

## Setting the scene

When Europeans arrived in 1803, thylacines (Tasmanian tigers) were widespread in Tasmania. In 1936 the last captive thylacine died in the Hobart Zoo. Since that time reliable sightings in the wild have become extremely rare and in 1986 based on international standards, the thylacine was declared extinct.

## What to do

Answer this question with an 800 word essay using detailed and accurate research methods.

## Question

If a large marsupial carnivore such as the thylacine can become extinct over a relative short period of time, why can't we use similar methods to eradicate the red fox?

Address the following, for each animal, in your response:

1. diet
  - ▶ is the diet of the animal specific (specialised) or broad?
  - ▶ is there competition from other animals?
  - ▶ has the availability of the food source changed over time?
2. reproduction and population dynamics
  - ▶ does the animal produce large litters frequently?
  - ▶ can the population increase rapidly with good environmental conditions?
  - ▶ can the animal rapidly recover its numbers after a drought or an eradication attempt?
  - ▶ is there a high survival rate of offspring?
3. territorial range
  - ▶ what is the animal's territorial home range?
  - ▶ is the animal sedentary?
  - ▶ does the animal migrate?
4. distribution
  - ▶ is the animal able to spread rapidly, disperse and colonise new habitats?
5. habitat (natural and disturbed)
  - ▶ does the animal require a natural and undisturbed habitat?
  - ▶ what happens to the animal if its habitat is disturbed?
  - ▶ can the animal adapt in a human disturbed habitat?

6. urban encroachment
  - ▶ can the animal adapt to an urban environment without persecution from people?
7. community views and opinions
  - ▶ past and present views
  - ▶ real and perceived views
  - ▶ have community views and opinions changed over time?
8. methods that caused the decline of the thylacine
9. methods available today to reduce the numbers of red fox on mainland Australia

 **Feral fact**

Tasmania was one of the last places in Australia where foxes had not established, at least until now.

Tasmania has had a sporadic history of small-scale fox incursions since 1864, but it is only since 2001 that hard evidence of foxes in Tasmania has been found on a regular basis. Several hundred credible sightings have been reported since 2001. Other evidence includes road-kill carcasses, confirmed tracks and fox grooming hairs found in a scat (faeces). Five scats collected in 2006 and blood found near a chicken coup tested positive for fox DNA providing compelling evidence that foxes are present in Tasmania.

Foxes pose the most dramatic new threat to agriculture and Tasmania's unique wildlife in modern history. Their establishment is predicted to have an ongoing multi-million dollar impact on the Tasmanian sheep industry alone. An established fox population is predicted to have an impact on as many as 77 native animal species. Many of these animals are already extinct or endangered on mainland Australia due to the impact of foxes and other introduced pest species.