

Urban foxes

The adaptable nature of the red fox *Vulpes vulpes* has made it a very successful resident of many British towns. Although many people enjoy seeing foxes around their homes or in parkland, foxes can be a nuisance and sometimes cause damage. Foxes are not a protected species as such, but they are protected against abuse and ill-treatment.

Biology and behaviour

Foxes eat a wide range of foodstuffs. Their diet includes small mammals, birds (including eggs), reptiles, insects, earthworms, fruit, vegetables and carrion. In urban areas, about a third of their diet is scavenged waste or food deliberately provided by householders. Foxes readily store their food, usually by burying it in the ground. Foxes are predominantly nocturnal, but in urban areas the sight of a fox active during the day is not unusual.

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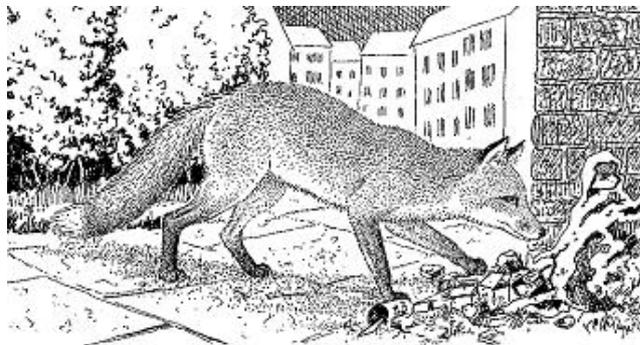
Foxes usually shelter and breed below ground in an 'earth' or 'den'. They prefer well-drained soil and sometimes use burrows made by rabbits or badgers. In urban areas, they also live underneath sheds and outbuildings, even under the floorboards of houses.

Urban foxes tend to live in family groups comprising one dog (male), a dominant vixen (female) and subordinate vixens which may be the young of the previous year. The group defends a territory located within a larger home range (foraging area) which may overlap with that of other groups. Territories in urban areas are typically much smaller than in the surrounding countryside.

Foxes breed once a year, with cubs being born during March and April. The average litter size is 4 or 5. The cubs start venturing in the open from late April onwards, and will normally stay with the vixen until the autumn, with some remaining until January. Urban fox cubs usually disperse between 3 and 8 km (2–5 miles) of their

birthplace. Foxes born in towns rarely move into rural areas.

Foxes can live for over 8 years, but this is rare; the average life span of foxes in towns is only 18 months. Most urban foxes are killed on the roads.



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Problems with urban foxes

Domestic animals

Given the opportunity, foxes will kill small domestic pets and livestock such as rabbits, guinea pigs, ducks and chickens. Unlike many predators, foxes have the habit of killing more than they need to eat immediately. They may subsequently return for any uneaten corpses. Foxes are unlikely to be a danger to adult cats or dogs, although there are occasional reports of foxes fighting with a cat or small dog.

Nuisance

The digging, defecating, and bin-raiding habits of foxes can cause considerable nuisance and disturbance in urban areas. Gardens can be spoilt as foxes establish an earth, dig

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for invertebrates, bury food, or help themselves to fruit and vegetables. Complaints of 'unearthly screams' at night are also common during the mating season between December and February.

Spread of disease

Foxes can carry a range of parasites and diseases relevant to the health of domestic pets and people. Despite this, there is scant evidence that foxes are actually an important source of infection. Instead, domestic pets and particularly dogs, which are susceptible to a similar range of diseases as foxes, are probably a much more important source of infection for humans.

Foxes are susceptible to sarcoptic mange. This is a skin condition caused by a mite resulting in extensive hair loss and it can be fatal. It is highly contagious among foxes, and can be passed to domestic pets such as dogs and cats, especially if they use the same areas as foxes such as holes through fences and hedges.

Foxes carry a number of internal parasites. For people, the most important are probably the roundworm *Toxocara canis* and tapeworm *Echinococcus granulosus* which causes hydatid disease (the formation of fluid-filled cysts in organs such as the liver). These parasites also occur in dogs and are transferred between hosts through the ingestion of worm eggs passed in the droppings of an infected animal.

Foxes are also susceptible to Weil's disease (Leptospirosis), which can be passed on to other animals and humans through contact with their urine. Distemper has not been recorded in wild foxes in this country.

Britain is currently rabies-free, but in countries where rabies occurs, foxes can contract and pass on the disease.

Prevention of problems

Dealing with fox problems is the responsibility of the owner or occupier of the property where the problem occurs. A realistic expectation of what can be achieved is essential when considering options to deal with a fox problem.

Foxes are now established residents of many urban areas and are likely to remain so. They are attracted to gardens by the food and shelter that they offer. Furthermore, some people enjoy seeing foxes in their gardens, and actively encourage them by providing food. This may cause problems, and the interests of neighbours should be considered.

Unfortunately, there is no simple solution to the problems that foxes cause. The most effective deterrent is a suitable perimeter fence, but fox-proof fence can be expensive to install and unsightly. There are however, a number of alternative measures that will minimise, if not eliminate, fox problems.

Do not feed foxes, either intentionally or unintentionally. Ensure that foxes cannot access food put out for other wildlife or pets. Make bird tables inaccessible for foxes to climb onto, for example, by erecting a covered table at a height of at least 1.5 m (5 ft). Always clear away spilt food from under any bird feeder. These measures will also reduce the vulnerability of feeding birds to predation by foxes and help prevent rodent infestations, which can also attract foxes.

Store rubbish, especially food waste (including composted waste), in fox-proof containers made of materials such as metal or plastic. Ensure that dustbin lids are secure, eg by having a clip-on lid or expanding 'bungie' straps which secure the lid, and avoid leaving rubbish sacks unprotected. Clear away wind-fallen fruit.

Damage to lawns is sometimes caused by foxes attracted by the presence of invertebrate turf pests such as leatherjackets and chafers. Removal of these pests using a pesticide approved for the purpose or a biological control product (eg nematode worms) may alleviate the problem; however, the effects on other invertebrates (and those species which feed on them) should be fully considered before doing so. The costs of preventing this type of damage can sometimes outweigh the benefits; in fact, some gardeners tolerate it as damage is often seasonal, occurring for limited periods of the year.

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Provide secure, fox-proof accommodation for vulnerable pets and livestock, especially at night. Foxes can bite through ordinary chicken wire; welded mesh provides a much stronger alternative. Foxes climb well, have strong jaws and are powerful diggers. They can be very tenacious, especially when they have had a 'taste' of what is available. Do not underestimate the determination and intelligence of a fox.

Human interference will often encourage foxes to leave a site. Filling in excavations as soon as they appear can prevent foxes from moving in where they are not wanted. This can be done by light blocking with loose soil. This will help to ensure that no animals become trapped below ground. Care must be taken to check that the hole is not part of an active badger sett; blocking or interfering with a badger sett without a licence is illegal. Advice on distinguishing badger setts is available from Natural England (see 'Further information').

Health and safety

Remove and dispose of all fox, as well as dog and cat, droppings. Fox droppings are distinguishable from those of a cat or dog by their musty odour and often twisted shape. Do not handle droppings with bare hands and ensure that children (and adults) always wash their hands after spending time in the garden.

Ensure that cats and dogs are regularly wormed and are vaccinated against Weil's disease.

Should a problem with foxes persist despite taking these precautions, you may wish to consider installing fencing or using a chemical repellent.

Fences

Foxes can be excluded from areas such as gardens by wire mesh or electric fences, but as previously mentioned, a fox-proof fence can be expensive to install and unsightly. Additionally, electrified fences may not be suitable if you have children or pets.

A suitable mesh fence needs to be at least 2 m (6 ft 6 in) high, buried to a depth of at least 45 cm (1 ft 6 in) and with a sheet of smooth material at the top of at least 30 cm (1 ft) depth. The

addition of an electric wire will improve the security of this fence.

For guidance on the use of electric fences contact Natural England's Wildlife Licensing Unit (see 'Further information').

Chemical repellents

These compounds have an unpleasant odour or taste, which makes an area or particular substrate unattractive to foxes. Only compounds that are approved as animal repellents may be applied and they must be used in accordance with the instructions on the product label. 'Renardine', a bone oil product that previously could be used, is no longer approved. Other repellents are available from garden centres or agricultural suppliers.

Repellents should not be placed down a fox hole, and the use of anything other than an approved product as a repellent may be illegal. Care should be taken to avoid getting repellents on the skin or clothing.

The efficacy of a repellent depends on the determination of a fox to enter the area to be protected, and this will be affected by the availability of alternative food and shelter.

Methods of fox control

Legal methods

There are a number of methods of fox control that may legally be used. These include baited cage trapping, shooting and snaring. Fallen livestock, including dead poultry, should not be used as bait in cage traps due to the potential risk of spreading disease.

Prohibited methods

It is illegal to use self-locking snares, any bow or crossbow, any explosive other than ammunition for a firearm, or a live decoy. It is also illegal to poison foxes. No fumigant compounds are currently approved for the gassing of foxes.

The Hunting Act 2004 makes the hunting with dogs of wild mammals, including foxes, illegal. This includes deliberately using dogs to chase foxes away from gardens, allotments etc. It does not include cases where the dog chases the fox when its owner does not intend it to do so. The Act contains a few tightly drawn exemptions

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intended to allow certain necessary pest control activities to continue, but these are very unlikely to apply in urban areas.

Fox control in urban areas

Fox control is not generally recommended in urban areas. Killing or relocating foxes usually provides only transient relief from the problems foxes cause, as vacant territories are rapidly reoccupied once the control measures cease. This is particularly true in urban areas where fox densities are high.

The capture of urban foxes and their release into rural areas is not recommended on welfare grounds and this practice could be an offence under the Animal Welfare Act (2006).

In addition, shooting and snaring are unlikely to be appropriate methods of control in urban situations for reasons of safety, and in the case of shooting, public disturbance. The relocation of foxes is also not recommended mainly due to their territorial nature.

If you decide to undertake fox control you are advised to employ a professional pest controller.

Foxes as pets?

Foxes do not make good pets. Sometimes young cubs are found apparently abandoned; these are best left alone as more often than not the vixen is close by and will soon find them.

Foxes are wild animals and, even if hand-reared, readily revert to their wild habits. Few people have the space to accommodate adult foxes adequately and owing to their territorial nature it is very difficult to release a hand-reared fox into the wild.

Releasing a hand-reared fox into the wild may also be an offence under the Animal Welfare Act (2006) if the animal is not capable of fending for itself.

Further information

In England, further advice on dealing with fox problems, as well as problems caused by other mammals and birds can be obtained by contacting Wildlife Management and Licensing at: Natural England, Wildlife Licensing Unit, First Floor, Temple Quay House, 2 The Square, Bristol, BS1 6EB Tel: 0845 601 4523 (local rate) Email: wildlife@naturalengland.org.uk

A range of leaflets on wildlife topics is available online at: www.naturalengland.org.uk

The full text of the Hunting Act 2004 can be obtained from The Stationery Office (Tel: 0870 6005522) or from the HMSO website: www.legislation.hmso.gov.uk.

In addition, a leaflet about the Act and a short summary of its provisions are available from the Defra website (www.defra.gov.uk) or the Defra publication centre (Tel: 0845 9556000).