Government of South Australia
Green Adelaide

Foxes in urban and urban fringe areas

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Foxes were first introduced into Australia in the 1870s for recreational hunting purposes. They have since spread to become one of our major vertebrate pests and are a major problem for landholders in agricultural and pastoral areas. However, foxes are highly adaptable animals, and they have also established themselves in the urban and urban fringe areas of nearly all of Australia's major cities.

This factsheet is designed to assist people in the urban and urban fringe areas of the Green Adelaide region with identifying the problems they might encounter with these pest animals.

It also provides some options for fox management and control.

Life cycle

The breeding season for foxes is once a year, in spring. Generally they use a hole burrowed below ground (known as an 'earth' or 'den') in which to give birth, but they have also been known to use cavities under buildings.

On average a fox will produce three to six cubs at a time, but only a few reach maturity.

Cubs generally appear in late spring and, once independent, disperse to find their own territory the following autumn.

The life span of a fox in the wild can be up to eight years.

In urban and urban fringe areas the average is around 18 to 24 months, with road kills being a major cause of death. When a fox dies, another may move into its territory.

Fox problems

Being opportunistic feeders, foxes in country areas will feed mainly on small mammals, birds, reptiles, insects and fruit. However in our urban environment they have become scavengers, taking food left outdoors for pets and scraps from domestic rubbish, as well as preying on small pets such as birds, rabbits and guinea pigs.

Foxes are very territorial and will travel widely within their area in search of food. They often disappear from one part of their territory for a number of days or weeks, only to reappear when food in that area is more readily available.

They generally forage for food at night and hide during the day under houses, in sheds and drain pipes, under piles of timber, in hollow logs or within dense vegetation.

In a surprising twist, this access to an abundance of food and places to shelter has resulted in fox numbers being higher in some urban areas than in the country.

Here are some of the other problems you may encounter if foxes are present within your local area.

This fox has set up its territory in a very central location – the Botanic Gardens of Adelaide

A wide variety of small native birds, reptiles and mammals, as well as some domestic pets and livestock, are susceptible to fox attack

Human interaction

There have been no substantiated cases of foxes attacking people, however foxes have been known to bite in self-defence if cornered or caught.

Never feed foxes, as this will encourage them to associate humans with food.

Diseases

Foxes can carry hydatids (tapeworm) which can infect humans. Precautions similar to those used to guard against infection from domestic dogs should be used.

Foxes also carry mange and other canine diseases that can be transmitted to dogs if they come into contact with an infected fox.

Preying on domestic livestock and pets

Given the opportunity, foxes will attack and kill pet rabbits, guinea pigs, poultry and aviary birds. In urban fringe areas they will also attack lambs, chickens and kid goats.

These attacks can be devastating, as foxes will often kill more animals than they require for their immediate food needs.

Foxes rarely bother cats or dogs and generally only fight if they are cornered and cannot escape.

Preying on native animals

A wide range of small native mammals, birds and reptiles are highly susceptible to fox attack, in some cases fox predation resulting in the extinction of several species.

Hand-feeding native animals, such as possums and birds, puts these animals at risk as they become conditioned to be less wary and are therefore more susceptible to fox attack.

Fox nuisance

For a range of reasons foxes are not fun to have around. They can excavate gardens in search of insects, dig up compost heaps (particularly where blood and bone fertiliser has been used), knock over rubbish bins, mark their territory with urine and upset local dogs with their ‘screaming’ sound which is heard during the mating season.

In addition, the extensive digging of dens can cause damage, particularly to under-floor areas of buildings.

For unknown reasons, foxes are attracted to unusual objects. It is believed they may be attracted to human sweat, because both shoes and gardening gloves left outside are often stolen and hidden away.

In other instances their attraction is associated with plastic, so balls, toys and plastic-wrapped newspapers also get stolen. They have even been known to take washing hanging on the line.

Fox management and control options

The fox is a declared animal under the *Landscape South Australia Act 2019* and therefore it is the responsibility of property owners to control them. It is also illegal to keep foxes as pets.

The best approach to managing urban and urban fringe fox problems is to eliminate or prevent access to things that attract foxes to the area, such as easy sources of food and secure daytime shelter.

These measures can be of lasting benefit in reducing fox numbers in the area, especially if they are undertaken in conjunction with neighbouring properties.

Conventional control methods, such as shooting and poisoning, are not recommended due to the associated risk to humans and pets.

Furthermore, even when a fox is destroyed, another will move into its territory within a relatively short period of time. Consequently, for a lasting solution, the aim is to make their territory undesirable from a fox's perspective.

When considering control options, it is advisable to integrate techniques by using as many of the following different methods as possible to maximise the individual benefits of each.

Fencing and barriers

Fox-proof fences and barriers, such as weld-mesh wire, can be used to prevent foxes gaining access to food sources or shelter.

Foxes are accomplished climbers and diggers, so fences need to be dug at least 30cm into the ground with an outward angle. They also need to be at least 2 metres high and constructed with an outward floppy overhang at the top to make scaling difficult.

The addition of electric wires to fencing, using an energiser and 12-volt system, can also be of benefit, but any electrified wires need to be clearly identified.

All gaps and openings under or near buildings and sheds which are greater than 10 cm^2 should be blocked to prevent access.

Pets and domestic animals that are susceptible to fox attack, such as poultry, rabbits and guinea pigs, should be housed in a sturdy, roofed enclosure at night or when left unattended during the day.

Foxes can be very determined. Cages need to be fully enclosed and made from material that they cannot chew through or dig under.

As a general principle, if a cat is able to gain access to an enclosure, then a fox can too.

Destroying fox shelters

To deter foxes from establishing areas of shelter, remove or thin out any dense vegetation.

Get rid of piles of materials such as timber, bricks and hard rubbish so that they cannot use them to hide in.

Low hanging plants should be trimmed to around 50cm above ground level.

If you find a fox hole or den, fill in the entrance using rocks or wire to make it difficult to reopen.

Removing food sources and attractants

Eliminate easy sources of food by ensuring that all domestic rubbish is securely sealed if left outdoors. Avoid plastic rubbish bags as foxes can easily rip these open.

Do not leave any pet food or food scraps lying outside and be sure to clean up fruit from underneath fruit trees. Fruiting pest plants such as blackberries should also be removed.

Non-native mice and rats can attract foxes to your property, so if necessary undertake a rodent control program.

If possible, use an alternative to blood and bone fertilisers. Cover compost heaps or use sealed compost bins.

Fox deterrents

If garden beds and lawns are being dug up by foxes in their search for insects, an appropriate insecticide could be used to remove the insects.

However, before using this option, careful consideration should be given to the likely duration of the insect infestation and the level of damage that is acceptable.

Removing or eliminating areas that provide secure daytime shelter, such as hollow logs and piles of timber, is one way to help manage fox problems

Removing or thinning out dense vegetation may deter foxes from establishing hiding places in the garden

Cages for pets and domestic animals need to be fully enclosed and constructed from material that foxes cannot chew through or dig under

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Photo courtesy David Peacock

Animal repellents are also available through gardening and hardware outlets for application to lawns and garden beds to discourage foxes, but there is little evidence of their effectiveness.

Domestic stock may be protected by the use of a guard or 'companion' animal such as maremma sheepdogs or alpacas.

These animals have been bred to live with stock and it is claimed that they will help prevent fox attacks.

Pet dogs, if left outside, may also help deter foxes from entering residential yards.

Fumigation

In urban and urban fringe areas, carbon monoxide gas cartridges may be used to fumigate underground fox dens that are accessible.

This method will only control those foxes in the den at the time of fumigation.

It is best used during the spring breeding season when there is a likelihood of cubs being in the den.

Fumigation should only be used in situations away from enclosed areas, such as domestic buildings and sheds, and should only be carried out by a suitably qualified or experienced person.

Trapping

Cage traps using a food lure such as meat can be used to trap foxes. As foxes are wary creatures, the success of this can vary.

Some local councils hire out cage traps to residents for the trapping of pest animals.

These traps, if large enough, may be suitable to catch foxes.

Large-size cage traps may be purchased through agricultural product retailers or direct from wire-product manufacturers.

Note that the use of steel-jawed traps and snares is prohibited.

Poisoning

Sodium fluoroacetate, commonly called 1080 (ten-eighty), is the only poison registered for fox control in South Australia.

Foxes are extremely susceptible to this poison. However, due to the risk of poisoning other animals such as dogs, its use is highly regulated.

The poison cannot be used on properties less than 5 hectares in size, or in high risk situations such as the metropolitan area and other urban or urban fringe areas.

Landholders can only access 1080 through regional landscape boards.

Fox control research

The Invasive Animals Cooperative Research Centre has a number of current research projects aimed at developing better and more humane methods of controlling foxes.

To date these projects have been unsuccessful in delivering a means of achieving broad-scale fox population reduction; however, this important work continues.