

Urban grey squirrels

The grey squirrel *Sciurus carolinensis* is an introduced species that is now common throughout most of England. They are often viewed as an attractive addition to our wildlife. However, they can cause damage when they access buildings and fire when they chew electrical wiring. They also strip bark from trees, which causes serious economic damage in woodlands. Grey squirrels compete with our native red squirrel *Sciurus vulgaris* for food and shelter and this has contributed to the decline in red squirrel numbers.

Biology and behaviour

Grey squirrels are found in a wide range of situations, from urban parks and gardens to rural woodland. They spend part of their time foraging on the ground but are always within easy reach of trees.

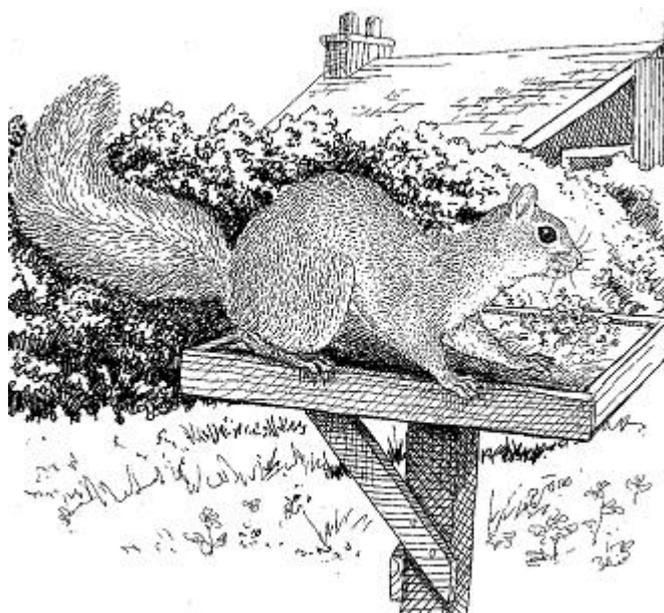
Their food includes acorns, beech mast, nuts, fruits and bulbs. They sometimes take birds' eggs and nestlings. Their habit of bark stripping is probably a combination of social behaviour and feeding activity and occurs mainly between April and July.

Grey squirrels usually have their young either in dreys (nests made of twigs and leaves) or in holes in trees. They will also breed in roof spaces where they may build their nests from loft insulation or other available materials. Grey squirrels do not hibernate but are less active during periods of cold weather.

They normally have two litters each year; the first in February to March, and a second in June to July. The litter size averages from three to four young, and these become independent at about three months of age. The grey squirrel's main food supplies of acorns and beech mast vary in abundance from year to year and this has an important influence on breeding success and survival.

The choice of control technique will depend on the situation and the type of damage being caused. Control can either be carried out by private individuals, other occupiers or a pest

control contractor. The Environmental Health Department of the Local Authority may also offer a service but this is usually chargeable.



Urban grey squirrel

Legislation and status

There are currently no specific legal provisions protecting grey squirrels or governing their management or control. However, under the general provisions of the Wildlife and Countryside Act 1981 it is illegal to use any bow or crossbow, any explosive other than ammunition for a firearm, or a live decoy. Squirrels are protected from ill-treatment by the Wild Mammals (Protection) Act 1996.

Urban grey squirrels

Under the Wildlife and Countryside Act 1981 it is illegal to release grey squirrels or to allow them to escape into the wild. Only spring traps approved for use against squirrels under the Spring Traps Approval Order 1995 may be used.

Problems

Grey squirrels can cause serious economic damage in woodlands by stripping bark from trees. They have also contributed to the decline of the native red squirrel *Sciurus vulgaris* by competing for food and habitats and transmitting squirrel pox.

For information on problems in woodlands and advice on preventing damage contact the Forestry Commission.

In buildings

Problems in buildings generally occur when squirrels gain access to roof spaces where they may cause damage to electrical wiring, insulation or other materials, and the noise they make can create a nuisance.

In such cases the aim should be to capture the grey squirrels in the roof space and then humanely despatch them. The access points should be proofed to prevent further invasions. Whenever possible, control should be undertaken outside the breeding season.

Solutions

Where control measures are justified, the most appropriate approach will normally be to use traps. However, poison baiting may be the most cost-effective measure for protecting woodland. Cage trapping and proofing are the methods normally recommended for use in roof spaces.

Cage trapping

- Single catch, live capture cages are most suitable for this purpose and are available from a number of sources, including agricultural merchants and game suppliers.
- Squirrels do not like moving in open spaces, so traps should be placed near brickwork, joists, or other available objects and structures. The use of traps around the outside of buildings can also be effective.
- Securing the trap door in the open position and baiting in and around the cage for several days

before setting, can improve trapping success. Use whole yellow maize, peanuts, wheat or a mixture of these. Good results are more likely to be achieved when natural food sources are in short supply. Avoid stocking bird tables during trapping operations.

- Once set, traps should be inspected at least once a day. Captured squirrels should be removed outdoors and then humanely dispatched. They can be run into a sack and killed by a sharp blow to the head. Alternatively, they may be shot whilst in the cage, using a suitable weapon. Shooting should only be undertaken by an experienced, competent person. Care must be taken to avoid the risk of ricochet and traps should be placed on soft ground to reduce this hazard. Trapped squirrels should not be drowned as this is considered to be inhumane.
- It is illegal to release or allow captured grey squirrels to escape.

Spring trapping

- Only approved spring traps can be used, and these are designed to kill the target animal humanely. Currently approved traps include the Fenn Mk 4 and 6, the Springer Mk 4 and 6, the Magnum and the Kania 2000.
- These should be set in a natural or artificial tunnel. The latter can be constructed from timber or other suitable materials and the entrances of all tunnels should be restricted to reduce risks to non-target species. Children and pets can be particularly vulnerable and the use of such traps in domestic situations is not normally recommended.
- In roof spaces, gaps between joists or other suitable areas can be used, adding materials as necessary to create a tunnel.
- The tunnel helps to ensure that the squirrel is caught correctly. Care must be taken to ensure that the arms of the trap can operate freely. Bait such as whole yellow maize, peanuts, wheat or a mixture of these can be used to attract the animals to enter the tunnel.
- Spring traps should be inspected at least once a day, and carcasses removed and disposed of discretely, either by burning, burying or via refuse collections when they should be securely wrapped.

Urban grey squirrels

Proofing

Having dealt with squirrels that have gained access to buildings, action should be taken to prevent others from entering vulnerable areas.

Crushed wire netting, metal sheeting or other suitable materials can be used to block any entry points. It is important that all access routes are identified but no action taken until it can be confirmed that no squirrels remain within the site to be protected. Baffles attached to rainwater down pipes or cables and wires may assist in reducing access to roof spaces. However, the climbing abilities and ingenuity of squirrels should not be underestimated.

The removal of tree branches, which are in close proximity to walls and roofs, will eliminate potential access routes.

Avoiding the spillage and availability of bird or pet foods will assist in reducing attraction to squirrels. The use of squirrel-proof bird feeders may help in this respect.

Poison baiting

This technique is not normally recommended for use within buildings or garden situations. It can be difficult to persuade squirrels to take bait when other food is available, and the animals may die within the building, leading to problems with smell and insect infestations. There is also a risk of non-target species gaining access to bait points, particularly in outdoor locations.

The rodenticide formulation approved for use against grey squirrels can only be used in domestic premises by a Local Authority or a professional operator, and this product cannot be purchased by householders.

There are restrictions and conditions placed on the use of poison baiting in certain counties and the product must not be used where Pine Martens or Red Squirrels are present. Advice on this aspect should be sought from the Forestry Commission.

If poison baiting is used always follow the www.thinkwildlife.org.uk/ Campaign for Responsible Rodenticide Use (Think Wildlife) Code. See below for further details on the code.

Further information

Natural England Technical Information Notes are available to download from the Natural England website: www.naturalengland.org.uk

For further information contact the Natural England Enquiry Service on 0845 600 3078 or e-mail enquiries@naturalengland.org.uk

In England, further advice on controlling grey squirrels in urban situations, as well as problems caused by other mammals and birds can be obtained by contacting Natural England's Wildlife Licensing Unit at:

Natural England, Wildlife Licensing Unit, First Floor, Temple Quay House, 2 The Square, Bristol, BS1 6EB.

0845 601 4523 (local rate)

wildlife@naturalengland.org.uk

Advice on controlling grey squirrels causing damage to woodlands and forestry can be obtained from local Forestry Commission offices see www.forestry.gov.uk/ or your local telephone directory.

Appendix

The Campaign for Responsible Rodenticide Use - think wildlife

The **Campaign for Responsible Rodenticide Use** (CRRU) has produced a code of good practice known as *Think wildlife*. The purpose of this is to enable effective rodent control to be done with minimal exposure to all non-target animals. www.thinkwildlife.org.uk/

Seven-point CRRU Code:

Always have a planned approach

- Before treatment begins, a thorough survey of the infested site is an essential key to success when using any rodenticide.
- Environmental changes which could be made to reduce the attractiveness of the site to rodents should be noted for implementing after the treatment. Usually this will involve rodent proofing and removing rubbish and weeds that provide harbourages and cover. However, the site should not be cleared before treatment since this will disturb the rodent population and make bait acceptance more difficult to achieve.

Urban grey squirrels

- Obvious food, such as spilled grain, should be removed as far as possible and any food sources covered.
- Rodenticide baits should only be used for as long as is necessary to achieve satisfactory control.
- In most cases, any anticoagulant bait should have achieved control within 35 days. Should activity continue beyond this time, the likely cause should be determined and documented. If bait continues to be consumed without effect, a more potent anticoagulant should be considered. If bait take is poor, relative to the apparent size of the infestation, consideration should be given to re-siting the bait points and possibly changing to another bait base, as well as making other environment changes.

Always record quantity of bait used & where it is placed

- A simple site plan or location list identifying areas of particular concern pertinent to the site should be drawn up and retained on file.
- A record of all bait points and the amount of bait laid should be maintained during the treatment. Activity should be noted at each bait point, including any missing or disturbed baits, as the treatment progresses.
- By carefully recording the sites of all bait points, responsible users of rodenticides are able to return to these sites at the end of the treatment and remove uneaten bait so that it does not become available to wildlife.

Always use enough baiting points

- Users should follow the label instructions regarding the size and frequency of bait points and the advice given regarding the frequency and number of visits to the site.
- By using enough bait points the rodent control treatment will be conducted most efficiently and in the shortest possible time. This will restrict the duration of exposure of non-target animals to a minimum.

Always collect and dispose of rodent bodies

- The bodies of dead rodents may carry residues of rodenticides and, if eaten by predators or scavengers, may be a source of wildlife exposure to rodenticides.

- It is essential to carry out regular searches for rodent bodies, both during and after the treatment period. Bodies may be found for several days after rats have eaten the bait and rats may die up to 100 metres or more away from the baited site.
- Any rodent bodies should be removed from the site and disposed of safely using the methods recommended on the label.

Never leave bait exposed to non-target animals and birds

- Care should be taken to ensure that bait is sufficiently protected to avoid accidentally poisoning other mammals and birds. Natural materials should be used where possible.
- Bait stations should be appropriate to the prevailing circumstances. They should provide access to the bait by rodents, while reducing the risks of non-target access and interference by unauthorised persons. They should protect the bait from contamination by dust or rain. Their design, construction and placement should be such that interference is minimised.

Never fail to inspect bait regularly

- Where the risk assessment or treatment records show that multiple visits are required, then those should be made as frequently as is considered necessary. Daily inspection may be required in some circumstances.
- At each visit, baits should be replenished according to the product label and a thorough search made to ensure that bodies and any spilled bait are removed and disposed of safely. Records of such visits should be maintained. Never leave bait down at the end of the treatment.

Never leave bait down at the end of the treatment

- Bait left out at the end of a treatment is a potential source of contamination of wildlife.
- On completion of the treatment, records should be updated to signify that the infestation is controlled and that, as far as reasonably practical, all steps have been taken to ensure that the site is now free of rodenticide bait.