



Generalist predators such as magpies and foxes are opportunists feeding on a wide range of food sources.
© David Mason

5. Predation management

Predation control is the attempt to reduce predation on species we value, either wild or domesticated. This plays an important part in gamebird management, as well as being used in other circumstances to protect livestock and wildlife. It is performed to varying degrees, using different approaches and methods by farmers, gamekeepers and conservation bodies across the UK, but the basic premise is the same: to protect a vulnerable species from predation.

What are predators?

A predator is any animal that preys on and eats other animals. The term applies to many species - from lions to spiders, species of fish and birds, domestic cats as well as humans. Some predators are very specialised and hunt only one prey species. Others, called generalist predators, are more opportunistic in what they eat, taking advantage of a wide range of food sources.

Left: © David Kjaer

How is predation controlled?

Both lethal and non-lethal approaches are widely used. Well-established non-lethal methods include scarecrows, bangers and gas-guns, and the use of fences and electric fences to keep predators out.

Despite advances in non-lethal methods in recent decades (e.g. manipulating behaviour, fertility control), there are still only three effective approaches to problem predators: scare away, fence out, or kill. Predation control is often assumed to mean only the last of these, but in fact all three approaches are routinely used in game management, farming and conservation.

What is the aim of predation control?

The aim of predation control is usually to reduce losses to predation, especially during periods when the prey species are particularly vulnerable, for example the breeding season.

Where the main approach is lethal control, the aim is to reduce local predator numbers, or sometimes just to remove problem individuals. It is accepted that these animals will be replaced, either by others travelling from nearby areas, or by increased reproduction among those left. Because of this replacement process, any reduction in predator numbers is likely to be temporary, and for a longer-lasting effect on predation, the control effort needs to be maintained or repeated frequently.

Control of invasive species

In general, the aim of predation control is to reduce losses to predation without impacting the conservation status of the predator, but exceptions are sometimes made. In the case of damaging, non-native predator species such as American mink in Britain, hedgehogs and rats in the Hebrides, the aim may be to eliminate them to avoid damage to native wildlife. In the case of hedgehogs, this has been done by moving them to the nearby mainland, where they are native and believed to be declining.

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Predators and prey – the balance of influence

For much of the 20th century, the general view among scientists was that native predators mainly took old, sick or weak animals that would not have contributed much to the prey population anyway (this was charmingly called a ‘doomed surplus’). Predator numbers were thought to be limited by prey numbers, rather than the other way around, and it was thought that predation would have little effect on prey population size. On the other hand, game managers in the UK believed that their control of predator numbers did benefit prey populations. This difference in views was sometimes put down to a difference in aims, with game managers interested only in boosting the number of harvestable birds in the autumn, while academics and conservationists were thinking of year-to-year population trends.

Evidence supporting the view that predation can and does impact prey populations began to build up with observations from the Sussex Study, a long-running GWCT study of farmland practices. Data from Sussex suggested that grey partridge nest losses were higher on farms that did not employ gamekeepers than those that did⁴⁶. In his comprehensive 2012 book “Partridges”, Dick Potts reviewed 74 studies of grey partridge nest predation performed across the world. Combining these studies showed that nest losses averaged 29% with a gamekeeper and 52% without, suggesting that predation control allows more successful nesting for partridge³⁹.

This does not now seem surprising, but it needed more rigorous science to change widely held opinions. The GWCT’s Salisbury Plain Experiment was a large-scale field trial which studied whether legal predation control in spring and summer could improve breeding success and population growth for wild grey partridge⁶⁴. Predation control was carried out on one study area, while a second similar area nearby acted as a comparison without predation control. After three years, predation control switched from the first area to the second. The predators targeted were fox, stoat, weasel, rat, carrion crow, magpie, jackdaw and rook.

This experiment showed unambiguously that controlling predators allowed 75% greater production of young. Despite shooting, this improvement carried over into successive years, so that spring

breeding numbers increased by 35% each year and were 2.6 times greater after three years of predation control. Autumn numbers, before shooting began, were 3.5 times greater after three years. Clearly, this set of common predators was having a substantial impact on the local partridge population, and controlling them from March to September relieved much of the pressure⁶⁴.

Twenty years later, GWCT conducted a similar experiment on moorland in the north of England. The Upland Predation Experiment showed predation control led to benefits for breeding grouse, but also curlew, lapwing, golden plover and meadow pipit¹⁰⁸. With predation control, these wading birds were able to breed well enough for population growth, an important threshold that was not reached in the absence of predation control.

The effect on the curlew population was marked – in the absence of predation control, curlew numbers were dropping by 17% per year. When legal predation control was implemented, curlew numbers rose by 14% per year (after a lag period as the new chicks reached breeding age)¹⁰⁸. We have calculated that the low breeding success seen in this experiment on moors where predators were not controlled could lead to a drop in lapwing and golden plover numbers of 81%, and curlew of 47%, over ten years. This prediction has not yet been tested, but studies have shown higher curlew density on kept moorland¹⁰⁹.

It is important to understand one thing in particular about generalist predators, which is that they use a wide range of different food sources. This can mean that, even for an individual predator, the “problem” part of its diet – the prey species that man values, may make up only a very small part of its food. Breakfast, lunch and dinner may be rabbits, but if the mid-morning snack is grey partridge or lapwing, a conflict can arise. This was shown in the Salisbury Plain Experiment, where predation had a substantial impact on grey partridges. All the evidence suggested foxes to be the most important predator. However, if we calculate the food requirements of all the foxes in the area, all the partridges killed in the experiment could only have provided about 2% of their diet. By far the main component of their diet, the staple food source, was rabbit and to a lesser extent hares: together rabbits and hares provided 85% of fox diet.

Can predator control reduce predation on pheasants?

We know that without predation control, reared pheasants can rapidly fall prey to predators following release, notably foxes¹¹⁰. It might be expected that, as with wild grey partridge and other ground-nesting birds, predation control would alleviate this and predation would be lower. However, the benefits of predation control for released birds have been surprisingly little studied.

One GWCT study showed that of reared grey partridges released as part of a reintroduction programme, survival rates were higher at the study site with predator control than at the study site without⁶⁷. For pheasants breeding in the wild, predation is the most common cause of nest failure, accounting for 68% of losses in a GWCT study²⁹. During the incubation stage, nest survival rates in areas with high predation control effort were almost double those in areas with low predation control effort. The main predators were foxes and crows^{25,29}.

Does predation control have wider conservation benefits?

Many studies have now shown that predation control conducted primarily for gamebirds can benefit other wildlife species, including: lapwing¹¹¹, blackbird^{112,113}, song thrush¹¹³, dunnock¹¹³, curlew^{108,114}, golden plover¹⁰⁸ and brown hare²⁸. For this reason, predation control is also used by a range of organisations on nature reserves across the country.

Follow the Code

Shooting predators

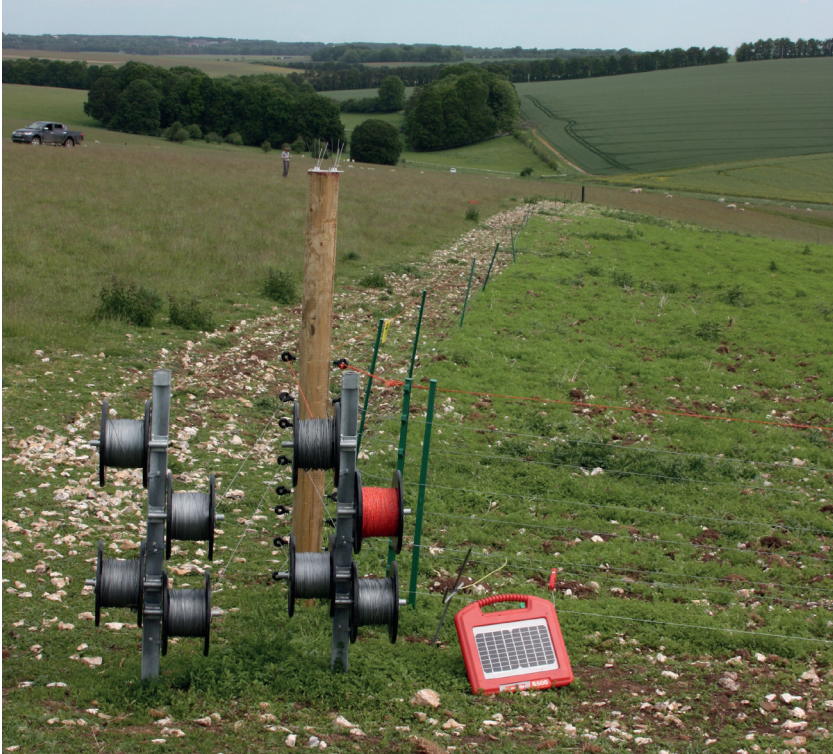
“When shooting foxes, or other predators, suitable rifles, shotguns and ammunition should be used and only at ranges that ensure rapid despatch”

Displaying carcasses

“Shoot managers should not display carcasses. It serves no useful purpose and will offend other countryside users.”

Keeping records

“Accurate records of pest and predator control carried out should be kept”



Exclusion fencing can be costly and have practical limitations. © Andrew Hoodless/GWCT

Does predator exclusion fencing work?

In some circumstances, exclusion can be helpful. For example, pheasant poults held in release pens are protected from most mammalian predators by a fence, often with electric fencing outside it. Scaring devices are sometimes added.

Wild prey can also be protected by exclusion fencing, if they occupy a relative small area. For example exclusion fencing can increase breeding success for lapwing^{111,115}. However, the literature shows mixed results. Very small exclosure cages placed around individual nests can also be helpful, depending on the prey species protected and the predator species involved. For example, in one study lapwings appeared to benefit from such cages, but there was increased predation on incubating redshank. This was thought to be because redshank tend to stay on the nest until a predator is very near, then suddenly flush, at which point the cage becomes an obstacle to the escaping bird¹¹⁶.

When the prey species is spread across a large area, or is mobile and will travel out of the protected area, exclusion may not work. In such circumstances, it can be more effective to reduce the predator population through lethal control. For example, a recent project to protect curlew nests in Shropshire and the Welsh Marches erected exclusion fencing around three nests. Of 21 nests studied, these three were the only ones to successfully hatch chicks; however no chicks survived to fledge, mainly because of predation once they were mobile enough to leave the fenced area¹¹⁷.



Exclosure cages may help to protect groundnesting birds, but chicks are still vulnerable to predation once hatched © Andrew Hoodless/GWCT

There are several problems to be considered with fencing. There is a trade-off between the risk of fencing being breached by predators, practicality with other land uses and cost. This is increased with larger fenced areas. It may be too expensive to exclude small predators such as weasel, stoat, polecat, hedgehog; or those that climb, such as cats. There are typically weak points (e.g. corners, straining posts, and gateways) where predators can learn to gain access. It can be difficult or impossible to fence wetland areas with a variable water level, or where entry routes are exposed by low tides.

On the other hand, where the ground is very dry, it can be impossible

to establish an earth for electric fencing. With good fencing, breaches may be very rare, but they can be catastrophic when they do occur. This is particularly true of electric fencing, where some individual predators seem to learn to tolerate the pain for the sake of the reward.

Exclosures also make vegetation management difficult because they can also prevent the free movement of wildlife, for example keeping out wild animals such as deer, while the handling and care of domestic livestock becomes much more laborious and time-consuming. It is generally considered uneconomic and impractical to fence even small pheasant release pens against aerial predators; so for wild ground-nesting birds, egg and chick predation by avian predators cannot be prevented by exclusion.

Are all individual predators problematic?

Animals are as varied as humans, and different individuals display different behaviours. Sometimes, problematic behaviour is shown only by certain individuals. For example, the clumped nature of fox predation on lambs suggests the concept of individual 'rogue' foxes, and the hope that selectively removing these may resolve the issue.

On the other hand, some behaviours are common to all members of a predator species. All foxes are likely to take a nesting bird if they come across it. There's also the problem of identifying 'rogue' individuals unless they are caught in the act. The Victorian gamekeeper's use of poisoned eggs is rightly outlawed today, but could at least boast that it automatically targeted only egg-eating individuals. Therefore, the usual approach is to treat all members of the species as potential predators.

Which predator species are controlled?

The main targets of (legal) predation control are: fox, stoat, weasel, brown rat, crow, and magpie. Jackdaw and mink may also be controlled according to local need, as well as other recognised pests of agriculture or forestry like rooks and grey squirrel. What all these species have in common (besides being known predators of gamebirds) is that they are all successful species, widespread and common in our modern landscapes.

Does predation control need to be performed all year round?

No, but the optimal strategy will vary from place to place. Wild

gamebirds are particularly vulnerable to predation during the nesting period. To protect sitting hens, their eggs, and chicks, this is the time when predation pressure needs to be minimised. The ideal timing of control effort to achieve this depends on local circumstances. Lethal control has only a temporary effect until the animals removed are inevitably replaced. Because of this, winter culling will be largely irrelevant by spring, and it will be necessary to use methods that can be maintained through the spring and early summer.

As the greatest benefits for wildlife are generally seen when predators are controlled during spring, when many species are breeding^{64,108}, during the Salisbury Plain Experiment⁶⁴ the following predation control plan was used:

- Corvids (crows, rooks, magpies, jackdaws, jays) are egg predators and actively look for nesting birds during spring. Control was concentrated on the period from the end of March, through April and May.
- Small ground predators, such as rats and stoats, take partridge eggs and can also kill the sitting hen. These were controlled using tunnel traps through March to July.
- Foxes kill adult hen partridges during incubation, and were controlled mainly by shooting with a rifle focused on the end of May through June, but with some effort year-round.

A reared bird shoot whose business depends on the survival of released birds through the shooting season will prioritise control of predators, particularly foxes, during late summer and autumn to protect poults in and dispersing from the release pen. Because this is also the time of year when young foxes disperse, looking for territories, replacement will be rapid, and effort must be maintained. Very often this effort is then eased off in spring and summer when rearing-field duties demand time, so the benefit for wild game and other wildlife is small.

Did you know?

The GWCT's Salisbury Plain Experiment showed unambiguously that controlling generalist predators allowed 75% greater production of young wild grey partridge.



What is effective predator control?

Effective predator control reduces predation enough so that the prey species can benefit. Therefore, the important thing to consider is not how many foxes/crows/stoats have I removed, but rather how many remain, and what impact are they having?

This requires two things – a sustained effort, at the appropriate time of year to make sure the nesting season is covered, but also ongoing in future years, to maintain the benefit in the longer term. As predators that are removed will leave empty territories and available resources, others will inevitably replace them, so the effort must continue. It is important to understand that the aim is not to produce a long-term reduction in predator numbers overall, but to relieve the pressure for game and wildlife in the area at sensitive times of year. It must be expected to repeat this year on year.

If predator control is performed at too low a level to benefit the prey species, not done at their most vulnerable times of year, or not continued, it will be ineffective, and arguably unethical.

Pest control

A topic related to predation control, which in practical terms can be considered an aspect of the same activity, is pest control. Some wildlife can and do cause problems to many in the wider countryside, and control by gamekeepers can help contribute to overall control. At the estate level, the gamekeeper is usually required to manage pests as well as predators.

Which species are controlled as pests by gamekeepers?

This will vary from shoot to shoot, but typical species might include: rats, grey squirrels, rabbits, pigeons. When brown hares become very numerous – which they can easily do when predators, and especially foxes, are controlled¹³ – they can do significant damage to growing crops, and it may be necessary to control their numbers too.

What about deer?

Deer can cause considerable damage to woodland when the population is unmanaged. Carefully planned deer management protects young trees, can improve the health of the herd and can improve biodiversity by protecting the woodland understory.

Why do gamekeepers target these species?

Rabbits, deer and pigeons can cause damage to both commercial and game crops. Rabbits, deer and grey squirrels can cause damage to woodland. Rats and grey squirrels can cause damage to feeders, eat supplementary food intended for gamebirds and eat birds' eggs.



Gamekeepers help to keep pest such as rats under control, which benefits wildlife in the wider countryside. © GWCT

So are there fewer pests on shoots than elsewhere?

This has not been studied, so we don't know. Game management activities do have the potential to favour some pest species, as well as to control them. For example, a low number of foxes and stoats can lead to increased rabbit populations, and man must also step in to control them¹¹⁸.



During the breeding season, grey squirrels can predate songbird eggs.
© Nigel Housden

Provision of supplementary food for gamebirds can also help rats and squirrels, requiring extra control effort and care in how the feed is provided. Game strips provide cover which can favour rats as well as gamebirds. It's important to balance these effects to ensure that the conservation benefits of a well-run shoot are not lost.

Follow the Code

The Code applies to pest species

“The Code is primarily addressed to shooting ‘game’, but many of the principles apply equally to pest species including pigeons, crows rabbits and grey squirrels.”

Is predation more of a threat now than in the past?

In lowland Britain changes in land-use, especially the intensification of agriculture, have made the countryside more challenging for wild ground-nesting birds. The chicks of many of these birds depend on insect food being abundant, which is now scarcer than it was in the past. As a result, these populations are breeding less well than before the 1960s. While we can restore a little of this former habitat through agri-environment schemes, these represent only a tiny part of what has been lost. This in itself leads to fresh problems, for example, field edge strips can both concentrate prey and channel predators along them^{119–121}. Lack of connectivity increases the risk of local extinctions, so a fragmented population is far less robust than a connected one. Some prey species may be more vulnerable to predation now than they were in the past.



A range of factors has led to an increase in fox numbers since the 1960s. © David Mason

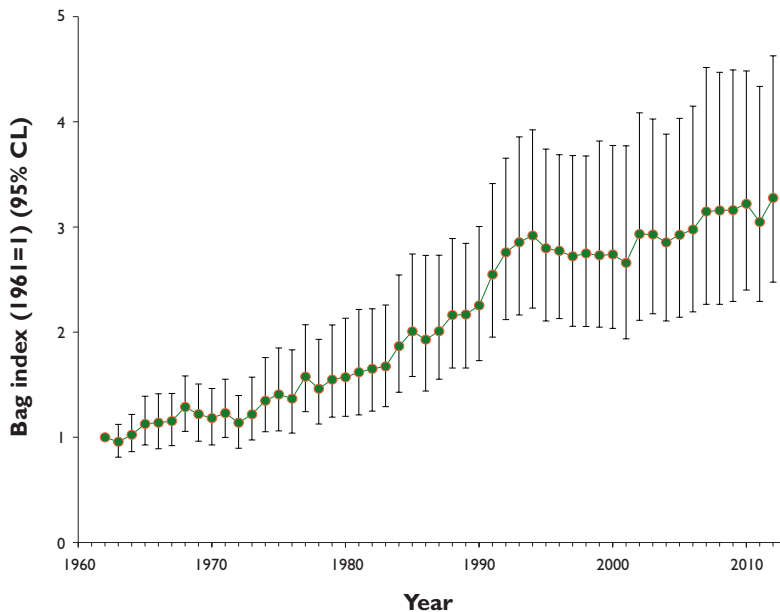
Are predators more common now than in the past?

Evidence about predator numbers is not as concrete as you might expect. Birds are well monitored by annual survey schemes set up by the British Trust for Ornithology, and for most species these extend back to 1962. Since 1995, mammals seen during the same surveys have also been recorded, and this provides a valuable back-up to other schemes for monitoring mammals.

The only longer-term dataset is the GWCT's National Gamebag Census, which records numbers of mammalian and avian predators killed ('bag data') on a self-selecting sample of shooting estates. When data become available from old sources, such as game record books, these are added retrospectively, so for a very few estates we have data from the early-Victorian era. The more systematic yearly data collection is carried out by questionnaire, and included predators only from 1961.

NGC data show a steady increase in fox bags from 1961 to the mid-1990s, but it is important to remember that bag data are ambiguous. A rising trend in the number of foxes killed could reflect: more foxes; greater effort; more effective methods or (paradoxically) an ineffective strategy where more individuals are taken from a larger population that is not under control. Predator bags are also affected by changes in legislation governing control methods (e.g. Wildlife & Countryside Act 1981, Hunting Act 2004); or technological improvement (e.g. thermal imaging).

Figure 6: Fox index from NGC bags
(1961-2013)



However, it seems likely that the striking rise in fox bags on shooting estates since 1961 is at least partly due to a real increase in the fox population, which in most cases will lie outside the shoot itself. This is also the period when foxes established populations in urban areas throughout the country, but we don't know the effect this has had on rural areas.

Over the years for which both NGC and BTO data are available (1995-2009), there is no statistically significant difference in the suggested trend for fox numbers: both suggest little or no change during this period. So overall, it looks likely that the UK fox population is higher than it has been historically, but has been fairly stable over the last 20 years. Broadly, the bags of fox, stoat, carrion crow, magpie are currently (in 2018) at levels 2-3 times higher than in the early 1960s, but the dynamics differ between species within that period and in different regions.

What do the lines on the graph mean?

Figures indicate the estimated size of the cull each year relative to 1961, after taking out sources of bias. We are 95% certain each un-biased cull estimate lies within the range covered by the vertical lines. Thus, the average bag from the mid-1990s to 2010 was most likely 3 times what it was in 1961; but it could have been between twice and four times the 1961 level.

Why have some predators become so common?

There are two angles on this, both of which are believed to be important. The first considers the 'top-down' regulation of predator numbers by bigger predators. Historically, humans eliminated top predators (wolf, bear, lynx) from Britain to benefit livestock farming. This would have released smaller predators (notably fox) from the pressure exerted by top predators, and may have allowed their numbers to rise. In the 19th century, gamekeepers effectively replaced the role of these top predators in limiting the middle predator populations; but following each of the two World Wars the number of gamekeepers employed to protect gamebirds fell dramatically (see figure 7 overleaf).

Since then, as far as we can tell, the numbers of generalist predators have risen, plateauing recently at higher numbers than were seen historically. However, during the same post-war period, the numbers of some food

species such as wild game and others have declined. So clearly higher predator numbers must be supported by other food sources.

Figure 7: Gamekeepers in the UK
(1871-1971)



This figure shows the decline in the number of gamekeepers, as recorded in Census records between 1871-1971. From the 1981 Census onwards, the category of gamekeeper was grouped under agriculture, so there is no longer any official measure of professional gamekeeper numbers.

The other angle considers the resources that - in total - support predator populations. If a predator species has become more common, the food resources must be there to support the increased numbers. In a few thousand years, man has changed Britain beyond recognition, and the species that are successful today are those that can benefit from the conditions this has provided.

Agriculture, livestock and poultry farming, introduction of non-native prey species like the rat and rabbit, game management, road kills and the waste associated with all human settlements have created substantial

food sources which these species have been able to use. Some (e.g. fox, magpie) now also have strong populations in urban areas, but we don't yet know the impact this has on adjacent countryside.

Whatever the reasons, in the modern world, many generalist predators thrive to the extent that they can seriously impact on the status of a range of vulnerable species, especially ground-nesting birds, such as red and black grouse, lapwing and curlew. For example, a large European study has shown that 65% of curlew nests observed between 1996 and 2006 were destroyed by predation¹²².

Do shoots support high local predator populations?

It has been suggested that where large numbers of gamebirds are released for shooting, or where wild gamebirds are managed at very high densities, the increased supply of prey could provide easy food for predators such as foxes, supporting a higher number or boosting their reproductive rate. Of course if gamebird releasing is accompanied by rigorous predation control this could not happen; but the demands of gamebird rearing compete for the keeper's time in spring and summer.

This is an important question to consider, but at present few pieces of the jigsaw to answer it are available. A recent review of the effect of gamebird management examined seven studies, which found both positive and negative effects, but the majority were not significant. It concluded that "Overall, the evidence for a negative impact of gamebird releases on non-game species is not compelling, though appropriate large-scale experiments are absent"¹²³.



The use of Larsen traps in springtime helps to protect songbirds from corvids © GWCT

Focus on: Larsen Trap

Corvids are a family of birds that include crows, rooks, magpies and jackdaws. They are widespread across the UK and make use of many different food sources, one of which is predation on the eggs and chicks of other birds. This can have a serious impact on the nesting success of some species, including waders, gamebirds and some songbirds. Because these corvid species are so numerous, and because of the damage they can do to other birds, livestock and crops, it is legal to control their numbers under General Licences.

Until the late 1980s, control of corvids was a problem because cage traps were perceived to be very much less effective than poisons like alpha-chloralose, which, though illegal, were still being widely used. The GWCT were concerned about such illegal practices and, in investigating possible humane alternatives, became aware of a Danish cage trap called the Larsen trap. This trap alone had been credited with achieving a reduction in magpie numbers throughout Denmark. The design allowed the use of a “call-bird” of the target species in a separate compartment to attract other corvids into the trap.

GWCT scientists ran a small trial of Larsen traps under a special licence, showing that they were highly effective in general, but were ten to fifteen times more effective when a decoy-bird was used¹²⁴. They realised that this was because of the highly territorial behaviour of breeding birds. It meant that effective control could be achieved within the critical time of year for gamebirds, with just a few of the conveniently-small traps moved around among different territories. It promised a far more focused approach to corvid control. However, the use of a decoy, and the small dimensions of the trap, contravened different aspects of UK wildlife law and would need to be specifically permitted.



© GWCT

GWCT approached the Nature Conservancy Council (now NE, SNH, NRW, DAEDS) regarding possible authorised use of Larsen traps. The NCC granted a licence for a wider trial in which registered gamekeepers could use Larsen traps in return for catch data¹²⁵. This confirmed the overall effectiveness of the trap, and showed that selectivity as well as effectiveness was greatly increased through the use of a decoy bird. Of over 10,000 birds captured, only 1% were non-target species, and these could be released alive and unharmed.

The NCC decided that it would be a positive step to permit the control of corvid birds using Larsen traps, by issuing a General Licence. Today, General Licences issued by all the devolved administrations permit the control of corvid birds for specific reasons (e.g. protection of crops, wildlife conservation, public health), dictate which traps may be used, and impose conditions for maintaining the welfare of decoy birds.

**Follow
the Code**

**It is an offence to destroy, birds
and their nests or eggs**

“With certain exceptions, e.g. control under the authority of a general licence, it is an offence to intentionally kill, damage or destroy birds, their active nests or eggs.”

Predation control and the law

The majority of predatory mammal and bird species in the UK are protected by law, but UK legislation treats mammals and birds differently. The following is a summary of the legal framework in May 2018.

Birds

For birds, the bottom line is that all species are protected, and killing them would ordinarily be illegal; but control of some species for which there is no current conservation concern (e.g. carrion crow, magpie, rook, jackdaw, jay) is permitted for specified purposes through General Licences.

Mammals

Mammals of conservation concern are protected by inclusion on one of the Schedules of the Wildlife & Countryside Act 1981, or by specific Acts (e.g. seals, badger). In some cases, protection applies only to certain methods of control. In general, mammals have less protection under UK law than birds do. So although some mammalian predators are strictly protected (e.g. pine marten, otter, hedgehog, polecat, badger) and may only be killed or taken under a special licence, others may be killed without any licence, while a few are protected against certain methods. The mammalian predators that may be killed without any licence are fox, grey squirrel, brown rat, stoat, weasel, and mink. However, the methods allowed are regulated (see below).

Licences

There are various kinds of licence, ranging from individual licences allowing a named operator to kill a specified number of birds; to General Licences, which permit anyone to kill certain species, using methods that are specified in the licence, for specific purposes including conservation of wild birds, protection of feedstuffs or crops, and prevention of disease. All licences are time-limited.

General Licences, issued separately in England, Wales, Scotland and Northern Ireland, are usually reviewed at 1 or 2-year intervals, and it has been normal for them to be renewed automatically. The activities permitted by a General Licence apply to anyone: individuals do not need to apply, although it is a condition of some General Licences (e.g. trapping corvid birds in Scotland) that you register your name and

contact details. You must in any case be aware of what the General Licence says. General Licences differ slightly between England, Wales, Scotland and Northern Ireland, and details can be found on the websites of Natural England (NE), Scottish Natural Heritage (SNH), Natural Resources Wales (NRW), or the Department of Agriculture, the Environment and Rural Affairs (DAERA) in Northern Ireland. Licence conditions may change on review/renewal. Organisations such as the GWCT, BASC and the NGO will normally make their members aware of any changes, but it's up to you to keep up to date.

Methods

Lethal control methods are regulated in various ways. Certain methods are forbidden by the Pests Act 1954 or the Wildlife & Countryside Act 1981. Kill traps are regulated under the Pests Act through occasional Spring Traps Approval Orders, whose details again vary between the devolved administrations. The use of snares is limited by the Wildlife & Countryside Act 1981. Use of firearms is regulated by the police under firearms legislation. The use of dogs is regulated by the Hunting Act 2004. The Animal Welfare Act 2006 applies to any wild animal brought into the control of man; this includes animals caught in traps, or rendered into hand as a result of shooting.

Protected species

Little research has been done into the impact that protected predators may have on wildlife or game, the priority for GWCT being to focus on common predators that were likely to be having the biggest impact. It is also a very sensitive issue, because the poor conservation status of some species by the middle of the 20th century (e.g. buzzard, red kite, polecat, pine marten, wildcat) was attributed to their control by gamekeepers during the previous 150 years⁵⁹.

Several of these species (e.g. polecat, buzzard, red kite) have recovered well, and some other protected species (e.g. badger, sparrow hawk, goshawk) have prospered during the last half century. Concerns around their impacts on prey species have begun to reappear.

It is crucial that such issues are clarified through good science and debate, maintaining respect for existing law, but seeking change where evidence shows it to be appropriate. Illegal actions by a few cause immense reputational damage to the game management sector, and

must be condemned by those wishing to maintain a countryside rich in game and other wildlife.

Applications can be made under existing law to control such species, where there is a sound argument for doing so and there is no other satisfactory solution. These are considered by the countryside agencies (NE, SNH, NRW, DAERA) on a case-by-case basis. If granted, a licence is issued to a named individual, with conditions, and limited in time and scope. These licences are anonymous.

Several such applications have been made in recent years to control buzzards, notably because of their impact on young pheasants and red-legged partridges in and around release pens, but also for predation on brown hare leverets, skylarks and lapwings, and to date four licenses have been granted. This avenue provides a legal route for those who are experiencing a genuine problem caused by a protected species, where alternative options have been explored. There is no valid reason for breaking the law and removing these animals without a licence. The GWCT strongly condemns illegal predator control, which risks bringing game management into disrepute.

Ask the shoot

1. What non-lethal methods of pest and predation control do you employ?
2. What time of year do you carry out fox control?
3. If you use snares, do you use the GWCT approved snare and has the person setting the snare had the appropriate training?
4. What are you doing for brown hares?
5. Do you perform deer management and squirrel control in your woodland?
6. Do you keep records of all pest and predation control carried out?
7. If you run a Larsen trap what time of year do you use it?
8. Are you consistent in the level of pest and predation control activity you undertake each year?
9. Is all your predation control legal and/or licensed?

Focus on: Fox Snare

While all lethal predation control is controversial, the use of snares is particularly so, with many attempts to outlaw them through Private Member's Bills.

When correctly used, they can be a very effective and selective way to catch foxes with a low risk of causing poor welfare. The difference between good and bad use lies partly in the choice of equipment used, but most of the difference comes from operator practices. Given both good equipment, for example the redesigned GWCT breakaway snare, and careful operating practice, fox snares have been shown to meet international humaneness standards for restraining traps.

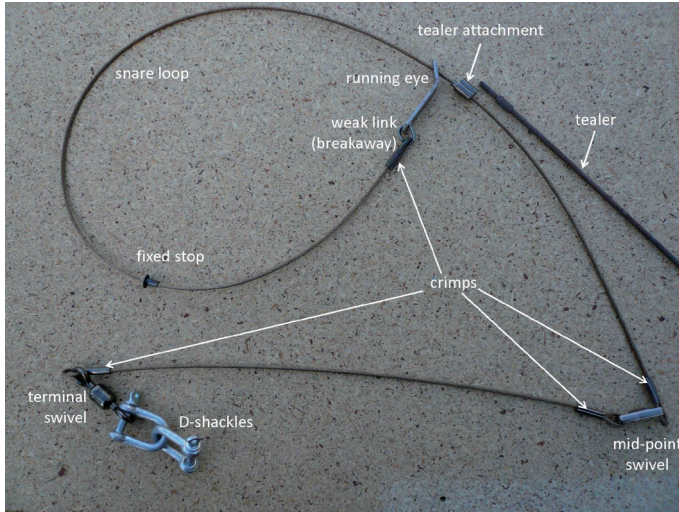
The intention of modern snares is to catch and restrain the fox until it can be humanely dispatched by shooting. The mistaken public perception is that the snare strangles the animal.

This public understanding of snares is fuelled by images of scenarios that have clearly caused suffering. However, these are almost entirely avoidable, by following the Code of Practice (issued separately in England, Wales, and Scotland). In Scotland, it is mandatory to follow the CoP, but this is not the case in England and Wales. Here the CoP outlines basic legal requirements, but compliance with its additional recommendations is voluntary.

The recommendations of the CoPs are based on years of research by GWCT, and we know that they spell the difference between high-risk and low-risk operation. Our message on this is stark: those who use snares should aim for best possible practice, or expect to lose the technique.

The single most important point is to avoid setting snares where a captured animal could entangle the snare with some fixed object nearby. Injuries and death are almost exclusive to situations where animals have become entangled. A snare set under a fence line, close to a tree or bush, or next to a substantial anchor post, is highly likely to cause suffering, and this is avoidable.





The breakaway snares catch and restrain the fox until it can be humanely despatched. © GWCT

Is it necessary to use fox snares? The majority of foxes killed in the UK are shot with a rifle, and the equipment available for this purpose has improved substantially in recent years with the wider availability of night vision equipment. However, shooting requires clear sight of the animal. For much of spring and summer – the key season for conservation of wild game and other wildlife – vegetation is typically taller than a fox. This is when snares have a unique advantage. Effective fox control at this time may only be possible given the use of snares.

You are unlikely to see fox snares in use during the shooting season, but they are commonly used around pheasant release pens in late summer/early autumn. In this situation, extreme care needs to be taken to avoid entanglement.

For further information, including the Snaring Code of Practice and Snaring in Scotland, a practitioner's guide, see the GWCT website.

**Follow
the Code**

Setting snares

"Snares should be set in accordance with the relevant code of practice for their use."