



Northern Ireland Squirrel Forum Standard Operating Procedure:

Control of Grey Squirrels for Red Squirrel Conservation ~ A Code of Good Practice.

Our native red squirrel (*Sciurus vulgaris*) is at significant risk of being displaced by the introduced eastern American grey squirrel (*Sciurus carolinensis*). The larger grey squirrel can easily outcompete the red squirrel for resources, including food and habitat. Across the UK grey squirrels are known carriers of diseases such as the squirrel pox virus and the adenovirus. Both viruses are fatal to the red squirrel population, whilst causing no known harm to the grey squirrel. Grey squirrels are rapidly increasing in number and are expanding their range across Northern Ireland. The Northern Ireland Squirrel Forum (NISF) takes the view that red squirrel conservation is only possible where grey squirrel control is carried out as part of the management prescription for red squirrels.

This Code of Practice has been created to act as a guide to any NI Government Agency, non-governmental organisation, or volunteer controlling the grey squirrel population on behalf of their local Red Squirrel Group or for private land owners who wish to undertake grey squirrel control.

This document describes suitable control measures and their use. The timing of these measures should be determined by the landowner, and where appropriate, the squirrel group (with the landowner's permission). Where it is deemed that grey squirrel control is necessary, the operator must do so in a professional and humane manner.

There are several methods by which grey squirrels can be controlled recommended by the NISF. The NISF would strongly advise that all persons intent on undertaking grey squirrel control undergo some practical training with an experienced person before embarking on a programme of grey squirrel control.

1. Permission of landowner to control target species.

It is of the utmost importance before any control of grey squirrels is undertaken that the permission of the landowner (preferably written) is obtained. Where the landowner does not control the sporting rights, it will also be necessary to seek the permission of the owner(s) of the sporting rights.

2. Methods of Control.

The most effective methods of controlling grey squirrels in areas where they are known to co-habit with red squirrels are live cage trapping and shooting. The method applied will be determined by a range of factors including public safety, volunteer training, volunteer availability, landowner wishes, squirrel densities, group policies, financial constraints and legal restrictions. It may be that the site suits a combination of approaches.

The person(s) using these methods of control must be aware of the various pieces of wildlife legislation which apply:

- The Wildlife (Northern Ireland) Order 1985 (As Amended).
- The Welfare of Animals Act (Northern Ireland) 1972 (As Amended).
- The Spring Traps Approval Order (Northern Ireland) 1996.
- The Conservation (Natural Habitats, etc) Regulations (Northern Ireland) 1995 and its subsequent amendments in 2004, 2007 and 2009.

2.1 Live Cage Traps

Cage-traps come in various sizes; depending on the target species. Make sure your traps are designed to live-catch squirrels. The traps are readily available from hardware stores and specialist retailers online. All are basically a box constructed of wire mesh with one or two open ends. The doors are triggered by an internal foot plate.

- Traps must be set to protect captured animals from flooding, hyper- or hypothermia, adverse weather conditions and harassment by predators¹
- Especially during winter, traps should be modified with plywood or Perspex roofs to deflect rain.
- Single-capture traps are preferred because these reduce incidents of trapped animals fighting – especially important where greys and reds occur together.
- It is important that the cage trap is of the correct size to trap the target species. Squirrel cage traps for single captures are approximately 150x175x545mm (6x7x23”). Dimensions may vary slightly between manufacturers.

2.1.1 Where to set traps - In accordance with published guidance²: The best sites to place traps are generally under the largest trees in a wood where grey squirrels are known to be, particularly those with branches extending well down the trunk with tips near to the ground or on known squirrel pathways. Yew, Holly trees or single conifers in predominately broadleaved woodlands will often make good sites, as do tree stumps that are regularly used as feeding sites. The traps can also be mounted on platforms attached to posts or trees. The ground around the trapping area should be largely bare so that bait can be easily seen. Squirrels tend to avoid areas of dense wet vegetation. Traps should be somewhat camouflaged to disguise their appearance using locally available plant foliage. This also provides a degree of shelter and warmth for any animal trapped. When trapping during a pox outbreak the best practise guides suggest the use of traps mounted on temporary platforms that can be easily disinfected.

- Avoid setting traps on or near public footpaths, public rights of way, and areas of common land used by persons exercising domestic animals.

¹ Powell, R. A. & Proulx, G. (2003). Trapping and marking terrestrial mammals for research: Integrating ethics, performance criteria, techniques, and common sense. *Har Journal*, 44:259-276.

² Forestry Commission - Practice Note: Controlling Grey Squirrel Damage to Woodlands FCPN4

- Never set traps on land where livestock are grazing.
- Traps must be firmly anchored using tent pegs or similar.

2.1.2 Bait - Grey squirrels will come to a range of food baits but Forestry Commission (FC) research suggests that yellow whole maize is one of the best. It is cheap and readily available and it stores well. Squirrels prefer to eat the germ of the maize, however you will not be able to tell whether it is reds or greys by the maize gnawing alone. Pre-baiting is not a requirement and really the choice of the individual or the group but probably beneficial when squirrel control first occurs in an area. Pre-bait for up to five days, but minimise visits to the traps during that period to reduce disturbance. There are clear cost and time implications, the trapping efficiency may not increase markedly after the initial round of trapping.



Photo from FC Practical Note FCPN4 (revised) Controlling Grey Squirrel Damage to Woodlands ©Crown Forest Research/Mark Ferryman

2.1.3 Checking traps – By law traps must be inspected at least once every day between dawn and dusk. NISF Good practice recommends at least twice daily inspections (or more frequently where the risk of catching red squirrels exists). During the warmer months traps can be set all night as long as they are not exposed to the rain. However during cold spells in winter when ground temperatures can get particularly very low at night and it is recommended to close or disarm traps during the hours of darkness.

2.1.4 Squirrel dispatch - Grey squirrels must be dispatched quickly and humanely either by cranial concussion or shooting:

2.1.4.1 Cranial concussion ('The sack method'): Operators should wear thick leather gauntlet style gloves with waterproof nitrile gloves underneath. Isolate the squirrel at the rear of the trap using a temporary comb through the wire mesh of the cage (combs can be purchased through trap suppliers or made from timber or metal cut to shape). Place a Hessian sack over the door end of the trap. Make sure the sack is tightly closed around the outside of the trap. Open the door and tilt the trap. Transfer the squirrel to the sack, and

then hold the top of the sack closed to prevent escape. Remove the comb, lift the door and tilt the trap, (if the squirrel remains in the trap, blowing onto its tail will gently encourage it out). The squirrel should instinctively move so that its head goes into the corner of the sack, gather up excessive sack cloth to reduce its movement options. Placing the sack on the ground and using a hard, heavy club (e.g. a priest) apply a single sharp blow delivered to the top of the squirrel's cranium (head). The blow must be delivered with enough force to cause a depressed fracture of the skull, thereby destroying the brain and causing death. Where necessary a subsequent blow (s) may be required to ensure dispatch.

2.1.4.2 Shooting – The safest weapon for squirrel dispatch is a “.22” air rifle. Experienced, licensed firearms users may choose to shoot the squirrel by placing the muzzle of the gun through the cage mesh. Shots must be aimed to enter the brain at ‘point blank range’ causing instant loss of consciousness. Individual shooters normally develop combs to act as a crush to restrict the animal’s movement, achieving a cleaner kill. Extreme care must be taken by anyone using this methodology. Pellets may deflect off the cage wire or stones on the ground. Place the cage on soft ground clear of stones before shooting. All additional observers should do so at a safe distance and have appropriate eye protection.

It is the responsibility of all shooters to ensure the safety of themselves, colleagues, members of the public and non-target species. Failure to do so may lead to criminal prosecution and or civil litigation.

2.2 Shooting

An initial survey of the site must be undertaken to ensure safe and responsible use of any firearms. This method of control should only be carried out by competent persons with a valid firearms license and full insurance, using appropriate firearms and ammunition.

Only shoot where you have the permission of the landowner or tenant.

Going on to private land, or water, where you do not have permission, is trespassing. If you are carrying a firearm it becomes armed trespass. Armed trespass is a serious criminal offence carrying heavy penalties.

All shooting activities must be carried out in accordance with:

The Firearms (Northern Ireland) Order 2004, the Firearms (Amendment) (Northern Ireland) Order 2005 (and any subsequent amendments).

Part VII 61 (1) amended by art 5(1) of the 2005 order and (2) shown below may be of particular interest. However all aspects of this order should be taken into account.

Carrying or discharging firearm in a public place:

Art 61.(1) and amendment Art 5(1) A person who has with him in a public place -

(a) a loaded shotgun;

(b) an air gun (whether loaded or not);

(c) any other firearm (whether loaded or not) together with ammunition suitable for use in that firearm; or

(d) an imitation firearm,

shall be guilty of an offence unless he shows that he had lawful authority or reasonable excuse for doing so.

Art 61(2) A person who discharges any firearm on any public road or within 18 metres of the centre of any public road, or in any church, churchyard or burial ground shall be guilty of an offence unless he shows that he had lawful authority or reasonable excuse for doing so.

Advice about firearms and the law in Northern Ireland can be sought from the PSNI Firearms and Explosives Branch.

<http://www.psnipolice.uk/index/advice-and-legislation/firearms.htm>

Further guidance is published by [The British Association for Shooting and Conservation](#) (BASC) in the form of codes of conduct for using firearms, but remember these publications are aimed primarily at an audience in GB and the firearms legislation varies greatly between the two jurisdictions.

[BASC - Shotgun Code of Practice & BASC - Air Rifle Code of Practice](#)

Drey poking: involves disturbance of grey squirrel dreys with long poles. Flushed squirrels may then be shot by shooters armed with shotguns. This technique is not recommended for woodlands with both red and grey squirrels as it may be difficult to differentiate between species as they escape.

It is the responsibility of all shooters to ensure the safety of themselves, colleagues, members of the public and non-target species. Failure to do so may lead to criminal prosecution and or civil litigation.

All operators must ensure that they carry appropriate levels of insurance to cover themselves in event of any incident.

2.2.4.3 Confirmation of death.

Ensuring the squirrel is dead is necessary to comply with animal welfare legislation.

Unconsciousness and insensibility can be assessed through; a) Loss of posture, b) Fixed, dilated pupils, c) Lack of papillary response and blinking to light shone in the eye, d) Loss of coordinated movements.

Death is indicated by; a) Loss of rhythmic breathing, b) Loss of heart rate, c) confirmed onset of *rigor mortis*³.

2.2.5 Carcass Disposal - Displaying carcasses is not recommended and may offend other countryside users. Where small numbers of carcasses are collected they

³ Central Science Laboratory (2009). Review of methods of humane destruction of grey squirrels (*Sciurus carolinensis*) Scottish Natural Heritage – Commissioned report 317.

should be either incinerated or deeply buried if no other purposeful use can be found for them. If a major cull is likely to generate a large number of squirrels in a relatively short period of time contact the Northern Ireland Environment Agency (NIEA) jon.lees@doeni.gov.uk or ☎028905 69551.

2.2.6 By-catch - Every effort must be made to avoid the capture of non-target species. Knowledge of the tracks trails and signs of both target and non-target species is essential. Any incidental captures should be released on site as soon as possible (with the exception of Wildlife (NI) Order 1985 {As Amended} Schedule 9(1) species which should be dispatched humanely).

To remove the animal, the trap door should be levered open with a stick. The captured animal is likely to be stressed and it is advisable to wear appropriate gloves. If the animal is catatonic in the cage, open the door and leave it quietly for five minutes. If these options fail, gently persuade the animal to leave using the cage combs. Any red squirrel trapped by accident must be released.

PLEASE NOTE:

It is a criminal offence under The Wildlife (Northern Ireland) Order 1985 (As Amended) Art 15 to release grey squirrels or other Schedule 9(1) species back into the wild.

2.2.7 Trap hygiene and maintenance

Where there are traps and other equipment being used as part of the grey squirrel management programme a hygiene regime must be enforced. When any animal has been captured in a trap there will certainly be traces of saliva, blood, urine and faeces. There are a range of pathogens that are transmitted by contact with these substances. Cleaning equipment, as per **NISF Standard Operating Procedure: Trap and Feeder Hygiene**, ([add link](#)) reduces the risk of disease transmission between animals and between animals and humans. Where resources permit, use two traps per zone, remove one trap from the site for cleaning and replace with the second trap.

3.0 Health and Safety note:

Trapped animals will almost certainly urinate and defecate while in the trap and when trapping you may encounter rats or other rodents. Weil's disease or Leptospirosis is a serious and potentially fatal infection that is transmitted to humans by contact with urine from infected wildlife (especially rats) and farm animals. The bacteria can enter your body through ingestion, cuts and scratches. Leptospirosis is an infectious condition that can cause a range of different symptoms such as mild flu-like symptoms or, in severe cases, result in multiple organ failure and internal bleeding that can result in death.

<http://www.nhs.uk/conditions/Leptospirosis/Pages/Introduction.aspx>

To prevent infection wear suitable gloves (ideally using barrier waterproof gloves under thick leather gauntlet style gloves) when handling traps etc and maintain good personal hygiene, i.e. washing hands regularly and before eating, drinking or smoking. Make sure your tetanus inoculation is up to date.

Eye protection and chemical proof nitrile gloves should be worn when using disinfectants to clean traps and feeders. Eye protection may also be advisable when using an airgun to dispatch animals.

4. Control and Dispatch Methods, that are Not appropriate and are not recommended by NISF include:-

4.1 Spring Traps - In some circumstances the use of approved spring traps is legal in Northern Ireland but is strictly controlled under The Spring Traps Approval Order (Northern Ireland) 1996. **It must be stressed that this would be a very unsuitable method of controlling grey squirrels in areas where both reds and greys are found.**

4.2 Poisoning - NISF **do not sanction** the use of poisons to control grey squirrels.

4.3 Drowning - Drowning is **not** considered a humane method of dispatch and should not be used.

5 Adherence to best practice

5.1 Record keeping – it is good practice to maintain trapping effort records, i.e. number of traps set and number of greys caught. Also record number of man hours spent hunting. Appendix 1 details an example form.

5.2 Finally, anyone controlling grey squirrels for the Red Squirrel Groups will be given a copy of this document. They are required to read and adhere to the guidelines during control activities. Although this is a policy decision for each Red Squirrel Group it is recommended that each person will also be expected to sign a code of practice acceptance form (Appendix 2). In doing so the Northern Ireland Squirrel Forum can be confident that all persons carrying out grey squirrel control activities will do so in accordance with our Code of Practice.

This Code of Practice can be changed, amended or revised by The Northern Ireland Squirrel Forum. It is a guide to ensure that any volunteers carrying out control of the grey squirrel population do so in a professional and responsible manner.

All operators remain responsible for their own health and safety and that of their colleagues and members of public they may encounter during squirrel control operations. All operators must ensure that they carry appropriate levels of insurance to cover themselves in event of any incident.

Remember the landowners, the Northern Ireland Environment Agency or the Northern Ireland Squirrel Forum cannot be held responsible for your actions.

Contact the NISF:

NI Squirrel Forum

c/o Dr Jon Lees

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