

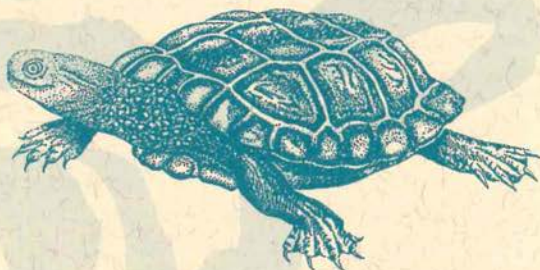
LIBRARY

Department of Biodiversity,
Conservation and Attractions

This PDF has been created for digital preservation. It may be used for research but is not suitable for other purposes. It may be superseded by a more current version or just be out-of-date and have no relevance to current situations.

Western Swamp Tortoise

Australia's Rarest Animal



This is Australia's most endangered vertebrate and one of the world's rarest species. Thought to be extinct for over one hundred years, the Western Swamp Tortoise has been rediscovered and is being given a chance of survival at the Perth Zoo.

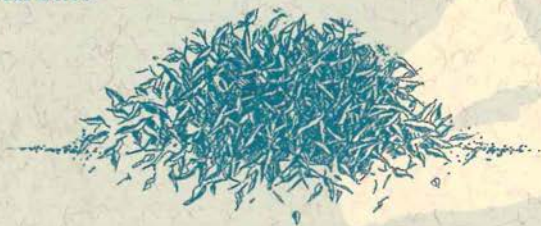
A REDISCOVERY

The Western Swamp Tortoise is on the verge of extinction with less than 80 remaining.

It was discovered in 1839 when a single specimen was collected and sent to the museum in Vienna, Austria. No further tortoises were seen for more than 100 years and the species was feared extinct. Then, in 1953, they were re-discovered when a boy found one crossing a road in Upper Swan and took it into the W.A. Naturalists Club Wildlife Show.

After much searching it was discovered that swamp tortoises still occurred in two small areas of natural habitat remaining on the edge of the Perth metropolitan area. These areas were purchased by the Government, with the aid of a Public Appeal, and set aside as Nature Reserves in 1962. Today they are called the Twin Swamps and Ellen Brook Nature Reserves.

The tortoises live in swamps that fill only during the winter and spring and are dry during summer and autumn. While the swamps contain water the tortoises swim around feeding on small aquatic invertebrates. When the swamps are dry they aestivate in holes in the ground or under deep leaf litter.



WHY IS THE SWAMP TORTOISE SO RARE?

Firstly, they have a very low reproductive potential, laying only 1-5 hard-shelled eggs in the nest, and do not reach sexual maturity until they are 10-15 years of age.

Secondly, it seems that at the time of European settlement Western Swamp Tortoises occurred only in a very small area, centred in the Swan Valley. This was the first area developed for agriculture in the state.

Thirdly, the introduced fox has taken a heavy toll of tortoises that aestivate under leaf litter.

The swamp tortoise is now extinct in the Twin Swamps Nature Reserve. The Ellen Brook



population, protected in recent years by a fox-proof fence, has remained at about 25 individuals.

CAPTIVE BREEDING

In 1988, as a consequence of the low numbers in the wild, Dr Gerald Kuchling of The University of Western Australia initiated the current captive breeding program at Perth Zoo. It is supported by the Western Australian Department of Conservation and Land Management, the Australian National Parks and Wildlife Service, World Wide Fund for Nature Australia and The University of Western Australia.

The first important step was to get the captive animals to reproduce. Ultra-sound scanning was used to determine the reproductive ability of females. Specially designed enclosures and an improved diet then stimulated these females to lay a total of twelve eggs. Only five of these survived but, since 1989, the survival rate has improved steadily.

THE FUTURE

There is still a long way to go before the rescue project can be said to be a total success. Utilizing the breeding potential of the current adults is the main aim of the project at the moment. Rearing hatchlings to maturity, which may take as long as 10-15 years, and facilitating their subsequent release into a secure habitat in the wild must then be achieved.

Constraints remain, however, and must be taken into account before any reintroduction into the wild can be considered. These include:

- The lack of sufficient suitable habitat to sustain a large population.
- The predation level by introduced foxes, feral dogs and cats.
- The risk to the long term genetic health of the species because of the necessity to breed from such a small group.

The Twin Swamps Nature Reserve is currently being surveyed with a view to rehabilitation. It will be necessary to secure the reserve from the detrimental effects of introduced predators, fire and the reduction in the water table in order to re-establish a viable population.




Breeding ponds at the zoo.


"Many of Australia's endangered species have suffered from the twin threats of habitat destruction and fox predation. Conservation authorities across the continent are working to reduce these threats, but when populations become critically low, captive breeding by zoos and wildlife departments is proving a valuable tool in rescuing species from extinction. The Western Swamp Tortoise is one endangered species which with the additional aid of public support may be saved."

*John De Jose
Director, Perth Zoo*





HOW YOU CAN HELP THE WESTERN SWAMP TORTOISE

- Send your donation to Perth Zoo, Sponsorship Trust/Conservation, PO Box 489, South Perth.
 - Stop the reduction of the water table — SAVE water in the home.
 - Prevent bush fires.
 - Be aware of the damage caused by feral dogs and cats.
- 

 Recycled Paper



PERTH ZOO
WESTERN AUSTRALIA

20 Labouchere Road, South Perth, Western Australia 6151