

# WILDLIFE DIARY

## July 2012



### Great Finds

100's of **Little Pied Cormorants**, *Microcarbo melanoleucos* seen flying and fishing on Moreton Bay, possibly chasing the mullet as they swim North to spawn.

### POPULATION MATTERS

I watch billions of dollars being spent treating the symptoms of the one great problem we face – overpopulation, when the treatment is all designed to enable greater population growth, not to stabilise or reverse it.

Andrew McNamara (2009)

Visit: <http://www.population.org.au/>

### Climate Change and Climate refugia

As climatic zones shift under climate change, many regions and habitats will slowly become climatically unsuitable for some of the species that currently inhabit them. The availability of climate refugia - habitats and regions which are buffered from extremes in temperature and fluctuations in water availability, could allow some species to adapt to climate change in-situ, and facilitate dispersal and range shifts for other species.

### Millipedes

Millipedes are arthropods that have two pairs of legs per segment (except for the first segment behind the head which does not have any appendages and those of the thorax which have a single pair of legs). "Millipede" is a compound word derived from the Latin roots mille (thousand) and pes (foot).

Millipede bodies are elongated and usually cylindrical though some can be flat. Millipedes have short antennae and are nocturnal living mostly in the soil and have poor sight when they can see at all. Millipedes feed on decaying plant matter, functioning as decomposers in the ecosystem. A few millipede species are also carnivorous. Interestingly the microbiota in the gut of soil millipedes is quite different to what is found in the soil and leaf litter. It is believed the millipedes have a symbiotic relationship with these microorganisms that aid in digestion.

Millipedes are said to consume 5 – 10% of the leaf litter and 25% when worms are absent. While creatures like the millipede are responsible for less than 10% of the chemical decomposition in the soil their feeding activity stimulates microorganisms that will perform 90% of chemical decomposition. Note also that when threatened, millipedes often curl into a tight ball or spiral in the soil but they can also emit poisonous or foul-smelling compounds through their skin. These substances may burn or sting, and may even discolour your skin temporarily if you handle one. Some millipedes even secrete cyanide compounds!

### Did You Know?

Did you know a Sea mullet, *Mugil cephalus* is alternatively known as 'bully' or as nandacall by the people of Quandamooka?. It is a migratory fish species found throughout tropical and subtropical seas, including Australian estuaries, coastal waters and some rivers (Virgona *et al*, 1998). In Moreton Bay, during the autumn and winter months of April to August, mature reproductive mullet aggregate in estuaries and travel northwards to spawn at sea. The spent adults move back southwards, re-entering the estuarine and river systems to resume feeding, as do the fry (mullet larvae), which are carried southwards by the prevailing currents where they enter the estuarine systems to feed and grow (DPI 2000; QFMA 1996).

Did you know research has shown that up to 30% of Queensland's total fish catch and up to 80% of the barramundi catch variation for specific regions can be explained by rainfall often with a lagged response to rainfall events?



### Great Walks

When moving over vast distances, navigation is accomplished not by watching the stars, but by noting the well-known Dreaming sites along the way. The traveller may not have passed that way before,

but he already has a mind's-eye map of the countryside drawn from the legend, myth and ceremonial song-cycles describing and laying down the paths of his Dreaming Ancestors and the places and features they created on their travels (Isaacs, 1981) [http://www.griffith.edu.au/\\_data/assets/pdf\\_file/0020/277022/urp-rm13-low-choy-et-al-2011.pdf](http://www.griffith.edu.au/_data/assets/pdf_file/0020/277022/urp-rm13-low-choy-et-al-2011.pdf)

## WWW

### Super Quarry – it's back again

<http://www.superquarry.org.au/>

### Climate Watch

<http://www.climatewatch.org.au/get-involved>

### Habitat Refugia

<http://tinyurl.com/3bpbxxk>

### Wildlife Bayside Blog

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

# Revisiting Kinross Road

**Fragmentation** is one of the most severe world-wide processes depressing biodiversity (Farina, 2006) and considered the greatest current threat to biodiversity (Malanson, 1999). Certainly the probability of extinction is higher for populations distributed among fragments because reduced interactions change the long-term dynamics relative to those of a non-fragmented landscape (Kupfer, Malanson & Runkle, 1997; Zuidema, Sayer & Dijkman, 1996).

With regard to the koala the loss of habitat and its fragmentation is recognised as the key threatening process that undermines the chances of the koala survival, with additional threats from vehicle hits and dog attacks (ANZECC 1998; Melzer et al. 2000). Unabated clearing of koala habitat for development in South East Queensland is placing a great deal of pressure on the survival of the koala (DERM ,2009).

It is important to understand that koala habitat is defined by the [Nature Conservation \(Koala\) Conservation Plan 2006](#) as (a) a woodland where koalas currently live; or (b) a partially or completely cleared area that is used by koalas to cross from one woodland where koalas currently live to another woodland where koalas currently live; or (c) a woodland where koalas do not currently live, if the woodland— (i) primarily consists of koala habitat trees; and (ii) is reasonably suitable to sustain koalas.

It should be **NOTED** that inland koala habitats are likely to become climatically unsuitable due to **climate change** and there is a need to protect and restore the more mesic (moisture) habitats, which are under threat from urbanisation (Adams-Hosking, 2011).

It should be further **NOTED** that the Koala Coast koala population has been shown by microsatellite analysis to **be genetically distinct** from adjacent areas (Lee *et al*, 2009). Consequently the Koala Coast koala population is deserving of strong protection.

The results of the 2008 Koala Coast koala survey estimates a population of 2279 animals. Based on the population estimate of 4611 koalas in 2005-2006, this represents a 51% decline in less than three years and a 64% decline in the 10 years since the original 1996-1999 estimate of 6246 koalas (DERM ,2009).

Koalas in SEQ are currently listed as Vulnerable under the Nature Conservation Act and recently listed the same under Federal Legislation – *EPBC Act*.

## Threats to the koalas within the Kinross Road Structure Plan area

- The Kinross Road Structure Plan will fragment koala habitat and therefore significantly threatens the survival of the koala in this area.
- Urbanising this landscape will likely jeopardize the long term survival of the urban koala and interfere with the dynamic process operating between urban and bushland koalas ([Pg. 4 DERM 2008 research](#)).
- It introduces an urban environment into a rural landscape that has provided koalas a safe environment to traverse. Urbanising this area will increase the likelihood that koalas will be severely impacted by vehicles and dogs.
- It will encourage approximately 6,000 vehicle movements per day across Wellington Ponds or the Greenspace and riparian corridor along Hilliards Creek (RCC, 2011 via RTI application). This represents a significant and potent threat to the survival of local koalas.

*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.

