Tortoise Tales

No. 11, 2010

Around the Reserves

ELLEN BROOK NATURE RESERVE

- 3500 plants planted in open area on NW boundary by DEC and FoWST.
- Watsonia removal - 3 strategies have been trialled. The best was hand wiping with glyphosate.
- In 2004 30% of females were lost. Not yet recovered. Andrew indicated EBNR may no longer be a self-sustaining population.

EBNR was totally burnt in 1988 – 22 years ago. The canopy is now dense and does not provide ideal conditions for WST.

TWIN SWAMPS NATURE RESERVE

- New bore installation almost complete.
- Tubestock was not planted and will be held at the nursery for an additional year.
- TSNR has no evidence of recruitment of tortoises, and shows an overall decline over the past few years.

MOGUMBER NR

- Aestivation tunnels installed around Sheep Swamp.

Revegetation and pond construction were costed.

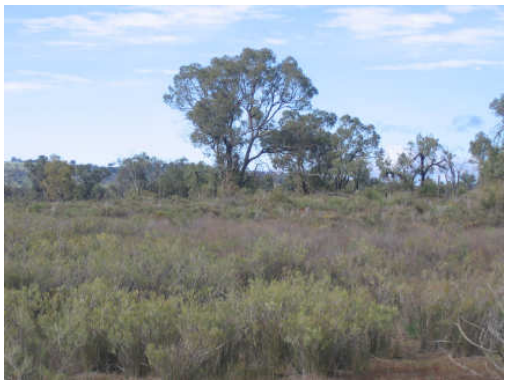
MOORE RIVER NR

- Fox activity very high. Baiting continued.
- Internal bunds constructed and modified.

Concrete Spillway on E boundary constructed.

- WST release 25 Aug 2009. Gerald reported good hatchling growth rate – better than last year.

Threatened Environmental Community (the flora of a small part of the Reserve) had the best growth rates, adding strength to the case for keeping TECs.



COMING EVENTS

Release of Captive Bred Tortoise hatchlings

Early August (on a weekend)

COMING EVENTS

Annual General Meeting to be held in early December at a new venue -

WA Reptile Park in Henley Brook.

Exciting project set to find new homes for tortoise

by Nicola Mitchell

.Our increasingly fragmented landscapes mean that many species will be unable to find their preferred habitat as climates change. Vulnerable species of high conservation value may need to be physically translocated to climatically favourable habitats capable of supporting them in the long-term (known as assisted migration). This is a watershed in conservation policy, as there has previously been considerable reluctance to consider deliberate introductions to areas where the species has not occurred historically, due to the risk of introducing disease or the introduced species becoming invasive. A recent decision framework published by leading conservation biologists concludes that assisted migration is the only option available to species that are unlikely to migrate on their own. (Hoegh-Guldberg et al. 2008).

This project proposes to answer a key question facing conservation managers and policy makers: how can we identify translocation sites where species are most likely to survive under future climates?

The project focuses on developing a multi-disciplinary, mechanistic approach that facilitates the prediction of future habitat suitability for a rare species - the critically endangered Western Swamp Tortoise. The tortoise is an ideal model for development of this approach because, 1) like other threatened species the tortoise has a restricted range and correlative modelling approaches cannot be used to predict future habitats, 2) the tortoise has specialised habitat requirements (ephemeral swamps on clay soils) that are naturally fragmented and has no ability to disperse at the pace required by contemporary climate change, 3) the climate of south-west WA has already demonstrated a notable shift over the past three decades and this has impacted on available tortoise habitat, and 4) translocations are technically feasible and have been practiced for at least ten years. Our novel approach will be to model the physiological constraints affecting the tortoise and to independently model the hydrology of the wetland habitat on which it currently depends. We will then integrate these models using a GIS framework and run them under future climatic scenarios as predicted by global climate models to identify ideal translocation sites.

The project will involve researchers from the DEC, Perth Zoo, the University of Melbourne and from the Universities of Wisconsin and Illinois in the USA. The project leaders are Assistant Professor's Nicola Mitchell and Matt Hipsey from the University of Western Australia. Nicola is an expert on the ecophysiology of reptiles and amphibians and Matt has broad experience with hydrological modelling.

NOW HATCHING

Watch a time lapse video of a Western Swamp Tortoise hatching from its egg on www.perthnow.com.au

(Courtesy of Perth Zoo and the Sunday Times)

Where are they now???

By Helen Pitman

During winter the tortoises enter the swamps once there is a couple of centimeters of water in them. They feed voraciously on small crustaceans and insect larvae to build up their body mass for aestivation later in the year, when the swamps dry up again.

For further information on any of the Group's activities, contact Jan on 9344 2872 or 0408024800 or westernswamptortoise@yahoo.com Or check out the website www.westernswamptortoise.com