

## RECOVERY TEAM ANNUAL REPORT

### THREATENED SPECIES AND/OR COMMUNITIES RECOVERY TEAM

PROGRAM INFORMATION		
<b>Recovery Team</b>	Western Swamp Tortoise Recovery Team	
<b>Reporting Period</b> Submission date 31 March	<b>DATE FROM:</b> Jan 2013	<b>DATE TO:</b> Dec 2013
Current membership		
Member	Representing	
<b>Chair</b>	Craig Olejnik <a href="mailto:Craig.olejnik@dpaw.wa.gov.au">Craig.olejnik@dpaw.wa.gov.au</a>	DPaW - Swan Coastal District - Nature Conservation Coordinator
<b>Exec Officer</b>	Alice Reaveley <a href="mailto:Alice.Reaveley@dpaw.wa.gov.au">Alice.Reaveley@dpaw.wa.gov.au</a>	DPaW – Swan Coastal District
<b>members</b>	Dr Gerald Kuchling <a href="mailto:Gerald.kuchling@dpaw.wa.gov.au">Gerald.kuchling@dpaw.wa.gov.au</a>	DPaW – Swan Coastal District - Chief Investigator
	Dr Andrew Burbidge <a href="mailto:amburbidge@westnet.com.au">amburbidge@westnet.com.au</a>	
	Peter Mawson <a href="mailto:peter.mawson@perthzoo.wa.gov.au">peter.mawson@perthzoo.wa.gov.au</a>	Perth Zoo - Director Animal Health and Research
	Bradie Durell (Guest) <a href="mailto:Bradie.Durell@perthzoo.wa.gov.au">Bradie.Durell@perthzoo.wa.gov.au</a>	Perth Zoo – WST Keeper
	Dr David Groth <a href="mailto:igrothd@info.curtin.edu.au">igrothd@info.curtin.edu.au</a>	Department of Biomedical Science, Curtin University of Technology
	Jan Bant <a href="mailto:westernswamptortoise@yahoo.com.au">westernswamptortoise@yahoo.com.au</a>	Friends of the Western Swamp Tortoise (FoWST)
	Prof Don Bradshaw <a href="mailto:Don.Bradshaw@uwa.edu.au">Don.Bradshaw@uwa.edu.au</a>	School of Animal Biology, the University of Western Australia
	Byron Manning/ Terry Morley/ Gayle Males <a href="mailto:bmanning@zoossa.com.au">bmanning@zoossa.com.au</a>	Adelaide Zoo
	Nicki Mitchell <a href="mailto:nicola.mitchell@uwa.edu.au">nicola.mitchell@uwa.edu.au</a>	University of WA - ARC Linkage Project
<b>Dates meetings were held</b>	14 <sup>th</sup> March 2013	



<p><b>Highlights of achievements</b> for the previous 12 months suitable for publication in <i>WATSNU</i> and contribution to DEC annual report. Provide 1-2 paragraphs summarising total number of new populations located, surveys completed, list major management actions etc</p>	<ul style="list-style-type: none"> <li>At Ellen Brook Nature Reserve, the last self-sustaining wild population, two new Western Swamp Tortoise juveniles which hatched in 2012 were found in November 2013. Following removal of bandicoots (for translocation) good recruitment could now be demonstrated at Ellen Brook Nature Reserve for the 2010/11 and 2011/12 breeding seasons, but after no bandicoots were removed in 2012 no recruitment could be demonstrated so far for the 2012/13 breeding season</li> <li>A new juvenile which hatched in 2011 was caught at Twin Swamps Nature Reserve. Successful recruitment has now been demonstrated for the 2008/09, 2010/11 and 2011/12 breeding seasons. It is reassuring to see that bandicoot removal since 2008 (they are used for translocations) and the installation of a new groundwater bore in 2010 show positive results.</li> <li>Two new juveniles were found in Sheep Swamp adjacent to Mogumber Nature Reserve. Recruitment in Sheep swamp could now be demonstrated from the 2009/10, 2010/11 and 2011/12 breeding seasons.</li> <li>Although gravid females were already found in east swamp of Moore River Nature Reserve in previous years, for the first time a gravid female was found in north-west swamp, demonstrating its suitability for Western Swamp Tortoises.</li> <li>Ministerial event to celebration 50 years of monitoring and recovery efforts was undertaken</li> </ul>
<p><b>List of recovery actions coordinated by Recovery Team</b> Detail under the headings below the recovery actions undertaken during the reporting period. Provide separate detail for each species/community against each action. For species/community-specific recovery teams, the generic activity types below can be replaced by the specific recovery actions from the recovery plan where appropriate.</p>	
<p><b>Action 1 –Employment of Chief Investigator</b></p>	<p>State NRM funding has paid for the Chief Investigator for the 2012/13 and 2013/2014 financial year at an increase with in time spent from FTE 0.5 to FTE 0.7.</p>
<p><b>Action 2 – Management of Ellen Brook, Twin Swamps, Mogumber and Moore River Nature Reserves</b></p>	<p>Routine management of the nature reserves continued as in past years, including fence maintenance, weed control and rehabilitation works. Rabbit baiting investigated undertaken during 2012 was repeated in 2013 for both TSNR and EBNR. In addition monitoring bores with data loggers were maintained and water samples were collected and analysed within swamps at all reserves. In addition water quality monitoring of all the reserves was completed and collection of invertebrates was undertaken to understand species diversity and biomass of WST food within the reserves. Where historical data on invertebrate has been collected comparisons and discussion on changes will be undertaken.</p> <p>Specific management works were conducted as follows at each of the reserves:</p> <p><u>Ellen Brook Nature Reserve</u></p> <p>Following weed mapping of the whole reserve 2011/12 targeted weed control focusing on Tambookie Grass, Love Grass and Watsonia is on-going.</p>



	<p>Planting on 5000 plant with Parks and Wildlife staff and Friends of the WST completed in July</p> <p>Purchase of an additional 5 hectares to the west of EBNR to be included in the conservation estate.</p> <p>1080 baiting continued on a three monthly basis</p> <p><u>Twin Swamps Nature Reserve</u></p> <p>Weed Control of grassy weeds completed around boundary of reserve to prevent weed invasion into the reserve continued</p> <p>Removal of bags around previous plantings</p> <p>1080 baiting continued on a three monthly basis</p> <p><u>Mogumber Nature Reserve</u></p> <p>1080 fox baiting continued within the reserve and properties immediately adjacent.</p> <p>Firebreak maintenance conducted in September as this was required down one side of the reserve.</p> <p>Re-vegetation with 10,000 plants of the degraded block, north of the nature reserve that is now vested with Parks and Wildlife.</p> <p><u>Moore River Nature Reserve</u></p> <ul style="list-style-type: none"> <li>- 1080 baiting continued on a bi -monthly basis.</li> <li>- Report completed analysing vegetation monitoring of established transects conducted within the TEC area.</li> <li>- Bund wall repaired after damage last winter.</li> </ul> <p>Pig control effort undertaken, largely unsuccessful, with only 3 pigs removed</p>
<p><b>Action 3 – Tortoise population monitoring</b></p>	<p>Thirty six Western Swamp Tortoises were recorded at Ellen Brook Nature Reserve in 2013, the last self-sustaining wild population. Those include two new juveniles which hatched in 2012. Following removal of bandicoots (for translocation) good recruitment could now be demonstrated at Ellen Brook Nature Reserve for the 2010/11 and 2011/12 breeding seasons, but after no bandicoots were removed in 2012 no recruitment could be demonstrated so far for the 2012/13 breeding season. All four monitored nests from the 2012/13 breeding season were predated by bandicoots. Bandicoots were again translocated out of Ellen Brook Nature Reserve in May and November 2013.</p> <p>Thirty five Western Swamp Tortoises were recorded at Twin Swamps Nature Reserve. Those include a new juvenile which hatched in 2011. Successful recruitment has now been demonstrated for the 2008/09, 2010/11 and 2011/12 breeding seasons. It is reassuring to see that bandicoot removal since 2008 (they are used for translocations) and the installation of a new groundwater bore in 2010 show positive results.</p> <p>Two new juveniles were found in Sheep Swamp adjacent to Mogumber Nature Reserve. Recruitment in Sheep swamp could now be demonstrated from the 2009/10, 2010/11 and 2011/12 breeding seasons. No recruitment could yet be observed inside Mogumber Nature Reserve, but some breeding females are known to make annual movements between the reserve and Sheep Swamp. The</p>



	<p>three plastic-lined refuge ponds at north-west swamp were re-lined with a better liner from Alcoa.</p> <p>Twenty four Western Swamp Tortoises were recaptured at Moore River Nature Reserve. Although gravid females were already found in east swamp of Moore River Nature Reserve in previous years, for the first time a gravid female was found in north-west swamp, demonstrating its suitability for Western Swamp Tortoises. No hatchlings/new juveniles have yet been found in Moore River Nature Reserve.</p> <p>There are still less than 50 adult WSTs estimated in the wild.</p>
<b>Action 4 – Captive Breeding</b>	<p>A total population of 181 Western Swamp Tortoises ( hatchlings, juveniles and adults) were at the Perth Zoo at the end of 2013</p> <p>Aestivation tunnels and banksia leaf litter continued to be used at the Perth Zoo to help the tortoises transition into the wild.</p> <p>Three successful hatchlings were produced at Adelaide Zoo in 2013.</p> <p>A total population of 11 Western Swamp Tortoises (hatchlings, juveniles and adults) were at Adelaide Zoo at the end of 2013.</p>
<b>Action 5 – Translocations</b>	<p>No translocation of Western Swamp Tortoises took place in 2013 because water levels in Moore River Nature Reserve were still too low by mid-August. It is planned to conduct a translocation of approx 30-40 individuals to Moore River Nature Reserve during 2014.</p>
<b>Action 6 – Education, Sponsorship and Publicity</b>	<p>Ministerial event to celebration 50 years of monitoring and recovery efforts was undertaken that was well attended and reported across a range of media. It had presentations by both Andrew Burbidge and Gerald Kuchling on the action and history of WST monitoring and recovery followed by the minister being introduced to "No 4</p> <p>Friends of the WST Education Sub Committee has personally delivered information packages to 11 local schools in the Ellenbrook area</p> <p>Tortoise Tales newsletter number printed and distributed so far = 4000</p> <p>Friends of the WST brochure updated version printed 5000 copies</p> <p>The Friends of WST continue a successfully partnership with Margaret River Chocolate Factory in Ellenbrook to produce WST shaped chocolates, proceeds which go to the FoWST and Recovery Program.</p>