

Progress Report SP 2018-101

Western swamp tortoise breed for release program

Perth Zoo Science

Project Core Team

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Project status as of July 22, 2019, 3:28 p.m.

Approved and active

Document endorsements and approvals as of July 22, 2019, 3:28 p.m.

Project Team	granted
Program Leader	granted
Directorate	granted

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Context

Western swamp tortoises (*Pseudemydura umbrina*) are ranked as Critically Endangered and occur in only two natural populations at very low numbers. Establishing new populations entirely with wild caught tortoises is not feasible and captive breeding provides a source of animals for supplementation of wild populations and establishment of new populations. Captive-bred tortoises have enabled new populations to be established at Moore River Nature Reserve and Mogumber Nature Reserve. Two additional captive insurance populations have also been established at Adelaide Zoo and Monarto Zoo (South Australia) to reduce the risks associated with keeping half the global population of western swamp tortoises in a single facility.

Aims

- Produce a minimum of 30 hatchling tortoises (> 30 days of age) each year, that are grown on until they are three to four years of age, then reintroduced into sites approved by the Western Swamp Tortoise Recovery Team.

Progress

- Forty-seven western swamp tortoise juveniles were released into swamp habitat at Ellenbrook Nature Reserve (n=12), Moore River Nature Reserve (n=18) and Meerup in the D'Entrecasteaux National Park (n=17).
- A total of 89 eggs were produced in the captive breeding colony, 55 of which hatched.
- A research paper describing sexually dimorphic growth in western swamp tortoise was submitted for publication.
- A MSc research project was commenced examining the effect to two different diets for captive tortoises on growth rate and reproductive output of adult females. This project is due for completion in October 2019.

Management implications

- The focus this year has been to compare the growth and survival of juvenile tortoises at the three release sites, one of which is 350 km south of the natural range of the species. Preliminary results indicate that growth was comparable between the three sites, and that the tortoises were able to find suitable summer aestivation sites. Only two mortality events were confirmed (both due to predation by foxes).

Future directions

- Continue to produce juvenile animals for release to sites approved by the Western Swamp Tortoise Recovery Team.
- A single large release event is scheduled for Moore River Nature Reserve, involving 75-100 tortoises, in mid-August 2019.