



Day 7 - Fact Sheet 17

Tales of the Todd- Read all about it!

Getting to know Claypans

Source: Alice Springs Desert Park

Claypans usually occur as remnants of old drainage systems or as areas that receive localised runoff from surrounding sandy or rocky rises. They exist under natural flooding and drying regimes where floodwater carrying its load of sediment eventually slows to a standstill and deposits what is left of its load - usually fine lightweight clay particles. This low lying shallow water can remain for some time before it gradually soaks in and leaves a dry cracked clay surface.

The Value of claypans

Claypans are often dismissed as patches of bare, flat and lifeless wasteland. However they provide a water storage service in areas where water is otherwise very scarce. Although filled irregularly and unpredictably, this storage is necessary for the life of many arid zone plants and animals, many of whom have adapted to take advantage of the opportunities the claypan provides.

Life in the murky claypan waters

Claypan wetlands are home to a range of both permanent and temporary inhabitants. As a claypan fills, it immediately provides an opportunity for seeds that have been lying around to sprout and grow, also for the desiccated eggs from animals such as shield shrimps and desert fish to hatch. Frogs that have buried themselves in moist areas well below ground also come to the surface to feed and breed. Insects are drawn to the moisture as well and insect eaters take advantage of this. Birds will fly in from both close by and further away - some will be satisfying their normal daily search of the immediate area for water, others will capitalise on the opportunity to settle there until the water dries up. This will also be the case for mammals and reptiles - some finding it convenient to drink and eat and then go back to the surrounding bush, others who will stay around until supplies run out and then move on to the next area of opportunity.

Because the water is usually shallow and gets stirred up easily, things that live here have to be able withstand muddy conditions.

Shield Shrimps

One of the most primitive of living crustaceans is the Shield Shrimp. They seem to explode into life after good rains, turning claypans and muddy floodwaters into a living shrimp soup. The carapaces of these small invertebrates can sometimes be found embedded in the dried out surface of a claypan.

The dry claypan

The layer of clay that settles and gradually builds up on a claypan surface acts like a skin, allowing only slow soakage of water into the ground below. The soil particles in this clay are

very small and stick together. When the water is removed, these particles form a solid mass. The ground underneath the surface which is not clay absorbs the water differently, with its particles being larger and allowing more movement in the soil. The differing soils respond differently to the drying out process, with the clay skin breaking under the strain of the movement of the layers underneath. The cracks that occur in this way often form a regular geometric pattern. If the clay layer is deep enough, quite large cracks can appear and these can provide shelter in an otherwise harsh environment for invertebrates, small reptiles and small mammals.

Human impact on claypans



Drawing of
"Todd River"
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Age: 8