

# FOX CONTROL

## Nature Conservation Information Sheet



### Controlling foxes to protect wildlife

Foxes (*Vulpes vulpe*) are common and widespread in the Margaret River region. They are efficient predators hunting and eating medium-sized mammals, reptiles, frogs, birds and insects as well as lambs, domestic poultry and rabbits. They compete with native carnivores for prey. Their impact on native animal populations is well established and they are a significant threat to biodiversity in the region.

Foxes live solitary lives for much of the year, roaming and hunting over several square kilometres. However, in winter they mate and cooperate to construct a den, often in an abandoned rabbit burrow, where the young will be born. A litter of four or five cubs is born in spring. By early summer the cubs are able to venture out of the den with their mother and by mid-January they disperse. Both males and females become sexually mature in their first year.

#### Principles of fox control

**Landscape scale control.** Fox control will be most effective if undertaken across a large area. This will reduce the problem of re-infestation and will result in the best outcomes for native wildlife. A coordinated control program across as large an area as possible is recommended.

**When.** Regular, frequent, on-going control is required to reduce the impact of foxes on native wildlife.

Fox control in spring results in the most effective outcome. At this time of year foxes are rearing young so they are less mobile and food demands are high. Adults will be susceptible to baiting and control will also reduce reproductive success.

Another important control period is when cubs are dispersing from mid-January to April. There is increased fox movement across the landscape at this time so shooting is likely to be an effective control method.

Control will only temporarily reduce numbers, as new animals will move in to replace resident animals that have been killed. Further control will be needed at other times of the year to remove reinvading foxes.

If foxes are being controlled to reduce impacts on lambs, control should occur prior to lambing.

**How often.** The frequency of fox control will depend on the objective, for example, are foxes being controlled to reduce lamb losses, protect domestic poultry and/or reduce impacts on native wildlife? It will also depend on the size of the area over which control is being undertaken. Advice varies on how often fox control is required to protect wildlife. The Department of Biodiversity, Conservation and Attraction's Western Shield program baits four times a year and it is probably a good idea to use this frequency as a guide.

**Secondary baiting.** In areas where rabbits and foxes are present it is recommended to control rabbits with 1080 first. Foxes are often poisoned after eating rabbits killed by 1080.

Foxes and other animals, especially birds, can move baits, so following the recommended procedures to minimise this risk is essential. In some areas it will not be possible to use baits as the risk to humans and other animals will be too high.

**Combination of control methods.** A combination of appropriate control methods will likely result in maximum effectiveness.

## Methods of fox control

### Baiting

Baiting with 1080 is the most cost effective and efficient means of reducing fox numbers, particularly over large areas. 1080 or sodium fluoroacetate is a naturally occurring toxin found in high concentrations in gastrolobium plants of south west WA. Native animals have evolved a tolerance to its effects but non-natives such as the fox and feral cat have a very low tolerance to 1080 and the ingestion of low concentrations is fatal. Non-target animals such as pets are also susceptible to 1080 poisoning, and the use of 1080 is highly regulated by the Department of Primary Industries and Regional Development.

A landholder wishing to control foxes using 1080 has two options: using a licensed contractor to lay the baits or becoming accredited and obtaining a permit to lay the baits themselves. Licenced contractors that work in the region are listed at the end of this Information Sheet. Go to [www.agric.wa.gov.au/invasive-species/1080-landholder-information](http://www.agric.wa.gov.au/invasive-species/1080-landholder-information) to find out how to become accredited to use 1080 baits.

### Canid pest ejectors

Canid pest ejectors (CPEs) are a newly approved method of deploying 1080 to wild canids (foxes and wild dogs) in Western Australia. CPEs are spring-activated baiting devices that use a piston to propel the contents of a 1080 capsule directly into the mouth of a wild dog or fox as it pulls the bait placed on the head of the ejector. More information at [www.agric.wa.gov.au/invasive-species/canid-pest-ejectors](http://www.agric.wa.gov.au/invasive-species/canid-pest-ejectors)

### Fumigation

Fumigation is only an effective control method when cubs are present in the den. Carbon monoxide poisoning is a humane method of dealing with foxes, causing unconsciousness and death without pain. The cartridge is lit, inserted into the den and the den entrance covered in soil. Fox cubs are only fully susceptible to carbon monoxide effects from the age of 4 weeks so fumigation prior to this should be avoided. DEN-CO-FUME is the only fumigate product registered for use on foxes in Australia, including Western Australia. The use of any other fumigate product or gas is unlawful in Australia.

### Den destruction

Where the den is accessible to appropriate machinery, deep ripping can destroy it. However, this would not be appropriate where the den is within native vegetation.

### Shooting

Shooting can be effective in reducing fox numbers locally.

## Trapping

Soft catch jawed traps and cage traps are sometimes used to control particular problem foxes. Under the Animal Welfare (General) Regulations 2003 metal jaw traps can only be used if the jaws are padded or otherwise modified so that any captured animal is unlikely to suffer significant injury. Captured foxes must be disposed of humanely. Under the Biosecurity and Agriculture Management Regulations 2013 a permit is required to use jaw traps or snares for the capture of foxes in built-up areas (urban areas) and land zoned as special rural zone as defined in the *Planning and Development Act 2005*. See [www.agric.wa.gov.au/mechanical-physical-and-cultural/animal-pest-trapping-urban-areas](http://www.agric.wa.gov.au/mechanical-physical-and-cultural/animal-pest-trapping-urban-areas)

## Exclusion fencing

Foxes are agile animals and can penetrate various types of fences. Wire netting with mesh size not exceeding 80mm (about 3 inches) will prevent foxes passing through a fence. The netting should be 1.2-1.9m high and buried at least 450mm deep. An apron of netting angled outwards for 200mm at the base of the fence provides an added deterrent to digging under the fence. Electrification of outriggers or closely spaced plain wires can also discourage foxes from climbing over or through fences. Wire netting enclosures roofed with netting or other material will protect poultry from foxes.

## Monitoring the success of fox control

It is not feasible for a control program to eradicate all foxes in an area. The aim is to reduce the size of the fox population so that the impact on native wildlife, lambs or poultry is significantly reduced.

To monitor the success of a control program it is important to assess two factors:

1. The effectiveness of the control method. Are the 1080 baits being taken? Are the baits set in the best location? Would a different bait type work more effectively? Is shooting effective at reducing numbers? Assessing these basics allows improvements to the control program to be made.
2. The impact the control program is having on native species, lambs or poultry. Are populations of native species increasing? Is predation of lambs or poultry reducing?



Methods for monitoring foxes and/or native wildlife are outlined below. PestSmart (The Centre for Invasive Species Solutions) has made a number of useful short videos on monitoring techniques including camera trapping, spotlighting, scat collection and sand pads. They can be viewed at [www.youtube.com/playlist?list=PL83733E09E287264C&feature=view\\_all](http://www.youtube.com/playlist?list=PL83733E09E287264C&feature=view_all)

### Digital motion sensitive cameras

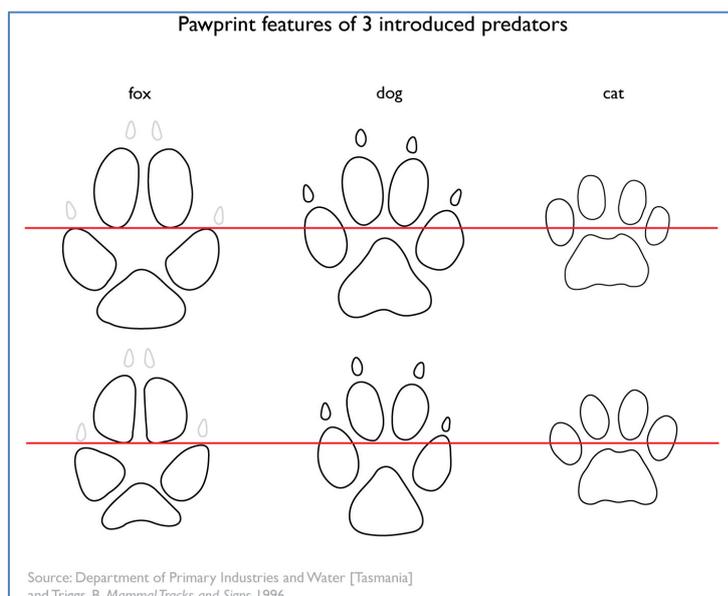
Motion sensitive cameras can be set up and left on site to collect information on foxes and native fauna. Detailed information on the use of cameras for monitoring is available at <https://www.pestsmart.org.au/act/act-step-4/camera-trapping/>

### Spotlight counts

Although the reliability of information collected by spotlighting is low, it is a quick and simple method. For foxes it is most useful in areas of open grassland and woodland where visibility is best. Fox sightings during the day should also be counted. Sightings can be common in January and February when young foxes are dispersing. Spotlighting can also be used to monitor the presence of native species. For tips on spotlighting to monitor native wildlife go to [Western Ringtail Possums Self Guided Spotlighting Tips](#)

## Sand pads

This technique entails creating a series of square plots of sand and placing a bait or lure at the centre of each plot to entice animals on to it so that they can leave identifiable tracks in the sand. A sand pad is usually about 1 m<sup>2</sup>, with the bait covered or buried in the ground to a depth of 5–10 cm. Tracks are most identifiable in clean, firm and slightly damp sand. Toxic or non-toxic baits can be used. This monitoring method can be part of a control program if toxic baits are used. Use a field guide to help identify the tracks and scats. Details below.



## Fox control contractors:

Animal Pest Management

Freecall: [1800 842 199](tel:1800842199)

Phone: [08 97262537](tel:0897262537)

Email: [enquiries@animalpest.com.au](mailto:enquiries@animalpest.com.au)

Jock Salkeld, Licenced Pest Management Technician (Licence: 9743)

Border Protection

Phone: 0439976240

Email: [jocksalkeld@hotmail.com](mailto:jocksalkeld@hotmail.com)

## References and further information

- Triggs, Barbara. 1996. *Tracks, scats and other traces: a field guide to Australian mammals*. Oxford University Press, Melbourne.
- [www.pestsmart.org.au/](http://www.pestsmart.org.au/)
- [www.agric.wa.gov.au/pests-weeds-diseases/pests](http://www.agric.wa.gov.au/pests-weeds-diseases/pests)