

## Day 5 - Fact Sheet 14

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

# Getting to know a Sandy Red Gum Creekbed

Source: Alice Springs Desert Park

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Australia's arid area was once much wetter and covered with rainforest. Huge rivers drained the land. As the country became drier the rivers dried out but they didn't disappear. Today, when it does rain in the desert, the water still finds its way along these drainage lines and then eventually either soaks into the sand or floods out into open flat country or, in some cases, salt pans.

While dry on the surface for much of the time, these drainage lines are wetter than other habitats in the arid zone because water is trapped in the sand below the surface. This makes life relatively stable generally; an added feature of life here is that there will be pulses of activity when water actually flows along the surface of the creek bed after rainfall.

Areas such as this also form refuge spots in 'hard' times, and are essential for the recolonisation of surrounding harsher environments in good times. This story is about life in the sandy red gum creek bed.


### River Red Gums

The River Red Gum is the dominant tree which occurs along the banks and beds of all desert creek beds. It is large and long lived, with smooth whitish bark (sometimes streaked with red), dull green leaves and attractive creamy flowers. It is sometimes confused with the ghost gum which has bright green, twisted leaves. The Red Gum is like a multi-story, high density housing development for wildlife, as well as being a significant tree for people - both Aboriginal and European desert dwellers.

Like many eucalypts, the River Red Gums have a number of features that equip them for life in their environment. They have a deep vigorous root system to reach underground water tables. Their leaves have a waxy surface and hang vertically with the narrow edge turned to the sun, all of which minimize moisture loss. They drop leaves almost continuously, once again reducing water loss through transpiration but also providing litter on the ground to reduce water loss from the soil.

### Alluvial Corridors and Biodiversity

Some of the major CA rivers and creeks, such as the Todd and Finke Rivers, reach out long distances from the ranges and foothills that feed them with their run-off. They create alluvial corridors of- by comparison with the gently graded arid plains they course through - richer, moister soil and denser vegetation. This is where you will find the greatest diversity of plant life in the desert, much of it with unexpectedly lavish appearance (insert examples).



The desert riverine habitat can be said to be the land of the birds. Birds occupy all levels, from the migrating water dwellers to the birds of prey in the canopies. Seed eaters such as finches and pigeons feed on the grasses on the river banks and need to return to waterholes to drink. Fruit producing plants such as the wild passionfruit and ruby saltbush take advantage of the richness and moisture of the riverine fringe, as do insects of many shapes and sizes (such as ..... ). This in turn feeds the fruit and insect eaters such as ..... Hollows found in the river red gums are crucial habitat requirements for breeding of many birds, especially the parrots. The abundance of vegetation cover makes sound a key communication technique, so parrots and other birds make riverine areas colourful and noisy places.

When there is sufficient rain to make the creeks flow, several things happen. Waterholes are flushed out and water levels raised. Underground water supplies and springs are replenished. New deposits of silt are left along the way, providing improved nutrition for plant life. Seeds and eggs or young of aquatic wildlife such as fish and frogs and insects can be carried along by the flow and relocated to new areas further downstream, particularly near waterholes, where they settle and flourish.

Flood line debris, which can usually be seen caught in rocks or forks of trees or fence lines, is evidence of the volume and power of water flow in desert creek beds after heavy rain. Sometimes it indicates that the water flow has originated a long way away. Because many of the riverine plants have deep roots that tap into ground water, only old trees are felled by the floods, and even felled trees can live on for years.

Unlike other Australian rivers and creeks, arid zone rivers flow inland to flood out areas where they disappear through seepage and evaporation.