

## Seagrass meadows

*A precious resource under threat*

By Danielle Outram, Waterways Extension Officer

Seagrass meadows are a vital resource for Moreton Bay's fragile ecosystem. They provide food for dugongs and sea turtles, and habitat for molluscs, prawns, and many other animals. Seagrass is very sensitive to human impacts. Moreton Bay has suffered large scale diebacks of seagrass meadows due to declining water quality.

Stormwater runoff carries sediment and nutrients into our creeks, which flow into Moreton Bay. Highly turbid (muddy) water blocks the sunlight that seagrass needs to grow, whilst water containing high nutrients (such as nitrogen and phosphorus) promotes algal growth, which can also reduce light penetration to the seagrass. Sources of sediment include eroding land, bare ground and construction sites,

whilst nutrients come from manure, failing septic systems, household chemicals and fertilisers.

You can help to protect seagrass meadows and the marine animals that they support by covering exposed soils, using eco-friendly conservation products, minimising fertiliser use and regularly maintaining your septic system. Alternatively, if you would like to be involved in seagrass meadows conservation efforts, check out [www.seagrasswatch.org](http://www.seagrasswatch.org). Also, Redlands Waterways Extension Program helps landholders reduce their sediment and nutrient inputs into our creeks. If you are interested in finding out more about this innovative program, please contact our Waterways Extension Officer on 3824 8611.



Seagrass meadows are essential to the survival of the Dugong and sea turtles

## Redland IndigiScapes Friends Association (R.I.F.A.) Inc.

The Friends of IndigiScapes welcome new members and visitors to our meetings on the 4th Friday of the month from January to November. Join us in the IndigiScapes Tallowood Room for our short business meeting at 9.30am, followed by a guest speaker at 10am. We choose speakers on a wide range of environmental and ecological topics. The main activities of the Friends in 2011, apart from some social fundraising, are an intensified public relations program and the implementation of our schools program - Habitat for Wildlife.

### Upcoming Meetings & Guest Speaker:

**Friday 26 November**  
9.30am Business, 10am Guest Speaker Joanne Wells of the Australian Quarantine Inspection Service (AQIS) will speak on their work as they protect our biosecurity.

**Friday 28 January**  
9.30 AGM, 10am Guest Speaker (to be advised).

For more information contact IndigiScapes on 3824 8611.

*Did you know?*

Moreton Bay is the southern limit of the range for the Indo-Pacific Hump-back Dolphin.

## Upcoming events

### Redlands wildlife digital photographic competition

Entries now open until **Monday 29 November**.  
Exhibit and judging from **Wednesday 1 – Saturday 18 December**.

Enter your best wildlife photographs and be in the running for some great cash prizes! Celebrate this International Year of Biodiversity by sharing one or more of your spectacular wildlife pics. There are several categories, including junior, and all images will be on display for judging at IndigiScapes. For more information on how to enter go to the IndigiScapes website at [www.indigiscapes.qld.gov.au](http://www.indigiscapes.qld.gov.au) or phone 3824 8611.



Pia Jesson won last year's competition with this shot. Can you top it?

### Australia day plant giveaway

End of January – details will be advertised in local newspapers. Help Redlands maintain and build a diverse and healthy natural environment for the whole community – our native flora, fauna, and us. Join IndigiScapes' celebration of Australia Day by coming down to our free plant giveaway! For more information go to our website at [www.indigiscapes.qld.gov.au](http://www.indigiscapes.qld.gov.au) or phone 3824 8611.

## Beautiful beach mobile

By Ruth Vickery, Environmental Education Schools Program Extension Officer

It's that time of year again when we all head for the beach and enjoy the feeling of sand between our toes and refresh ourselves with the oceans cool, salty water. The beach is also an awesome place to do some exploring. Take a walk along the water's edge and chase the waves as they roll in and out. This is a great spot to look for the amazing variety of shapes and colours of the shells and rocks. Check out the rock pools as they always have some interesting looking sea snails or other creatures waiting for the tide to come in again.

The ocean provides a home for some pretty special creatures such as whales, dolphins, sharks, seastars, turtles, fish, sting rays, sea horses, jellyfish and dugongs to name just a few! Find a nice shady spot, take a picnic lunch and spend some time looking out for whales, dolphins, turtles or other marine life, and remember... Slip Slop Slap Seek and Slide!

To care for our coast its best to not collect things, and leave them on the beach where they belong. So a great way to remember your visit to the beach is to make a beach mobile.

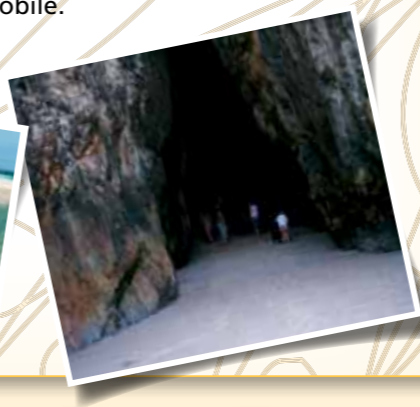
#### What you will need:

- Cardboard & Scissors
- Sea themed templates
- Hole punch
- String
- Glue
- Stick/twig
- Pasta shells, glitter, recycled bits and pieces, pencils, and other things to use for decorating

#### How to make your mobile:

I have included some templates you can use, or you can draw your own.

1. Cut out the templates and use the hole punch to put a hole where you want to tie the string to attach your creature to the stick/twig.
2. Decorate your creatures – remember not to cover the small hole! If you are using glue, make sure it dries before you go onto the next steps!
3. Get a piece of string and tie one end to the hole in your creature and the other to the stick or twig you have collected. You may like to make your string different lengths to give you mobile a nice effect.
4. Get one long length of string and tie each end to the ends of the stick/twig to use to hang your mobile.
5. Hang your mobile up and enjoy!



## Redlands IndigiScapes Centre

17 Runnymede Rd Capalaba Ph: 3824 8611  
[www.indigiscapes.com.au](http://www.indigiscapes.com.au)

*Did you know?*

About half of all Australians live within 7km of the coast and ports.

# Beating 'round the Bush

Summer issue 2010-11

## Sunshine, beach & sea...



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Read Beating 'round the Bush online

Need a reason to go online? Trees are the main resource in making paper. It takes about 20 full-grown trees to make just one tonne of paper. Recycling 1 tonne of paper saves 13 trees.

To reduce your eco-footprint, email [alice.gillespie@redland.qld.gov.au](mailto:alice.gillespie@redland.qld.gov.au) or phone 3824 8611 and ask to receive our newsletter online. All editions of this newsletter, including past ones, are also available on the IndigiScapes website [www.indigiscapes.com.au](http://www.indigiscapes.com.au).



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## Message from the editor

Ms Aiba Godwin, Natural Resources Education Officer

Summer is definitely here, and by the feel of it... has been since spring! It's a warm one, and with the heat this issue takes us to the coast... sunshine, beach and sea.

First, we'll take a bird's eye view of our little island. Then visit some of our better known, as well as some of our less famous, coastal creatures. We'll also get down and take a closer look at some of our coastal plants - from our fragile

seagrass meadows to some of the specialist plants of coastal dunes, while giving you an insight into the dunes themselves.

Finally, what would a trip to the coast be without some sea side fun? Make your beach visit a little more interesting, and find a fun activity to help you remember your sunny day on the sand.

Remember to Slip, Slop, Slap, Seek and Slide... and have a great festive season!

Aiba Godwin



Redlands IndigiScapes Centre





Our 'little' island - the largest in the world

## Girt by sea

By Kylie Burton, Bushcare Extension Officer

Australia is the world's largest island and is surrounded by many oceans and seas. It is nestled between the Indian Ocean to the west and the South Pacific Ocean to the east, with the Southern Ocean down below. To the north of Australia is the Timor and Arafura Seas, and to the northeast the Coral Sea. In between Australia and New Zealand you will find the Tasman Sea.

The seas and oceans that fringe Australia support an incredible diversity of life. Of the 22,000 species known, Australia's oceans hold 4,000 species of fish, and 30 of the 58 seagrass species. Australia's oceans and seas also have the largest area of coral reef in the world.

Locally, the Redlands are separated from the waves of the Pacific Ocean by Moreton Bay, a unique and diverse area. Moreton Bay is home and breeding ground to marine turtles and the increasingly scarce Dugong, which feed off the local seagrass situated in our shallow waters. The Islands separating the mainland from the Pacific Ocean provide a great platform to view the Humpback Whales during their annual migration. From the coastal mainland, to Moreton Bay to the Bay Islands and on to the Pacific Ocean, we are all fortunate to call this place home.

*Did you know?*  
Seas are smaller than oceans, and usually where the land and ocean meet. Seas are generally partially enclosed by land.

## A few of my favourite things

By Jenny Davis, Senior Wildlife Extension Officer

The awesome sight of a majestic whale parting the waters in a herculean breach, the graceful yet eerily silent gliding of an eagle soaring in overhead thermals, and the heart lifting sight of a mother koala with her joey clasped in a warm embrace sleeping oblivious to the world in the fork of an old gum tree – these are few of my favourite things.

But top of my list is the playful antics of dancing dolphins as they, ever grinningly, surf the waters of Moreton Bay. I have in fact been known to empty a glass of red wine over a nearby companion in sheer exhilaration of first glimpsing sight of one of these wondrous creatures.

But I am not alone. Of the many inhabitants of the world's waters, the dolphin stands out as one with which people across different cultures share a special bond. This bond goes back to the dreamtime with dolphins figuring prominently in the living traditions, lore and dreaming of the Kombumerri people of the Gold Coast and the Quandamooka people of Moreton Bay. They in fact assisted indigenous fishermen by herding schools of mullet into their waiting spears.

We in the Redlands are fortunate to have a number of dolphin species recorded in the waters of Moreton Bay, two of which are resident; the Bottlenose Dolphin, *Tursiops truncatus*, and the smaller Indo-Pacific Hump-back Dolphin, *Sousa chinensis*. In fact, our waters are home to the largest resident population of Bottlenose Dolphins in the world.

Unfortunately these amazing animals, like many others today, are under threat due to their close proximity to expanding human populations. Entanglement in nets, vessel strikes, habitat loss, pollution and harassment are some of their major threats and has resulted in the decline of the Indo-Pacific Hump-back Dolphin; currently listed as 'near threatened' under the Queensland Nature Conservation Act 1992.



Bottlenose Dolphins enjoying the surf

## Sub-tropical warmth

By Craig Doolan, IndigiScapes Centre Management

Albatross, penguins, petrels, shearwaters ... Redlands??? It doesn't seem to ring true does it, but you'd be amazed what you'll find on the open ocean. These ocean going nomads spend most of their time in Antarctic waters, breeding on many of the sub-antarctic islands during the southern summer. The Antarctic winter is too harsh for most of these hardy birds and many roam further north into sub-tropical waters to find food, not coming to land for months at a time. To see them close up generally involves a boat trip out to the continental shelf and a pile of burley out the back of a boat (some cut up fish, some upset stomach).

There are just a few locations on the east coast however, that stick out just that little bit more, and provide suitable locations to see these birds from the shore,

especially in the aftermath of storms. One of the best known of all these locations is Point Lookout on North Stradbroke Island. The lookout provides more than just a great whale watching location as seabirds can be seen there year round, especially shearwaters. During the depths of winter however, a heap of other species are also at the northernmost point of their distribution. A few hours spent by some experienced birdwatchers at the site this July yielded Yellow-nosed and Black-browed Albatross, Northern Giant-petrels, Prions, Noddies, Boobies and Gannets.

The birds aren't easy to identify at the best of times and the views aren't always spectacular but it's comforting to know that these oceanic nomads share the Redlands with the rest of us.



Petrels in flight - fishing for a bite

## The great beach lover

By Boyd Essex, Bushcare Team Leader

Many local residents may have heard the wailing of the Bush Stone-curlew at night, but few have heard (or seen) the similar, higher-pitched call of its coastal cousin the Beach Stone-curlew, *Esacus neglectus*. The Beach Stone-curlew is a true Australian beach-lover. It wanders across the estuaries and coastal zones feeding on a fresh seafood diet of crabs and marine invertebrates. The bill is specially designed to crack open its favourite food, but gives it a 'large-head' appearance. Although their body is a muddy sand colour, the striking black, yellow and white head and beak markings make it quite a handsome bird.

Although they love the beach, they don't like the sun much. Venturing out in the late afternoon from their secret day-time shelters, the Beach Stone-curlew enjoys the quieter night-life. Typically a very secretive and shy bird, it does however enjoy the company of one or two friends. They lay only one egg and raise the chick for 9 to 12 months. Not much is known about where the kids go once they are independent. Listed as 'vulnerable' in Queensland, this long-legged, thick-billed shorebird is under appreciated and under studied. With threats from coastal degradation, human recreational activities and predation of nests, the coasts could one day be silent from the unique wailing of the Beach Stone-curlew. Locally, keep your eyes open for them on the islands and undisturbed coastal areas on the Queensland Sunshine Coast and the Northern Rivers Coast in north-east New South Wales.



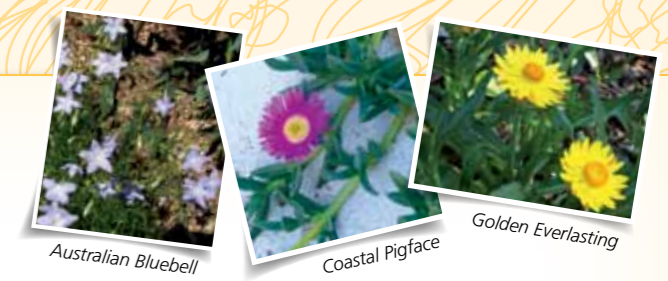
Beach Stone-curlew - a rare site to see

*Did you know?*  
Dolphins are conscious breathers. This means that they have to be awake or semi-conscious to breathe or else they will drown. They therefore sleep in a semi-conscious state at the surface with their blowhole exposed and only a few minutes at a time.



## Diggin' in the dunes

By Mark Thomas, Habitat Protection Officer



The coastal dunes of North Stradbroke Island provide some of the most challenging conditions for plants to survive in. Buffering winds, salt-laden air and low nutrient/water holding soils ensure that plants need special adaptations to exist in such a harsh environment. Modifications such as hairy or waxy foliage and reflective leaf surfaces enable a diverse range of unusual plants to flourish. Within this vegetation community are some spectacular coastal flowering plants, ranging from groundcovers through to trees. Best of all, they look just as amazing in the suburban backyard.

Groundcover plants, such as Coastal Pigface (*Carpobrotus glaucescens*), Yellow Buttons (*Chrysocephalum apiculatum*), Dune Fan Flower (*Scaevola calendulacea*), the Australian Bluebell (*Wahlenbergia stricta*), Snake Vine (*Hibbertia scandens*), Coastal Jackbean (*Canavalia rosea*) and the Golden Everlasting (*Xerochrysum bracteatum*), all make a colourful addition to the backyard garden. Shrubs, such as the Wallum Banksia (*Banksia aemula*), Coastal Wattle (*Acacia sophorae*) and Weeping Baeckea (*Baeckea frutescens*), also perform well under the difficult conditions found in many suburban gardens. Trees to consider include the Coastal Banksia (*Banksia integrifolia*), Brush Box (*Lophostemon confertus*) and Foambark (*Jagera pseudorhus*).

For further inspiration, drop in to the IndigiScapes Centre, grab a coffee and take a walk through the botanic gardens. You won't be disappointed!

## Sand dunes - frontier to the ocean

By Melanie Harrison, Senior Habitat Protection Officer

Sand is formed when rocks or rock formations are weathered away and broken into smaller pieces. Technically, sand particles are fragments of rock or mineral (mostly silica rich and often quartz), between 0.02 and 2mm in size. Anything smaller is silt or clay, and anything larger is gravel. One of the main sources of sand for beaches is from streams and rivers, which carry the sand directly to the ocean. It is moved along the coast through wind, wave actions and currents such as longshore drift. Natural and built coastal features, such as headlands, breakwaters and groynes, change and obstruct the sand's flow causing it to accumulate and create beaches.

Coastal dunes are formed by windblown sand deposited on the beach. The massive vegetated parabolic dunes of Stradbroke Island are a spectacular example, visible from Brisbane and rising to 239m at Mt Hardgrave. They were formed by sand blown inland by the south-east trade winds during past glacial periods when the sea level was lower than it is today. There are several different types of dunes. Fore dunes which occur closest to the beach, protecting it and the land behind, as

well as providing a reservoir of sand to replenish it after strong wave events such as storms. Secondary and tertiary (or hind) dunes follow, and support the most complex coastal forests dominated by advanced flowering plants such as eucalypts, paperbarks and tuckeroos, which are all found on Stradbroke Island. Vegetation plays an important function in the formation and stabilisation of the coastal sand dunes. They provide a wind break, and help bind sand particles to reduce the extent of erosion caused by weather and wave action. Sand dunes are dynamic and complex. They are a sensitive and vulnerable system which plays a vital role in protecting our coastlines, and need our care - for the future enjoyment of our beaches.



Looking down the dune - view from Point Lookout, North Stradbroke Island

*Did you know?*  
• 'Starfish' are now called 'sea stars' by marine scientists because they are not fish at all. They are echinoderms and more closely related to sea urchins and sand dollars.  
• Migratory waterbirds make a round trip of up to 26,000km each year, between their breeding grounds in the northern hemisphere and their non-breeding areas here in the south.

*Did you know?*  
Bottlenose Dolphins can live to over 30 years of age and do not begin breeding until around 10 years of age (9-10 years old for females and 10-13 years in males.)