



DEPARTMENT OF FISHERIES AND WILDLIFE

Western Australian Wildlife Research Centre

Mullaloo Drive, Woodvale, W.A. 6026. P.O. BOX 51, Wanneroo, Western Australia 6065. Phone 405 1555 Area Code 09



CRCO ~~APX~~ 23/11/83

A copy of my report to CRCO
on my latest trip to Barrow Is
for your information

Keith Martin

PO Box 316
KARRATHA WA 6714
Tel: (091) 868 290

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TO FILE

Between 16 - 21 October 1983, Double and Pascoe Islands were baited with loose oats saturated with Pindone in oil. Double Island (two islands of total area approximately 100ha) took six man hours to bait with the usual 50m grid pattern. Cliff areas were baited from the dinghy.

Boomerang Island was also revisited during this period and it appears that *Rattus* have been eradicated from this island. Water rat, possum and varanid tracks were still evident. I would suggest that once we are certain of the success of the baiting on Boomerang Island (perhaps after the next cyclonic rains), we collect any remaining oat baits and reintroduce *Isodon auratus*, which appears to have disappeared from the island.

Three nights (18, 19, 20 October) were spent on Boodie Island to learn more about *Bettongia* prior to any baiting programme.

Bettongia occur only on the eastern quarter of the island, that is on the limestone outcrop and the immediately adjacent sand dune area. This is an area of 108ha, compared with 470ha total area of the island.

A line of steep sand dunes running south from the *Cordia subcordata* clump appears to delineate the area utilized by the *Bettongia*. No *Bettongia* tracks were found to the west of this line of dunes.

The utilization of the sandy areas by the *Bettongia* decreases away from the base of the limestone cliffs. From track concentrations, the *Bettongia* appear to favour the red sand areas on and near the limestone. Three of the four *Bettongia* seen during headtorching were also seen in these areas. *Rattus* tracks were evident all over the island.

Mr Fuller and I counted 369 *Bettongia* burrow entrances distributed predominantly in six major warren systems (11 burrow entrances or more) throughout the limestone area. This is probably an underestimate as I'm sure some warrens were hidden beneath

Nicus trees and were not counted. It was also difficult to ascertain the number of burrows actually used by *Bettongia* as *Rattus* appear to use many of the burrows as well.

On each of the three nights, a different warren system was observed at dusk. However only one *Bettongia* was seen in the vicinity of a warren. A number of *Rattus* were seen in the vicinity of the warrens at dusk.

Night head torch transects along the gravel road bisecting the limestone area on two of the nights revealed very few *Bettongia*. One night, we counted 17 *Rattus* and 0 *Bettongia*, and on the second night, in two transects, we counted 26 *Rattus* and 2 *Bettongia* and 24 *Rattus* and 2 *Bettongia* respectively.

Six *Rattus* were shot and 2 *Rattus* were trapped in 76 trapnights. Three dead *Rattus* were left out for two nights and were partially eaten by other *Rattus*.

Access to baits was tested by inverting two plastic field boxes with handle holes 35mm x 120mm over some universal bait. These appeared to effectively keep the *Bettongia* out, while allowing access for the *Rattus*. Both baits had been consumed by the *Rattus* on the second night.

From our experience on Boodie Island, I feel that the *Bettongia* population is probably at fairly low levels and has possibly declined since the introduction of *Rattus* 80 - 90 years ago.

The *Rattus* can, and should be eradicated as soon as the correct procedures have been determined.

Because of their distribution I feel that a large section of the island could be baited without harmful effects to the *Bettongia* population. As it appears that *Bettongia* can be excluded from bait stations our main problem will be the possibility of secondary poisoning where the *Rattus* and *Bettongia* co-exist. However with correct timing it may be possible to use an antidote (Vitamin K) to prevent this. I will be examining this aspect with the APB when in Perth during November.

An eradication programme on Boodie Island would probably take 12-14 days, require three persons, and maybe use of one or two three-wheeler motor bikes.

The assistance of Mr Fuller on this trip was greatly appreciated.

A list of the fauna sighted on the islands visited will be forwarded at a later date,

Keith Morris

KEITH MORRIS
RMO ISLANDS
25th October 1983



DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

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