

# SLCMA Catchment News 2020



## November 2020

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Office opening  
hours:

9am-2pm weekdays.

Other times by  
appointment, please  
call 4956 1388 :)

### Staff

#### Administration Officer

Kristy Thomsett

#### Coordinator

Saskia von Fahland

#### Project Officer

Morgan Thomas

#### Call us for information:

- ◇ Weed management
- ◇ Plant identification
- ◇ Land management
- ◇ FREE property visits
- ◇ Land for Wildlife

#### Volunteer opportunities:

SLCMA Community Volunteer  
Program, Wednesday 9-12  
noon—**please register  
prior, to attend.**

**Native plants** available  
for purchase \$3 each.

### SLCMA Executive 20/21

**Chair:** Mark Evans

**Vice-chair:** Lachlan McBride

**Treasurer:** Kevin Plumb

**Secretary:** Shirley Sidey

**Executive members:**

Sandy Evans

Karen May



Sarina  
Landcare

## SLCMA News!

**SLCMA Christmas Closure** — The festive season is on its way and with that, our staff will be taking a much deserved break. Hence, the SLCMA Office will be closed between 19 December 2020 and 3 January 2021.

**SLCMA Christmas party**— Members, volunteers and project partners are invited to attend the SLCMA Christmas Party to be held on **Wednesday 9 December, 6pm** at the Tandara Hotel Motel. Attendees will purchase their own meals and drinks from the menu. RSVP essential by Monday 6 December.

**SLCMA Community Volunteer Program** — We only have a couple more volunteer mornings left before we have a break over Christmas. The last volunteer morning for the year will be Wednesday 16 December 9-12noon. We will have some fun in the nursery first up and then enjoy an extended Christmas special edition morning tea.

**VISITORS AND VOLUNTEERS** — To ensure that all visitors, volunteers and staff stay as safe as possible. Please be aware of the following procedures when visiting the SLCMA Office and SLCMA Community Nursery.

- ◆ Please do NOT visit if you are feeling unwell, have recently travelled to known hotspots or have been in contact with someone who has had the COVID-19 virus.
- ◆ If you have a Landcare enquiry that you think can be discussed/solved over the phone then please give us a call. If needed, we will be happy to organise an appointment.
- ◆ All visitors must:
  - ◆ Complete the sign-in/out register
  - ◆ Maintain social distancing (minimum 1.5m spacing)
  - ◆ Utilise hand sanitiser supplied upon entry & exit to the office or nursery

## Plant of the Month — Native Ginger

This month's 'Plant of the Month' is:

### *Alpinia caerulea* (Native Ginger)

**Family:** Zingiberaceae

**What is in a name?** *Alpinia*, named after Prospero Alpini (Venetian physician and botanist), and *caerulea* meaning dark blue, referring to the fruit.

**Form:** Clumps of erect, thick stems to 2m, rising from underground rhizome.

**Leaves:** Bright shiny green, smooth to 40x10cm, sometimes red on underside.

**Flower:** White, purplish lip about 25cm long.

**Fruit:** Globular, bright blue when ripe, 1.5cm in diameter.

**Habitat:** Rainforest margins of QLD, north-eastern NSW.

**Distribution:** QLD, WA and some parts of north-eastern NSW.

**Notes:** Hardy plant, will tolerate a lot of sun, but does best in protected situations.



Photo: Australian Plants Online



Photo: S von Fahland



## Weed Feature — Singapore Daisy (*Sphagneticola trilobata*)

Singapore daisy (*Sphagneticola trilobata*) is another example of an ornamental plant which has escaped garden beds and made its way into our natural environment, where it has some severe negative impacts.

Native to tropical America, Singapore daisy is an aggressive ground cover which spreads rapidly and, readily out-competes native plants. It prefers moist areas, but can be found in a range of areas, such as gardens, bushland, wetlands, disturbed areas, parks, road verges, lawns and footpaths. It's ability to colonise and reproduce in a variety of conditions has allowed it to spread readily in coastal areas across Queensland.

Singapore daisy has lush glossy green leaves (typically 3 lobed and in pairs up the stem). It is most easily recognised by the yellow to orange-yellow daisy flowers, approximately 2cm wide. The flowers are held above the leaves on short leaf stalks. Flowering occurs year-round but is typically more prominent from spring to autumn.



Photos: S von Fahland

### How does it spread?

Singapore daisy produces a variable amount of seeds, however, the primary cause of spread is vegetatively, that is small pieces that can be produce through slashing and pruning. Vegetative production occurs where parts of the plant such as leaves, stems touch the ground and grow roots and establish.

### How can you prevent its spread?

Given the chance, Singapore daisy has the ability to spread to almost anywhere within the landscape. Care should be taken when managing existing infestations, to ensure no fragments are spread to other locations. This is particularly important for riparian areas (creekbanks) as plant pieces can travel long distances with the flow of water.



Hand pulling/digging up runners is an effective way to control Singapore daisy, as long as the waste is disposed of correctly. Either burn waste or put into a black plastic bag and place in the sun for a few days before putting into the general waste bin. **DO NOT place cuttings into green waste bins.** Continue to monitor patches and hand pull or dig up any new plants.

Herbicide application at correct application rates can also provide effective control. See the Department of Agriculture and Fisheries pest factsheet for more information on herbicides for the control of Singapore daisy here: [https://www.daf.qld.gov.au/\\_data/assets/pdf\\_file/0010/64000/singapore-daisy.pdf](https://www.daf.qld.gov.au/_data/assets/pdf_file/0010/64000/singapore-daisy.pdf)

**Singapore daisy is a category 3 restricted invasive plant under the Biosecurity Act 2014.** It must not be given away, sold, or released into the environment. The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with invasive plants under their control. This is called a general biosecurity obligation (GBO).

## Sarina Community Native Gardens

The Sarina Community Native Gardens has been receiving some TLC over the last few months. Our volunteer Peter, has been working regularly in the gardens—weeding and mulching, getting things looking tidy and fresh—Thankyou Peter!

We were fortunate to also receive funding for the gardens through the Community Environment Program. The project runs through to 30 June 2021 and so far has supported our revegetation team to do some of the hard yakka work like brushcutting, removing dead branches and prunings. In the new year we are looking forward to holding community working bees and workshops with the aim to engage community volunteers in the 'Friends of the Gardens' - watch this space! The gardens are a great way to showcase our native plants and a handy seed resource for the SLCMA Community Nursery.

*Right: Peter working in the gardens; Other photos of gardens looking all fresh weeded and mulched :)*



Photos: S von Fahland



# Land for Wildlife Fieldtrip 2020 by Morgan Thomas



A weed can be described as any plant growing out of place and can be both a symptom and a cause of land degradation.

On Friday 30<sup>th</sup> October, SLCMA had the opportunity to host the 2020 Land for Wildlife (LfW) "Wage War against Weeds" Field Trip at the Plane Creek Revegetation Site (Brewers Park Reserve, Sarina). The morning was open to LfW landholders and community members to discuss topics surrounding weeds, such as weed invasion, causes, prevention and control methods and the role of weeds in the environment.

Twelve landholders attended the event, all of whom enjoyed the opportunity to ask questions and see first hand some of the different weeds and control methods available. SLCMA, Council and landholders brought along some weed control equipment to demonstrate the different techniques. A special mention to Stuart Wolsey for bringing in his Lantana Fork (*contact SLCMA for more details*). Mackay Regional Council Pest Officers, Shelley Molloy and Mark Oswald also kindly joined in the field trip to help answer questions and provide demonstrations of chemical control methods including drill and fill, cut stump as well as physical weed control, focusing on priority weeds like African Tulip Tree (*Spathodea campanulata*), Sicklepod (*Senna obtusifolia*), Water lettuce (*Pistia stratiotes*) and Madeira vine (*Anredera cordifolia*).



Photo: T Crow

Stuart demonstrating Lantana fork

The event was held based on feedback from Land for Wildlife landholders and a general trend observed by SLCMA officers regarding the desire of landholders to have a better understanding of weed life cycles, weed control and prevention methods. The annual field trip is one of many benefits of the Land for Wildlife program. The program also allows for a SLCMA officer to be on-ground at your property to assist with plant identification, weed control and develop a personalised land management plan.

## Why does weed spread matter?

Weeds cost the Australian economy over 5 billion dollars every year in control costs and lost production, as well as severely damaging natural ecosystems and habitats. This cost will continue to increase dramatically unless weed spread is prevented. Most importantly, environmental values such as biodiversity and ecological function can be negatively impacted by weed colonisation. Weeds can compete with and replace native plant communities and indirectly change ecological function by altering fire regimes, light and water availability and soil nutrients.

Preventing weed spread is by far the cheapest and most effective form of weed management. Once a weed has spread and become established, eradication is often impossible because of the high costs. Studies have shown that the costs of managing established weeds are up to 100 times the costs of spread prevention.



Photo: T Crow

Saskia & Morgan with Lantana Splatter Gun

## Things to understand about weeds

**1. Correct identification is paramount** – If there is any doubt in your species ID, please contact your local Landcare Officer or Council Pest Officer. If necessary, a specimen can be sent to the Queensland Herbarium to obtain a positive identification.

**2. Life cycle** – It is important to know the life cycle of the plant in order to undertake effective weed management. For example, it would be a waste of resources to use chemicals on annual weeds that have already produced their seeds. Weed control before another season of seed production will prevent yet another lot of seeds being added to the soil seed bank or being dispersed further afield.

**3. Spread** – Plants multiply and spread by different means. How they do so, must be understood before effective treatment can begin. For example, inappropriate control measures can induce a proliferation of root suckers a long way from the parent plant.

**4. A long term commitment and an integrated approach is required** – Very few, if any, weeds can be controlled by a one-off treatment. Most seeds require light and space to germinate. Removal of parent plants that produce huge stores in the soil seed bank often provide conditions that trigger germination of 100's of new seedlings. In other cases, the removal of one species may instigate germination of another. There needs to be an integrated management plan for which you can seek help from your local 'expert'. An integrated approach may include hand removal, mechanical, chemical and biological control methods and will certainly involve follow up treatment and ongoing monitoring.

# What happened to our local Koalas? *by Morgan Thomas*

We often have landholders recalling stories from the past regarding the booming koala populations around Sarina and the Clarke-Connors Range. These discussions however always tend to trigger the same questions, what happened to our local koalas? And what can we do to protect them?

In response to this question, over the last 12 months, we have formed the "Koala Working Group" which consists of representatives from stakeholder groups, landholders and wildlife carers. By working together we are committed to learning more about our local koala populations and making changes to ensure their long term health and viability.

Unfortunately, a major problem limiting our ability to understand local koala populations is that our koala sighting records in the Mackay-Whitsunday area are either lacking or the records often align with road and rail corridors, where koalas have become a casualty to vehicles and trains. Sighting records are high along roads such as the Peakdowns Highway because of the high volume of traffic using the road every day and thus, increasing the chances of sighting koalas in these areas, whereas records within local bushland is lacking because there are less people using/visiting these areas.

This immediately presents the problem of not having accurate information for koala populations within their natural habitats, ie. drier woodlands and/or open forests (*Melzer unpublished; Melzer and Tucker 2011, Attachment 1; Ellis et al. 2018, Attachment 2*) and thus we do not have a thorough understanding of our local koala populations (size, location etc).

Much of the habitat most suitable for koalas in Queensland covers areas where significant clearing has occurred and continues to occur for urban, industrial, and rural development. Loss of habitat has and continues, to cause fragmentation within the landscape. This means that koalas are having to move through and within developed areas, where they are exposed to further threats such as dogs, pools and vehicles.

Most prominently, the increasing human population will likely require a corresponding expansion of housing development and subdivision of small-hectare blocks, further increasing the fragmentation of koala habitat and even possibly removing some relic habitat patches altogether. Property development, upgrades to road and rail corridors will also likely result in further habitat clearing.

Pest plants and feral animals also pose a significant threat to koala habitat, as they can threaten koalas AND their habitat. Pest plants degrade koala habitat directly, such as by smothering the overstorey of native koala habitat and food trees, which deter koala movement and in some cases can increase the damage by bushfires through increased flame height and intensity. Other pest plants can outcompete the natural regeneration of native plants.

Feral animals such as dogs and cats are direct predators of koalas and have been known to decimate populations. Feral deer also pose a significant threat to koalas as they eat tree seedlings and ringbark saplings, further reducing resources for koalas.

These are all relevant and likely threats, within the Sarina Catchment affecting local koala populations. So, what can YOU do to help?

- ♦ **Protect existing koala habitat** – Minimise clearing, encourage natural regeneration of native species, control weed species which may act to smother koala food plants (e.g. cats claw creeper).
- ♦ **Plant koala food trees** – Koalas within the Clarke-Connors Range almost exclusively feed on *E. tereticornis*, *E. crebra* and *E. drepanophylla* (we often have these as tubestock in the SLCMA Community nursery!).
- ♦ **Drive slowly and carefully around koala habitat** – Minimise your chance of a collision by ensuring you look out for koalas crossing the roads, especially at dawn and dusk and during the spring breeding season (right now!).
- ♦ **Restrain your pets (especially at night)**– Reduce the possibilities of your pets attacking/scaring/disturbing koalas in your area.
- ♦ **Restore connectivity in the landscape through revegetation and natural regeneration of native plants** – This will significantly improve koala movement (allowing them to avoid threats, have access to more resources etc.) along with providing additional resources such as food and shelter for koalas in the landscape.
- ♦ **Contact your local wildlife carer** if you come across an injured, sick or at risk koala. Fauna Rescue Whitsundays Association ph4947 3389, Australian Wildlife Rescue Service ph0447 543 268
- ♦ **Recording any koala sightings** so we can better understand their movements, population sizes, use of habitat etc. You can do this in a number of ways:

- ♦ Complete and return a **record sheet**—available from SLCMA, can be posted, emailed or hand delivered to the SLCMA Office
- ♦ **Online or phone app.** through the [Koala Mapping Mackay & Whitsundays Area](#) Biocollect website—facilitated by Fauna Rescue Whitsundays Association Inc.
- ♦ **Phone** SLCMA, Fauna Rescue Whitsundays Association or Australia Wildlife Rescue Service for more information.

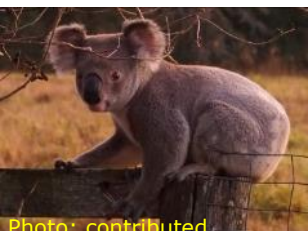


Photo: contributed



Photo: Sven Fahland



## Environmental DNA—a useful monitoring tool *by Morgan Thomas*

Conservation of a species or ecosystem typically depends on biological monitoring to obtain accurate data on species distributions and population sizes on a relevant ecological time scale. Typically, species monitoring has relied upon physical identification of a species by, for example, observational surveys. However, in some cases this is not possible as species may display similar appearances, may be hard to locate, or surveying is laborious and therefore the data are not a true representation of real life. Likewise, traditional monitoring techniques can often be invasive on a species or ecosystem or demonstrate bias given the taxonomic expertise of the surveyor.

As technology and our understanding of ecosystems improve, new methods are being created to combat these shortcomings of observational monitoring. One promising technology in particular, retrieving DNA from environmental samples (environmental DNA – eDNA), has the potential to seriously increase our ability to accurately monitor native AND exotic species in terrestrial and aquatic environments throughout the year.



Photo: M Thomas

*Trent Power (Catchment Solutions) demonstrating eDNA sampling methodology*

As an individual or group interact with the environment, they continuously expel DNA into their surroundings (excreted cells or tissue). DNA from higher organisms is known to persist in the environment for some time and thus this technique allows us to sample an environment, extract the DNA from the sample and then analyse the DNA sequence and find the respective organism. This technology is extremely sensitive which means it can often be easier to determine if a species is present compared to traditional detection methods, however this also means that it is very susceptible to contamination during the sample/processing.

The Mackay Regional Pest Management Group recently contributed funding towards a Jaguar Cichlid eDNA project, being undertaken by Catchment Solutions. As part of the project, Catchment Solutions provided eDNA sampling and methodology training to stakeholders of the MRPMG (including SLCMA). This was a great opportunity to gain an understanding of the process involved and potential application for future eDNA sampling projects in our region.



Photo: S Molloy

*Morgan (SLCMA) and Tom (PCL) extracting DNA from water samples*

## SLCMA Community Volunteer Program

The warm weather hasn't stopped our volunteers from coming in on Wednesdays and helping out in the SLCMA Community Nursery. They have been busy (& doing a great job) cleaning and sowing seed, potting on seedlings, weed and washing pots :) They have also enjoyed going out in the Sarina Community Native Gardens (SCNG) seeing what is in flower and seed.

Thankyou to Morgan and Saskia for looking after the volunteers, while we don't have a Nursery Officer at the moment. And to Neil (our landcare 'MacGyver' handyman) for fixing a range of things...leaky tap, sticky door, broken latch...thankyou :)

We only have a few volunteer mornings left before our Christmas break. Our last volunteer morning will be on **16 December** and we couldn't pass up the opportunity to have a **Christmas morning tea** (after a bit of a play in the nursery). Please let us know if you are coming along so we can let you know the plans for the morning. The volunteers mornings will re-commence on 13 January 2021.



Photos: S von Fahland



*Above: Volunteers busy in the SLCMA Community Nursery  
Left: waiting for Saskia to open the gates ;)*



If you would like to volunteer in your local community and meet new people while learning about local native plants and their propagation, come along to the SLCMA Community Volunteer morning, every Wednesday, 9am to 12noon. SLCMA Community Volunteer Program is proudly supported by Mackay Regional Council, Natural Environment Levy. For more details contact SLCMA on 4956 1388.



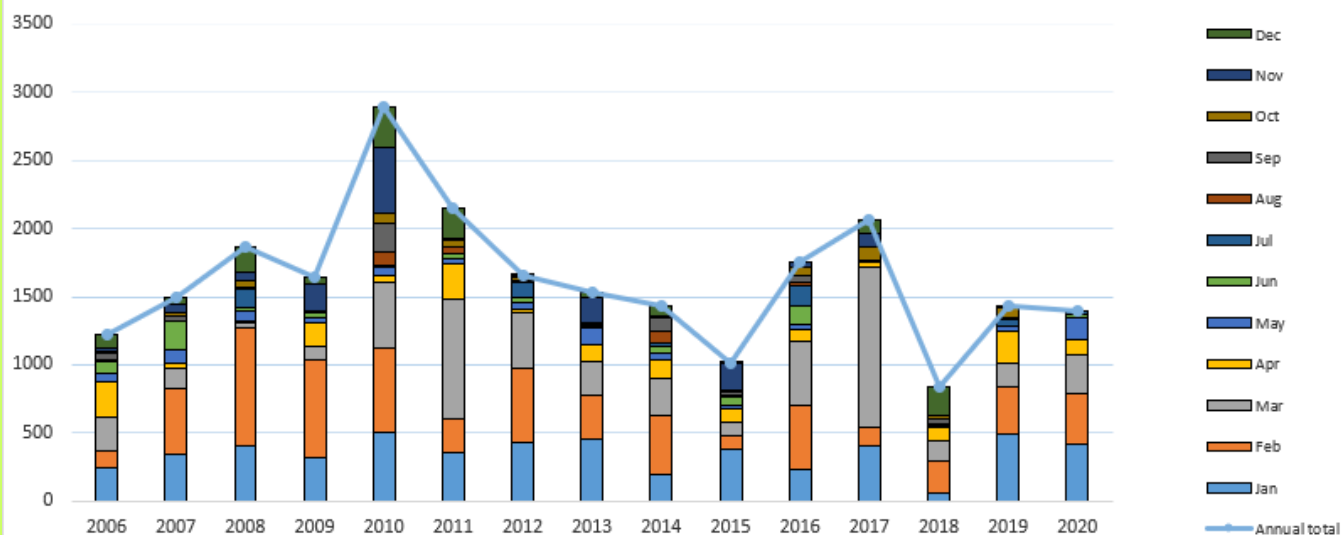
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## What SLCMA Membership does for you !

A membership with SLCMA has many rewards:

- ◇ Easy access to Natural Resource Management information and extension
- ◇ Monthly newsletter, meeting minutes, progress and project reports
- ◇ A vote on issues in your catchment
- ◇ A say in the types of projects applied for
- ◇ Up to 10 free local native seedlings/year from the SLCMA Community Nursery
- ◇ Invitations to Natural Resource Management field days and workshops
- ◇ Copy of the SLCMA Annual Report

Monthly rainfall for SLCMA Office, 2006 -2020 (inc annual total)



### Just for fun!

What is the colour of the wind?  
Blew!

Why is grass so dangerous?  
Because it is filled with blades

Why did the manager hire the marsupial?  
Because he was koala-fied

What did the Australian do after raking the leaves?  
He fell out of the tree



*A partnership for the natural resource management of catchments in the Central Queensland Coast Bioregion: Pioneer, Sarina & Whitsunday Catchments.*

## Containers for Change

**SLCMA** has registered with Containers for Change for virtual donations and we are hoping that you will consider using our identifier code — **C10002138**. We also welcome physical donations of eligible containers to our office, feel free to contact us on 4956 1388, to arrange drop-off. Thankyou to those who have donated your containers, so far we have raised **\$117.30** —Thankyou :)



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