



## Day 7 - Fact Sheet 16

### Tales of the Todd- Read all about it!

# Getting to know a Coolibah Swamp

Source: Alice Springs Desert park

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The spill of water over a river's banks or the runoff from adjacent gently sloping areas during a desert downpour can be a great advantage for the plants and animals that choose to live in drainage depressions nearby. Often such depressions are formed between two floodplains, one representing a time when the river might have been wider, and the other closer to the river and representing the area currently flooded. As a shallow lake spreads under the boughs of the surrounding trees and shrubs, it deposits a blanket of silt or clay which adds extra nutrients to the system. Added to this, carried in floodwater are leaves and other plant materials that eventually rot away to become humus which can also hold water like a sponge for later use by plants. In this environment the larger trees can spend their energy being productive rather than working so hard to acquire nutrients and water, and annual plants can take their chances between floods. This 'flooding', sometimes viewed as a catastrophic event (especially if there are houses in the way), is really a rejuvenating tonic for the Coolabah woodland.

### **The Coolibah Tree**


The Coolibah has found its way into Australian folklore through its inclusion in songs and poems such as 'Waltzing Matilda' where the famous sheep duffing swagman 'camped in the shade of a Coolibah tree'. Another well known Coolibah is the Burke and Wills 'Dig Tree'. Growing between 7 and 12 metres high, it spreads its canopy to provide welcome shade as well as a supply of firewood for 'boiling the billy'.

The Coolibah is characterised by its lower trunk and branches being covered with dark, flaky bark while its upper bark is smooth and can be as white as a ghost gum. Flowering is variable, but often occurs in January. The flowers are small and creamy white and the nuts (one of the smallest of all eucalypts) fall from the tree soon after forming. The Coolibah seeds were eaten by some Aboriginal people, dried and ground to a paste. These seeds, because they can form even in fairly dry times, are often available when other seeds are scarce.

### **Temporary Wetland biodiversity**

Drainage depression areas offer many of the attractions of wetlands for an extended period of time after rain - drinking water, edible aquatic plants and animals, relatively rich soil wriggling with invertebrates and shallow ponds which contain small aquatic and amphibious creatures. The trees are an extra attraction, offering leafy canopies for nesting, large crops of seeds and nuts, and trunks riddled with nesting cavities and bark insects.

Of course any habitat that can be suddenly submerged under a foot of water has an element of risk, but most of the inhabitants have either learnt to swim or move to higher land or up a tree as the water level rises. For some animals a layer of water can be a blessing, making food more accessible or providing temporary immunity from land predators. When the water subsides, the fertile silts often sprout a salad of grasses and herbs and sometimes mushrooms for small herbivores.



Even trees that die off as a result of too much water or from other effects of temporary wetland living conditions remain integral to the system by providing hollows for nesting and protection, both above the ground and after they fall. Birds of prey and other hunters also find dead limbs useful for spotting prey and launching their attacks.

### **Saltbush and Coolibahs**

Saltbush is another plant that has been 'immortalised' in Australian literature, possibly most famously by AB Patterson's Saltbush Bill. The clayey and relatively fertile soils of Coolibah drainage depressions suit saltbush (and bluebush - collectively called chenopods) and coolabahs and saltbush can be found in association in some locations. One prominent local example is the stand of Coolibahs on the east side of Alice Springs commonly called the Coolibah Swamp. Old Man Saltbush, Ruby Saltbush and Bluebush all live here as understory plants.

Characteristics of regions where Coolibah trees and saltbush occur together are likely to be low-lying, poorly drained and have soils which tend to have high salt content. If you look closely at the leaves of the Old Man Saltbush plant you can usually see (and taste) small bumps which contain salt residue. Saltbush also has leaves that are light coloured to reflect heat, do not become too dry in the sun and wind, and can take in dew which helps them save water.

Ruby Saltbush is smaller and has rounded and fleshy leaves, but they also contain salt residue which you can taste if you crush one and dab it on the tip of your tongue. This bush produces small soft berries (varying in colour from bright red to yellow) which are sweet to eat and stain your fingers. Birds like the taste of the flesh of the berries but not the bitter seed in the middle.

In areas where salt in the soil has become an environmental problem, saltbush can be planted to act as a pump to remove salty water from the soil into its system and then into the atmosphere through transpiration.