Sarina Landcare Catchment Management Association Inc.

SLCMA Catchment News 2022

February/March

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Office opening hours:
9am-3.30pm weekdays.

Other times by appointment, please call 4956 1388 :)

Staff

Administration Officer
Kristy Thomsett
Coordinator
Saskia von Fahland
Nursery Officer
Susie Tomlinson
Project Officer
Susan Whiteley

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.*

** Friends of the Sarina Community Native Gardens, Friday, 9-11am.*

Native plants *available for purchase $3.30 each.*

SLCMA Executive 21/22
Chair: Lachlan McBride
Vice-chair: Karen May
Treasurer: Kevin Plumb
Secretary: Shirley Sidey
Executive members:
Rod McFadzen

Sarina Landcare

SLCMA News!

It is a timely reminder for our COVID-safe procedures, to ensure that all visitors and staff stay as safe as possible. Please be aware of the following procedures when visiting the SLCMA Office and SLCMA Community Nursery:

- Please contact us initially by email or phone, to discuss your landcare enquiry. If needed, we can then arrange a time to meet, that suits yourself and our staff.
- Please do NOT visit/attend if you are feeling unwell or have been in contact with someone who has the COVID-19 virus.
- All visitors must:
  - Maintain social distancing (minimum 1.5m spacing)
  - Utilise hand sanitiser supplied upon entry to the office or nursery

Community members are able to purchase our native plants a number of ways:

- **'Click & Collect' Plant Order Form** – The latest plant order form is available from our website www.sarinalandcare.org.au and is also emailed to our members, when it is updated. Submit your plant order form anytime and we will put the plant order together for you.
- **By appointment only** – Contact our office by phone on 4956 1388 or email your query to nursery@sarinalandcare.org.au

Students lend a hand at Grasstree Beach

It was a pleasure to meet up with students from Sarina State High School at Grasstree Beach, recently. The students studying Geology, have been learning about weeds and their impact on the coastal environment.

Above: Students with infestation of *Callisia fragrans* (before)
Below: 90kgs of *Callisia fragrans* removed.

During the visit, the students saw first hand, the impact of weeds on the coastal environment with extensive beach erosion occurring where native coastal vegetation has been removed and replaced with introduced plants, as well as sections of well vegetated intact dunes.

Garden escapees can also become problem weeds in local bushland and coastal zones and, the Grasstree Beach foreshore is not immune. During the visit, the students removed an entire infestation (approx. 90kg) of *Callisia fragrans* (otherwise known as purple succulent). *Callisea fragrans* is a common garden succulent, most likely introduced to the foreshore through illegal dumping of garden waste.

Well done to the students and teachers involved and thank you for making a difference to help protect our coastal and marine environments.

This event is part of our "*Rehabilitating the Sarina Catchment*" project, a Community Action Plan project funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation.

The *Rehabilitating the Sarina Catchment Project* will focus on rehabilitating coastal sites at Grasstree and Carmila Beaches to increase their health and biodiversity through weed control, revegetation, marine debri clean-ups and community events. We look forward to working with local Council, Traditional Owners, local schools and the community to participate in the project.

Left: Lack of native vegetation and subsequent coastal erosion

Right: Intact coastal vegetation and dunes—at Grasstree Beach

Photos: S von Fahland

Sarina Catchment Waterwatch *by Susan Whiteley*

For the past year, SLCMA has engaged with dedicated community volunteers to undertake citizen science activities to monitor water quality across the Sarina Catchment. Each month volunteer citizen scientists measure the electrical conductivity, pH, dissolved oxygen, turbidity, water flow and weed invasion of three sites along four waterways; Plane, Basin, Rocky Dam and Carmila Creeks. In addition, water samples are collected by SLCMA staff three times a year and, analysed by the Mackay Regional Council Laboratory, to determine nutrient, herbicide and sediment levels.

While still in its early stages, we have begun to build a profile of the water quality across the sites from the data collected so far. Over the past year, the water in Middle Creek Dam has indicated possible trends. The pH has had a cyclical nature, however exhibited an increase in October and November of 2021. Electrical conductivity increased in late winter. In early summer, there was drop in the dissolved oxygen. In the years to come this data will continue to be collected and will build on data collected in the 2000's, to determine changes and/or trends in water quality within the creeks.

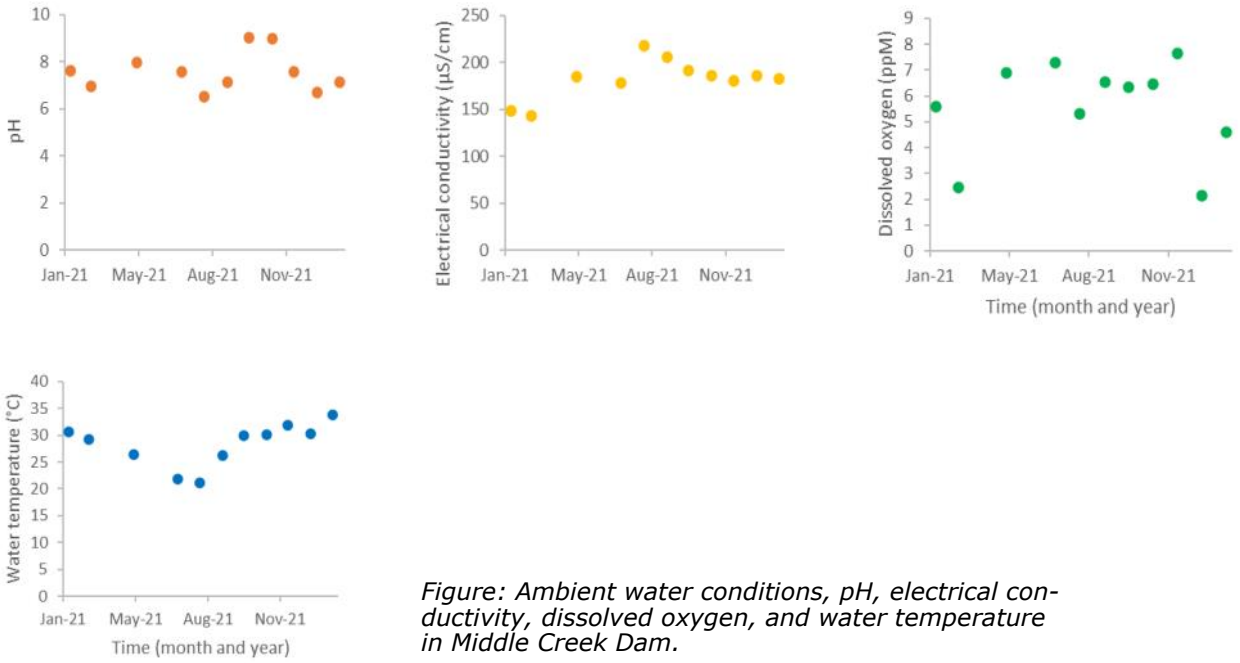


Figure: Ambient water conditions, pH, electrical conductivity, dissolved oxygen, and water temperature in Middle Creek Dam.

This monitoring will allow us to develop a picture of the water quality across these four waterways, which all feed into the Great Barrier Reef Lagoon. This project is proudly supported by the Queensland Government – Queensland Citizen Science Grants.

A very big thank you to all our volunteers, especially our regular volunteers, Aimee Barclay, Estera Bernard, Matt Boyd and Caroline Hood.

Above: Volunteers collecting water samples from local monitoring sites.

We need YOUR help! Do you live near one of the following creeks and would like to help collect water quality data? To complete this project, we are seeking volunteers (citizen scientists) preferably to work in pairs and collect data from one or more of the following creeks, on a monthly basis: Plane Creek, Rocky Dam Creek, Basin Creek and Carmila Creek.

Volunteers will be provided with water quality monitoring equipment and associated training to ensure the quality and integrity of the data collected, is of a high standard. Volunteers will gain an understanding of water quality monitoring and will contribute to an important dataset that will be utilised to guide future priorities and activities to improve long term water quality and protect our local aquatic environments.

If you would like to be involved, please contact SLCMA asap by email: admin@sarinalandcare.org.au or phone: 4956 1388, to express your interest and find out more.

Stinkhorn - in the Sarina Community Native Gardens

Recently we smelt something rotting in the Sarina Community Native Gardens. Nothing had died thankfully, rather we had a Stinkhorn fungi, *Phallus rubicundus* growing. The first thing that is noticed about this fungi is the smell which will attract flies.

The fungi occurs singly or in large groups in soil, wood chip mulch, forests and woodland; commonly found in parks and gardens. The species is widely distributed in tropical regions across the world. In Australia, the species grows primarily in the tropics and subtropics. Because stinkhorns can grow on dead organic material, they actually are beneficial in that they contribute to the recycling of plant debris into nutrients that improve soil fertility and can be used by garden plants.

Stinkhorn (Phallus rubicundus)

The species is part of the family Phallaceae. The fruiting body will emerge from the soil composed of the red to orange cylindrical stem is with a reticulate surface and the conical slime bearing cap which is initially dark brown and fades as spores are shed, 15 to 20 cm high. Underground, the immature fruiting body is a white, gelatinous egg-like sac, up to 30 mm in diameter, with numerous rhizomorphs (root like threads) attached. The egglike sac splits to release the rapidly expanding receptacle (fruiting body) and produces the volva (sac remnants) at the base.

Sources: Atlas of Living Australia (2022) *Phallus rubicundus* (Bosc) Fr., James Cook University (2022) *Phallus rubicundus*, Fungi by scientific name., Queensland Mycological Society Inc. (2017) Phallus rubicundus Bosc., 1823. https://qldfungi.org.au/wp-content/uploads/FoQs/P-Phallus/Phallus-rubicundus.pdf.

Sarina Inlet Trail receives funding :)

We are thankful to receive funding through the Aurizon Community Giving Fund Grant for project works and community engagement at the Sarina Inlet Trail, Sarina Beach. The project will help us to reduce weed invasion and enhance the biodiversity of the native coastal vegetation along the trail as well as provide an opportunity to engage with the community, to raise awareness about the importance of the site within the coastal environment.

The Sarina Inlet Trail is well regarded and utilized by locals as well as visitors to the area, since its construction by our Sarina Green Corps team in 2005. Through this project, SLCMA will undertake weed control and revegetation through till the end of the year. We look forward to sharing our achievements with the community throughout the project and as well as inviting the community along for a guided tour later in the year.

SLCMA Community Nursery 'Plant of the Month'

This month's 'Plant of the Month' is the **Wild tamarind** (*Diploglottus obovata*)
Family: **Sapindaceae**

Above—fruit; Below– leaves of Wild Tamarind (Diploglottus obovata)

What is in a name? *Diploglottus* from 'diplo-' double and 'glottis' throat, referring to the two tongue-like scales at the base of the petals and *obovata* from 'obovatus' egg shaped with the broadest section towards the apex, referring to the leaflets

Form: A small tree to 8m tall, flushes of new growth are decorative and covered with white hairs.

Leaves: Compound with two to six leaflets, 5.5-16.5 x 2.8-7cm. Dark green, smooth upper, hairy underside with 12 to 20 pairs of lateral veins.

Flower: An axillary panicle of flowers, 4 to 5mm in diameter, with five white or cream petals, flowering October to November.

Fruit: Yellow or orange capsule, 1.4-1.6cm long by 1.4-3cm wide, velvety hairy, with one to three valves. The inside of the valves are hairy. The capsule contains one to three seed, completely enclosed in an orange aril. December.

Habitat: Common in local rainforest at an altitude range of 80 to 100m.

Distribution: Queensland, Proserpine to Carmila.

Notes: A handsome tree which will grow in a variety of soils with good drainage. Propagate from fresh seed.

The **"Plant of the Month"** is currently available from the SLCMA Community Nursery. Landcare members are eligible to receive 1 free "Plant of the Month", throughout that month. This and other native plant species are also available for purchase at $3.30 each. All plants are grown from locally sourced seed in the SLCMA Community Nursery by SLCMA staff and the SLCMA Volunteer team.

Information sourced from: Cooper W. (2004) *Fruits of the Australian Tropical Rainforest*. Nokomis Editions Pty Ltd., Melbourne, Victoria, Australia.; Jones D.L. (1986) *Rainforest Plants of Australia*. Reed Books Pty Ltd., Sydney, NSW.

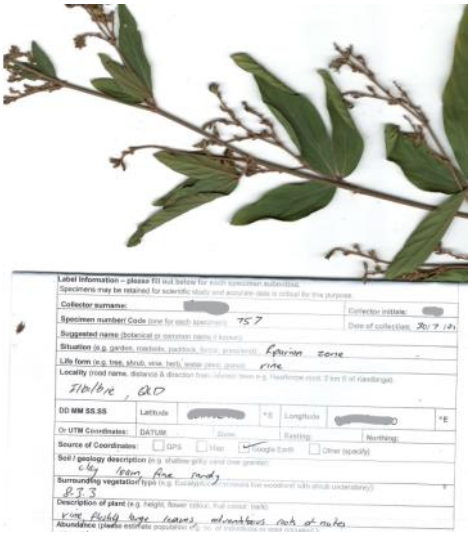
Collecting plant samples for identification

As many of our wonderful members would know, one of the services we offer is plant identification. While we are able to identify many species easily, some are a little more difficult. To aid in this process we have a few tips for collecting plant material.

It is best for specimens to be a representation of the plant. This means a section of plant material which has the leaves, the connection of the leaves to the stem, the flowers and the fruit. When bringing it to us it is best to have material that is as fresh as possible. Where possible a specimen should be approximately the size of an A4 sheet of paper. It is worth noting that the samples should be safely transported in a sealed bag or container, in the case of it being a weed we need to prevent spread or some natives can be irritants, through hairs or sap.

In the case where we are not sure of the species we will send it off to the Queensland Herbarium for formal identification. Hence, we need some information on where and when the sample was collected. This information that is needed, includes:

- Collector's name (you)
- Date collected
- where you found the plant (eg. garden, roadside, paddock, forest, grassland)
- what life form it is (eg. tree, shrub, vine, herb, water plant, grass, sedge)
- the address of where you found it
- the vegetation in the area
- the abundance of the species
- and anything else that might be a distinguishing feature that would be useful for identification.



Example of a plant sample ready to be sent to QLD Herbarium for identification

In addition, please leave us a contact method so we can let you know what the plant is, once the sample is identified.

If you are bringing samples, please ensure that you have permission to collect the material. This will not usually be a problem as presumably you are collecting on your own property and can give this permission to yourself!

This handy hint is brought to you by the Land for Wildlife Program. SLCMA delivers the Land for Wildlife program within the Sarina Catchment area of Mackay Regional Council, on behalf of Mackay Regional Council. If you would like to find out more about the Land for Wildlife program and how to become involved, please contact us on 4956 1388 or admin@sarinalandcare.org.au

Sarina Community Nursery Volunteer Program

The nursery volunteers have been lending a hand weeding tube stock, potting on seedlings, collecting and cleaning seed, sowing seed and, washing pots and trays. Welcome to Lionel and Henry who have joined our group of volunteers this year. Great to see new faces and we look forward to seeing familiar ones return.

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

Photo: S von Fahland

Friends of the Sarina Community Native Gardens

After the Christmas break the gardens were looking a bit overgrown so between myself, Darrin from the revegetation team and a couple of determined volunteers, we have begun bringing them back to picturesque. Weeding has been the main task for our volunteers. Even in shaded gardens we are finding it quite a challenge with the above average temperatures and humidity. During this hot weather volunteers are encouraged to work at their own pace, take regular rest/drink breaks and call it a day whenever they feel the need to stop. Thank you to the volunteers for their efforts.

For those interested, the **Friends of the Gardens** held in the Sarina Community Native Gardens commenced on Friday 21st January. Our volunteer meet **every Friday, 9am-11am.** Please contact us, if you would like to volunteer or find out more about the program.

Photos: S Tomlinson

Out & about in the gardens

L-R: Darrin and volunteers helping out (braving the hot days)

Pink nodding orchid (Geodorum densiflorum) in flower

Wheel of fire *(Stenocarpus sp)* in flower

Weed feature: Weedy Sporobolus grasses (Rat's tail grasses)

Weedy Sporobolus grasses (or otherwise known as Rat's tail grasses) are erect, clumping, perennial invasive tussock grasses that can reduce pasture productivity, out-compete desirable pasture grasses and cause significant degradation of natural areas. They are adapted well to northern, eastern and southern Australia. They have low palatability when mature, are difficult to control and can quickly dominate a pasture, especially following drought, overgrazing or soil disturbance. They can affect cattle health and productivity by reducing weight gain and growth rates. These grasses are a significant threat to the broader environment given they are well adapted to Australia, difficult to control and form dense almost mono-specific stands where conditions allow.

Weedy Sporobolus grasses are difficult to distinguish from native Sporobolus grasses; however, the native grasses tend to be shorter and softer and have less dense seed heads. The seeds of all species are indistinguishable in pasture seed samples using current identification techniques.

Four species of Weedy Sporobolus grasses are considered invasive plants in Queensland, all of which are listed as category 3 restricted invasive plants under the *Biosecurity Act 2014*. These are:

• **Giant rat's tail grass (*Sporobolus pyramidalis* and *Sporobolus natalensis*):** Giant rat's tail grasses are capable of producing up to 85,000 seeds per square metre in a year, with a very high seed viability. A large portion of the seed can remain viable for up to 10 years. They are native to Africa and found in coastal and sub-coastal areas from Cape York to Central Coast of NSW including the Central Highlands of QLD. Giant rat's tail grasses grow up to 2m high, with a seed head of up to 45cm long by 3cm wide. Seed head shape changes from a 'rat's tail' when young to an elongated pyramid shape at maturity. Unlike Parramatta grass and giant Parramatta grass, giant rat's tail grass does not develop 'sooty spike' on its seed heads.

Sporobolus pyramidalis is found from Cooktown to Central Coast NSW. It has a folded or rolled, linear blade leaf, 30-120mm long by 6-8mm wide. The leaves are usually hairless, although some may have a few rigid hairs on the margins of lower leaves. The seed head spikes are 250 to 400mm long and grey-green. The seeds within are orange-brown, a tapered cylinder in shape and 1mm in size.

Sporobolus natalensis is found from Rockhampton (QLD) to Port Macquarie (NSW). It has a blade leaf which is flat or folded and linear. The leaves are 250-500mm long by width of 2-4mm. The bottom leaf sheath margins are smooth. The species produces numerous seed head spikes, 250-800mm in length by 30mm wide. The spikelets are loosely spaced and fairly even. The seeds are brown, 0.7-0.8mm by 0.4mm.

• **American rat's tail grass (*Sporobolus jacquemontii*):** is found in coastal and sub-coastal areas from Cape York to SE QLD. It is native to North America and grows to 50−75cm tall. The leaves are thread-like, folded or rolled, linear, tough and hairless, 400mm long by 2-4mm wide. It has a seedhead of up to 25cm long by 0.5−3 cm wide, becoming long and wide in the middle when mature.

• **Giant Parramatta grass (*Sporobolus fertilis*):** is found in coastal and sub-coastal areas from Cape York to South Coast of New South Wales. It grows to 0.8−1.6m tall, with a seedhead of up to 50cm by 1−2cm wide. The branches of the seedhead are pressed against the axis and overlap, although lower ones generally spread at maturity.

Weedy Sporobolus Grasses are spread by seed with the main vectors being: gut and manure and coat and hooves of livestock and other animals; in mud, hay, and untested pasture seed; by water, wind, unclean machinery and vehicles. Consequently, hygiene and restricting movement of stock, machinery and vehicles while in Weedy Sporobolus grasses are in seed is very important in a bid to controlling infestations.

Rat's tail grasses may be controlled by a combined approach of methods, including herbicides and mechanical controls and with land management practices that maintain ground cover.

- For small isolated infestations, hand-chip, bag and remove tufts then burn them, spot spray with glyphosate and/or flupropanate and manage competitive pasture species to maintain as much soil vegetative cover as possible, fertilise where appropriate.
- For larger scattered infestations, spot spray with glyphosate and/or flupropanate, manage competitive pasture species to maintain as much soil vegetative cover as possible, fertilise where appropriate and consider establishing a vigorous pasture to compete against established rat's tail grasses and to suppress re-establishment.
- For large dense infestations, apply glyphosate through a pressurised wick wiper where appropriate, boom spray or jet spray with glyphosate and/or flupropanate as per label or permit directions, manage competitive pasture species to maintain as much soil vegetative cover as possible, fertilise where appropriate, consider establishing a vigorous pasture, where appropriate burn prior to cultivating to reduce viable seed bank and spot spray or hand-chip fence lines, headlands, drainage lines, shelter belts and any surviving or newly established rat's tail grasses to prevent reseeding.

For more information see the Rat's tail grasses DAF fact sheet and Future Beef's Best Management Practice manual; for recommended control methods including permitted herbicides

Information sourced from:
Business Queensland 2021, *American rat's tail grass*, Business Queensland 2021, *Giant rat's tail grass*, Mackay Regional Pest Management Group (2018) *Weeds of the Mackay Whitsunday Region*

American rats tail grass (S. jacquemontii) seed head (above), form (below)

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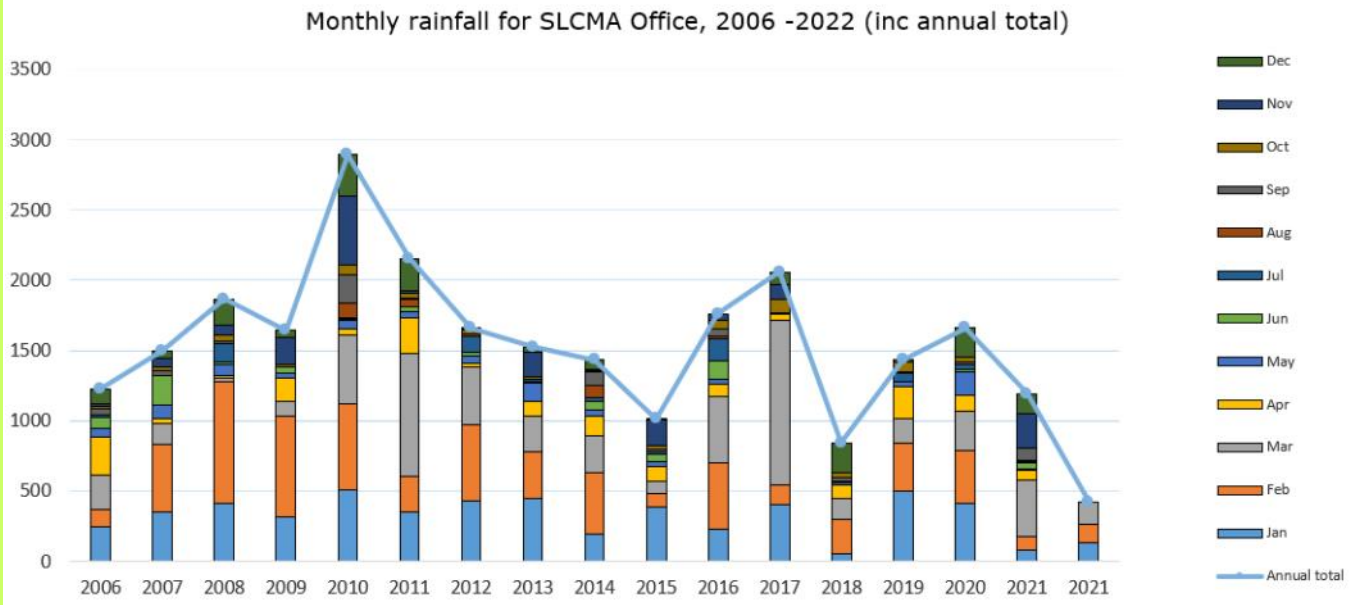
What SLCMA Membership does for you !

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



Just for fun!

Q. What do you get if you cross a worm and an elephant?
A. Very big holes in your peanut garden

Q. What do worms use to leave messages?
A. Compost-it notes

Q. How can you tell which end of a worm is which?
A. Tickle it in the middle and see which end laughs

Q. What did the woodworm say to the compost pile?
A. Its been nice gnawing you.

FREE Composting and worm farm workshop

Compost bins and worm farms are two great ways to recycle your fruit and vegetable scraps at home and turn organic material into rich nutrients for the garden. Composting and worm farming at home is simple, and good for the environment by reducing the amount of organic waste that goes to landfill and creating a more natural and healthier place to live. Worm farms produce great natural fertiliser for your garden, take up very little space and are easy-to-use. For more information on composting, worm farms and Bokashi Buckets click here.

There are a number of free Composting and worm farm workshop coming up, the next one in Sarina will be held on **Saturday 28th May, 9am-11am at the SLCMA Office**. **To make a booking click here** (*or visit the Mackay Regional Council website*). These events are proudly supported by Mackay Regional Council.

Central QLD Coast Landcare Network

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

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REEF CATCHMENTS

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