JETSAM

Issue 18 - March 2016

Coolum and North Shore Coast Care

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Welcome!

Wow! What a cracker start to 2016. We have 10th anniversary celebrations from two groups and lots of information on rubbish and turtles. Some great native gardening advice and project updates round out our first newsletter for 2016. I hope you enjoy the articles, just in time for a relaxing Easter season.

The President was on the Couch – but not for long!

Christmas and New Year seem like a distant memory, although the weather remains unseasonally hot. CaNSCC's activities are already in full swing:

- Two combined groups weeding activities have already been held, at Stumers Dunes and Springfield Avenue reserve, with Alan Franks entertaining and educating us on the importance of hollow-dwelling fauna at Springfield Avenue.
- TAFE students have also lent a helping hand on the North Marcoola "Everyone's Environment" restoration site, with excellent results.
- Eight turtle nests continue to be monitored; eight other nests have already hatched.
- Three of the stranded turtles that members transported to Sea Life Mooloolaba for rehabilitation were recently released back into the ocean.
- 'Alby', the albino turtle hatchling uncovered at Castaways Beach, captured international attention, with our facebook post receiving over 100,000 hits. CaNSCC went viral!
- The rare dwarf sperm whales and baby dolphin stranding at Peregian Beach also proved to be controversial; again the volunteers in attendance did a fantastic job.
- Several school talks about turtles, marine debris and the natural environment, have already been held.
- Our 2016 calendar has been a sell-out success, with planning already underway for the 2017 edition.
- Eco Discovery workshop series planning is also well-advanced; this includes a new initiative – 'Eco Detectives' – aimed at mentoring older children to become environmental leaders for the program.
- Coolum Community Native Nursery has celebrated its 10th anniversary.
- Linese and her merry band of 'Watercourse Warriors' are also celebrating 10 years of working on their site – and what a difference they have made!
- The Second Bay whale-watching platform – advocated by CaNSCC – has been completed.

And the list goes on.... That we can continue to thrive as an organisation and do so much good work under the CaNSCC banner is only possible due to the drive, enthusiasm and dedication of our many volunteers – in itself a cause for celebration. Thankyou; keep up the good work – and don't forget to have fun!

Coolum Community Native Nursery celebrates 10 years of Operation

Leigh Warneminde

December 2015 marked 10 years of Coolum Community Native Nursery volunteers and staff collecting seeds, growing plants and providing assistance and advice to commercial and retail customers. In February, past and present staff, volunteers and supporters got together to celebrate.

After the dune planting "2000 Trees for the Year 2000" in Coolum, it became evident to Coast Care members that there was a need to source local endemic plant species in the Coolum area. In 2005, after a great deal of consultation between community groups, developers and the then Maroochy Shire Council, a condition of approval for construction works on the eastern side of David Low Way at Yaroomba included the building of a community nursery. Lend Lease commissioned Greening Australia to establish a community nursery to supply local, salt hardened, endemic, native plants. The nursery would also serve as a hub for both vocational and volunteer training in plant propagation techniques and nursery management.

From its modest beginnings in the grounds of the then Hyatt Regency Coolum, and subsequently moving to its current address at 157 Warran Road Yaroomba, the nursery has grown beyond expectation. Management of the not-for-profit nursery is shared jointly between Coolum and North Shore Coast Care and Maroochy Waterwatch. The community nursery is now supported by about 40 regular volunteers who collect and sow seeds, wash pots, prepare plants for sale and provide invaluable advice on local growing conditions to retail customers. Nursery activities are supervised by Fuschia, the fourth nursery manager since inception, and Ben who has ably assisted operations for over five years. It is estimated that over 500,000 plants have been grown using more than 50,000 volunteer hours.

The nursery specialises in providing locally endemic, salt-tolerant species for commercial landscapers, council projects, community organisations and home gardens. It is also used as a community education and awareness centre and a social hub, and is now very much part of the fabric of Coolum and North Shore and beyond.
Coolum Community Native Nursery is looking forward to the next productive 10 years!

Bringing the Bush into your Backyard

Mark Bizzell

Planting for pleasure is a very rewarding experience which doesn't have to take over your life or cost you a fortune. The benefits of getting your plant selection right in your garden can be a great learning experience that will save you the heartache in the future of removing vegetation that has outgrown your expectations. There are at times slight corrections required within your garden to ensure that one of your passions in life becomes a desirable pastime to live and work.

When contributing to the conservation and regeneration of your garden or natural bushland you gain pride and respect. Many people recognise that duplicating the natural bushland in their yards will provide an extension to which the native fauna can find refuge and habitat through the diversity of your plantings.

Like all native bushland areas, a balanced garden should provide a diversity of nectar flowering plants and other species that produce seeds from which a component of necessary oils that are protein rich for healthy fauna development.

Where always possible, first observe the mature established plants you wish to grow by identifying them in either a neighbour's yard, along the street frontages or in a bushland setting. From this observation one can achieve the important knowledge required that will ensure you are planting the right plant for the right soils, location and characteristic habit. Once gained, this preliminary information will give you an idea of what to expect and guide you to a better understanding and appreciation of the proposed potential for the wildlife garden you wish to create.

Most plant seedlings are initially propagated and grown in a selective potting mix to give them the maximum success rate for healthy growth during their formative months. Once a tube stock species is sun hardened and adequately developed enough it is ready for sale purposes. Once planted, some tubestock go into slight shock due to the change in their daily watering regime, location and soil types. This can be alleviated to a degree by preparing the ground adequately and monitoring the plant's performance as it adapts to its new environment. Many people admire the wallum plant species for their unique colour and resilience, endeavouring to incorporate these wildflower gems into their yard. However, if the soil naturally present in your yard is not consistent with the high acidity and low nutrient soils present in wallum sand I am afraid the chances of this species surviving for a period of time is limited.

Another important aspect of bushland gardens is the natural layers of vegetation. As a general rule there are 3 types of layers, the upper canopy, middle strata and understorey. All layers have specific attributes for the habitats of our roaming fauna. Smaller birds such as finches, wrens and robins love the tangled mass of foliage, twigs and branches of 1 to 2 metre shrubs not only to forage for food but as a protection from larger bird predators and other animals seeking an easy dinner; whereas our bigger feathered friends are more likely to be higher up in the vegetation canopy watching the fields, waterways and open space areas for the unwary critter brave enough to show themselves.

The purpose of layering vegetation in your own backyard is a complete way of duplicating the natural amenity of our local bushland environment. This doesn't mean to say your upper canopy has to be 15 to 20 metres high. Most backyards haven't the scope and the size of scale to deal with the planting of large trees but there are plenty of other regional native small flowering trees that on maturity only reach 6 to 8 metres. The middle strata 3 to 4 metres, can consist of a variety of medium dense shrubs that when mature, screen the straight line of fences, secure privacy from neighbours houses/pools or act as a buffer to adjoining streets or commercial precincts. The understorey plant layer consists of groundcovers and small flowering shrubs and is the most forgotten of the landscape vegetation in your backyard.

Due to the sometimes overuse of mulches, planting density with understorey layers seem to have been replaced by the continual use of mulch to fill gaps and cover unsightly patches of exposed soil. Organic mulch should only be used in most garden instances as a means to an end. Mulch is a great starter to add to your garden to suppress weeds, retain moisture and get plants established. If your selection of ground covers and planting density is on the money, within two years the spread of vegetation over the understorey garden areas should be such that the need for mulch will never again be required once your groundcovers are effectively established. When mulching, be

careful that the organic material doesn't form an impervious surface; this often happens over a period of time. To check whether this is evident after a solid downpour of rain, pull the depth of mulch apart and see if the soil is moist. If not, the mulch will require teasing with the tines of a digging fork or steel rake.

Your garden and local bushland can be inspirational and an ongoing source of enjoyment that provides an emotional relief from a busy life and contributes to increasing and connecting the habitat corridors of your local area.

The Lions Park-Stumers Creek Watercourse Project

Linese Norrish

After several years of walking the 500 metre watercourse beginning in the Lions Park, I concluded that the "somebody should do something" was going to be me. Consequently, on Clean Up Australia Day 5 March 2006, I and five other members of the then Coolum District Coast Care Group began what is known as The Lions Park-Stumers Creek Watercourse Project. We've now been working there 10 years!

By December 2007 the eastern bank had been cleared and planted with Lomandra; the drain outlet at Stumers Creek Road was relieved of a heavy infestation of Siratro, and a Greencorps team had laid jute matting which was planted with more Lomandra and groundcovers. Now in 2016, the drain outlet is not visible owing to the surrounding trees and shrubs.

Team numbers have fluctuated during the course of the Project, but in 2008 the Lions Club participated in three working bees, which resulted in a major blockage of Para Grass being removed. The Lions contribution was a great boost to our efforts, and they followed all three working bees with a much appreciated barbeque. During that year, the ranks of the Watercourse Warriors were boosted with the addition of Jim Galbraith and two sprightly Septuagenarians, Ron and Sylvia Miller.

Having established the watercourse as an ongoing project, it was envisioned to establish a botanical garden. Council had the grass removed, and provided plants and a water carrier in 2008 and 2009 when pupils from Coolum State Primary School joined with Coast Care for a planting bee. For the following six years the botanical garden was cared for by Ron Miller, who died one day before his 86th birthday in 2015.

In June 2011 the Project expanded to the north side of Stumers Creek Road, clearing and planting another 500 metres. Bollards to prevent unauthorised vehicle access were later installed to prevent unauthorised vehicle access. This section has been neglected for almost one year while efforts have been concentrated on monitoring and removing an invasive aquatic weed, and continuing maintenance of the southern section. Having achieved a modicum of success in that area, the team will now return to the north side.

Visitors and locals enjoy the watercourse walk and frequently express their appreciation for what has been achieved. For several years now, we have been well supported by Council's environmental officers and in 2012 my request to Cr Robinson for a table and seating to be installed, was promptly granted. Now the Warriors enjoy their morning tea in comfort, following their regular Monday and Thursday working bees.

The current team has formed solid friendships which extend to social outings, plus involvement in other community work. Working bees are 8.30-10.30am Mondays and Thursdays, from Stumers Creek Road. Currently the Monday team is Jim Galbraith, Terry O'Toole, Anne Jericho and me as Project Co-ordinator. On Thursdays it is Jim, myself and Abdul and we occasionally join with the regular once a month Coast Care working bees when they are weeding in the Stumers Creek area. New members are welcome and enquiries can be made to Linese on 5446 5116 or Linese5@bigpond.com.

(Congratulations and Happy Birthday to the Watercourse Warriors from the President)

Beach Rubbish Survey – Three-year Results

Susan Richards

We continue to carry out monthly beach rubbish surveys at four local sites – First Bay Coolum, Coolum Beach Access 70, South Peregian Beach and Marcus Beach. The results for the three years to August 2015 have now been collated.

In total we have counted and categorised 25,282 pieces of rubbish for the three-year period. The most common item of rubbish was hard plastic pieces (61.6%) followed by polystyrene (8.7%), cigarette butts (5.6%), plastic string / rope (3.7%) and film-like plastics i.e. food wrappers (3%). In terms of the colour of rubbish, the most common colour was white (34.8), followed by blue (20.8%), Green (9.1%), red (7.8%) and clear 7.4%).

Looking at the colour, size and type of rubbish found on our beaches helps to provide basic information about litter in our local environment. This data can then be compared to other research data such as ocean surveys and plastic ingestion studies in marine animals. The combined data allows an understanding of what types and quantities of rubbish are present and whether animals are selecting particular types or colours of rubbish to ingest. Some of the beach rubbish survey data has been included in research from the University of Queensland (UQ) about plastic ingestion in sea turtles.

The survey results indicate that much of the rubbish found on our beaches (93%) consists of small items under 8cm in length. Commonly, this means fragments of whole items. So while our beaches may look relatively clean at first glance, if you look closely enough every beach will have small pieces of rubbish present (but not necessarily large amounts of whole items).

The data on a site-by-site basis highlighted some interesting differences for each location. First Bay at Coolum recorded the most rubbish of any of the sites. This included a large number of cigarette butts (1,217) compared to a combined total of 201 cigarette butts for the other three sites. First Bay also recorded higher numbers of food wrappers (soft plastics) and paper packaging compared to all the other sites. Littering of cigarette butts and food packaging at First Bay appears to be a more significant problem than at any other of the sites we survey.

Both Coolum Access 70 site and the Marcus Beach site had a similar profile in terms of the rubbish collected. Both sites recorded similar percentages of the top four items found - hard plastic pieces, plastic string / rope, polystyrene and soft plastics. Both these sites happen to be open beaches in dog off-leash areas - neither site recorded any significant issue with plastic bag litter (i.e. dog-poo bags). There are many diligent beach walkers who regularly pick up litter at both these sites, so the amount of rubbish recorded at both sites was quite low.

The South Peregian Beach site is located just south of Pitta Street. This site recorded a very large amount of polystyrene and plastic container lids compared to the other three sites. This resulted from weather events in the first year of the survey when bad weather resulted in an abnormally large amount of rubbish washing up on the then exposed rocks in the survey area. In years two and three of the survey, a significantly lower amount of rubbish has been collected from this site and the rocks have been covered by sand. It's my opinion that movements in sand offshore in this area have influenced what washes up on the beach.

The colours and types of rubbish in the environment are being closely studied by scientists researching marine debris. A recent UQ study of plastic ingestion in sea turtles indicated that sea turtles eat different types of rubbish at different times of their life cycle [see report below]. Colour is thought to be one of the factors that determine whether rubbish is eaten by animals, and there are a number of studies on turtles and seabirds that relate to this area of research.

In closing I would like to thank all the volunteers who continue to help with the beach rubbish survey. It is not by any stretch of the imagination a glamorous volunteer role to pick up and count rubbish and your efforts are greatly appreciated. What we have learned about marine debris is being passed on not only to Coast Care members but also to the wider community – beach walkers, school students, university researchers and more. Consistent, long term marine debris research data can be hard to find so this project continues to provide base line data for marine debris on the northern Sunshine Coast.

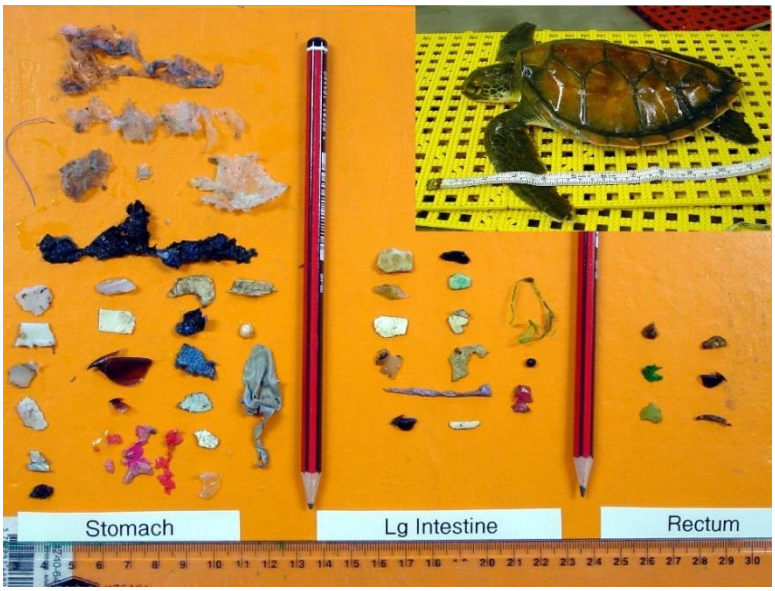
Wrap-up Day – 'Turtles in Trouble' Project

Susan Richards and Sherida Holford

On 12 February 2016, we were invited to attend the final wrap-up of the "Turtles in Trouble" Research Project at the Stradbroke Island Research Station. The day was designed to bring together participants in the project and provide a summary of the project findings.

The "Turtles in Trouble" project was a scientific study carried out by University of Queensland scientist Dr Kathy Townsend and her research team in a joint investigation with the CSIRO. The study looked at the risks and impacts of marine debris on sea turtles in Australian waters using data from sea turtle strandings and necropsies along with data collected in marine debris beach surveys around Australia. Some of our monthly beach rubbish survey data was used in the study.

One of the first considerations of the research was to understand why sea turtles may select certain types of rubbish over others. It was discussed that sea turtles have good colour vision and can see UV light, and that this means certain types of plastics look different to turtles when UV light is taken into account. They also take into account texture and colour when looking for food sources. From the beach surveys, the most common colour of rubbish is white followed by blue. However the research found that turtles tend to ingest far more white or clear rubbish and very little blue rubbish. When taking into account the appearance of rubbish under UV light, it was found that the



white rubbish resembled their food sources while the blue rubbish didn't.

The study included necropsy (animal autopsy) results from stranded sea turtles found in the Moreton Bay and Sunshine Coast areas. These were turtles that had washed up very ill on a beach and had not survived rehabilitation. A number of different sized turtles were included in the study including hatchling, post hatchling and juvenile sea turtles. After they leave the beach, hatchling and post hatchling turtles are found on the surface of the ocean floating and feeding in ocean currents. Consequently the necropsy results indicated that hatchling and post hatchling turtles were found to target whatever is floating on the ocean surface, which is often small hard plastic pieces. Juvenile sea turtles however tend to target clear and soft plastics like food wrappers as well as other items like balloons. By this stage of their lifecycle, they are often feeding below the ocean surface diving for food, so their food selection is different from hatchling and post hatchling turtles.

It was highlighted that balloons actually take longer to break down in seawater than in soil. An often-quoted study from 1989 indicated that balloons take about the same time as an oak leaf to break down in soil (about six months). However a UQ student recently undertook a similar study immersing balloons in seawater and after 19 months there was only limited fading of the pieces.

The project also looked at dead sea turtle strandings and how long a carcass would take to break down to bones in the ocean. A joint study was carried out with CSIRO researchers in which dead turtle carcasses were immersed in steel cages in seawater. It was found that a dead turtle only takes seven days to break down into bones in seawater of 20 degrees Celsius. In warmer waters (such as north Qld) the decomposition time was slightly less. Using this decomposition information along with turtle stranding data recorded in the Qld government Strandnet database, the CSIRO developed a statistical model to determine the probability of a turtle ingesting marine debris in a given area. Particular "hot spots" were identified including the east coasts of Australia, Africa and the US. We found the decomposition information particularly interesting as many of the strandings we attend have washed up in advanced stages of decomposition and we had assumed it took a couple of months to get to this stage!

In summary, some of the main scientific findings of the Turtles in Trouble Project were:

- 33% of sea turtles in the Moreton Bay area have ingested marine debris
- 50% of the world's sea turtles have ingested marine debris
- the likelihood a green sea turtle will ingest debris has nearly doubled since 1985
- turtles target clear and soft plastics because they look like natural food
- young oceanic turtles are at greater risk of debris ingestion than older sea turtles

Why didn't we take 'Alby' to a wildlife facility?

Leigh Warneminde

As a result of the photos of Alby the albino green sea turtle hatchling literally going viral, with over 107,000 facebook hits and international media coverage, CaNSCC faced some criticism for releasing him into the ocean. It has been commented that because he was white, his chances of survival were very slim and that is possibly the case.

Alby was found on top of a nest which had "run" at Castaways Beach in February. Our volunteers immediately spoke with DR Col Limpus, the Chief Scientist of the Queensland Government's Threatened Species Unit, to ask what he wanted us to do with the albino hatchling. Dr Limpus instructed us to photograph him, measure him and let him

make his way. Alby was very keen to reach the sea and took no time at all to hike down the beach and into the water.

Our volunteer turtle monitoring program is designed to increase the number of hatchlings entering the ocean by protecting nests from fox predation. Currently about 1 in 1,000 hatchlings survive to maturity (age 30 years), so improving these odds by increasing the number of hatchlings making it to the ocean is the key goal. Our volunteers receive ongoing training from Dr Limpus, and we are not authorised under any circumstances to permanently keep a sea turtle in captivity.

Sea turtles don't do well in permanent captivity because in the wild they spend their lives swimming very long distances. Turtles have a very complex life cycle where they migrate long distances (hundreds of kms) to feeding areas and then migrate back to the area where they were born to breed.

Sea turtles are also a protected species under Australian and international law, which means there are very strict requirements about monitoring, capture and release. There is no local facility that is permitted to permanently keep a sea turtle in captivity. When our volunteers find a sick turtle on the beach, it is taken to Sea Life Mooloolaba for rehabilitation where it will be cared for and released into the ocean if it recovers. When we find a dead turtle on the beach, we prepare a stranding report for state government authorities and arrange for its disposal.

It is critically important that we humans clean up our act, so that all marine turtles have the best possible chance of survival without having to deal with their biggest predator, which is us humans.

Clean Up Australia Day 2016

Genevieve Jones

On 6 March, around 40 community members, families and students generously volunteered at CaNSCC's registered Clean Up Australia Day site along North Shore Road and Maroochy Estuary, to participate in Australia's biggest annual litter collection. Over 25 large rubbish bags were filled by participants while walking areas including the beach, sand dunes, bushland, beach access pathways 135 and 136 and along North Shore Road. The contents of the bags were transferred into seven wheelie bins kindly provided by Sunshine Coast Council and Clean Up Australia Day organisers.

This soon became a smelly and muckier-than-expected job for the volunteers, who came across over 100 used and discarded dog-poo bags, thrown by dog owners over the fences and pathways at this dog off-leash area, despite bins being conveniently placed at each beach access entrance. Other rubbish collected (while carefully avoiding the many piles of un-picked-up dog poo) included beer bottles, plastic drink bottles, plastic bags and balloons. Tents, sleeping bags, mattresses and plastic plant pots were also found amongst vegetation near the river. Volunteers were also concerned at the high concentration of rubbish thrown from cars along North Shore Road.

The cost and management of such littering and eyesore is ultimately an expense borne by ratepayers, taxpayers and community groups. There was some discussion by the clean-up participants on solutions, proposing monitoring with on-site cameras and increasing dog registration fees to help raise resources. We hope that next year's Clean-up won't be so mucky!

A gentle reminder about membership renewals

Anne Jericho

Thank you very much to those members who have already renewed so promptly after my email early this month. This is a gentle reminder to others that it's time for renewal of your membership with Coolum and North Shore Coast Care. Our membership year is from 1 April to 31 March. Membership is $10 per annum.

Payment can be made by direct deposit to: National Australia Bank: BSB 084 620, Account No 529312346, Account Name: Coolum District Coast Care Group. **Please make sure your name is included as the reference for the deposit.**

Alternatively, you can post your renewal to Coolum and North Shore Coast Care Group Inc., 157 Warran Road, Yaroomba, Qld 4573. If you drop your renewal fee into the nursery, please put it into an envelope with your name and "membership renewal" noted on it to avoid any confusion.

To remain on our email list, and keep up to date with happenings around the area and to also be able to get one of our beautiful calendars for 2017, please pay membership by **30 June 2016** at the latest.

Your continued support is much appreciated; healthy member numbers are also very important when we apply for grants and acquit funding applications.

Update on Everyone's Environment Grant

Estelle Blair

The first milestone report has been submitted to DEHP, reporting on the overall project's achievements to date, and individual activities from 1 November 2015 to 29 February 2016. Because the first year's progress payment was almost fully expended late last year, and the festive season is a quiet time for us anyway, there was not a lot to report other than our continuing weeding activities to consolidate the gains made by the contractor works.

Recently, with the showery weather, the Yinneburra and North Marcoola groups joined forces to plant out a large section of the North Marcoola site's frontal dunes with 300 Coast Sheoak seedlings, with fantastic assistance from TAFE Conservation and Land Management students. This planting will start to provide a windbreak, so that more pepper trees can be removed without detrimental winds impacting on the little belt of littoral rainforest behind the dunes. While we wait for approval for the report, and the second year's funds, we are reviewing the success at the three priority sites with a view to including additional areas where the contract labour can assist our groups.

DATE CLAIMERS

Event	Date	Place	Details
Connect to your Creek	17 April 2016	Nojoor Road boat ramp, Twin Waters	Please register on the Healthy Waterways website http://healthywaterways.org/eventscalendar/healthy-banks-healthy-waters-2-eve-10285
SCEC member cruise	30 April 2016	Pumicestone Passage	Cost $20 each. Please register at http://www.scec-action.org.au/scec_member_cruise_2016
World Environment Day	5 June 2016	Cotton Tree Park	Watch for notices closer to the date.
EcoDiscovery	26 June 2016	Stumers Creek Park	First workshop at Stumers Creek Coolum Beach, July and August at Muller Park Bli Bli and Keith Royal Park Mudjimba respectively. Details will be circulated.

Weekly Dune Regeneration and Bush Care Groups		
Stumers Dunes Birte - 0403 752955	**Lions Park Watercourse** Linese - (07) 5446 5116 linese5@bigpond.com	**Marcoola Coast Care** Tony Gibson - 0419 791 860 tony.gibson@spirit3h.com.au
Yaroomba Bushland Park Sherida - 0403 370 157	**Yinneburra/Yerranya Dunes** Silva - (07) 5446 5549	**Marcoola North Dune Care** Alan Hayes - 0419 526 347
Mudjimba Dune Care and Bush Care Helen – (07) 5448 9604	**Town of Seaside/Boardwalk** Luke – 0428 853 188	**Twin Waters Dune Protection Group** Sue – 0402 113 375 twinwatersduneprotectiongroup@hotmail.com

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Tues-Fri 7:30am – 3:30pm
Sat 8:30am – 12:30pm
Fuschia Collard & Ben Pearce

This newsletter has been produced with the support of all Coolum and North Shore Coast Care members and

Sunshine Coast COUNCIL