

THREATENED SPECIES AND/OR COMMUNITIES RECOVERY TEAM

PROGRAM INFORMATION

Recovery Team Gilbert's Potoroo Recovery Team

Reporting Period Calendar year 2012

Current membership

| | Member | Representing |
|--------------------------|--|---|
| 1. Chair | Sarah Comer | Department of Environment and Conservation, South Coast Region. |
| 2. Exec Officer | Stephanie Hill | Department of Environment and Conservation, Science Division. |
| 3. | Tony Friend | Department of Environment and Conservation, Science Division. |
| 4 | Manda Page | Department of Environment and Conservation, Species and Communities Branch. |
| 5. | Tim Button | Department of Environment and Conservation, Science Division. |
| 6 | Ron Dorn | Gilbert's Potoroo Action Group. |
| 7 | Val Hack | Gilbert's Potoroo Action Group. |
| 8 | David Taggart | Research Fellow, University of Adelaide. |
| 9 | Jackie Courtenay | Consultant Wildlife Biologist (corresponding member) |
| 10 | Alan Needham | Edith Cowan University, Applied Science (corresponding member) |
| 11 | Vic Smith | Retired veterinarian, South Coast Community member (corresponding member) |
| 12 | David Edmonds | Veterinarian, Denmark Veterinary Practice. |
| 13. | Brad Barton | Regional Leader Nature Conservation (Warren Region) |
| Dates meetings were held | 28 th April and 5 th November 2012 | |

Highlights of achievements

Please note: contact Tony Friend for an update

The critically endangered Gilbert's potoroo progressed in its recovery in 2012, with continued growth of the translocated population on Bald Island and a release of potoroos into the 380 hectare enclosure in Waychinicup National Park. A two-week monitoring trip to Bald Island in June/July 2012 resulted in the capture of 66 independent potoroos.

Thirty-three potoroos from Bald Island and three from Two Peoples Bay Nature Reserve have been released into the Waychinicup National Park enclosure to date. October 2012 saw seven potoroos removed from Bald Island and released into the Waychinicup enclosure.

Potoroo releases into the enclosure also occurred in February/March 2010

(six potoroos from Bald Island and three from Two Peoples Bay), and September 2010 (eight potoroos from Bald Island) and October 2011 (twelve potoroos from Bald Island). Breeding has been recorded in the enclosure and fourteen enclosure-bred potoroos (seven male and seven female) have been captured so far.

List of actions undertaken by Recovery Team member/s

Action 1 Protect the existing wild population and habitat

The Gilbert's potoroo population at Two Peoples Bay exists in long-unburnt bushland on Mount Gardner. During 2012, routine management of the nature reserve included:

Fox control by following the approved baiting prescription distribution: quarterly aerial baiting complemented by monthly ground baiting along firebreaks.

Due to the ecological values of Two Peoples Bay Nature Reserve and Mt Manypeaks area Eradicat® trials will be conducted in these areas to determine bait uptake by non target species (using non toxic baits). An amendment to register Eradicat® baits for use within Two Peoples Bay and Mt Manypeaks is being sought from the Australian Pesticides and Veterinary Medicines Authority and it is hoped that the trials will be able to start in 2013.

Fire management included maintenance of firebreaks such as slashed breaks, continuation of readiness to respond to reports of fire, and wildfire suppression. A proposal is under development by Albany District staff, in consultation with Nature Conservation and Science Division staff, for a prescribed burn on Mount Gardner, designed to break up the large long-unburnt block and thus reduce the risk of catastrophic wildfire. This burn will not be carried out until a self-sustaining potoroo population has been established within the Waychinicup NP enclosure. Resources are needed to carry out pre- and post-fire studies of the Mount Gardner environment, including fauna, flora and fungi so that a better knowledge of the fire ecology of the threatened species at Two Peoples Bay and nearby areas can be gained.

Observation of *Phytophthora* dieback hygiene practices, with access to Mt Gardner restricted to dry soil conditions.

Visitor management to restrict access into potoroo areas.

The Gilbert's potoroo population on Mount Gardner was monitored during 2012 by trapping on lines running through prime habitat during March, June and November, and by trapping along a road transect in October.

Action 2 Increase understanding of ecology and population biology of Gilbert's Potoroo to underpin management strategies

The following studies were continued:

Population biology of Gilbert's potoroo through four-monthly census on nine regular traplines (March, June, and November) and annual census on the Mount Gardner transect (October) (Science Division, Albany).

Collaborative study of the fungal diet of Gilbert's potoroo, quokka, quenda and bush rat to find the most suitable surrogate (indicator) species for use in determining food resources in potential translocation sites for Gilbert's potoroo (Jon Pridham, Hons student, University of WA, Albany).

Action 3 Search for new populations of Gilbert's

No new searches for Gilbert's potoroos were carried out in 2012.

Potoroo outside Two Peoples Bay

Action 4 Establish and maintain a captive breeding colony of Gilbert's Potoroo

Funding is no longer available for a captive breeding program. The captive facility at Two Peoples Bay will continue to have a valuable role in temporarily housing animals during quarantine and parasite removal while being moved between field sites, i.e. Two Peoples Bay, Bald Island and the Ryedene and Waychinicup NP enclosures.

Action 5 Develop techniques to enhance the reproductive potential of Gilbert's Potoroo

Cross-fostering:

Funding for the cross-fostering program ceased in late 2009 and with the success of the Bald Island translocation, development of this technique for Gilbert's potoroo is no longer required.

Ryedene enclosure:

Initially the use of the Ryedene enclosure was intended for attempts to induce breeding in non-breeding captive potoroos by releasing them into a natural, but protected environment. This did not work, but the project showed that Gilbert's potoroos can thrive in jarrah-sheoak woodland that is quite unlike their habitat at Two Peoples Bay. Since 2010, one female potoroo has been present in the Ryedene enclosure as she was too young for release at Waychinicup. In November 2012 a male potoroo from Two Peoples Bay was captured and released into the enclosure to give her a breeding partner. To date there has been no evidence of pouch young. Both potoroos are monitored by trapping and by sensor cameras.

Action 6 Enhance the breeding capacity of Gilbert's Potoroo

The success of the Bald Island translocation and subsequent rapid growth of the new potoroo population has dramatically reduced the importance of other methods under development to increase the global population of Gilbert's potoroos, especially those involving captive breeding and artificial breeding enhancement. It is possible, however, that the development of such methods will be supported in future as an insurance policy against the failure of translocations.

Action 7 Extend the range of Gilbert's Potoroo through translocation of animals to suitable habitat outside Two Peoples Bay.

Bald Island:

The translocation of Gilbert's potoroos to Bald Island commenced in 2005 and the population has been steadily growing since then. One extended trip, one short trip and an overnight trip to Bald Island were carried out to monitor the population during 2012, involving a total of 44 person-nights spent on the island. Monitoring activities comprised trapping and searching for diggings.

During these three trips, a total of 86 independent potoroos were captured, including six of the original 10 founders transferred to the island between August 2005 and December 2007. This high tally was achieved despite the removals of individuals mentioned earlier.

Waychinicup NP enclosure: Construction of this 380 ha enclosure was completed in 2008 and cat trapping was carried out in the enclosure over an 18 month period. Fox baiting was carried out every two months since construction was completed and apart from a short-lived incursion by a fox via a hole in the fence in March 2010, no signs of foxes or cats were seen until a dead fox was found in the enclosure in May 2011. Since then the baiting regime has been improved with monthly baiting inside the enclosure and quarterly ground baiting outside the fence. Baiting outside has been facilitated by the transfer of the bait allocation for the

unsuccessful dibbler reintroduction site in the Stirling Range NP.

Seven potoroos from Bald Island were released into the enclosure in October 2012. Intensive monitoring through trapping and radio-tracking during 2012 showed that small colonies have established.

To date three potoroos fitted with tail transmitters that had been newly translocated from Bald Island into the enclosure have been predated by carpet pythons.

Action 8 Secure ongoing funding for the implementation of the Recovery Actions

Funding for Gilbert's potoroo recovery was secured for 2011/12 through the Special Nature Conservation Projects (SNCP) program, for the amount of \$120,000. This covered the employment of a Technical Officer and provided operational funding for the monitoring of the potoroo populations at Two Peoples Bay, Bald Island and the Waychinicup NP enclosure until 30th June 2012. Although the DEC decided not to fund SNCP in 2012/13, \$75,000 was provided towards Gilbert's potoroo recovery during this financial year. This covers operational funding and 25 per cent of the technical officer's salary, with the other 75 per cent from a dibbler project.

Assessment of progress towards meeting criteria for success (from Recovery Plan)

The criteria for success of the Gilbert's Potoroo Recovery Plan (Courtenay and Friend 2004) are as follows:

The Recovery Plan will be deemed successful if:

- the number of individuals known to be alive in the wild remains stable or increases and
- the species is found at, or successfully reintroduced to, other locations.

Both of these criteria were met in the five years following the release of the plan. The estimated total number of Gilbert's potoroos has increased from around 35 in 2004 to around 130 in 2012. This has been due to two successful translocations. The first was to Bald Island, where numbers reached a total of 70 known to be alive in 2012. In 2010 the establishment of another population commenced, within a 380 ha enclosure close to Mount Manypeaks in Waychinicup NP. Numbers in this enclosure reached at least 29 in 2012.

Assessment against criteria for failure (from Recovery Plan)

The criterion for failure of the Gilbert's Potoroo Recovery Plan (Courtenay and Friend 2004) is as follows:

The Recovery Plan will be deemed to have failed if:

- the estimated total number of mature individuals declines by more than 20 per cent within five years.

This criterion has not been met, and in fact the global population has increased dramatically since the Bald Island translocation in 2005.