DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

# *MONTEBELLO RENEWAL* - A 'WESTERN SHIELD' PROJECT

## REPORT ON JUNE 1998 FIELD WORK

by Andrew Burbidge and Phil Fuller

### AIMS

The aims of the 1998 field work were:

1. to prepare Trimouille Island for the translocation of Mala (*Lagorchestes hirsutus* un-named central Australian subspecies) and to assist in the actual translocation,
2. to evaluate islands in the Montebello group for a possible introduction of the Djoongari (*Pseudomys fieldi*), and
3. to continue monitoring islands in the Montebello group for the presence of Black Rats (*Rattus rattus*), following the 1996 eradication project.

### REMOVAL OF RODENTICIDE FROM TRIMOUILLE ISLAND

As provided for in the approved 'Translocation Proposal for the Mala from the "Mala Paddock", Tanami Desert, Northern Territory to Trimouille Island, Montebello Islands Conservation Park' any remaining Talon® rodenticide was to be removed from the island before the introduction of Mala.

Four CALM staff departed from Dampier at 0530 on Tuesday 9 June 1998 on the charter boat 'Linni' (Deck'Em Charters). Personnel were Andrew Burbidge (WATSCU and CALMScience), Phil Fuller and Peter Speldewinde (CALMScience) and Ian Gale (volunteer). We arrived at Hurricane Hill Hut, Hermite Island at 10.15 am and unloaded gear and stores. The Kubota generator started easily but the alternator would not cut in for some time. The rest of this day was spent preparing the Hut for occupation: installing tarpaulins on the verandah, installing the salt-water pumping system, launching *Osprey* (the 4.5 m dinghy), starting and running the outboard motor, etc.

We noted that the vegetation on the islands was lush and that many plants were in flower or seed, following rain about a month before.

At 7.10 am on Wednesday 9 June it commenced raining and about 75 mm fell over the next hour. At 10.30 am we travelled to the Faraday Pearls base in Faraday Channel to advise of our presence and then went to Cocoa Beach, Trimouille Island, to commence removal of the rodenticide. It took nearly three hours to cross the island once (at its widest point) as it was very difficult to locate the bait stations in the lush vegetation. Light rain fell during most of this time and when it became heavy, and the wind increased in strength, we returned to Cocoa Beach and then to the Hut.

On 10 June there were strong winds and we called Faraday Pearls on marine VHF and spoke to the owner, Dick Morgan, who offered assistance in transporting us to Trimouille Island during rough weather. This assistance was continued during the remainder of the trip and it became clear that we would probably not have completed the removal of the bait in time without this help, as there were many days of strong winds during our stay. We visited Faraday Pearls on 12 June and again spoke to Dick Morgan, as well as to his son Andrew Morgan, and they re-iterated their willingness to help. We offered to pay for charter of their

boat, but they declined stating that this would be 'their contribution to the rat eradication project'.

Rodenticide removal continued on 11, 13, 14, and 15 June. (On 12 June it rained all morning and we assessed islands for possible Djoongari release.) On 13 June we were assisted by two people from a yacht anchored in Stephenson Channel. Rodenticide removal was completed on Monday 15 June. In all, 163 kg of rodenticide was removed from the island. Much of this was wet (some was so wet that it could be poured from the bait station), much was rotting and some was putrid because of recent rainfall; the dry weight would probably have been about 75% of the wet weight. We had intended to burn the old rat bait in an incinerator at Hermite Island but this was not possible; instead we buried it in a sandhill near Hurricane Hill Hut. We believe that we located and removed bait from well over 95% of the bait stations on the island (approximately 2 300). Some stations in blow-out areas could not be located, having either been blown away or buried, and a few stations in vegetated areas could not be found even after extensive searching and had probably been scattered by the wind.

The bait stations used in 1996 were 1 L plastic bottles with two holes cut in the sides. Bait stations were used partly to prevent access to the rodenticide by Brown Quail (*Coturnix ypsilophora*) and Bar-shouldered Doves (*Synoicus australis*). No UV stabiliser was used when the bottles were manufactured by ACI Plastics Packaging, so that they would naturally break down. During this visit most bottles had lost their top half at least and some had broken into many small pieces, meaning that any remaining bait was exposed. We saw no evidence that the rotted bait was being consumed by native fauna. While on Trimouille Island we saw about 15 to 20 Brown Quail and about the same number of Bar-shouldered Doves. We also saw several Bungarra (*Varanus gouldii*) and numerous Bungarra tracks. Bar-shouldered Doves were common on other islands visited.

At 9 pm on Tuesday 16 June it re-commenced raining and heavy rain fell all that night. We estimated that about150 mm fell during this time. Light rain continued during the 17th with another15 mm falling. After a delay due to the weather, a helicopter arrived from Varanus Island at 8 am, courtesy Apache Energy, to take Peter Speldewinde and Ian Gale to Barrow Island, from where they travelled to Perth via jet, also courtesy Apache Energy.

## EVALUATION OF ISLANDS FOR DJOONGARI TRANSLOCATION

Peter Speldewinde inspected Trimouille, North West, Primrose and Bluebell Islands and evaluated them for a possible Djoongari introduction. He selected North West Island as having the most suitable habitat. Peter will report his findings to the Djoongari Recovery Team.

## THE MALA TRANSLOCATION

The transport of Mala from the Tanami Desert to Trimouille Island went according to plans outlined in the Translocation Proposal, except that delays caused by the Northern Territory air charter company and weather meant that the animals did not arrive at the Montebellos until 4.40 pm on Friday 19 June (they were expected to arrive at about 3.15 pm). The Mala were flown from Karratha to Trimouille Island in a Bell 206 'long-ranger' helicopter, courtesy of Apache Energy. A re-supply of fresh food and some spare parts were also brought over at this time.

Don Langford, Parks and Wildlife Commission of the Northern Territory, who accompanied the animals from the Tanami Desert, Phil Fuller and Andrew Burbidge camped on Trimouille Island on the night of the 19th so that the Mala could be released after dark. (The camp was at Cocoa Beach, outside the radiation zone.) The Mala were released about 100 m inland from Cocoa Beach between 7 and 8 pm. All 30 animals were alive and all except one appeared healthy. One animal appeared to be suffering from mild 'capture myopathy', a condition seen before in

marsupials captured and transported over long distances. (One Mala transported from the Tanami Desert to Dryandra in April 1998 died from this condition.) Of the 20 females, 12 had small pouch young. All animals remained close to the release point after release, where food (fresh lucerne chaff and apples) and water had been provided. Most animals remained within 10 to 15 m of us while we were working.

Radio-tracking on the morning of 20 June showed all animals with 100 m of the release point and most within 25 m. Track searches showed that some had explored their surroundings, up to about 150 m from the release site. The animal suffering from capture myopathy was alive and sheltering alongside a *Spinifex longifolius* clump. It appeared reasonably healthy and we decided that it would not be euthanased.

Further radio-tracking on 22 June, revealed that most animals were sheltering under vegetation within a few metres of the release site. Some had moved up to 150 m away. One transmitter had switched to mortality mode, indicating that it had been still for more than 10 hours; however, when tracked down this animal was very much alive, suggesting transmitter malfunction. Disturbance to this animal caused it to move some hundreds of metres south of the release point.

On 24 June, most animals were still sheltering within 100 m of the release point. However, a few had moved to 100 to 150 m north-east, and one had moved 250 m to the north. The animal equipped with the malfunctioning transmitter was located about 500 m north east of the release point.

On 26 June, most animals were at or close to the same sites occupied on 24 June.

On 28 June, most were still at the same sites. One animal had moved about 850 m north west. Two animals could not be located. This does not give major cause for concern as animals in areas surrounded by dunes, for example, are very difficult to locate and are often relocated on the next visit.

Arrangements are in hand for another monitoring visit in early August, courtesy of Apache Energy.

## RAT MONITORING

During the visit, we examined all of Trimouille Island and parts of Hermite, North West, Primrose, Bluebell, Alpha, Ah Chong, Gossypium and Grevillea Islands. No evidence of rats was seen. Dick Morgan told us that, earlier in the year, a pontoon, left on the beach at Alpha Island, had rat droppings on it when picked up a few days later. We searched this area for rat tracks and droppings and found none; it seems likely that the droppings were from another animal.

Phil Fuller saw a mouse on Trimouille Island during the rodenticide removal and we also saw mouse tracks at Cocoa Beach and near Balfour Point. Mice have not previously been recorded on Trimouille Island, although a House Mouse (*Mus domesticus*) skull was obtained from a cat scat on Hermite Island in 1983. It seems likely that mice occurred in low numbers on Trimouille Island (and perhaps other islands in the group) and that their numbers were kept very low because of predation by rats. Now that the rats have been eradicated and now that a good season has occurred, a mouse plague is possible.

## LOGISTICS

The support of Apache Energy and Faraday Pearls was crucial to the success of this year's work. Numerous days with strong winds occurred during out visit making travel to Trimouille

Island in the 4.5 m dinghy dangerous and out of the question. We were only able to maintain our planned schedule because of the help provided by Faraday Pearls. The delays in purchasing a boat for the Pilbara Region meant that we were entirely dependent on the 4.5 m dinghy kept at Hermite Island. No further trips to the Montebellos that involve extensive travel between Hermite and other islands should be contemplated unless a larger boat is available.