

WILDLIFE DIARY

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Great Finds

Collared Sparrowhawk, *Accipiter cirrocephalus* *Accipter*
Latin - Hawk; *Cirros* Greek - Tawny; *Cephale* Greek - head.
The Collared Sparrowhawk is a medium-sized, finely built bird of prey with wide staring bright yellow eyes. The upperparts and side of the head are slate- grey, with a complete chestnut half-collar. The underparts are finely barred pale rufous on white and the rounded wings are rather short. Seen around Thorneside and Birkdale.

Extinction is forever

Urbanisation and the consequential loss of bushland have seen the following notable extinctions in the Redlands.

Tiger Quoll, *Dasyurus maculatus* maculates one of Australia's largest carnivorous marsupials lost from the shire within living memory.

Yellow-bellied glider, *Petaurus australis*, last seen in the German Church Road / Valley Way Mt Cotton area in the early 1990's. Urbanisation destroyed their habitat.

Population Matters

Australia's population size is a crucial conservation issue. Given the historical pattern of human settlement, and the likelihood that the trend will continue, the high population growth advocated by some will have a huge impact on our ability to conserve species (ECOS, 2004).

Trees in flower

Forest Red Gum, *E. tereticornis* are out in bloom, which seems early but much to the delight of many birds. Late flowering wattle, *A. concurrens* are still about. *Concurrens* is a Latin adjective meaning running together, which is a suitable epithet for this wattle. It describes the manner in which all the primary veins join together into the lower vein near the base of the phyllode.

Did you Know?

Did you know suburban areas become more homogeneous (similar to one another), being increasingly dominated by a particular suite of native species, including rainbow lorikeets, noisy miners, crested pigeons and Torresian crows? These are all birds that respond positively to the presence of trees and shrubs, and it is likely that the increased homogeneity among suburban sites is due to an increase in vegetation cover within the previously "bare" suburbs.

Did you know within the past 10 years private amenity space has largely disappeared from the rear of new suburban houses in Australia. This is characterised by an increase in plot coverage from 30-40% to 50-60% or even more. The change appears both permanent and uniform, as it is to be found in all major Australian cities, except Adelaide. It appears to be confined to Australia, in other parts of the world where back gardens have been standard features, North America, New Zealand, Northwest Europe, this trend is not to be found. The outer suburban landscape in Australia has ceased to be one of large gardens with trees. Such landscapes are now confined to the inner suburbs. This trend represents a loss that has serious ecological implications. It also raises important questions about lifestyles changing for the worse, a trend rendered permanent by the changes to the housing stock. (Hall, A. C & Griffith University. Urban Research Program, 2007).

Great Walks

Some of the most beautiful landscapes you can find in the Redlands are found along Woodlands Drive and Springacre Road, Thornlands. Best see them while you can a little birdie says Council and developers are eyeing of this area for urban development. What a disaster that would be.

Web Sites

Wetland Mapping

<http://wetlandinfo.ehp.qld.gov.au/wetlands/facts-maps/tile-100k-beenleigh/>

Regional ecosystem maps

<http://www.dnrm.qld.gov.au/land/vegetation-management-old/vegetation-maps/vegetation-map-request>

RAMSAR

http://www.ramsar.org/cda/en/ramsar-home/main/ramsar/1_4000_0

Pollen - providing us a window into our past

Pollen analysis, or palynology, is the study of fossil pollen (and to a lesser degree, plant spores) preserved in lake sediments, bog peat, or other matrices.

Usually, the goal of palynology is to reconstruct the probable character of local plant communities in the historical past, as inferred from the abundance of plant species in dated portions of the pollen record. Palynology is a very important tool for interpreting historical plant communities, and the speed and character of their response to changes in environmental conditions, especially climate change. Pollen analysis is also useful in archaeological and ecological reconstructions of the probable habitats of ancient humans and wild animals, and in determining what they might have eaten.

Read more: Pollen Analysis - Pollen And Spores, Dating Palynological Samples, Pollen Analysis - Plant, Palynology, Fossil, and Character - JRank
Articles <http://science.jrank.org/pages/5388/Pollen-Analysis.html#ixzz3AGqFrTBD>

Pollen grains of plants are very resistant to decay. They are dispersed easily by wind. Plants produce them in very large numbers, and they will settle and accumulate on any undisturbed surface including for example in lake sediments or peat bogs. The low levels of oxygen in such places help preserve the pollen.

Over time, as the sediments form layer by layer, a vertical profile of the history of the vegetation in the area is created. Pollen fossils as old as 400 million years have been found.

Pollen grains have very distinct shapes and surface structures (see picture). By examining pollen from a sample of for example old lake sediment, scientists are able to tell which plant made the pollen and when.

Plants are adapted to certain climates, and if the climate changes in an area, some plant species will disappear. Other species more suited to the new climate conditions may appear. The changes in the plant communities, and the pollen they make, is, therefore, an indication of climate changes.

The method of pollen analysis does, however, contain some inaccuracies. For example, the abundance of pollen from a particular plant species in a sediment does not necessarily mean that this plant was very abundant in the vegetation of the area. The reason is that different species do not produce pollen in equal amounts, or maybe their pollen do not spread in the same way. Because of this, the results of pollen analysis are usually only used as an indicator of past climate conditions.

Pollen for example is being used to create a picture of SE Queensland climate and habitats over the last 40,000 years. Wetlands on North Stradbroke Island are a wonderful repository of ancient pollen. The pollen records from NSI display evidence of millennial scale variability in vegetation. One factor that has consistently modified the NSI records is European settlement on the island. At the top of all three notable records, there is a clear change from Casuarinaceae to eucalypt, heath and grass taxa, which reflect alterations in fire regimes associated with European land management that has profoundly impacted the community dynamics of the island. (Moss *et al*, 2014).

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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