



FOX CONTROL PROGRAM

FOR

GNARALOO STATION

Turtle Predation Minimisation Project

January 2009



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Animal Pest Management Services
Report on Fox Control at Gnaraloo Station
January 2009

FOX CONTROL PROGRAM FOR GNARALOO STATION JANUARY 2009

1 Program Objectives

This fox control program was to compliment the program completed in December.

The objectives of the program are to minimise to zero all fox predation of turtle nests on beaches along the coast of Gnaraloo Station.

2 Program Methodology

Baiting was undertaken using relatively the same program as previous, which was a three-pronged strategy in primary locations to immediately control foxes in the turtle beach areas and to control foxes in a buffer zone adjacent.

The three areas consisted of the beach area where the turtle nests were located, the area immediately behind the beach and primary dunes, (which made up the core baiting area) and the surrounding hinterland up to 8 km from the turtle nesting areas (buffer area). The total core baiting area consisted of 55 km² while the buffer area consisted of 185 km².

Fox baiting was undertaken utilising a variety of fox baits. These consisted of Dried Meat Baits (DMB's) produced by Animal Pest Management Services, Foxoff Econobaits and 1080 egg baits. A total of 336 baits were used.

Baits were strategically placed to maximise uptake based on the fox activity seen and based on the activity found throughout the previous program. This method produced a rapid knockdown using the minimum number of baits. Where these baits were taken by foxes, they were replaced daily.

Baits were also laid at the rate of up to 5 baits/km² across the whole baiting zone, after the strategic baiting was first conducted. Baiting rate was dependent on the number of foxes present with bait numbers reduced to minimise costs and potential risks. Average baiting rate for the December program was 5 baits/km² (600 baits over 120/km²), while in this program average baiting rates was 1.4 baits/km² (336 baits over 240 km²).

The area baited extended from the Gnaraloo homestead north to Farquhar Bay, from the beach area up to approximately 8 km inland. In this baiting program the buffer zone was extended further inland to accommodate for an increase in fox movements in search for food after the fire on Gnaraloo Station and to minimise young foxes migrating into the core area.

This fox control program was undertaken over a period of four days.

3 Results

The baiting program resulted in a significant reduction of fox activity across the entire area. Fox numbers were determined to be low across the majority of the assessed area. After the initial reduction in fox numbers from the first baiting program, juvenile foxes moved into the area from elsewhere in search for new territories. Therefore it is important to implement follow up control programs to reduce immigration of other foxes.

There was no predation of turtle nests by foxes since the first program was completed in December, although there was some fox activity along the beach area.

At the conclusion of this 4 day program, no evidence of fox activity found throughout the baited area.

Dried Meat Baits seemed to be the more preferred bait by foxes. Foxoff baits were effective for a rapid knockdown effect on the fox population and were readily consumed by foxes. 1080 egg baits were also readily taken by foxes when placed along the beach.

The removal of baits by non-target species was highest with Foxoff baits (16%), followed by egg baits (33%), while only 5% of Dried Meat Baits removed.

Total bait take was recorded at 80% for targeted baiting sites in December, while bait uptake during January was 55%. This reflects the reduced number of foxes present during the second baiting program. These bait take figures would have been higher if no sausage baits were used in the first baiting period, as these baits were relatively ineffective compared to DMBs with an uptake of less than 10% when both baits were presented.

Strategic baiting appeared to be the most effective method of rapidly reducing fox numbers with fewer baits needed and a reduced incidence of multiple bait take by individual foxes.

A dramatic increase in feral cat activity was evident in the second baiting program. With the removal of foxes, feral cats have no competition and an increase in their movement may occur (mesopredator release). Feral cat tracks were located along the beach, more so than the previous program.

4 Discussion

There was no predation of turtle nests by foxes after the first control program, although there was fox activity along the beach. The foxes that immigrated into the turtle nesting were juvenile and either could not smell the eggs in the nests or had not been shown how to dig for food by adult foxes. However once turtles begin to hatch the foxes would predate heavily on those. These foxes were removed and an extension of the buffer zone was implemented to further reduce the movements of other foxes into this protected area.

The strategic baiting program was fundamental to achieving a quick and highly effective reduction in fox numbers. This was assisted by the standard practice method of fox baiting at 200 m intervals.

Training of Gnaraloo Station staff in the basics of fox baiting and use of 1080 will be undertaken in October to allow for these staff to compliment the fox control program by general baiting throughout the station.