

WILDLIFE DIARY

July 2010



Great Finds

White Bellied Sea Eagle, *Haliaeetus leucogaster* sighted at Mt Cotton, with a horde of smaller birds in pursuit.

Northern Brown bandicoot, *Isodon macrourus*, seem to be around in good numbers – Hilliard Creek area.

Red Wattlebird, *Anthochaera carunculata* and **Eastern Spinebill**, *Acanthorhynchus tenuirostris* at Redland Bay.

POPULATION MATTERS

The real work of the 21st century, according to the great Harvard scientist Edward O. Wilson, is to settle humanity down before we wreck the planet. Dr. Wilson says the explosion of the human population promises 8 billion people living on earth within 40 years (as compared to 2 billion in 1900.) It's a vast bottleneck coinciding with a documented worldwide decline in arable land and water. And we people are pushing the rest of life off the face of the earth.

Edward O. Wilson, one of the world's great scientists.

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/>

Rusty acacias

Uromycladium tepperianum is a microcyclic (type of life cycle in rust fungi with two, occasionally three, spore states) parasitic rust (fungi) that infects more than one hundred species of *Acacia* and several other genera in the Fabaceae, causing large, conspicuous distorted galls up to 18 x 6 cm cinnamon to chocolate brown in color. Galls are used by insects for food and egg laying.

The value of trees

It has been shown that vegetation reduces sound by dissipating it, whereas the ground absorbs it. Wide and dense vegetation belts up to 30m can reduce noise by about 50%. When the vegetation is dense and is put in front of a row of shrubs, noise is reduced by 3 to 5 decibels for walls with widths of 3m or less. The human perception of sounds is another important factor to take into consideration. By blocking the visual origin of the sound, vegetation reduces the perception that individuals have of the amount of noise they can actually hear.

What's in flower

Eucalyptus tereticornis and *E. crebra* are in flower so are *Banksia integrifolia* and a number of *Acacias*.

Did You Know?

Did you know that Australia spends 3% of its GDP on military expenditure and 0.8% on the environment? Is this what we call balance – or are the so called pillars of sustainability skewed?

Did you know in 2002–03, local government collectively accounted for about \$4.1 billion of spending on environmental management, which is about 32% of the total environmental expenditure by the three levels of government across Australia? Most of this expenditure is for solid waste management and wastewater treatment.

While some may see Redland Council monies spent on koalas' flashing signs or State Government monies on trialling new medium strips as wasted public funds perhaps consider the following. Koala signs only equated to 3% of the expenditure (\$1.3 million) to be made on bus shelters and less than the monies spent on combating and cleaning up graffiti.

Did you know if we were to wipe out insects alone, the rest of humanity would disappear within a few months? The biodiversity of this world relies on the organisms and their relationships to the land and other organisms, to extinct one is to extinct all.

Interesting also to note is that the *prochlorococcus* is a genus of very small (0.6 µm) marine cyanobacteria with an unusual pigmentation (chlorophyll b) belonging to photosynthetic picoplankton. They are probably the most abundant photosynthetic organisms on Earth.



Great Walks

A walk around Day Rd Redland Bay is well worth the effort. Along the ridges *Xanthorrhoea latifolia* are in flower and they are dripping in nectar, many eucalypts also in flower. Wallabies abound and a

range of ground covers and shrubs are flowering such as the *Boronia rosmarinifolia*, *Banksia integrifolia*, *Acacia concurrens* and *Hakea florlenta*.

WWW

Biodiversity

http://www.youtube.com/watch?v=V1VYmpTikgw&feature=player_embedded#!

Save Wellington Ponds

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

Plant ID

<http://plantnet.rbgsyd.nsw.gov.au/floraonline.htm>

Noise in the ocean

<http://www1.voanews.com/english/news/american-life/a-13-2008-12-15-vod56.html>

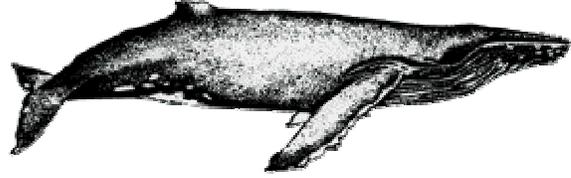
Peel Island Coral

<http://www.sbaltais.com/seagrass/fauna.html>

Humpback Whales

Humpback Whales, *Megaptera novaeangliae*, belong to the group of whales known as rorquals, a group that includes the Blue Whale, Fin Whale, Bryde's Whale, Sei Whale, and Minke Whale. Rorquals have two characteristics in common: dorsal fins on their backs, and ventral pleats running from the tip of the lower jaw to the navel area. They are characterised by the possession of baleen plates for sieving the krill upon which they feed. Humpbacks are still the third most endangered species of all the big whales, but now their numbers are increasing 13% each year. They are the fifth largest animal on this planet, growing up to 15 metres in length with a weight of up to 45,000kg (99,000lbs) - equivalent to 11 elephants or 600 persons each!

Humpback Whales are regular visitors to the coastal waters off southern Queensland. Each year, during winter, humpback whales migrate from Antarctic waters to the warm waters of the tropics for calving. There are five – six distinct migratory groups associated with different feeding grounds in Antarctic waters. The east coast population are group five. This stock was depleted by whaling in the 1950's, declining from 10,000 to 500 by 1963. Today at least 1200 humpbacks migrate 5000km to the eastern coast of Australia. Groups of whales or 'pods' start to arrive at the southern Great Barrier Reef in mid-June and in the following weeks they move further along the Great Barrier Reef concentrating in the southern Whitsunday's area. On the southern migration back to Antarctic waters, a large proportion of the whales stop over for a few days in Hervey Bay. Most humpbacks will have left the Queensland coast by the beginning of November. Whales do also come into Moreton Bay. First record of a whale in Moreton Bay was one taken off Sandgate on the 12th Dec 1872. It measured 10m (33). Tangalooma Resort now sight about 50 inside the bay annually but with Japan appearing not to recognise Australian Antarctic Territory, or its 200-nautical-mile offshore Exclusive Economic Zone our humpbacks are at risk. These humpbacks are part of a national whale and dolphin-watching industry said to be worth \$31 million a year attracting 1.6 million people annually. Source: (<http://www.environment.gov.au/coasts/species/cetaceans/whale-watching/index.html>).



A humpback is readily identified by the shape and colour pattern of its dorsal fin and fluke (tail); each is as individual in each animal as are fingerprints in humans. Also, the southern population of humpbacks' pectoral flippers are black on top. The head of a humpback whale is broad and rounded when viewed from above, but slim in profile. The body is not as streamlined as other rorquals, but is quite round, narrowing to a slender peduncle (tail stock). The top of the head and lower jaw have rounded, bump-like knobs, each containing at least one stiff hair. The purpose of these hairs is not known, though they may provide the whale with a sense of "touch." There are between 20-35 ventral grooves, which extend slightly beyond the navel.

Humpback whales feed on krill, small shrimp-like crustaceans, and various kinds of small fish. Each whale eats up to 1,361kg (1/2 tons) of food a day. As a baleen whale, it has a series of 270-400 fringed overlapping plates hanging from each side of the upper jaw, where teeth might otherwise be located. These plates consist of a fingernail-like material called keratin that frays out into fine hairs on the ends inside the mouth near the tongue. The plates are black and measure about 76 cm (30") in length. During feeding, large volumes of water and food can be taken into the mouth because the pleated grooves in the throat expand. As the mouth closes, water is expelled through the baleen plates, which trap the food on the inside near the tongue to be swallowed.

Humpback whales reach sexual maturity at 6-8 years of age or when males reach the length of 11.6m (36') and females are 12 m (40'). Each female typically bears a calf every 2-3 years and the gestation period is 12 months. A humpback whale calf is between 3-4.5 m (10-15') long at birth, and weighs up to 907 kg (1 ton). It nurses frequently on the mother's rich milk, which has a 45% to 60% fat content. The calf is weaned to solid food when it is about a year old.

The issue of Noise!

Decades ago, the myth of the "Silent Sea" was widely believed. This impression was reinforced by the inability of humans to hear well under water. In reality, the world's oceans are noisy places, and becoming noisier due to human activities. Whales may use sound to attract mates, repel rivals, communicate within a social group or between groups, navigate, or find food. Disruption to any of these biologically important functions could interfere with normal activities and behaviour, thereby affecting the reproductive success of individuals and the sizes of populations. Behavioural effects could have serious consequences for populations, if they involved large-scale effects - disruption of migration, feeding, breeding, or other critical activities. Sound, particularly low-frequency sound, propagates very efficiently underwater; some human activities could affect quite large areas of the ocean. The impact of noise recently recognised by a US court ruling that has now placed restrictions on the use of mid frequency sonar, a threat to marine mammals, during a major exercise currently taking place off Hawaii. See for more information: <http://www1.voanews.com/english/news/american-life/a-13-2008-12-15-voa56.html>

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.

