

WILDLIFE DIARY

August 2010



Great Finds

Pheasant Coucal, *Centropus phasianinus*, heard but not seen in Capalaba. Early appearance of Pheasant Coucal *Centropus phasianinus* in Wellington Point. Two have been heard calling in this area for the past couple of weeks.

Five (5) Koalas, *Phascolarctos cinereus* seen feeding on a good supply of leaf in **tree plantings** at William Ross park.

Carpet Python, *Morelia spilota*, have been found to be active, an early start to the season it seems.

Dwarf minke whale, *Balaenoptera accutorostrata* seen inside Moreton Bay.

POPULATION MATTERS

Building on an analysis of data published earlier this year, Swinburne University researcher Associate Professor Katharine Betts found that 72% of voters are against population growth.

“Some policy makers hope to alleviate urban population pressures by encouraging people to move to the regions,” Betts said. “But voters living in regional Australia are more likely to say ‘no’ than are voters in the cities. In regional Queensland 86% say ‘no’ as do 83% in regional South Australia and 80% in regional Western Australia.”

4th Aug 2010, Swinburne University Media Centre

International Year of Biodiversity

The United Nations declared 2010 to be the International Year of Biodiversity. It is a celebration of life on earth and of the value of biodiversity for our lives. The world is invited to take action in 2010 to safeguard the variety of life on earth: biodiversity <http://www.cbd.int/2010/welcome/>

The value of trees

Temperature is a sensitive meteorological variable in urbanisation processes. Higher temperatures are recorded in city centres than in natural surroundings. This urban effect on the superficial thermal field in the city is called a “heat island.” It was found that the transpiration of a mature tree corresponds to a refrigerator with a capacity of more than 150,000 thermal units/BTUs per day. A large mature tree is able to transpire 450 litres of water per day. This enables it to consume 1000 MJ of caloric energy in order to carry out the transpiration process, thus lowering urban temperatures.

What’s in flower

Acacia fimbriata are well and truly blooming, they are magnificent as they change from green to gold.

Did You Know?

Did you know research found that there was a 'critical' boat traffic range that would result in a reduction of submerged macrophyte? By maintaining high daytime water turbidity during the summer months there could be significant associations between boat traffic density, water turbidity and declining aquatic plants. It raises questions about sustainable boating traffic in the shallow waters of Moreton Bay and about how traffic density can be reduced to minimize impacts upon marine plants such as seagrass.

Did you know a study on fragmentation which looked at butterflies showed that the matrix resistance (matrix refers to the land that surrounds the habitat patches of a species being studied) was probably related to some combination of vertical vegetation structure, light environment, and temperature? The research found that conifer forests being taller, darker, and colder than willow thickets probably discouraged butterflies more strongly from crossing them. This kind of matrix resistance can be found in human-fragmented landscapes. They can be characterized by the opposite structural relationship between habitat patch and matrix. Understanding the influence and impact of human landscapes upon species is important to their survival. It leads towards work that hopefully makes our human landscapes more permeable and thus reduces impact on the species movement and life cycle processes.

A study showed that both ants and flower visitors were effective pollinators of mango, the latter significantly declining (in abundance and species richness) with distance to natural habitat while ants were not affected. Neither the absence of pesticides nor the supplementation of flower visitors by using managed honeybees served to offset these negative impacts. Food-web data suggest that maintaining diversity of flower resources within farmland can help maintain pollinator communities.

Great Walks

Two reserves not often mentioned and worthy of exploration are Sandy Creek Conservation Park Warren Street, Mt Cotton and Cornubia Forest off West Mt Cotton Rd, Cornubia.



WWW

King Island Conservation Park

http://www.sbaltais.com/seagrass/files/King_island_self_guided_tour.pdf

Save Wellington Ponds

<http://www.youtube.com/watch?v=e0O6Es9VwbA>

Power Boat Race for Moreton Bay Marine Park

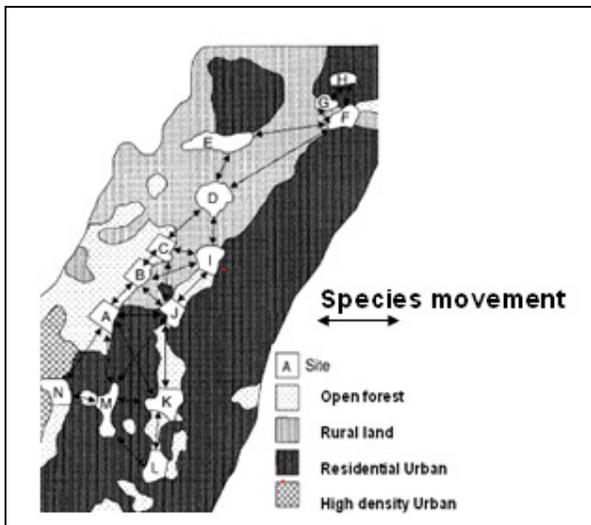
<http://www.wildlife.org.au/news/2010/powerboats.html>

Corridors & Core habitat

There is one theory in ecology that has held true since its creation and that is that a larger patch of bushland will support more species. For this reason core habitat, that area of habitat essential for the long-term survival of a species must be secured if we are to save our biodiversity. The importance of core habitat to the survival of our native wildlife is recognised by local authorities, such as the Redland City Council, which has utilised funds gained through our environmental levy to purchase valuable core habitat. The recent purchase of a large parcel of bushland at Kidd Street, Redland Bay was a very important addition to core habitat. While some may say it was already secure because of its designated land use the unfortunate reality is this provides no certainty today (remember 401 Redland Bay Rd Capalaba) and certainly not into the future. Securing these parcels now as public reserves is one of the few ways to save core habitat from speculative developers and horse trading over what piece of habitat is developed and what is not.

So what is a corridor? One definition is that habitat (an environment suitable for a particular species) corridor is a linear habitat, embedded in a dissimilar matrix (land that surrounds the patches of habitat) which connects two or more larger blocks of habitat and which is proposed for conservation on the grounds that it will enhance or maintain the viability of specific native species populations in the habitat blocks.

Corridors do rely on a matrix of existing but discontinuous natural areas to realize their full potential. In most urban areas the wildlife habitat that does exist is rarely connected and therefore creates a dangerous environment for there are no opportunities for safe migration and little, if any biodiversity which is essential in creating any sustainable habitat.



When one looks across a landscape made up of fragmented natural bushland, farms and urban environments it is not apparent how difficult this landscape can be to traverse for some species. The dispersal capability of a species influences its ability to move through the landscape if at all. One would think flight for example provides ample capability for a species to move between core habitats. Not so, species that are specialists can find it very difficult if not impossible to move across our fragmented landscapes. Research shows that some butterflies could not traverse areas of tall conifers while small bushland birds without understorey could not safely make it between patches of habitat. This same impact can be found with roads and residential subdivision devoid of much vegetation.

Without suitable corridors small patches of bush suffer rapid extinction rates and unless they can be connected they will remain impoverished. This is more so when the remaining patches of habitat are all relatively small in size and the ability for a species to

migrate to one or more of these patches is all that saves the entire population from becoming extinct. It is also another reason why councils must purchase what seem to be insignificant small patches of bushland. In the urban landscape entire populations of species are found within such patches. Some if not many of these patches will be source patches, that is, producing more of their kind thus enabling migration. If such a patch was lost the entire population of a species could be lost. Purchasing small patches of bushland because they are recognised as source patches or critical to establishing corridors between habitats can be difficult for those ignorant of the reasoning to understand.

Corridors are essential to any species for every species is required to migrate for survival. Without corridors and diverse landscape available to species, extinction rates increase exponentially. With natural disasters such as flood and fires, wildlife needs options if their current habitat is destroyed. Our landscapes are considered to be a sea of habitat islands and the only way to bring them together is through connectivity brought about by corridors.

Corridors also have positive human function such as barriers for property lines and landscape elements. Tree lined footpaths also create a safety environment for pedestrians, provide shade thereby reducing the heat sink effect, slow down traffic and can reduce noise.

Wildlife need core habitat and it needs corridors for without them extinction for many is assured. When council acquires land for conservation whether it be a small or a large parcel of land be mindful that size and or connectivity maybe the basis of their decision to purchase that property.

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.

