

# WILDLIFE DIARY

## October 2013



### Great Finds

The storm birds have returned. They can be heard day and night. **Common Koel**, *Eudynamys scolopacea*, (eu, Gk, well,good; dynamis, Gk, power; orientalis, Latin, eastern) and the **Channel Billed Cuckoo**, *Scythrops novaehollandiae*. (Scythros, Gk, sullen faced).

### POPULATION MATTERS

Stop destroying habitat - stabilize human population.

<http://population.org.au/articles/2013-10-12/mr-stop-destroying-habitat-stabilise-population-and-end-coal-exports-conference>

### Habitat Connectivity

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 attack. Unabated clearing of koala habitat for development in South East Queensland is placing a great deal of pressure on the survival of the koala.

### Climate Change and plants

The available evidence implies that plants will not die directly from rising temperatures projected to occur by 2070. But high temperatures will increase water stress during drought, resulting in more drought deaths; competitive relationships will change; and fire risk will often increase. In habitats where water is limiting increased water stress could prove very significant, and in wet habitats, altered competition cause significant shifts in species composition, especially in habitats where plants with mainly tropical distributions overlap with temperate species, as occurs in Southeast Queensland (Low, 2011).

### Mount Cotton listed plant under threat

*Macadamia integrifolia* (**Macadamia Nut**) listed under the *EPBC Act* is under threat from land clearing and habitat fragmentation. Consequences are change in community composition, habitat degradation due to edge effects, weed invasion, reduction in connectivity among populations, and potentially reduced gene flow through changes in pollination and dispersal vectors. Adjacent land uses such as grazing, urban/extractive development and changed hydrology) can adversely affect remnant patches of rainforest vegetation where *M. integrifolia* are found. The proposed **Supper Quarry** at Mt Cotton represents a real threat to our remaining few specimens of this naturally occurring listed species.

### Did You Know?

Did you know Mangroves live in a dynamic environment? They exist in a landscape that alternates between a saline watery world to one where they are exposed like any other terrestrial plant to the radiant sun and whims of the weather. Like terrestrial plants their roots need oxygen to allow them to undertake respiration but how can they when submerged in water and/or mud, devoid of oxygen? How do they cope?

Mangroves all appear to have extensive amounts of aerenchyma, a tissue in which significant quantities of oxygen is stored. Even though mangrove roots can be submerged beneath water they store sufficient oxygen in the gas spaces to maintain aerobic conditions within the root, irrespective of the status of the tide. Grey Mangroves, *Avicennia marina*, use their pneumatophores, those peg-like roots that arise from the aerobic mud to provide root ventilation. However, in Grey Mangroves pneumatophores rarely develop before the mangrove is one year old. So how does a young seedling survive?

For a seedling not only does the developing root system lack the direct access to the atmosphere provided by pneumatophores but may be totally submerged for periods of time during a day preventing gas exchange. No problem, as the seedling grows there is extensive development of *aerenchyma* which can be shown to form a continuum of gas spaces throughout the plant from the spongy mesophyll of the leaf, through the petiole, stem, hypocotyl and into the root. While the plant is small, this continuum provides the possibility of transfer of photosynthetic oxygen from leaves to roots and of respiratory carbon dioxide to the leaves when the plant is isolated from the air by the rising tide. The early development of large adventitious roots containing gas spaces which occupy up to 70% of their volume permit storage of oxygen. When the plant is exposed all of these gas spaces communicate with the air through lenticels (an airy aggregation of cells within the bark of the stems and roots) developed on the stem and hypocotyl (Sydney University, 2010).

### Great Walks

If you are out for a walk on the weekend (19<sup>th</sup> – 20<sup>th</sup> October) please report you sighting. facebook/KoalaActionGroup or email: [admin@koalagroup.asn.au](mailto:admin@koalagroup.asn.au)



### WWW

The Rise of Ocean Robots

<http://tinyurl.com/mmgyxgd>

Curlew Watch

<http://curlewwatch.azurewebsites.net/>

# WANTED

Koala Sightings: 19 & 20 October 2013



Please report all koala sounds or sightings during the Redlands koala count-a-thon survey.

☎ 3820 1103 (8am – 5pm)

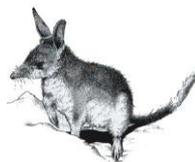
Post your sighting: [facebook](#) /KoalaActionGroup.

Email: [admin@koalagroup.asn.au](mailto:admin@koalagroup.asn.au)

Online: [www.koalagroup.asn.au](http://www.koalagroup.asn.au)

Tell us where you spotted a koala.

*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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