

WILDLIFE DIARY

April 2013



Great Finds

Powerful owl, *Ninox strenua* heard in riparian corridor along Tarradarrapin Creek. Plenty of possums here!

Torresian Crow takes up residence in lounge room at Birkdale.

Orchard Swallowtail Butterfly, *Papilio aegeus* still about at Wellington Point.

POPULATION MATTERS

Dialogue on a Crowded Planet: Population Policy and Dwindling Resources.

Saturday 13 April 2013 - 11:00 am to 4:30 pm
Abel Smith Theatre, University of Queensland
(Blg 23, St Lucia Campus - located @ end Campbell Rd)

Speakers:

Murray Lane - Population carrying capacity
Michael Lardelli - Australia's fuel and food insecurity
Simon Michaux - Peak mining
Ian Lowe - Population and Public Policy

Entry \$5 - morning and afternoon tea provided
RSPV qld@population.org.au

2013 World Environment Day Dinner 25th May 6:30pm

To highlight this most important day Bayside Branch is celebrating with a special dinner. Our guest presenter for the night is Dr Peter Davie, Curator, Queensland Museum. Peter is the principal author of the two volume 'Wild Guide to Moreton Bay and adjacent coasts' and has a wide range of interests and specialties from coastal wetlands to seagrass to crustaceans and much, much more in the marine wildlife arena. Peter will bring to life the amazing wildlife of Moreton Bay both great and small through his wonderful stories and photographs. His in depth knowledge of Moreton Bay and its wildlife makes for a wonderful evening of entertainment and learning. Our special night starts with tasty snacks and a pre-dinner drink & includes a sit down 2-course dinner.

Enquiries ph: Doreen 3206 0368 or Steve 3824 0522

What's Flowering

The *Melaleuca quinquenervia* have enjoyed a great flowering season this month and the **Blue quandong**, *Elaeocarpus grandis* have just finished, their beautiful blue fruit should soon appear.

Using your iPhone to report a Bush Curlew

Seen a Bush Curlew, let us know by taking a photograph with your iPhone or similar GPS capable phone. Click on this link to participate. <http://tinyurl.com/azv4yqh>

Did You Know?

Did you know Australian researchers in 2006 found **Fiddler Crabs**; in particular *Uca vomeris* changed their colour when predated upon by birds? They showed that colourful crab individuals subjected to dummy bird predation changed their body colouration over a matter of days. They also appeared to modify their social signalling system depending on their assessment of predation risk.

Did you know that the **Mud Whelk**, *Pyrazus ebenius* a large, (90mm), dark brown turreted marine snail is one of the 6 or more shells collected by Captain Cook at Botany Bay in April, 1770? These are common throughout Moreton Bay and commonly found in Aboriginal Middens.

Did you know **Yellow-footed Antechinus** mate once a year? Mating seeming to be triggered by a certain increase in daylight during the second half of winter. During that time males travel extensively between communal nests in a hectic mating frenzy. Mating taking up to twelve hours, with the death of the males shortly after copulation. With all his attention and energy taken up with sex rather than feeding, stress hormones (Corticosteroids) strip his body of protein and fat. The result is a breakdown in the animal's immune system, and death within two weeks.



Great Walks

If Mangroves fascinate you but you don't like the idea of walking through them, why not climb aboard a boat and do some Mangrove Watching in comfort? At the same time you will be

contributing to the science that helps us better understand this most precious and threatened habitat. For more detail contact the Mangrove Watch coordinator. Debra Henry debra@oceanwatch.org.au

WWW

Have an iPhone or iPad then read or online magazine
- Wildlife of Moreton Bay
<http://flipboard.com/#>

Save the Kimberley

<http://wildlifebayside.wordpress.com/2013/04/10/why-protect-the-west-kimberley/>

Moreton Bay Seagrass Watch

<http://seagrassmb.wordpress.com/>

Decision Point

http://www.decision-point.com.au/images/DPoint_files/DPoint_68/dpoint_68.pdf

Changing Colour

The ability of some animals to change colour is amazing. What is more amazing is that we don't in many cases understand why they do it. Sometimes the change from one colour and pattern is instantaneous in others it takes days. Here are but a few samples of some of our wildlife that can change colour.

Bearded dragons can change colour and it's not for camouflage, but for social and territorial reasons. Researchers are particularly interested in this species because they hope to be able to develop materials to imitate the lizard's colour-changing abilities for use in areas such as solar energy and biomedicine.

Horned ghost crabs change their appearance from day to night for camouflage, a study has revealed. The species *Ocypode ceratophthalmus* builds burrows on beaches from Japan to East Africa to shelter from predators. Researchers investigating young crabs' defences found they fine-tune their brightness to mimic their background. The crabs reflected changes in their environment throughout the day, becoming lighter in the daytime and darker at night. The findings are published in the Biological Journal of the Linnean Society. Source: BBC Nature News

Interestingly Australian researchers in 2006 found **Fiddler Crabs**, in particular *Uca vomeris* changed their colour when predated upon by birds. They showed that colourful crab individuals subjected to dummy bird predation changed their body colouration over a matter of days. They also appeared to modify their social signalling system depending on their assessment of predation risk.

Cuttlefish can also change colour and they do so to communicate with other cuttlefish and to camouflage themselves. The colour changing is produced by groups of red, yellow, brown, and black pigmented chromatophores which are placed above special light-reflecting cells. The **chromatophores** can produce a wide range of colours, the Australian **Giant Cuttlefish**, *Sepia apama* can produce pulsating zebra stripes to move along the sides of their body, the speed and intensity changing with the situation. Smaller males of this species have been observed to mimic the colouration and behaviour of females, using this diversion to sneak close to females to mate with them without the awareness of the larger aggressive males. Interestingly cuttlefish eyes are among the most developed in the animal kingdom but they cannot see colour. They have two spots of concentrated sensor cells on their retina, one to look to the front, and one to look more backwards. The lenses, instead of being reshaped as they in humans, are pulled around by reshaping the entire eye to change focus. This species occurs from Brisbane in Queensland to Shark Bay in Western Australia. It is found along rocky reefs, seagrass beds, and sand and mud seafloor to a depth of 100m.

The **Blue-ringed octopus**, *Hapalochlaena sp* The group is named for the iridescent blue markings that dot their bodies; however these are usually only seen when the octopus is threatened or about to attack. This change in colour is also due to pigment cells known as chromatophores. Perhaps interesting to also note that the brain of an octopus is shaped like a donut and surrounds the oesophagus. They also have three hearts, with a central heart and one over each gill.

Stick insects or **phasmids** eat leaves and resemble leaves or sticks. They can change colour to match their changing surroundings. While males can fly away when under stress females cannot. So to escape predators the female will also try to blend in to the background by swaying in a regular motion which may help the animal blend in with its surroundings.

Frogs can change colour both as tadpoles and as adults. They can turn darker or paler depending on the temperature and whether under threat. They also change according to light intensity.

Some **birds** change colour. It may take a while but during the breeding season colour change is not uncommon.

What about **mammals**? Well most mammals don't see colours; they live in a black-and-white world. However, **marsupials** and **primates** can see colours. Colour vision is achieved with the help of "cone" cells, while black-and-white (and grey) vision is done with the help of "rod" cells. Most mammals have only rods. Cone cells are of three types. In the case of primates (including **humans**) there are red, green and blue cones, each able to absorb a certain part of the light spectrum. The sensation of colour is created by the brain, each sensation of colour being a combination of the three fundamental colours. It is interesting to note that we have sensations of certain colours (such as brown) that don't exist in the light spectrum - they are entirely created by the brain and don't exist in "pure" form in nature. The rods are only of two types - one type sensitive to light having a "short" wavelength (such as blue) and another type sensitive to light having a "long" wavelength (such as red). Marsupials have three types of cones. The evolution of the marsupial colour vision system was completely distinct from the evolution of primate colour vision as the three types of cones marsupials have are not red, green, and blue; they are red, blue, and UV.

Never doubt that a small, group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has. Margaret Mead.

