Mackay West State School Visit

PCL Officers delivered another successful and informative bush tucker talk to two classes of approximately 100 year 6 students at Mackay West State School. Topics covered were cleaning using soap bush (*Alphitonia excelsa*), different flavours you can add to a meal, what plants are used to make flour, mud mussel collection and edible roots and bulbs. The students loved smelling and touching the plant leaves and seeds, with lemon myrtle (*Backhousia citriodora*) being the favourite smell and native turmeric (*Curcuma australasica*) being the favourite to touch with its large soft leaves. Students asked excellent questions such as “how can we make sure these plants are available for generations to come” showing their understanding and passion for our environment.



Upcoming Community Events

February 2024

Mon	Tue	Wed	Thu	Fri	Sat	Sun
			1 Native Plants Queensland (Mackay Branch) meeting 7:30pm at Botanic Gardens meeting room.	2	3	4
5	6 PCL Volunteering in the Botanic Gardens Nursery 8am to 12pm.	7	8	9	10	11
12	13 PCL Volunteering in the Botanic Gardens Nursery 8am to 12pm.	14	15	16	17	18
19	20 PCL Volunteering in the Botanic Gardens Nursery 8am to 12pm.	21	22 Apps for wildlife workshop, Botanic Gardens meeting room 10am-12pm.	23	24	25
26	27 PCL Volunteering in the Botanic Gardens Nursery 8am to 12pm.	28	29			

March

Sunday 3rd - PCL Harbour Beach, Clean up Australia Day 7am –9am.

Tues 5th - PCL Volunteering in the Botanic Gardens Nursery 8am to 12pm.

Thurs 7th - Native Plants Queensland (Mackay Branch) Botanic Gardens Meeting Room 7:30pm.

Tues 12th - PCL Volunteering in the Botanic Gardens Nursery , 8am to 12pm.

Tues 19th - PCL Volunteering in the Botanic Gardens Nursery , 8am to 12pm.

Tues 26th - PCL Volunteering in the Botanic Gardens Nursery , 8am to 12pm.

Contact Us

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PIONEER Catchment LANDCARE

Pioneer Catchment & Landcare Group Inc. Management Committee

Executive

Chair | Sharon Dwyer

Deputy Chair | Judith Wake

Secretary | Fran Mann

Treasurer | Claire Stribbles

Committee Members

Earl Neilsen

Paul Tippet

Jennifer White



Sunday 3rd March 07:00am - 09:00am

Meeting Point: Meeting out front of Mackay Surf Life Saving Supporters Club Inc

- Sausage sizzle 9am
- Turtle Face painting
- Mackay and District Turtle Watch

PCL Membership is Changing

Keep an eye out for upcoming changes to our membership policies and new opportunities coming for PCL members



Follow PCL on social media to keep up to date with recent projects and events

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.

Big shout out to our volunteers who have shown their support of PCL by assisting with plant propagation at the MNEC nursery, and for registering their interest in our events and workshops – we couldn't do it without you!



QWaLC
QUEENSLAND WATER & LAND CARERS



PCL'S ID:
C10041933

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 •

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