australian wildlife conservancy

FAURE ISLAND Dec 2004

Banded Hare-wallaby *Lagostrophus fasciatus*

Abstract

The Banded Hare-wallaby is known to have occurred throughout the semi-arid parts of southwest Western Australia. There are two subspecies described; the mainland subspecies Lagostrophus fasciatus albipilis *and an island subspecies* Lagostrophus fasciatus fasciatus. *The mainland subspecies is presumed extinct, whereas the island subspecies persists only on Bernier and Dorre Islands, off the Western Australian coastline at Shark Bay. The island subspecies is listed as 'Vulnerable' under the Federal Environment Protection and Biodiversity Conservation Act (1999), and 'Rare or likely to become extinct' under the Western Australian Wildlife Conservation Act (1950). Negotiations over preceding years culminated in the release of Banded Hare-wallabies at Faure Island in late Autumn 2004 when 7 animals were released, sourced from the Peron Captive Breeding Centre, Shark Bay, where a captive colony has been established by CALM. At six months post release six Banded Hare-wallabies are known to have survived. Collar failure of the seventh individual is presumed. The six individuals were all sighted within 150m of the release site during the last monitoring period.*

Introduction

Faure Island, located within the Shark Bay World Heritage Property, is owned and managed by the Australian Wildlife Conservancy, a federally listed not-for-profit conservation organization. Foxes and rabbits have never been present on the island, and cats have been eradicated. Efforts are currently underway to either reintroduce or introduce five threatened species indigenous to the Shark Bay World Heritage Region, one of these being the Banded Hare-wallaby. Shark Bay Mice *(Pseudonyms fieldi)* and Boodies *(Bettongia lesueur)* were translocated to the island in June 2002 and have persisted. The project aims to establish viable populations of all translocated species as well as initiate ecological research in order to increase the effectiveness of threatened species management in arid Australia. (A PhD student is currently undertaking research into Boodie genetics and population dynamics on Faure Island.)

Seven Banded Hare-wallabies (*Lagostrophus fasciatus fasciatus*), 3 female and 4 male, were translocated to Faure Island during May 2004 under Translocation Proposal endorsed by the Department of Conservation and Land Management. Six were released on the 25th of May, with the seventh (F0080, a male) released two days later (due to an inability to capture on the planned night). Banded Hare-wallabies were sourced from Peron Captive Breeding Centre (PCBC), Shark Bay, Western Australia. The captive colony was established from 24 adults (and 7 pouch young) translocated from Bernier Island in 1998.

This report covers six months (July to Dec) of monitoring of Banded Hare-wallabies translocated to the island during May 2004. There were three trips to Faure during this period 9th-12th Aug, 26th Sept-7th Oct & 15th-20th Nov.

Methods

* *Radio-tracking*

All individuals had been fitted with radiocollars (Sirtrack mortality collars) at release, and are regularly monitored at six-weekly intervals. This monitoring protocol will continue, until the radio-collars are removed in January. Radio-tracking was conducted primarily to determine survivorship. Locations, were determined during daylight hours using triangulation methodology to minimise disturbance to animals. Observations of the location were made including:- Plant community, species used as cover, and vegetation condition.

- *Trapping*

Sheffield traps were placed in close proximity to sites pre-determined by radio-tracking work, in an effort to capture individuals and assess body condition and collar fit.

- *Spotlighting*

Attempts were made to spotlight the hare-wallabies in areas determined by the radio-tracking.

Results and Discussion

- *Habitat*

Banded Hare-wallabies generally selected suitable cover for daytime shelter sites, predominately using dense thickets of *Acacia ramulosa* (Wanu). Wallabies generally stayed along the top and higher parts of dunes, where cover is generally thicker.

- *Dispersal patterns*

Radio-tracking was attempted for all individuals at six weekly intervals (after the initial month of daily monitoring post release). Six of the seven wallabies were located consistently around the release site (see map attached). Individual summaries follow:-

F0081 Male. "Flash Gordon" stayed within close proximity to the release site and was captured on the 2/10 100m south of release site. Release weight: 1820g. Capture weight: 1990g. Overall good condition with very mild (and acceptable) chaffing around the collar.The coat was average with some scabby sores present on the top of his back. He was also sighted on a number of occasions during this period 11/8, 26/9 and on the 16/11 was sighted with Joy (F0085) in good condition, his coat now looking glossy and the sores recovered.

F0082 Male. "Stroppy" was radio-tracked within close proximity to the release site during this period. He was not trapped during this period although sighted 12/8 &16/11 and appeared to be in good condition.

F0084 Male. "Himby" stayed within close proximity to the release site during this period. Not trapped during this period although was observed on three occasions. 26/9, 16/11 and on the 17/11 was sighted during spotlighting and noted as "looking great".

F0085 Female. "Joy" was located at the release sight during all monitoring trips and was trapped on 4/10 in excellent condition. She had an EPY but no large lactating nipple indicating she had probably lost her previous pouch young. She was also sighted on 2 occasions 1/10 & 16/11. On 16/11, her pouch was noted to be expanded and she was sighted with F0081 "Flash Gordon".

F0087 Female. "Gretel", was located once in August, not located during September, but located at the release site during November. She was not trapped during this period although was sighted briefly on 16/11.

F0088 Female. "Shaggy'' appeared to be settled at the release site during this monitoring period. Trapped on 3/10 in excellent condition. Release weight: 1480g. Capture weight: 1705g. The pouch was loose and she had a large lactating nipple. She was sighted on numerous occasions during this period 10/8, 12/8, 26/9 (with large pouch young), 16/11 (no young in pouch) & 17/11 (at night, no sign of young at heel, although the vegetation was not very conducive to clear spotlighting).

F0080 Male. "Wally" was not located during this monitoring period, it is assumed his collar failed within days of his release.

Map 1 – Banded Hare Wallaby Tracking

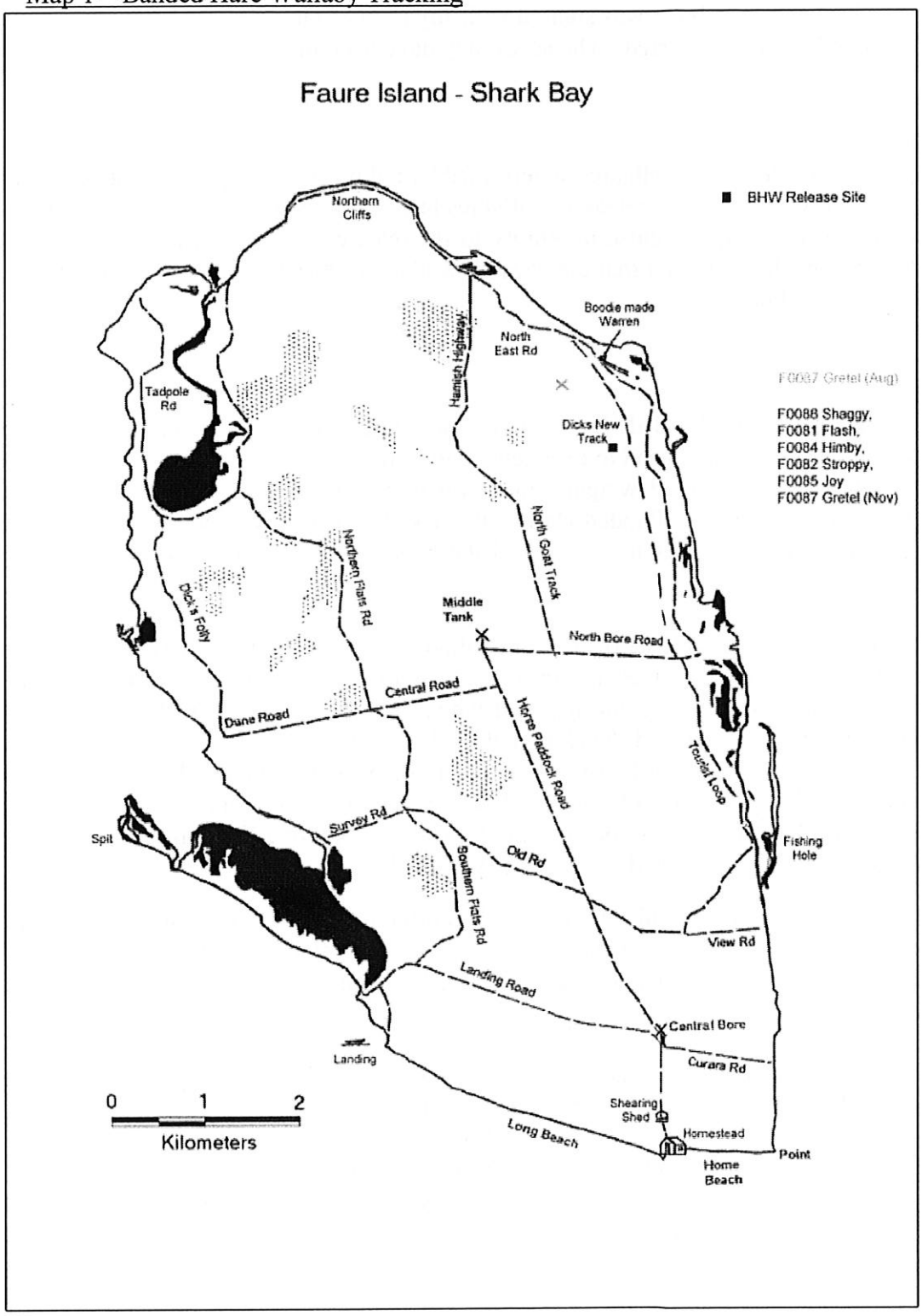

Table 2: Banded Hare-wallabies trapped during this period.

Trap Date	ID	Trovan	Sex	Grid Ref	Release Wt	Capture Wt	Pouch young	Gain-Loss	% Change	Cond.
2/10/04	0081	6342E19	M	H14	1820	1990		Gain	9.3%	Good
3/10/04	0088	6343AD6	F	H14	1480	1705	LAC	Gain	15.2%	Excellent
4/10/2004	0085	635F814	F	H14	1790	2065	EPY	Gain	15.4%	Excellent

Weight gains were recorded for all three individuals captured. F0085 & F0088 had significant weight gains. F0081 had gained weight however when captured on 2/10 was noted to have scabby sores present on his back. On 16/11 was sighted with Joy (F 0085) in good condition, his coat now looking glossy and the sores recovered. The sores may have been the result of a fight with another wallaby.

- *Survivorship*

Survivorship of the Banded Hare-wallabies, determined by radio-tracking, spotlighting and trapping results, show that at least 6 of the 7 released wallabies have survived the first 6 months. These six were sighted during this period in close proximity to the release site. No signs of starvation was recorded. It is reasonable to suggest that the seventh wallaby (F0080) had a malfunctioning radio-collar, and may also still be alive.

Conclusion

At six months post-release no Banded Hare-wallaby mortalities have been recorded. All captured wallabies appeared healthy and in good to excellent condition, with no evidence of malnourishment. All three wallabies trapped showed weight gains, two greater than 15%. The habitat on Faure Island appears to be favourable to Banded Hare-wallabies. A reasonably good rain pattern leading up to and since the release is likely to have eased the pressure on the initial establishment of the population.

All females captured showed evidence of breeding, although it appears that Joy (F0085) may have lost her original pouch young. Given the time-frame involve, this young may have exited the pouch, however, a lactating teat was not apparent when the animal was trapped. Furthermore, a second pouch-young had commenced development. This embryonic pouch-young may have been conceived either on Faure, or at the PCBC (and held in diapause). Shaggy (F0088) was sighted with a large pouch and trapped with a loose pouch & lactating nipple in September. This young is probably now 'at heal' but has not yet been sighted. The fate of Gretel's original pouch young is un-known as she has not been captured and only very brief observations have been made.

Initially the Banded Hare-wallabies dispersed over the northern half of Faure Island. By November, six of the seven wallabies were seen at the release site, the exception being F0080, Wally. Radio-tracking results show that these animals are sheltering between 150 metres and 50 metres apart during the day.

The next planned monitoring trip to Faure is in early January 2005 and attempts will be made to trap all of the wallabies. It is possible that the seventh wallaby, Wally, will be close to the other wallabies and may also be captured. At this time all of the collars will be removed. To enhance the monitoring effort and further ensure the achievement of success criteria as set out in the Translocation Proposal (AWC Jan 2004), it will be necessary to replace the radio collars of the female wallabies with new Sir-track radio collars (the same style of collar currently being used). This will be done at the discretion of staff after a thorough examination of the animal, and will only take place if it is deemed not to be adversely affecting health. Monitoring of the Banded Hare-

wallabies will continue from January '05 at three monthly intervals as prescribed in the Translocation Proposal.