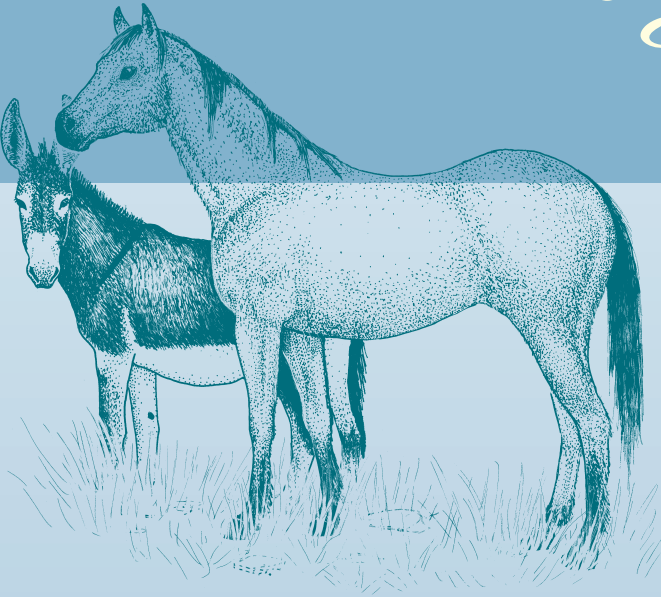


Feral horse (*Equus caballus*) and feral donkey (*Equus asinus*)

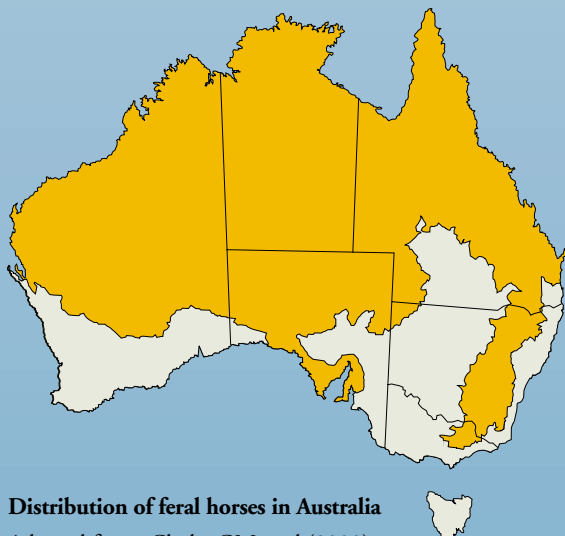


Australia has an estimated 300 000 feral horses and up to five million feral donkeys, mainly in central and northern Australia. Both species cause erosion, spread weeds and compete for pasture with native animals and livestock. Feral horses pose a particularly complex management problem because they can have economic and cultural value, and debate continues about the best way to manage their populations in Australia.

History

Horses arrived with the First Fleet in 1788. Shipments of working farm horses followed, and the first record of horses either escaping into the bush or being abandoned was in 1804. Much of the country was initially grazed without fences, so escape was common. As machines gradually replaced horses in a range of tasks, many horses were released to join the already established feral herds.

Donkeys arrived in Australia in 1866 to serve as pack animals and in haulage teams. They were particularly useful in the Kimberley, Western Australia and in Victoria River, Northern Territory, where a toxic plant affected horses. Motorised transport replaced donkeys throughout the early 1900s, and feral herds were first reported in the 1920s. By 1949 the donkey was sufficiently numerous to be declared a pest in Western Australia.



Distribution of feral horses in Australia

Adapted from: Clarke GM et al (2000). *Environmental Pest Species in Australia*. Internal report, Department of the Environment and Heritage, Canberra.

Most of the estimated 300 000 feral horses occur in the extensive cattle production areas of the Northern Territory, Queensland and some parts of Western Australia and South Australia. Scattered populations are also found in New South Wales and Victoria. Australia also has as many as five million feral donkeys in arid central Australia, the Kimberley in Western Australia and the Top End in the Northern Territory.

Ecology

Feral horses inhabit a variety of country: semiarid plains and rocky ranges, tropical grasslands and wetlands, temperate ranges, subalpine forests and small offshore islands. They prefer grassland and shrubland with plentiful water and pasture. Feral donkeys prefer tropical savannas and arid hill country. Drought and severe bushfires are the only significant natural threats to feral horses and donkeys.

Feral horses and donkeys form small social units of either a dominant stallion accompanying one to three mares and their offspring, or a bachelor group. The groups of mares, offspring and a stallion favour areas near permanent water and have loose territories, while bachelor groups range more widely. Home ranges can be up to 88 square kilometres in the central Australian ranges.

Donkeys eat coarser vegetation than horses. Both species generally drink regularly, although donkeys can survive in areas without surface water. Both can travel further than cattle to water.

Feral horses breed in spring to summer and have a gestation period of about 11 months. They can produce one foal every two years. Feral donkeys produce one foal a year if conditions are favourable.



Feral donkeys eat a wider range of vegetation and graze further away from water than do cattle and horses and have a much wider impact on native vegetation. Photo: Denis O'Byrne/ANTphoto.com.au

Impact

Feral horses and donkeys are serious environmental pests, causing erosion and damaging vegetation with their hard hoofs. They damage and foul waterholes, and introduce weeds through seeds carried in their dung, manes and tails. Feral horses and donkeys may also compete for food and water with native animals.

In central Australia, feral horses overgraze large areas because they can travel up to 50 kilometres from water in search of food. This can force native wildlife from its favoured habitats. The impact of feral horses and donkeys on native grasses, herbs, shrubs and drinkable water is most pronounced during drought. They can quickly degrade areas close to remote waterholes, which during a drought become refuges critical to the survival of many native animals and plants. Without these refuges, native plants and animals may become locally extinct.

Feral horses and donkeys also have an impact on the productivity of farming land. Feral horses eat pasture grasses, destroy fences, and during a muster can cause cattle to scatter. They can carry exotic diseases such as equine influenza and African horse sickness, which are serious threats to domestic horses. They can also carry tick fever, which can infect domestic horses and cattle.



Feral horses often foul natural watering holes, making the water undrinkable, damaging the soil and destroying surrounding vegetation that can provide a refuge for native animals in times of drought. Photo: Queensland Environmental Protection Agency

Control

Drought has a severe impact on feral horses: old horses, juveniles and mares with young are the most vulnerable. During drought many horses can die, mainly from starvation, lack of water and eating toxic plants that they usually avoid. They gather round waterholes where they are often culled for humane reasons.

Feral horses can be controlled using a number of conventional control techniques; however, strict animal welfare guidelines must be followed.

Herd are often mustered and usually some of the younger horses are kept for saddle horses or pets. Trapping may be less stressful to feral horses than mustering, but there are animal welfare concerns about the handling of feral horses in traps and during transport to abattoirs.

In terrain where mustering on horseback or on motorbikes is not possible, helicopters have been used. Aerial culling by properly trained and accredited shooters using approved procedures is considered to be a humane way to reduce feral horse numbers over large areas.

The process is quick and eliminates the stresses of mustering, yarding and transportation for slaughter.

Fertility control is a non-lethal approach to feral horse management but it is currently of limited use. Fertility control techniques are difficult to administer to large numbers of unyarded feral horses and the treatment would need to be repeated often to be effective. It is not yet known whether such techniques can reduce the environmental damage caused by a population of feral horses in an area of high conservation value.

Further reading

Dobbie WR, Berman D McK and Braysher ML (1993). *Managing Vertebrate Pests: Feral Horses*. Bureau of Resource Sciences, Canberra.

Illustration of feral horse and donkey by Karina Hansen McInnes and Sharyn Wragg

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For further information, contact:



Australian Government
Department of the
Environment and Heritage

GPO Box 787 Canberra ACT 2601
Phone: 1 800 803 772
Web site: <http://www.deh.gov.au>



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