WILDLIFE DIARY
May 2012

Great Finds

Barn owls, *Tyto alba* active in Birkdale.

White-bellied Sea Eagle, *Haliaeetus leucogaster*, **Brahminy Kite**, *Haliastur indus* and **Brown Goshawk**, *Accipiter fasciatus* all seen at Wellington Point.

POPULATION MATTERS

BROADCASTER and naturalist **Sir David Attenborough** has questioned the 'strange silence' about population growth in public debate, and urged members of environmental organisations to discuss the subject openly and often. In a speech to the Royal Society of Arts in London on 10 March, hosted by its president, the Duke of Edinburgh, Sir David said there seemed to be some 'bizarre taboo' around population.

"I meet no one who privately disagrees that population growth is a problem. No one - except flat-earthers - can deny that the planet is finite," he said. "So why does hardly anyone say so publicly?"

He went on: "What can each of us do - you and I? Well, there is just one thing that I would ask. Break the taboo, in private and in public - as best you can, as you judge right. "Wherever and whenever we speak of the environment - add a few words to ensure that the population element is not ignored." http://www.population.org.au/

Urbanisation affecting flowering

In addition to environmental modifications in towns due to human activities (e.g. pollution due to industry and fuel combustion, fragmentation due to urban sprawl, photoperiod modification due to public lighting), urban areas have horizontal and vertical surfaces that modify the physical characteristics of the lower layers of the atmosphere (temperature, wind and rainfall). This result in a variation in the net balance of radiation, which creates a dome of warm air called an urban heat island (UHI) above the town. Recent research shows that there is both a climatic gradient and a developmental gradient corresponding to the type of urbanisation in the town. The town influences plant phenology by reducing the diurnal temperature range and by increasing the minimum temperature as one approaches the town centre. Advancement of spring flowering development in the urban environment compared with a rural environment occurred via the urban heat island (UHI) phenomenon.
Source: A. Mimet & V. Pellissier & H. Quénol & R. Aguejdad & V. Dubreuil & F. Rozé, 'Urbanisation induces early flowering: evidence from Platanus acerifolia and Prunus cerasus'. Int J Biometeorol (2009) 53:287–298.

Did You Know!

Did you know that research revealed that large patches are crucial for the long-term persistence of a viable **koala** population in an urbanizing landscape?

Did you know **Glossy Black-Cockatoo**, *Calyptorhynchus lathami*, are one of the more threatened species of cockatoo in Australia and are listed as vulnerable under QLD and NSW legislation? Glossy Black-Cockatoo have a very restricted diet, feeding only on the seeds in cones of she-oaks (Casuarina and Allocasuarina) and only on selected individual trees. They can fly more than 10km to feeding areas. Breeding occurs every two years with a single egg being laid in late January to early June with a longer nestling period than any other cockatoos (up to 90 days). The young are dependent on the parents for at least 12 months.

Large hollow bearing trees are essential for breeding, emphazising the need to retain remnant vegetation in these areas just as much as food trees. Glossy Black-Cockatoo are known to have a life span that can exceed 30 years.

Great Walks

With the colder weather approaching visit some of our rainforest and woodland patches. Here you may sight some of the rainforest birds that use these patches in Winter as they move from their homes in the mountains to warmer and more productive lowland areas. West Mt Cotton, Peel island and North Stradbroke Island.

WWW

Super Quarry – it's back again
http://www.superquarry.org.au/

Bat Care Brisbane
http://www.bats.org.au/

Habitat Refugia
http://tinyurl.com/3bpbxxk

Sir David Attenborough & population
http://www.thersa.org/events/vision/vision-videos/sir-david-attenborough

Yabbies & Mussels

There are several species of freshwater and terrestrial crustaceans in the Redlands and Bayside Region. There are tiny **Atyid shrimps**, small semi transparent and fast moving, common among water plants and leaf litter in shallow water. One such shrimp is *Caridina indistincta*, tolerant of acidic conditions it is found in places like Brown Lake of Nth Stradbroke Island and also many of Redlands' local creeks. Then there is *Macrobrachium tolmerum*, a large 100mm long and usually reddish brown animal, readily recognised by their slender long claws, they too tolerate acidic water. Then there are the crayfish. These belong to three genera: ***Cherax*** (Smooth Freshwater crayfish or Freshwater Yabbies), ***Euastacus*** (Spiny Freshwater Crayfish) and ***Tenuibranchiurus*** (Swamp Crayfish).

Species of the genus Cherax are commonly referred to as 'Yabbies' or 'Lobbies'. The **Slender Yabby**, *Cherax dispar*, is 75mm long and slender. Body is greenish – grey or brown. They can be found in perennial creeks and coastal sand lakes, often with *Macrobrachium tolmerum* and *Caridina indistincta* in acidic waters. The upper sections of Tingalpa Creek still supports all three species. **Orange fingered yabby** or Inland Yabby, *Cherax depressus* is readily identified by size, about 90mm and distinctive orange coloured finger tip. A very strong burrower they can survive through drought periods by burrowing deep down into the water table. They are an extremely hardy species, surviving in a wide range of habitats over almost one-third of Australia. In Queensland, its natural distribution is west of the Great Dividing Range, apart from the Dawson River catchment. It was introduced into the Brisbane River catchment. It is very common throughout the Redlands and Bayside region. They can be distinguished from spiny crays (*Euastacus*) by the smoother body and claws (few spines or tubercles), and are widely distributed in Australia and southern New Guinea. Approximately 10 species are currently known from Queensland.

The sole member of the genus *Tenuibranchiurus* (*glypticus*) differs from all other freshwater crayfish in Queensland by its tiny size (fully grown at 25 mm) and by the arrangement of its nippers. They open and close vertically rather than horizontally or obliquely like other crayfish. It was only recently re-discovered in the Redlands.

Freshwater crayfish are bottom dwelling opportunistic scavengers. A large part of their diet consists of rotting leaves and other plant detritus. They are an important part of the food chain and ecosystem.

Freshwater mussels are native Australian animals and there are approximately 50 different species of mussels in Australia. Many of these species have small environmental tolerances. However, the Freshwater Mussel *Velesunio ambiguous* is a native of Queensland, NSW and Victoria and a very tough, hardy species that thrives in still static water. Most rivers in Eastern Australia have species of mussels in them but these are river mussels and unsuitable for the still, static water found in wetlands and dams. The Flood Plain Mussel *Velesunio ambiguous* is a mussel that thrives in static water and will readily breed and multiply to massive numbers if the conditions are right.

Freshwater mussels are a small clam like animal with 2 shells hinged together. They have a relatively smooth shell that helps them burrow into the mud of the dam etc. They have a large long foot/tongue that they extend out of the shell and use this tongue to move themselves around. When the waterway dries up the mussels will move up and down the banks using their tongue for travelling. Mussels are a very tough, hardy animal that survives extremely well in our wetlands and dams. They will survive very high temperatures over 30°C and very low temperatures around 4°C. Source: http://www.aquablueseafoods.com.au/other-mussels.shtml

Freshwater mussels are biological filters; they spend their time sucking water in, filtering the algae and bacteria from the water and discharging pure clean water.

The larvae (glochidia) of freshwater mussels are parasitic on fish. They are released into the water by adult mussels and, when a fish passes close enough to disturb them, the glochidia attach themselves to the skin or gills of the fish by means of their barbed valves. Irritated host tissue then grows and forms a cyst over each glochidium. Development from glochidium to small mussel takes about 10 weeks, at which time the mussel bores through the cyst, leaves its host and settles to the substrate. The presence of a large number of glochidia is indicated by numerous white or greyish "bladders" on the gills, skin and fins of the fish. Glochidia are able to utilise most native species but are not known to attach to introduced species. Source: Victorian Dept. Primary Industries.

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.

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