



Reef Catchments Annual Healthy Soils Symposium

November saw Regional Agriculture Landcare Facilitator - Juliane Kasiske host Reef Catchments popular Healthy Soils Symposium. The day was information packed with fantastic talks by a variety of speakers, including Graeme Sait, CEO and co-founder of Nutri-Tech Solutions. He is well known from his TED talk '*Humus Saves the World*'. On the 26th November, Graeme delved into the topics such as the mycorrhiza network and the bacterial soil ecology. He also demonstrated how to nurture this entire system to reduce chemical usage through the use of humic and fulvic acid.

Local business man, Paul Rodgers, shared his soil improvement journey with the 80+ strong crowd. Paul successfully ran a rural supplies business, and now acts as a land manager of both a cattle fattening operation and a cane farm. He has used a variety of regenerative agricultural practices, such as multispecies cover cropping, intercropping and time-controlled grazing. Paul aims to develop a farming system in the Proserpine region which maintains soil health and increases the environmental health of the land.

Chris Dench, Water & Waterways Coordinator at Reef Catchments, spoke about the current riparian revegetation projects being undertaken in the Mackay Whitsunday Catchment, as well as the benefits of protecting streambanks to the landholders. By decreasing erosion, increasing retention of topsoil during large weather systems and slowing flood waters, we can replenish groundwater, reduce nutrient heavy silt from run off which improves the water quality of the region, including the Great Barrier Reef.

The day was capped with a documentary 'Kiss the Ground' (available on Netflix) which addressed issues such as desertification reversal, how regenerative farming can increase productivity and yields of land, improve carbon sequestration. Regenerative farming and ethical eating habits were suggested as being the most effective way to combat climate change. You can watch this documentary by visiting the Reef Catchments Youtube channel for recordings of the day and Reef Catchments website (<https://reefcatchments.com.au/>) to review the presentation slides or call 07 4968 4200 for more information.

Earthwatch Needs Volunteers for Mangrove Sample Collections

Earthwatch Australia is a global environmental charity who have a current project running in Mackay, monitoring the health of the local mangrove population. For this project to be successful they are asking for volunteers to collect the contents of leaf traps and deliver them to Reef Catchments for posting.

The site at McCreedy's Creek is all easily accessible by foot. The site has three traps that will need to be emptied monthly for the next 12 months. All materials needed will be provided along with comprehensive instructions.

Incentives for volunteering are available, including a copy of Australia's Mangroves Book and/or a free spot on one of Mangrove Watch's Daintree or Mackay mangrove citizen science expeditions in 2021 (for more information head to <https://www.earthwatch.org.au/protecting-the-reefs-coastal-frontier>).

If you are interested in joining please contact our Project Officer, Tom Crow at Projectofficer@pioneercatchment.org.au



Photo by Tom Crow

Pink Myrtle/Rose Myrtle

Family: Myrtaceae

Named *Archirhodomyrtus* from *archi* (chief), *rhodon* (rose) and *myrtus* (myrtle), referring the myrtle family with rose like flowers. Named *beckleri* after Herman Beckler the Australian botanical collector. A small shrub or tree up to 10m high. Found on the rainforest edge and in wet sclerophyll forests from Cooktown QLD to the Williams River NSW. Most local records are from rainforests at Eungella.

Leaves: Simple, 30 to 110mm by 10-33mm. Smooth, with a shiny upper side and paler underside. Oil dots visible with a lens. Intramarginal and lateral veins are inconspicuous. Petioles about 3mm long.

Flower: 4-5 white to cream petals, 11mm long. Filaments cream to mauve or pink. Calyx green or yellow. Present from September to February.

Fruit: A orange to red or black berry, 5-12mm diameter. Contains 20-40 brown seeds. Present from January to July.

Information sourced from 'Fruits of the Australian Tropical Rainforest' by W. & W. Cooper. Photo sourced from canbr.gov.au by Fagg, M.



Pest Spotting

Pavo cristatus

Indian peafowl

The Indian Peafowl is native to India and Sri Lanka, where it resides in scrub-jungles, along forest edges and close to urban and agricultural land. The British originally brought Peafowl to Australia as pets, though they have since escaped and established feral populations. Peafowl are typically found in groups of 5 to 10 individuals, although larger flocks are possible. Peafowl call frequently before settling in to roost overnight in trees, which can be a source of noise pollution in urban areas. Peafowl also have been known to damage crops and cultivated fruit such as bananas.

Description: The Indian Peafowl exhibits sexual dimorphism, with the male (Peacock) being large (4.5kg) with a metallic blue and green plumage and a long train of tail feathers. Females (Peahens) are smaller (3.5kg) and are a duller colour.

Life Cycle: Peafowl are able to live up to 20 years in the wild and reach sexual maturity at 2 years. Peafowl are polyandrous, with Peacocks holding a territory and competing for Peahens attention during the mating session. The peahen will lay a clutch of 4 to 8 eggs, which will then be incubated for 28 days.

Ecological effect: Peafowl are known to compete with native wildlife for habitat. The peafowl are omnivorous, with their diet including seeds, fruit, flowerbeds, shoots, invertebrates and small vertebrates. Through their diet they can effect local vegetation as well as invertebrate and small vertebrate populations.

Control: In New Zealand shooting, poisoning, trapping and destroying eggs have been used to control populations. If you have an issue with peafowl on your land please contact the Mackay Regional Council for guidance to Australian laws and regulations.

Information sourced from 'Options for controlling peafowl (Pavo cristatus) in New Zealand' by A. David & M. Latham and 'Ecology and Behaviour of Indian Peafowl (Pavo cristatus) in Keoladeo National Park, Bharatpur, Rajasthan, India' by Sumit Dookia, Reenu Kumari Singh, Anoop KR. Photo sourced from 'Local Pests: Indian Peafowl' by Townsville City Council.



Land for Wildlife - Not Mexican Bean Tree

The Mexican Bean Tree (MBT) (*Cecropia* spp.) is a rapidly growing tree, taking 3-5 years to reach full height of 10-20m tall and occasionally 25m. It commonly invades riparian zones, dry rainforest and cyclone damaged forest environments, where it can easily dominate and outcompete native vegetation. The Mexican bean tree can be identified by its hollow stems and pawpaw like leaves, with the lower leaf being covered in dense white hairs.



This species spread is facilitated by gardeners due to its attractive foliage and by frugivorous bats and birds. MBT is dioecious and pollinates via wind, with each female specimen producing millions of seeds.

Due to the high risk, this species presents to native environments any suspected sightings must be reported to Biosecurity Queensland (at 13 25 23) within 24hrs of sighting. Under The **General Biosecurity Obligation**, everyone must take reasonable and practical steps to minimise the spread of MBT until they receive advice from an authorised officer.

Information and picture sourced online from 'Mexican bean tree' By the Queensland Government, Department of Agriculture and Fisheries.



Staff profile - PCL Project Officer, Peter Alden, Ecologist

I was born in this area and have spent about 75% of my working life based in the central Queensland region. The natural environment has always been a passion for me, leading me to obtain a Degree in Australian Environmental Science, specializing in Plant Ecology. I have 42 years of experience working in natural resource management, and have focused on environmental repair. This career has taken me to a variety of locations throughout north Queensland including Yeppoon, Ayr, Tully, Cardwell, Cairns, Atherton, Cape York and, finally, Eungella (where I now reside).

During my career I have worked as a Forester, National Park Ranger, Tour Guide, Field Entomologist, Yachty, Aerial Surveillance Officer, Bush Camp Owner, Marine Park Ranger, Rural Land Owner and Organic farmer, Council Land Management Officer, Biodiversity Coordinator, Catchment Coordinator, Biosecurity Officer, Land for Wildlife Coordinator, Landcare Project Officer and a Vegetation Management Consultant.

I believe firmly in the Landcare principal, Landcare the verb, landowners doing and caring, and Landcare the noun, supporting landowners to do the do. For future generations of Landcare and environmentalists remember that '*every tree matters*'.



Upcoming Events

December

Tue 1 - PCL Christmas Party

Tue 8 - PCL Volunteering. 8am to 12pm.

Tue 15 - PCL Volunteering. 8am to 12pm.

Sat 19 - PCL Christmas closure commences.

Tue 22 - PCL Volunteering. 8am to 12pm. At Mackay Natural Environment Centre only

January

Tue 5 - PCL Volunteering. 8am to 12pm. At Mackay Natural Environment Centre only

Mon 11 - PCL opens

Tue 5 - PCL Volunteering. 8am to 12pm.

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PCL'S ID:
C10041933

Wildlife Display Garden

PCL is currently looking for a small solar powered pump for their feature pond at the Gardens for Wildlife display garden. If you have a pump you would like to donate please contact Tom Crow.

Pioneer Catchment & Landcare Group Inc. Management Committee

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