



Department of
Primary Industries and
Regional Development

Digital Library

Biosecurity factsheets

Biosecurity

10-2024

Red fox

Department of Primary Industries and Regional Development, Western Australia

Follow this and additional works at: https://library.dpird.wa.gov.au/bs_factsheets

 Part of the [Agricultural Education Commons](#), [Agricultural Science Commons](#), [Biosecurity Commons](#), [Natural Resources and Conservation Commons](#), [Natural Resources Management and Policy Commons](#), [Population Biology Commons](#), [Poultry or Avian Science Commons](#), and the [Sustainability Commons](#)

This factsheet is brought to you for free and open access by the Biosecurity at Digital Library. It has been accepted for inclusion in Biosecurity factsheets by an authorized administrator of Digital Library. For more information, please contact library@dpird.wa.gov.au.

Red fox

DPIRD-157

This factsheet provides information on the red fox in Western Australia (WA).



Image 1: A red fox

Introduction

The red fox (*Vulpes vulpes*) is a native of the northern hemisphere where it occurs throughout most of Europe, Asia, North America, and the northern coast of Africa. The red fox was first introduced to Australia (Victoria) from Britain as early as 1845 for hunting with foxhounds. Having become successfully established in Victoria by about 1870, it colonised most of mainland Australia over the next 70 years. Foxes are not found in the most northern regions of Australia, including northwest Kimberley.

In WA, the fox is a declared pest under the *Biosecurity and Agriculture Management Act 2007*, which is administered by the department. It is declared for the whole of the State in the management control category C3, and the prohibited keeping category.

The Western Australian Organism List (WAOL) contains information on the area(s) in which this pest is declared and the control and keeping categories. For more information, see the WAOL list on website at dpird.wa.gov.au.



Image 2: A red fox standing next to the body of a dead lamb

Characteristics

Red foxes are members of the dog family (Canidae), which includes dogs, foxes, and wolves. Foxes range in colour from pale red to deep red-brown on the upper parts. The underparts are white and the lower part of the legs is usually black. The tail is bushy and almost always tipped with white or black hairs. Initially, cubs have a short, dark grey fur, which soon changes to a dark chocolate colour. As they grow, young foxes develop the red adult coat, and their rounded faces develop the pointed nose of the adult. Adults measure a little over one metre in length, including the tail, and weigh between 4.5 and 8.3 kg; males are usually larger than females. Foxes have a very acute sense of hearing and smell. They have long whiskers, which give them information by touch, but their eyesight is less well developed.

Significance

Foxes cause economic loss to agriculture production by preying on poultry, newborn lambs, and kid goats. Foxes have caused the decline of many small to medium-sized Australian animals and played a role (along with cats) in the extinction of 14 mammal and one bird species. They are hosts and vectors of parasites and diseases that can be transmitted to domestic pets and in some cases to humans. They can spread weeds, damage infrastructure (horticulture irrigation systems), and be a general nuisance eating pet food and overturning rubbish bins.

Foxes are the major carrier of rabies in Europe. Australia is free of rabies, but if it ever reached here, control of foxes would be a major problem in combating this deadly disease.

Diet

Although foxes are predominately carnivores, they tend to eat whatever is most easily available to them. Their diet includes invertebrates (such as earthworms, centipedes, insects), fish, amphibians, reptiles, birds, small mammals, carrion, fruit, and other plant material. The diet in a particular area varies seasonally and depends on foods that are most available at the time. For example, where rabbits are numerous, they usually constitute the major food. Foxes have a habit of burying excess food for later use.

Reproduction and growth

Foxes breed once a year, in June to October in Australia. The barking calls of foxes, which are often heard during early winter, are probably associated with pair formation and the start of courtship. The vixen remains on heat for only 3 days and gestation lasts about 52 days. Cubs are born during August or September in a dry, sheltered den. They weigh from 100 to 130 g at birth. The average litter size is 3 to 6. Cubs are fed solid food from about 3 weeks of age. The dog fox (male parent) assists the lactating vixen by bringing food for her and the cubs. Cubs are weaned at 6 to 8 weeks of age.

From about 4 weeks of age, the cubs begin to fight among themselves and establish their social ranking. Cubs emerge from the den on a regular basis at about 6 weeks, and usually abandon the den to live on the surface by 10 weeks of age. Young foxes can hunt successfully for small mammals from about 12 weeks of age and most become independent at an age of 5 to 6 months. Foxes are capable of breeding when they are about 10 months old.

Mortality is greatest during the first year of life. Many young and inexperienced foxes fall victim to control efforts by humans.

Habits

Foxes hunt alone and for part of the year are basically solitary animals. They become more social as the breeding season approaches, forming or re-establishing pairs. The dog-vixen pair is the basic social group, though groups with additional, non-breeding vixens have been observed. In these larger groups, the vixens have a system of social ranking, with the oldest animal at the top. The younger, subordinate females help the dominant vixen (probably their mother) to raise her latest litter. Juvenile foxes begin to part from their social group at about five to six months of age, eventually dispersing from the area in which they were raised.

Each fox occupies a distinct area called a home range. Home ranges can be from 280 to 1600 ha in size and provide all the needs of a resident fox. Home ranges of individual foxes sometimes overlap. Social groups occupy a group home range, part or all of which may be defended against other foxes; the defended area is termed a territory. The size of home ranges and territories is determined by the density of the fox population and by the availability of food and other resources.

Foxes are active mainly at night. They rest during the day in a den, often an enlarged rabbit burrow, or in sheltered sites such as rock piles, hollow logs, or thickets. A fox may use several resting sites within its home range and does not necessarily return to the same site each day.

In common with many animals, foxes use scent marks as a form of communication. Foxes mark various conspicuous objects within their home ranges with urine, scats (faeces) and secretions from the glands on either side of the anus. These marks can indicate to other foxes that the area is already occupied. Some scent marks may also identify individuals and indicate their sex and reproductive status.

Adaptability and control

Foxes have survived throughout the world despite almost constant attempts by humans to reduce numbers or eradicate the species. Foxes thrive in many suburban areas and have even adapted to life in the centre of some large cities.

Even so, it is possible in specific areas to protect livestock and native fauna from fox predation. Methods used include exclusion fencing or the killing of foxes, mostly by baiting and shooting.

Contact us

Pest and Disease Information Service (PaDIS)

+61 8 9368 3080

Email padis@dpiird.wa.gov.au

Last updated October 2024

Important Disclaimer

The Chief Executive Officer of the Department of Primary Industries and Regional Development and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from the use or release of this information or any part of it.

Copyright © State of Western Australia (Department of Primary Industries and Regional Development) 2024.

dpiird.wa.gov.au