

FAURE ISLAND WILDLIFE SANCTUARY ANNUAL REPORT 2008

INTRODUCTION

Faure Island Sanctuary is a 5,816 ha pastoral lease located in Shark Bay, Western Australia. It was acquired by the Australian Wildlife Conservancy (AWC) in 1999. The island has an arid climate with hot dry summers, mild winters and erratic rainfall, most of which falls in winter, though cyclonic activity may bring significant summer rainfall. There are five major plant communities on the island, *Acacia* shrubland, mallee shrubland, spinifex grassland, samphire and *Atriplex* shrubland, and mangrove woodland (Keighery and Muir 2008).

Feral goats and cats were eradicated off the island and sheep stocking rates have been greatly reduced. Since 2002, five threatened mammal species have been translocated to the island (Boodie, Shark Bay Mouse, Banded Hare Wallaby, Western Barred Bandicoot and Greater Stick-nest Rat).

The purpose of this report is to summarise monitoring and research activity undertaken on Faure Island Wildlife Sanctuary during 2008. This includes monitoring of translocated species to satisfy agreed reporting commitments between AWC and DEC.

METHODS AND RESULTS

ANNUAL SURVEYS

Boodies and Shark Bay Mice were first translocated to Faure Island in 2002, Banded Hare-wallabies *Lagostrophus fasciatus fasciatus* in 2004, Western Barred Bandicoots *Perameles bougainville* in 2005, and Greater Stick-nest Rats *Leporillus conditor* in 2006, with several follow up translocations since. Targeted, frequent monitoring for each species was undertaken for several years after translocation events but now annual surveys are the main tool used for assessing these populations. Annual surveys are undertaken in June/July and consist of 300 trap sites, each with a Sheffield and Elliot trap. Traps are positioned at 100m intervals along the road network and are measured for three consecutive nights. The results of the annual survey for the translocated species are presented in Figure 1. Results indicate a strong increase in the number of Boodies captured each year. Western Barred Bandicoots and Shark Bay Mice numbers are low but relatively steady while the number of Shark Bay Mice captured decreased markedly in 2008. We believe the reasons for the low, and decreasing number of species captured apart from Boodies is due to trap saturation and disturbance by Boodies. They tend to fill almost every cage trap and disturb almost every Elliot trap, preventing other species from being captured. There are abundant Shark Bay Mice and Western Barred Bandicoot tracks on the sandy roads and abundant spotlight sightings to support this theory. To counteract this, new trap designs are being applied in 2009.

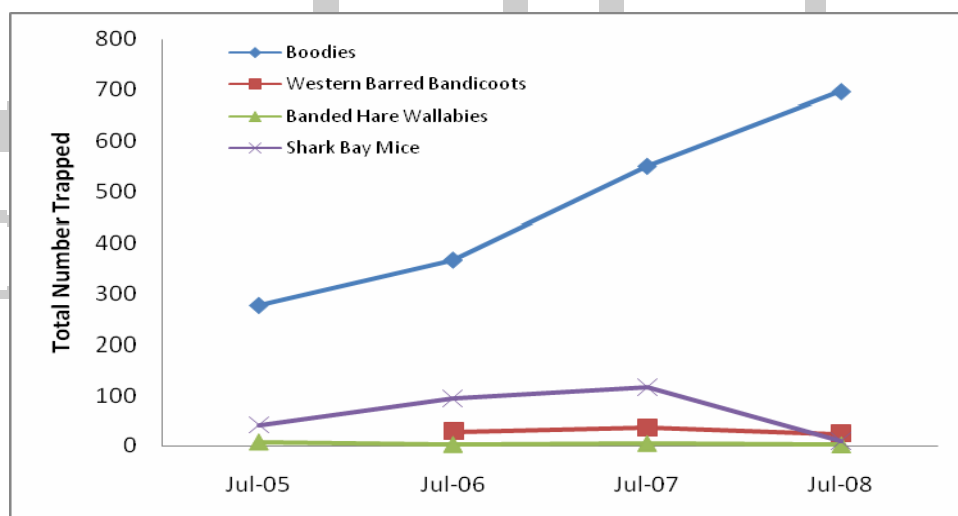


Figure 1: Total number of Boodies, Western Barred Bandicoots, Banded Hare Wallabies and Shark Bay Mice caught during the annual surveys undertaken in 2005, 2006, 2007 and 2008.

OTHER MONITORING

Other monitoring includes pit traps, targeted surveys around Banded Hare Wallaby release sites, spotlighting and opportunistic records.

Pitfall trapping was undertaken in July (at 10 sites) and November (at 6 sites) in 2008, with 6 pits with drift fences at each site. Ten species of reptiles were recorded, including one new species; *Lerista uniduo* (awaiting museum confirmation). In addition, Shark Bay Mice were caught on seven occasions. Elliot traps were also set at pitfall sights but only yielded one Bandicoot, one Shark Bay Mouse and one Boodyie, again due to Boodyies disturbing most traps.

Four additional Banded Hare Wallabies, three males and one female, were translocated to Faure Island in May 2008 from Peron Captive Breeding Centre. As part of the monitoring program for Banded Hare Wallabies, targeted trapping is undertaken at the release sites and this was undertaken in January, March and November in 2008. This is in addition to the annual survey undertaken in June/July. These sessions trial different trap layouts and trap numbers ranging from 40-80 traps. In 2008 this resulted in 14 individual Banded Hare Wallabies being captured but only one new (never trapped) individual.

Despite undertaking the annual survey and other trapping events no Greater Stick-nest Rats were captured in 2008 but prints were recorded on three occasions.

BIRD SURVEYS

Birds Australia WA undertook a survey of shore birds on Faure Island in November 2008. This consisted of seven expert bird watchers who spent a week surveying the shoreline of the island. In addition they completed 14 inland Atlas sites (20 minute search of 2ha). Overall they recorded 69 bird species. 8442 individual shore birds were recorded from 35 species including 5058 migratory birds from 18 species. They concluded that this is an important area for migratory shore birds in Shark Bay with some species exceeding the Ramsar staging threshold. They also noted that the inland regions were depauperate, with grass wrens, fairy wrens and thornbills being absent. This may be a result of the long history of feral cat presence and domestic grazing on the island and the inability of these small birds to re-establish after cats were eradicated from the island, due to the islands isolation.

VEGETATION

There are 23 photographic monitoring points on Faure Island consisting of three Department of Agriculture Rangeland Monitoring Sites, which have a long monitoring history, and 20 sites established by AWC covering different habitats, disturbed areas, weeds and regeneration of vegetation such as sandalwood. These photographs are held by AWC. A field herbarium is currently being established and to date includes 169 species recorded and 36 complete specimens.

CONCLUSION

Evidence suggests that populations of Boodyies, Shark Bay Mice and Western Barred Bandicoots are healthy and increasing. The health of Banded Hare Wallaby population is less well understood due to trap saturation by Boodyies and the young/wildborn individuals being trap shy. The health of Greater Stick-nest Rats is unknown. Data supports the suggestion that the island is an important area for migratory shore birds but lacking in some land bird functional groups. Reptile surveys are still uncovering new species and thus inventory will continue.

The 2009 science program will include applying new approaches to annual mammal surveys to alleviate the trap saturation issue by Boodyies and to better determine the distribution of all populations in relation to habitat, coupled with more extensive vegetation monitoring.

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