

RECOVERY TEAM ANNUAL REPORT		
THREATENED SPECIES AND/OR COMMUNITIES RECOVERY TEAM		
PROGRAM INFORMATION		
Recovery Team	Shark Bay Marsupials	
Reporting Period Submission date 31 March	DATE FROM: 31/03/2013	DATE TO: 31/03/2014
Current membership		
	Member	Representing
Chair	Manda Page	DPaW SCB
Exec Officer	Rebecca Kay	DPaW SCB
members	Catherine Lynch	Arid Recovery South Australia
	Kim Branch	DPaW Shark Bay
	Anthony Desmond	DPaW Midwest
	Kym Ottewell	DPaW Science
	Jeff Short	Wildlife Research and Management Pty Ltd
	June Butcher	Kanyana Wildlife Rehabilitation Centre
	Tony Friend	DPaW Science
	Neil Thomas	DPaW Science
	Mandy O'Hara	Murdoch University
	Colleen Sims	DPaW Science
	AWC SW Regional Ecologist	Australian Wildlife Conservancy
Dates meetings were held	13/06/2013 & 10/01/2014	



<p>Highlights of achievements for the previous 12 months suitable for publication in <i>WATSNU</i> and contribution to DPaW 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"> • Trial translocation of banded hare-wallaby to Wadderin Sanctuary. This is the first attempt to establish a population on the mainland (in a fenced enclosure) within their former range. The results will inform future translocation options for the species. • Monitoring at Faure Island indicates well established populations of western barred bandicoots, banded hare-wallabies and burrowing bettongs. • Closure of the Peron captive breeding centre after achieving successful establishment of new populations of bilbies and banded hare wallabies. • In partnership with Universities, significant progress on genetic research focusing on burrowing bettongs and banded hare-wallabies to inform population management.
<p>List of recovery actions coordinated by Recovery Team 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>1: Protect the wild populations and their habitat</p> <p>Manage and monitor populations on Bernier and Dorre Islands, Faure Island, Boodie Island and Barrow Island Nature Reserve.</p> <p>Develop and implement a cost-effective monitoring program for the wild island populations.</p>	<ul style="list-style-type: none"> • Monitoring at Faure Island of western barred bandicoots, banded hare-wallabies and burrowing bettongs.
<p>2: Maintain captive populations</p> <p>Maintain the captive banded hare-wallaby population at the Peron Captive Breeding Centre.</p>	<ul style="list-style-type: none"> • Peron Captive Breeding Centre has suspended operations and all animals held there were relocated to appropriate locations. The facility is to remain however will be closed until there is a demonstrated need to resume captive breeding.
<p>3: Maintain existing reintroduced populations</p> <p>Maintain the reintroduced populations of burrowing bettongs at Heirisson Prong.</p>	<ul style="list-style-type: none"> • Trapping rates declined as a result of fox intrusion after an intertidal section of the fence barrier was damaged. There is progress on works of a new causeway fence which is largely completed.



<p>Maintain the reintroduced populations of western barred bandicoots and burrowing bettongs at the Arid Recovery Project (ARP).</p>	<ul style="list-style-type: none"> • Populations of WBB and BB at Arid recovery are being maintained. • Almost 100 western barred bandicoots (mostly new animals) were trapped during the 2013 trapping event • The BB population has expanded to a point of overpopulation, resulting in vegetation damage. Arid Recovery released 1492 burrowing bettongs outside the enclosure to relieve overpopulation. The application of a bitter substance on animals as a predator deterrent was also trialled. Monitoring inside and outside the enclosure by track counts, trapping, remote cameras and warren monitoring indicate there are currently no signs of bettongs persisting in the release site outside the enclosure. It was concluded that this was likely due to a combination of predation and dispersal. Monitoring inside the reserve indicates a reduction in track counts and vegetation damage.
<p>Maintain the reintroduced populations of western barred bandicoots, burrowing bettongs and banded hare-wallabies at Faure Island.</p>	<ul style="list-style-type: none"> • 2013 monitoring by AWC at Faure Island resulted in 21 western barred bandicoots (71% new) trapped and 553 burrowing bettongs (30% new) trapped with a trap success of 70-90%. A population estimate for BB was calculated by AWC at 5925 ± 81 animals. • 30 banded hare-wallabies were translocated to Faure Island from Peron Captive Breeding Centre in 2013 and monitoring of these animals is being undertaken using radio and GPS tracking techniques. Initial results indicate a high survival rate and is providing insights into dispersal and habitat use.
<p>Maintain the reintroduced burrowing bettong population at Scotia Wildlife Sanctuary (AWC).</p>	<ul style="list-style-type: none"> • 2013 trapping at AWC Scotia sanctuary indicates the burrowing bettong population is ~1300 animals.
<p>Maintain the reintroduced burrowing bettong population at Boodie Island, Lorna Glen and Alpha Island (DPAW).</p>	<ul style="list-style-type: none"> • Burrowing bettongs at Lorna Glen persist in the enclosure with no signs of reproduction and recruitment slowing down. A trapping session in April 2013 captured 114 individuals, 45 of which were new recruits. • Boodie Island was not monitored in 2013. • Burrowing bettongs on Alpha Island in the Montebello Group were at ~40 animals in 2012, originally translocated from Barrow Island.
<p>4: Reintroduce western barred bandicoots, burrowing bettongs and banded hare-wallabies to additional mainland and island sites</p> <p>Prepare and implement reintroduction proposals for Dirk Hartog Island National Park, Lagoon Point enclosure, Big Lagoon, Shark Bay for future mammal reintroductions.</p>	<ul style="list-style-type: none"> • Burrowing bettongs are on the list for Dirk Hartog Island though not Big Lagoon. • Wadderin Sanctuary and Mt Gibson Sanctuary may be suitable new sites for banded hare-wallabies. • Burrowing bettongs are doing well at all sites where they have been reintroduced and a further new site isn't required.

<p>Reintroduce burrowing bettongs at Yookamurra Wildlife Sanctuary.</p> <p>Re-introduce western barred bandicoots, burrowing bettongs and banded hare-wallabies to additional mainland sites e.g. Lorna Glen, Lagoon Point enclosure, Mt Gibson Wildlife Sanctuary in WA, and Scotia WS and Uluru-Kata Tjuta National Park enclosure (western barred bandicoots and burrowing bettongs only).</p>	<ul style="list-style-type: none"> Recent trapping at Yookamurra indicates the population is ~230 animals. 12 banded hare-wallabies were translocated from the Peron Captive Breeding Centre and soft released into Waddarin Sanctuary in 2013. Animals have been monitored via trapping and radio telemetry and have settled in well with no predator issues to date. Support in principle to establish new populations at Mt Gibson.
<p>5: Conduct research to determine the genetic relationships of isolated populations of each species.</p> <p>Assess strategies for cross-breeding or hybridising of reintroduced populations to enhance genetic diversity.</p> <p>Ensure the publication of results of research into the taxonomic status and genetic structure of burrowing bettong populations.</p>	<ul style="list-style-type: none"> Student Rujiporn Thavornkanlapachai presented findings from her PhD project at LG looking at the blending of genetic stocks of founder burrowing bettongs from the RTD enclosure in Dryandra and Barrow Island at Lorna Glen. There are notable behaviour and size differences between the populations and the project has so far determined that the two stocks are hybridising and producing fertile offspring. Peter Spencer distributed a new report on banded hare-wallaby genetics. The main findings recommend that a mixture of individuals from both island populations be considered in any future introductions to retain representative genetics from all sources. Peter Spencer is close to completing a manuscript on a large feral cat genetic study that has a lot of focus on Shark Bay.
<p>6: Enhance community participation and education in the recovery of western barred bandicoots, burrowing bettongs and banded hare-wallabies</p> <p>Encourage community involvement and ownership of the project and its achievements.</p>	<ul style="list-style-type: none"> Kanyana Rehabilitation Centre, Waddarin Sanctuary, Barna Mia and Arid Recovery continue to contribute to facilitating community involvement. There are also plans for engaging the community in the new Mt Gibson project.
<p>7: Manage recovery program.</p>	



Organise Recovery team meetings.

- Recovery Team meetings are held biannually.