

WESTERN SWAMP TORTOISE FACTSHEET

The western swamp tortoise is Australia's most endangered reptile. It has the smallest surviving population and the most restricted geographic range of any Australian reptile.

What do they look like?

The colour of a western swamp tortoise varies with its age and the type of swamp it lives in. Hatchlings' shells are grey above and black, yellow and cream below.

The carapace (the upper part of the shell) of adults is similar to the colour of the water in which the tortoise lives. This varies from a yellow brown in clay swamps to almost black with a maroon tinge in the black coffee coloured water of sandy swamps.

Its legs are short and covered in scutes (similar to scales on fish) and the feet have well developed claws. The neck is short and covered by horny tubercles (small raised bumps) and on the top of the head is a large single scute. There are also two small barbels.

The western swamp tortoise can easily be distinguished from the only other freshwater tortoise occurring in South-west Western Australia by its short neck. The other species - the long neck or oblong tortoise (*Chelodina oblonga*) has a neck that is equal to or longer than its shell.

Did you know.....

- The western swamp tortoise is the sole surviving member of its genus *Pseudemydura* - this genus dates back to 15-20 million years and is the most primitive of its family.
- The western swamp tortoise is the only tortoise species where the female is smaller than the male.
- The western swamp tortoise was once thought extinct. Then, in 1953, it was re-discovered when a Perth boy found one crossing a road in Upper Swan and took it to the Western Australian Naturalists' Club Wildlife Show.

How many are there?

The total number of western swamp tortoises in the wild has dropped from about 200 in the mid-1960's to about 30 in the mid 1980's. This brought the species very close to the edge of extinction.

However with conservation efforts such as: securing of the swamps from feral predators with a fox proof fence, re-establishing habitat, controlling pest ravens and supplementing the population with captive bred animals, the total number has slowly increased.

The total number known to be alive in the wild was measured in 2001 and estimated at 110. However, only 25 of these were adults.



Photo: Babs & Burt Wells - CALM

Back in 1988, numbers had dropped so substantially, that a captive breeding program was initiated by Dr Gerald Kuchling at the Perth Zoo. WWF, Environment Australia and the WA Department of Conservation and Land Management have all contributed to maintaining the captive breeding program.

Today, over 170 tortoises have been successfully reared at the zoo. The captive breeding program has required many challenges to be met. The first question to be answered was how to encourage the captive animals to reproduce. Ultra sound scanning was used to detect the reproductive ability of the females. Specially designed enclosures and an improved diet resulted in the females successfully producing eggs.

Today the Perth Zoo has become a world leader in tortoise breeding. You can visit the western swamp tortoise at the Perth Zoo in its enclosure in the Wetlands exhibit.

The Threatened Species Network is a community-based program of the Australian Government's Natural Heritage Trust and WWF Australia.

'Swampy' facts

Scientific Name:
(*Pseudemydura umbrina*)

The western swamp tortoise has been declared 'endangered' under Commonwealth legislation



Where do they live?

The only 2 populations of western swamp tortoises left in the wild are located at Twin Swamps and Ellen Brook Nature Reserves on the Swan Coastal Plain within the Perth Metropolitan area.

They live in habitats of shallow, ephemeral (prone to drying out), winter-wet swamps on clay or sand-over-clay soils nearby suitable aestivating refuges. Clearing and drainage have destroyed most of the suitable habitat that was available prior to European settlement.

What is threatening them?

There are a number of factors which have contributed to the decline of the Western Swamp Tortoise. These include:

- They have always had a very narrow distribution, restricted to temporary swamps in the Swan Valley.
- Their habitat has been severely reduced due to the draining or filling of their swamps for agriculture.
- The introduced red fox has taken a heavy toll on tortoises that aestivate under the leaf litter.
- Swamp Tortoises have a very low reproductive potential which means that after their numbers drop, they take a very long time to recover.

When their swamps are nearly dry and water temperatures rise above 28°C, the tortoises leave the water to aestivate (similar to

hibernation) during the summer and autumn. This is why they are also susceptible to fires, especially during the summer months.

How is TSN helping?

TSN has funded a project that will help the local community of Ellen Brook Catchment group restore the habitat of the western swamp tortoise and eradicate threats at both Twin Swamps and Ellen Brook Nature Reserve.

The project will include the construction and implementation of aestivation tunnels for the tortoises to use during summer when the swamps dry up so that they do not desiccate (dry out) in the harsh conditions of a Perth summer.

Other threats that will be addressed include raven and rat predation and weed invasion. It is also vital to adequately maintain the perimeter fence around the swamps to exclude feral animals.

For further information:

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How can you help?

- Report any sightings of Western Swamp Tortoises
- Stop the reduction of the water table - save water in the home
- Prevent bush fires
- Join the Friends of Perth Bushland to protect future possible translocation sites