Department of Environment and Conservation
Our environment, our future

RECOVERY TEAM ANNUAL REPORT

THREATENED SPECIES AND/OR COMMUNITIES RECOVERY TEAM

PROGRAM INFORMATION

Recovery Team	**Numbat Recovery Team**
Reporting Period	**Calendar year 2011**

Current membership (31st December 2011)

Please include email addresses as we would like updated contact details for recovery team members
Also please include vacant positions and regular guests

	Member	Representing
1. Chair	**Dr Tony Friend**	DEC Science Division
2.	**Brett Beecham**	DEC Wheatbelt Region
3.	**Rob Brazell**	DEC Wellington District (South West Region)
4	**Peter Collins**	DEC Albany District
5.	**Dr Peter Copley**	Department of Environment and Heritage (South Australia)
6	**Helen Crisp**	Arid Recovery (South Australia)
7	**Peter Orell**	DEC Species and Communities Branch
8	**Dr Manda Page**	Australian Wildlife Conservancy
9	**Vicki Power**	Project Numbat
10	**Dr Helen Robertson**	Perth Zoo
11	**Paul Tholen**	DEC Perth Hills District (Swan Region)
12	**Neil Thomas**	DEC Science Division
13	**Ian Wilson**	DEC Donnelly District (Warren Region)
14	**Dani Jose**	Numbat keeper, Perth Zoo
15	**Dr Matt Hayward**	Australian Wildlife Conservancy

Dates meetings were held	30th March and 28th September 2011

One to two paragraph summary of achievements suitable for *WATSNU*	Thirteen numbats from Perth Zoo made a long trip by air to Australian Wildlife Conservancy's Scotia Sanctuary in western New South Wales, before release the same day. In Western Australia, a new project to devise cat control methodology at Dryandra was funded through the Specific Nature Conservation Projects Program followed deep concern expressed by the Recovery Team about the future persistence of the extremely valuable Dryandra numbat population. Community involvement provides important support for the numbat recovery program. Project Numbat has again provided funding to purchase radio-collars for translocated numbats, and monitoring of the translocation to Cocanarup was assisted by the Friends of the Fitzgerald River National Park.

List of actions undertaken by Recovery Team members

Action 1 Management of existing populations and habitat.

Habitat management

Fox control, fire management and visitor management, where appropriate, were carried out at the eight DEC-managed sites that support numbat populations. Australian Wildlife Conservancy (AWC) manages two fenced wildlife sanctuaries (Yookamurra in South Australia and Scotia in NSW) that are free of foxes and feral cats and support reintroduced numbat populations.

Monthly fox control is carried out at Dryandra Woodland, Boyagin and Tutanning Nature Reserves and within Cocanarup Timber Reserve and adjacent Unallocated Crown Land. Quarterly fox control continues at Dragon Rocks Nature Reserve, Stirling Range National Park, Perup Nature Reserve/Greater Kingston National Park and surrounding areas and in State forest in the Batalling area. All of these sites support numbat populations.

Prescribed burning is carried out in some DEC-managed numbat sites for hazard reduction and environmental outcomes (e.g. regeneration of kwongan and threatened flora management). Timber harvesting is under way in numbat habitat at Hillman block near Batalling and post-harvesting regeneration burns are likely.

Numbat monitoring

Monitoring of existing populations is an integral part of their management and driven surveys were carried out in Dryandra in April and November 2011, while a number of radio-collared numbats were monitored there through the year. Driven surveys were also carried out at Yookamurra and Scotia Sanctuaries. Track counts are also carried out at Scotia, where the substrate is very suitable for this activity.

Numbat sighting reports come in to DEC regularly from most other WA sites, indicating that populations other than Dryandra and perhaps Tutanning are healthy.

Predator control research

In the response to the dramatic decline in the Dryandra numbat population described in the 2009 report of the Numbat Recovery Team, a new project has commenced, aiming to determine whether predation by cats is the cause and if so to devise and implement a cat control strategy in Dryandra. In 2011, the first year of this project, intensive studies of causes of mortality in numbats and woylies commenced, resulting in strong evidence that cats are now the most important predators of both species. A trial baiting was proposed for April 2011 but did not go ahead as APVMA permission to carry out experimental cat baiting in Dryandra was not granted in time.

A detailed study of uptake of non-toxic Eradicat® cat baits by non-target (i.e. native) species commenced in April 2011, focussing primarily on red-tailed phascogales and mardos. These two carnivorous marsupials are the species occurring at Dryandra thought most likely to be at risk from Eradicat® cat baits, which are smaller, softer and carry more 1080 than Probait fox baits. The results of this study indicated that the red-tailed phascogale is at not risk from these baits but that mardos near bait drop sites may be.

The Dryandra study has also identified where cats are found in the main block of Dryandra. The next step is to identify individual cats by genotyping DNA samples from radio-collars of predated numbats and woylies, from cat hair collected on baited sticky traps and from cat scats. Cats are also identified visually using motion-activated cameras. Monitoring the persistence of these identified individuals will allow an accurate assessment of the effectiveness of control methods when implemented.

Action 2 Genetic survey of existing populations.

Ear tissue for DNA analysis is collected routinely from all numbats handled in DEC-managed populations. A genetic survey of Dryandra, Perup and Boyagin was carried out in 1995 and the results published. Another

survey is proposed in the near future.

Action 3 Translocations to establish at least six further self-sustaining populations

This action is listed in the 1994 recovery plan, when there were two existing and one reintroduced population (Boyagin). Three other translocations were in early stages (Karroun Hill, Tutanning, Batalling and Yookamurra). Since 1994, new translocations have been carried out to Karakamia, Dragon Rocks, Dale Conservation Park, Stirling Range National Park, Scotia Sanctuary and Cocanarup Timber Reserve.

The numbat reintroduction to Cocanarup Timber Reserve commenced in 2006 and between 12 and 14 animals, mostly captive-bred, were released there in December each year in 2006, 2007, 2008 and 2009. The progress of the reintroduction was summarised in the report of the Recovery Team for 2009. In September 2010 the Recovery Team decided that no numbats would be released in Cocanarup in December 2010 so that the viability of the population could be assessed. Eight numbats were known to be alive there at that time.

By the beginning of 2011, only three numbats, all females, were alive and radio-collared at Cocanarup. After the January 2011 breeding season, only one female was carrying young (four attached), indicating that males are scarce there. This female was monitored closely and three young were seen emerging from her burrow in September 2011. In August one of the other females was found dead. This captive-bred animal was 4½ years old, thus nearing the maximum recorded longevity for a numbat in the wild.

Attempts to capture and radio-collar the young were made in October but no young were found with the female. At this stage of their development young numbats are still with their mother at night, so it is most likely that they had been taken by a predator.

In 2010 the output of the captive colony was small due to several causes, so rather than commence another translocation in WA the Team decided that the five numbats available for release would be used to top-up existing reintroduced populations at Boyagin NR (two numbats) and in the Batalling block area (three numbats). These animals were radio-collared and released in December 2010. Three of these numbats were found dead soon after release. Two had been taken by predators and one was found dead without obvious cause. The other two of the five released were not found as both had radio-collars with frequencies coinciding with strong interference at their sites. Checking on interference has now become a standard procedure in numbat monitoring.

A numbat translocation was commenced by AWC at Scotia Sanctuary in 2009 when seven male numbats were moved from Stage 1 to the adjacent Stage 2 between November 2009 and January 2010. No numbats were moved in 2010 due to low numbers encountered in Stage 1.

The Recovery Team decided not to commence a new translocation in WA in 2011, while research into methods of cat control was still being carried out. The Team decided to offer the output of the breeding colony to Arid Recovery (South Australia) for a translocation AR had proposed. The lead time was too short, however, so the 13 numbats from the captive colony were sent to AWC's Scotia Sanctuary (NSW) in December 2011 to enhance the Stage 2 translocation. Funds to purchase the radio-collars fitted to these animals before they were transported to Scotia were provided through a donation scheme initiated by Project Numbat. This help is greatly appreciated."

Action 4 Disease survey and health monitoring of all populations.

A comprehensive disease survey on numbat populations was carried out during the 1990s. Health monitoring is continuing, both on the captive population and through regular monitoring of the current translocation. No disease issues have emerged recently.

Action 5 Captive breeding to provide animals for display and to supplement the translocation program if necessary.

The collaborative captive breeding program at Perth Zoo continued in 2011, providing 13 numbats for release at Scotia Sanctuary Stage 2 in December. Two males and two females from the wild were requested by the captive colony managers for the January 2012 breeding season, in order to achieve the aim of providing up to 20 numbat progeny for release to the wild each year. Due to the decline in numbers at Dryandra, no numbats were taken from that site (the usual source for the captive colony). Only one numbat was provided from the wild by DEC for the captive breeding program this year; this was an adult male, moved from Boyagin to Perth Zoo in December 2011.

Numbats remain a popular exhibit at Perth Zoo and a focus for public education.

Action 6 Establishment and support of public awareness and sponsorship programs.

Involvement in the activities of the Recovery Team by the community action group, Project Numbat (PN), has provided greater public awareness, extra funding through fund-raising and sponsorships, and a source of volunteers. DEC, AWC, the Malleefowl Preservation Group and Perth Zoo provide support for PN's initiatives. During 2011, PN provided $4000 for radio-collars to be fitted to numbats for translocation and research into the

Dryandra population.

During the year, volunteers provided assistance in field activities as part of DEC's numbat recovery activities and assisted in termite surveys to assess possible numbat reintroduction sites at AWC's Mt Gibson sanctuary.