

# Pest management in NSW national parks

# FOXES

## FACT SHEET



Photo, DEC

### History

The European red fox was successfully introduced to Victoria by fox hunters in 1871 and declared a pest in that state by 1901. Foxes crossed the border into NSW around 1893 and were declared a pest here soon after. They reached South Australia by 1901, Queensland by 1907, Western Australia by 1912 and most of southern Australia by the 1930s.

### Distribution in NSW today

Mapping shows areas of medium-to-high density European red foxes over most of NSW. They are most abundant where there is plenty of food and cover, especially in fragmented agricultural lands west of the Great Dividing Range. Foxes have even been spotted in many Sydney suburbs. They are least prevalent in the large continuous areas of forest in north-eastern NSW.

Around 44% of the 1.1 million hectares in NSW that are free of foxes are in national parks. This means that NSW national parks have relatively more area free from this pest animal than other land tenures. In fact, NPWS has over 300,000 hectares more fox-free land than would be expected for the proportion of land it manages (around 8% of the state).

### Impact on the environment and agriculture

Predation by the European red fox was declared a key threatening process in 1998. They have been identified as a primary threat to about 40 threatened native species, including the rufous bettong, bandicoot, brush-tailed rock-wallaby, malleefowl, little tern and Bellinger freshwater turtle. Foxes also prey on livestock, with reports of up to 30% of newborn lambs being taken in some areas. Foxes, however, may help suppress other pest animals in some areas, such as rabbits.

## Management by NPWS

Control of European red foxes in priority areas in NSW is driven by the Fox Threat Abatement Plan, launched in 2001. The NSW National Parks and Wildlife Service (NPWS), now part of the Department of Environment and Conservation, works to control foxes in 65 national parks or reserves as part of the abatement plan. The plan identifies 73 priority sites on- and off-park in NSW, where 34 threatened species (11 mammals, 15 birds and 8 reptiles) are at risk of predation by foxes.

Outside the abatement plan, NPWS works with neighbours and other agencies on collaborative programs to reduce fox attacks on lambs, such as 'Outfox the Fox' in the Central West and the Southern New England Landcare project.

## Control techniques

The most common form of fox control in Australia is through strategic ground-baiting with 1080. NPWS uses 1080 baiting, alongside trapping and shooting.

## SOME NPWS FOX CONTROL PROGRAMS

### Yellow-footed rock-wallabies, western NSW

One of the most successful programs in the Fox Threat Abatement Plan protects the endangered yellow-footed rock-wallabies in Mutawintji National Park and Nature Reserve. An intensive fox-baiting program that started in 1995 saw the wallaby population increase 600% in the first four years. NPWS researchers report that numbers just about doubled between 2003 and 2004.

### Malleefowl, western NSW

NPWS has a special permit to aerial-bait in Yathong, Nombinnie and Round Hill nature reserves near Cobar to protect endangered malleefowl. A special dried meat bait has been developed and a navigation system based on Global Positioning System (GPS) technology helps accurately monitor where baits go. The program has improved survival rates of malleefowl translocated to these reserves and all three are now virtually fox-free.

### Shorebirds along the NSW coast

In summer 2004–05, mortality rates due to foxes for the little tern, pied oystercatcher, beach stone-curlew and hooded plover at 22 important breeding sites were 7.6%, 10.5%, 25% and 4.2%, respectively. This compared with mortalities of 100% at some colonies without fox control. In fact, during this season, there were no losses due to foxes at 90% of little tern breeding sites targeted by the Fox Threat Abatement Plan.

### Bandicoots, Sydney

NPWS has combined with 12 local councils, Taronga Zoo, Forests NSW and Macquarie University on a regional fox control program in Sydney's north. This is designed to protect the southern brown bandicoot and the endangered population of long-nosed bandicoot on North Head. NPWS is also working with Warringah Council on research into fox behaviour and ecology in an urban environment.