

FOXES ON TRIAL

Fox Biology & Behaviour



Photo: P. Meek, Forests NSW

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Distribution

The red fox, *Vulpes vulpes*, is the most common and widespread member of its genus. It occurs naturally in North America, Eurasia and parts of northern Africa. It was introduced to Australia in the late 1800s for sport and recreation, and is now distributed across all of the mainland, with the exception of the tropical north. It has recently been reported in Tasmania.

Habit

Foxes are highly adaptable and secretive animals with no specific habitat or specialised diet requirements. They can survive in habitats ranging from arid through to alpine as well as urban areas. Foxes are generally nocturnal but can be seen active at any time of the day.

Home Range

Foxes are territorial, with home range size dependent on the habitat and availability of resources. They can be solitary animals or live in a family group consisting of a dominant male, dominant female, and subordinate females (offspring from previous litters). The males may temporarily leave their own territory in search of other mating opportunities.

Breeding and Lifecycle

Females breed once a year, Gestation lasts 51-53 days, with cubs mainly born from August to October. The average litter size is four but can be as many as ten. Cubs are weaned at four weeks and will leave home in search of their own territory after four months (mostly the males). Both sexes reach sexual maturity at 9-10 months.

Mortality

Adult foxes have few natural predators although cubs can be taken by birds of prey and dogs. Population turnover appears to be rapid with the highest period of mortality occurring at dispersal. The main factors contributing to mortality are caused by humans, food availability, disease (e.g. mange and distemper) and competition with other foxes.

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Fox Impacts

Predation

Fox predation is a major threat to the survival of many native animals and has been listed as a key threatening process by both the Commonwealth and NSW Governments. Fox predation has been reported on lambs, kids, piglets, calves, cows in birthing difficulties, deer, ostrich and emu chicks, and poultry, including chickens, ducks, geese and turkeys. Until recently, predation was considered a problem only for small-scale poultry operations, however with the growth of the free-range poultry industry, susceptibility to predation has increased not only as bird losses but also stress-related declines in egg-laying and meat quality.

Foxes and Rabbits

Rabbits are an important food source for foxes, however foxes are not a reliable tool for rabbit control. Research has shown that fox predation will only have any effect on rabbit populations when the rabbit numbers are initially low.

Disease and Parasites

Foxes can carry a variety of infectious diseases and parasites which can be potentially be transmitted to domestic animals and humans. Foxes are susceptible to diseases such as mange, canine distemper, parvovirus, toxoplasmosis, and canine hepatitis, although fortunately the disease that causes the most concern overseas, and to which the fox is particularly susceptible, rabies, has so far been excluded from Australia. Foxes can carry a variety of endoparasites. They are known to be part of the lifecycle of the hydatid tapeworm, and the protozoan parasite *Neospora caninum*, one of the most important causes of bovine abortion worldwide. Ectoparasites known to be carried by foxes include fleas, ticks, mites and ringworm.

Spread of Weeds

Foxes consume fruit and seeds as part of their diet and can spread weeds, such as blackberries, by depositing the undigested seeds in their dung across properties and into areas of native vegetation. Other weed seeds can be carried long distances by attaching to foxes' fur.



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Photo: Qld DPI



Photo: NSW DPI