

# **FERAL ANIMAL CONTROL GLUEPOT RESERVE**

## **Introduction**

The reserve has been divided into three blocks – Old Gluepot Block, Central Gluepot Block and Birdseye Block. Birdseye Block has restricted access and is defined as a reference and conservation area.

Calperum Station borders the reserve to the north/east and eastern boundaries and Taylorville to the Southern boundary. Parcoola Station and Balah Station borders the northern and western boundary respectively.

## **Impact of Feral Animals**

Birds Australia Gluepot Reserve provides habitat for numerous rare and threatened fauna. The Malleefowl is of particular concern as its numbers have declined substantially Australia wide. Research indicates that predation by foxes can have a dramatic effect on Malleefowl chick survival rates. Studies in other areas have shown that intensive fox baiting programs can play an important role in the increased survival rates of young Malleefowl during the first 6 months of life, when they appear to be most at risk. Recent research indicates that overgrazing may also have an impact on malleefowl breeding. Feral Goats are the primary grazing animal on Gluepot Reserve.

## **Feral Goat**

### **Aims and Objectives**

- Significantly reduce the feral goat population on Gluepot Reserve
- Strategic management of feral goats along the northern and western boundaries of Gluepot by constructing electric fence
- Goat traps to be set at strategic locations along the northern boundary of Gluepot .
- Targetted shooting program of goats during the hotter months of the year
- Strategic and coordinated management of Feral Goat control with adjoining land owners particularly Parcoola and Balah Stations (also Calperum and Taylorville)
- Liaise with Natural Resource Management Board (NRMB) to facilitate broader control of feral goats at the regional level.

### **Control Methods**

Three methods have been effective for the control of Feral Goats

#### **Electric fence**

An electric fence has been constructed along the entire northern and western boundaries of Gluepot Reserve to discourage feral goats moving from adjoining properties into Gluepot Reserve.

#### **Shooting**

Ground shooting has proved effective to target feral goats that have moved through the electric fence and or have moved in from other properties. The key to an effective shooting program for feral goats is introduce a consistent and on going program with skilled and qualified shooters. Whilst shooting is very labour intensive, it will produce good results with a determined and well planned effort.

## **Trapping**

Trapping on water points using weldmesh yards during the hotter periods of the year has proved effective where goats are in lower numbers. The northern and western boundaries of Gluepot pose the greatest risk of feral goats moving into the reserve. A number of traps positioned near existing dams and tanks have proved effective when the goat numbers increased. Whilst most dams and water points have now been closed, troughs placed inside goat traps were used during trapping operations.

## **Foxes Baiting**

Aims and Objectives.

Should be aiming for bait take below 10%

64 fox baiting stations have been established along access tracks within the reserve at 500 meter intervals. Volunteers and rangers have provided the resources to lay and replace baits and the gathering of raw data at bait stations

Methods

Each bait station to be marked with a steel peg which has a colored numbered tag attached to the top

1080 baits are buried between 20 -50 mm below the soil surface. This process is repeated each day when a bait has been taken. Sweeping of the site allows easy track identification. Burying of baits ensures little poisoning of non target species.

Baits have been a combination of 1080 impregnated kangaroo meat and commercially produced "fox off" baits. Generally "fox off" baits are more convenient and are a good replacement bait. Fox baiting is carried out for ?? days each month. The first day should involve the laying of initial baits. Subsequent days are used for the replacement of baits where required and the collection of raw data.

Weather can affect the degree of baiting success for example hot weather tends to decrease bait uptake.

## **Neighbour Involvement**

Calperum and Taylorville to the east and south of the reserve also undertake fox baiting program. The involvement of adjoining landowners to the north and west of the reserve is a priority. These landholders only bait during lambing periods and view fox baiting at other times of the year as impractical and unnecessary.

## **Control**

An extensive fox control program using 1080 commenced on Gluepot in 1998. This ongoing control program has kept fox numbers low. This strategic baiting effort combined with similar poisoning programs on the adjoining properties of Calperum and Taylorville will ensure fox numbers remain low in the east and south of the reserve.

Control programs are undertaken exclusively by volunteers and rangers at Gluepot.

Supplementary shooting is considered impractical and unnecessary because

- attempts to totally eradicate all foxes are simply impractical

- Predator prey theory suggests that a simple reduction in predation pressure may be sufficient to allow prey populations to recover.
- it is unlikely we will have the time and resources over the longer term to maintain a shooting program
- the overall goal of the program should be to assess whether a long term baiting program can improve the conservation value of Gluepot Reserve.

### **Baiting**

Baiting programs should be designed to achieve conservation outcomes and should represent a balance between the goal of maximum fox kill rates, available volunteers and Rangers and budgetary constraints. Initially baiting should be carried out on a monthly basis during the first 12 months to remove as many resident foxes as possible.

In subsequent years baiting frequency should be reduced to a quarterly basis with baiting operations occurring during September, December, March, and June. These baiting periods coincide with expected periods of peak fox activity, resulting from increased energy requirements due to lactation (September), the dispersal of young foxes (December March) and the fox breeding season (June).

Studies elsewhere have shown that periods of up to 9 months are required to reduce bait-take below 10% .

To reduce immigration of foxes into the core area, baiting needs to be conducted across a buffer zone extending at least 10km from the periphery of the core area.

Some foxes may develop an aversion to particular bait mediums through the consumption of non lethal, partially denatured baits or the regurgitation of partially consumed baits. To achieve a maximum reduction of a fox population it is recommended that an alternative bait type be used at least once per year. Alternative baits may include chicken heads, fresh eggs, fresh meat baits, Foxoff Econobaits .

Bait stations should be spaced at 500 meters intervals along all tracks on the reserve including boundary tracks. Bait stations should be identified by a painted star dropper and numbered using cattle tag. Baits should be left in place for 1 week and subsequently collected and correctly disposed of preferably burnt.

Data to be recorded include % bait take, limited value

Poisoned baits must be buried to reduce non target mortalities. This practice aims to limit the species that would encounter a bait to those that utilise smell to find food and those that will dig for food

It is recommended that all baits be buried to a depth of 10cm to limit non target kills. Baits should be buried within a hole dug from the parent soil type at each bait station rather than covering the bait with a mound of sand or a sand pad.

### **Monitoring and Data Collection**

To effectively evaluate this program and

1. the effects of control on the fox population
2. the effects of pest removal on the target population

Active den counts are considered the most accurate determinant of fox density, however the large size of the reserve and the inherent logistic demands of searching for dens make den counts an impractical option.

Spotlight counts have a number of disadvantages including insufficient sampling of habitat types, aversion to the spotlight by some animals and insufficient sampling of the species nightly activity patterns

Graded longitudinal track transects are recommended for Gluepot.