



## FERAL

### What is a Feral Animal?

A feral animal is a domesticated creature that has escaped, or been deliberately released, into the wild where it now lives and breeds. When talking about ferals we also often use the term to include invasive species. Invasive species are all other non-indigenous species of animals and plants that have been introduced, escaped or somehow found their way to Australia and are damaging the habitats they invade. Like Australia many countries around the world face problems caused by feral species.



### How Ferals Were Introduced

Some species, like the fox and rabbit, were introduced for hunting and as food. Others like the camel were imported from 1840 onwards for exploration. Along with donkeys they were also valuable as pack animals. When cars and trains replaced them and they were no longer needed, most were simply let free.

Rats and mice arrived accidentally on ships and with imported goods.

Cats came as pets and were used to control mice, rats and rabbits on farms.

Many just moved away into the bush.

Cane toads and the plague minnow fish were introduced to control problem insects but became pests themselves.



### Problems Caused by Feral Species

Australian native animals and plants have evolved to live in our unique island environment over millions of years in delicately balanced ecosystems.

Introduced species, having never lived in these ecosystems before, cause many problems and can destroy this delicate balance in a number of ways.

#### Displacement:

Typically feral species have few natural predators to control their numbers. They then compete with native species for resources such as food, water and shelter. They can also change the natural, native habitats by trampling fragile soils and native plants. Some native animals can then no longer survive in an area and move out – they are displaced.

#### Predation:

Feral predators like cats, dogs, foxes, and wasps will eat a wide variety of different native species and may simply eat too many for a population to remain healthy.



European Wasp

#### Extinction:

The extinction of many small native creatures is believed to have been caused by feral populations of rabbits and cats, which are found over most of Australia.

#### Degradation:

Introduced species are responsible for much degradation of native habitats by compacting the soil, digging extensive burrows or churning up wetlands and waterways. Introduced hooved animals like goats, cattle and horses create problems by compacting soils and crushing native animal burrows. Often such squashed or compacted soil is less able to support plant growth – the environment is degraded.



Goat

#### Disease:

Introduced species often harbour parasites and diseases that native animals and plants have no protection against.



Mouse



### Controlling Feral Species

Australians have been trying to control feral species for a very long time.

1. Mechanical methods of control involve fencing, trapping, shooting, and netting animals and fish along with pulling, mowing and burning of 'weed' plants. Rabbit and dingo proof fences have been erected to try to keep ferals out but they haven't really worked.

2. Biological controls are the release of viruses, parasites and other animals to control feral species. The myxomatosis virus was released to infect rabbits, and the cane toad to feed on the cane beetle.



Cane Toad

3. Chemical controls are the use of herbicides and insecticides to kill pests, and pheromones (chemical scents) to lure mate-seeking insects into traps.

Scientists now accept that most feral species are so well established that they will never be completely eradicated. So the experts concentrate on trying to control numbers where feral animal populations are having most impact on vulnerable native animals and landscapes. However, there are animal welfare concerns whenever animal control takes place with poisoning, mustering, trapping or shooting. In order to help protect native animals and habitats new methods of control are always being researched.

1080 is the name of a poison bait that has been developed to control non native animals. It is derived from an Australian plant that native animals have evolved a natural immunity to. Introduced species do not have this immunity.

Creation of fenced, feral-free wildlife refuges are growing in number. All the introduced species are cleared from a fenced area where native species can then exist without feral pressure.

Australia has some of the strictest quarantine controls in the world in order to stop any new pest species coming into





the country. Preventing new potential pests arriving is a big priority.

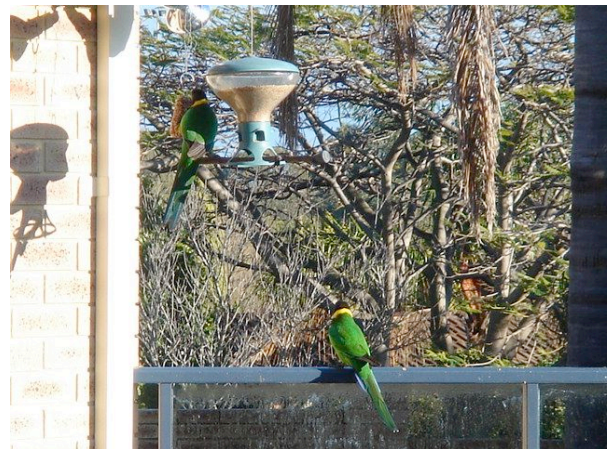
### What You Can Do

A huge amount can be achieved by individuals. Simply by planting native trees and flowers you will assist native mammals, reptiles, birds and insects by providing food and shelter for them. A wildlife friendly garden and pond encourages many species including threatened frogs to thrive. Tolerate and even encourage native species like bobtails and skinks in your garden or block. Report notifiable pest species like European wasps and starlings to The Department of Agriculture and Food.



Native planting

If you do keep non-native animals as pets ensure you never allow them to endanger native species through hunting, or by releasing them into the environment. Unwanted fish should go back to the pet shop not your local lake or waterway. Birds should be kept securely in their aviary. Cats can be prevented from hunting using cat bibs and should be de-sexed to stop unintentional breeding. Pet keeping is great fun and part of many peoples lives but must be done responsibly.



Feeding native parrots in a suburban garden.



### Feral Offenders

#### Rabbit

##### *Oryctolagus cuniculus*

Arriving with the First Fleet in 1788

rabbits have been around a long time but most records state that Thomas Austin started the current infestation by releasing 24 rabbits in Victoria in 1859. Within 10 years their population had exploded to the extent that 2 million could reportedly be shot or trapped a year without noticeably affecting the population. Even with modern biological controls rabbits are a great nuisance to farmers whose land is burrowed into, crops eaten and soil eroded as native plants are stripped away. They are implicated in many animal and plant extinctions in Australia. Almost definitely Australia's number 1 feral pest.



#### Cat

##### *Felis catus*

Cats have been present in Australia since the first European settlers and possibly

even arrived as early as the 17<sup>th</sup> Century surviving shipwrecks along the hazardous coastline.

They have contributed to the extinction of many small mammals and ground nesting birds and as carnivores will eat all sorts of animals including lizards, frogs, fish and even insects. A female cat can have two or more litters of kittens each year allowing their population to grow very quickly.



#### Fox

##### *Vulpes vulpes*

The European red fox was introduced for recreational hunting in the 1850's. They became a major problem species almost immediately. They are able to thrive in a range of habitats from urban to arid, but favour wooded areas where foods and shelter are more easily found. They catch and eat many small mammals, ground



nesting birds and will also eat berries and insects. This nocturnal pest is found across Australia but not yet in the tropical northern areas. It is considered responsible for the decline of many reptiles like the woma python, many marsupials and birds like the night parrot.

#### Cane Toad

##### *Bufo marinus*

Native to the Americas the cane toad was deliberately introduced into Queensland in 1935 to eat the greybacked cane beetle, which threatened sugar cane production. Instead of solving the problem and eating the beetle, they eat almost any small mammal, amphibian or insect that can fit into its mouth.



Australia has no native toad species, and no native predators to control the toad numbers. With poison glands behind its head many native predators, which have no immunity to the poison, die when attempting to eat them. Cane toads are still spreading around Australia now threatening WA as they spread westward.

#### Goat

##### *Capra hircus*

Nineteen goats arrived on the First Fleet to provide milk and meat. Many more goats followed in subsequent shipments and they have firmly established themselves around Australia. They will eat almost anything including many plants, flowers, roots, leaves and bark. They have a major effect on native vegetation and can cause soil erosion preventing regeneration. Among other diseases they can spread foot rot to sheep.



#### Pig

##### *Sus scrofa*

Thirty-two hogs are recorded as arriving with settlers coming to Australia in 1788. Pigs cause damage by wallowing, rooting around for food and will also eat eggs from ground nesting birds. Wild pigs have spread to all but the driest parts of Australia. Research continues into ways of controlling feral pigs and to minimise the impact they have on the environment.





Horse

*Equus caballus*

Donkey

*Equus asinus*

Horses have been used as transport, and for working on farms for over two hundred years.

Donkeys arrived in 1866 to serve as pack animals particularly in Western Australia.

Feral herds were first noted in the 1920s.

As hoofed animals feral horses and donkeys cause land degradation. They pollute waterholes with dung, and displace native animals from good grazing. They can also spread equine influenza and African horse sickness to domestic horses and tick fever to cattle.



impact damage than hoofed livestock and as they like to browse on plants on the move they tend not to stay in one place long enough to destroy all the vegetation. However during drought periods they will congregate around waterholes and deprive native animals the opportunity to drink. They can cause considerable damage to fencing on agricultural properties.

Water Buffalo

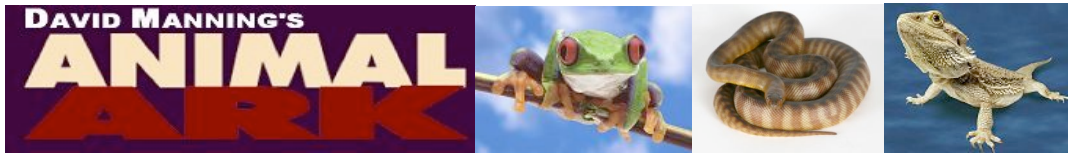
*Bubalus bubalis*

Water Buffalos had created huge problems in tropical North Australia. By churning up the sediments and opening new watercourses as well as consuming vast quantities of vegetation they displaced many native species. They are the only large feral animal ever successfully controlled in Australia. A massive shooting programme lasting nearly 20 years has finally brought their numbers under control. Many indigenous species like birds, barramundi, crocodiles and native plants have now returned to their former habitats.

Camel

*Camelus dromedanus*

Although numbering over 250,000 in Western Australia alone, camels are probably one of the least damaging of all ferals. Their padded feet cause less



## Natives in Danger

### Greater Bilby

*Macrotis lagotis*

Only 100 years ago the extremely cute Bilby was common in many parts of Australia. A national recovery programme is underway and successful breeding programmes have enabled them to be reintroduced into secure habitats

### Purple-crowned Fairy Wren

*Malurus coronatus*

Living amongst thick vegetation near fresh water this beautiful little bird is threatened by degradation of its habitat. They are found in the Kimberly region WA and also in Northern Territory and Queensland.

### Woma Python

*Aspidites ramsayi*

The harmless woma python is threatened by the impact of many feral species. Fortunately it may be kept in captivity as a pet where it is easy to care for and breed, hopefully ensuring a secure future for the species.



David Manning

[www.animalark.com.au](http://www.animalark.com.au)

Educational roadshows bringing native wildlife to events and schools.