



Department of
Environment and Conservation

Our environment, our future



**SUMMARY ANNUAL REPORT
THREATENED FAUNA RECOVERY TEAM**

PROGRAM INFORMATION

Recovery Team name	Woylie Recovery Team
Reporting Period (Financial / Calendar Year)	Calendar year 2009

Current membership

	Member	Representing
1. Chair	Peter Orell	Zoologist (Western Shield), Environmental Management Branch, DEC
2. EXEC OFFICER	Amy Mutton	Project Officer – Fauna, Species & Communities Branch, DEC
3.	Dr Adrian Wayne	Research Scientist, Science Division, DEC
4	Dr Nicky Marlow	Research Scientist, Science Division, DEC
5.	Paul Tholen	Swan Region, DEC
6.	Christina Gilbert	South West Region, DEC
7.	Brad Barton	Warren Region, DEC
8.	Greg Durell	Wheatbelt Region, DEC
9.	Anthony Desmond	Midwest Region, DEC
10.	Dr Peter Copley	SA DEH
11.	Jason Van Weenen	SA DEH
12.	David Armstrong	SA DEH
13.	Dr Manda Page	AWC

14.	Michael Roche	WWF
15.	Dr Andrea Reiss	Perth Zoo
Dates meetings were held	23 January, 6 March, 22 May, 10 September, and 3 December 2009	
One to two paragraph summary of achievements suitable for WATSNU	<p>The Woylie was added to the list of threatened species under the <i>Environment Protection and Biodiversity Act 1999</i> (EPBC Act), as Endangered in June 2009.</p> <p>Funding was received to establish two insurance populations; i) captive colony at Perth Zoo and possibly other ARAZPA-affiliated facilities (<40 individuals), ii) construction of a predator-exclusion compound (400 ha) at Perup Nature Reserve (expected capacity 400-500 individuals, founded by ~ 40 individuals),.</p> <p>A draft Interim Recovery Plan has been prepared and will be completed by the Recovery Team as one of its first priorities along with seeking funds for implementation. Recovery actions include predator control and clarifying the causes of decline and suppression of recovery.</p>	
List of actions undertaken by Recovery Team (from the actions in your Recovery Plan)		
Action 1. Recovery team membership	Dr Andrea Riess of Perth Zoo joined the recovery team in 2009.	
Action 2. Interim Recovery Plan	The draft IRP had been circulated to members. Further comments were received from members subsequently but the Chair has not had time to incorporate comments and redraft document. Securing a means to have an officer complete the recovery plan remains a high priority	
Action 3. Source and secure funding as required to implement recovery actions	<p>The recovery team discussed the preparation of a funding strategy; however it has not yet been completed.</p> <p>The WA Gov. Minister for Environment announced NRM funding (\$500,000) to construct a 400ha predator-proof compound at the Perup Nature Reserve. An additional \$100,000 was concurrently made available through the Perth Zoo to establish captive insurance population and support other woylie conservation programs.</p> <p>Corporate and public sponsorship is also being raised through the "Woylie Rescue" program lead by Bauxite Resources Ltd.. Launched in January 2010, approximately 70,000 of the targeted \$120,000 has been raised to date. Funds are being directed to the appointment of a Manager of Disease Investigation (hosted by the Perth Zoo, under the direction of the Woylie Recovery Team) to facilitate and oversee the determination of the role of disease in the current declines.</p>	
Action 4. Control introduced predators	<p>The Mesopredator Release project at Dryandra and Tutanning (Chief Investigator, Nicky Marlow) ended in December 2009.</p> <p>Western Shield fox baiting continued, though problems experienced by the aerial baiting contractor led to some disruption in the aerial baiting program. Plans to conduct a predator control experiment (Chief</p>	

	<p>Investigator, Adrian Wayne) and an experimental cat baiting trial (Chief Investigator, Dave Algar) at Perup failed to secure the requisite funds and APVMA Permit, respectively. Predator control has continued at Venus Bay Peninsula in SA.</p>
<p>Action 5. Clarify causes of decline and suppression of recovery</p>	<p>The cause of the decline is still unknown. Actions have continued to focus on investigations into the role of predators and disease. Studies are being done in collaboration between DEC Murdoch University, Perth Zoo and Australian Wildlife Conservancy.</p>
<p>Action 6. Monitor and manage woylie populations</p>	<p>High priority populations and actions have been identified for the focus of recovery effort given that available funding do not allow for coverage of all populations.</p> <p>Upper Warren populations (Kingston and Perup) constitute the largest former and current indigenous wild woylie populations (approximately 20,000 and <1,000 individuals respectively). Monitoring of woylies and other medium-sized mammals was partially completed where previously monitoring was maintained biannually across 11 key regional monitoring transects. Some, but incomplete, regional monitoring of predators on 6 key transects was also conducted. Insufficient funds were the limiting factor in both of these instances. At a regional level woylie declines have continued and are conservatively greater than 90% since 2002. A very clear spatio-temporal pattern to the declines is evident. Keninup (northern Perup) was the last area in the Upper Warren to be affected by the declines and has so far declined by > 80% since 2007 and is continuing to decline. Warrup (southern Kingston), until recently supported the most abundant and stable post-decline population (around 40% capture rate) in the wild has again declined by >60% particularly in the last 6 months. There have been no other indications of recovery in the region (i.e. capture rates sustained $\geq 3\%$) except for minor single-data-point increases at two of the 11 key monitoring transects. Fox activity has increased in 2009 and 2010, particularly in northern Perup. Cat activity has not changed remarkably at the regional scale (Wayne et al. unpublished data).</p> <p>Populations at Dryandra and Tutanning appear stable. Dryandra showed a slight increase in numbers by May 2009. There has been more predation at Tutanning than at Dryandra. The Tutanning population declined significantly between the May and September 2009 recovery team meetings (Marlow et al. unpublished data).</p> <p>Populations in DEC Districts South West, Swan, Warren and Wheatbelt were monitored as part of routine trapping. There was an increase in Woylies caught during the June 2009 trapping at Julimar State Forest however the Woylies are still at low numbers. Trapping during 2009 in the South West indicates that Woylie numbers remain very low and stable.</p> <p>Perth Zoo temporarily housed 6 Woylies from the Centaur Forest Block (South West) in 2009, which have subsequently been returned to the wild. Preparations are underway to establish a captive insurance populations with representative genetic stock from Tutanning, Perup and Kingston</p>

	<p>Monitoring by AWC indicated the Karakamia population is stable. Paruna is at low density with no recovery, no translocations are planned. A translocation of ~60 Woylies was planned in 2009 from Karakamia to Scotia Sanctuary in NSW. A research project was proposed to study the translocation to Scotia, medium to long term, including identifying what aspects have failed (Page unpublished data).</p> <p>The recovery team developed a strategy and 'Fate Chart' based on the source and pedigree of individuals, to provide clear guidance for the management and priority for derelict woylies and those in private care. Three main points were considered: 1) managing derelicts – care and release, 2) establishing a captive breeding program 3) creating insurance populations – wild or semi-wild colonies.</p>
<p>Action 7. Support post-graduate and other external research relevant to woylie recovery</p>	<p>Murdoch University student projects investigating genetics and various disease pathogens and parasites continued in 2009. Many new strains of toxoplasmosis were found in SW WA, doubling the number previously known. Additional preliminary data continues to strengthen the association of <i>Trypanosoma</i> sp. nov. prevalence and parasitemia with the declines. Skin and coat conditions associated with the declines continue to be investigated.</p> <p>AWC proposed to undertake Bioclimatic modelling of the range of Woylies based on museum records and asked for expert opinion from the recovery team.</p>
<p>Action 8. Raise public awareness and support for woylie conservation</p>	<p>The recovery team discussed the preparation of a communication strategy; however it has not yet been completed.</p> <p>Several media (print, radio, TV) articles have reported on the woylie declines and responses. Talks and presentations to scientific fora, school groups and universities and public and society meetings have continued. The 'Woylie Rescue' campaign led by Bauxite Resources Ltd. is also helping to raise public and corporate awareness. Planning for promotional material at the Perth Zoo has also been advanced.</p> <p>An information sheet has been prepared by Adrian Wayne, DEC Science, on the Woylie declines and can be downloaded from the DEC website (info sheet no.7): http://www.dec.wa.gov.au/science-and-research/publications-and-resources/factsheets-posters.html</p>
<p>High Priority Actions Requiring Funding</p>	
<p>Task</p>	<p>Amount needed and what for</p>
<p>[Type the work required here]</p>	<p>[Explain in layperson's terms the what is required (e.g. labour, materials) and the amount].</p> <ul style="list-style-type: none"> • Completion of the recovery plan - ~\$20,000 • Appointment of a woylie recovery team project officer to facilitate the delivery of the recovery plan – minimum \$36,000 (for part-time appointment) • Securing and managing critically important populations from

extinction (Perup, Kingston, Dryandra, Tutanning, Karakamia)

- PZ Captive colony, ~\$40,000

- Perup Sanctuary insurance population, \$85,000

- Karakamia Wildlife Sanctuary,

- Identify the cause(s) of woylie declines (e.g. determine the role of predators and disease) – minimum \$20,000
- Identify the factors limiting recovery - – minimum \$20,000
- Monitor known mainland and declining woylie populations at least annually – woylies and predators
Upper Warren - \$20,000 + \$31,000, respectively
Tutanning
Dryandra
Batalling
- Review success/failure factors of translocations