

NARGC Red Grouse Manual for Gun Clubs



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National Association of
Regional Game Councils

Irish Red Grouse

The Red Grouse (*Lagopus lagopus hibernicus*); known in Gaelic as *Cearc Fraoigh* – ‘the Heather Hen’ is one of Ireland’s most iconic native game-birds. It is characteristic of heather-dominated moorland and feeds mainly on a diet of ling heather. The results of the most recent Red Grouse survey (2006-2008) show a dramatic decline in the population over the last 40 years.



Red Grouse. Photo: Fiona Wheeldon



Red Grouse. Photo: David Scallan

The population size in the Republic of Ireland is estimated to be only 4,200 birds before breeding (i.e. in spring).

Threats to Red Grouse

The primary cause of decline is:

- Habitat loss, particularly of heather-dominated landscapes, from commercial peat extraction, overgrazing and afforestation;
- Lack of active traditional habitat management – Red Grouse need a variety of different ages of heather, offering habitat for shelter, nesting and feeding;
- Predation – as a ground-nesting bird, Red Grouse are susceptible to mammalian and avian predation.

Current Red Grouse populations are also affected by poor genetic diversity and, in some cases, regular disturbance.

Red Grouse Restoration

For a Gun Club, the objective of a Red Grouse project should be to limit the specific factors affecting the local Red Grouse population. This should be done in a manner that supports a diversity of other wildlife species and human uses. Ideally, a Gun Club Red Grouse project should:

- provide recommended management practices aimed at maintaining and increasing the local Red Grouse population;
- implement conservation actions in a manner that support red grouse whilst recognising the potential benefits for other red-listed bird species;
- promote local community involvement in planning and decision-making;
- maintain an atmosphere of cooperation and inclusion among local NPWS Conservation Rangers and staff, landowners, farmers, and other stakeholders in the development and implementation of Red Grouse management actions;
- monitoring should be an important part of the project’s plan, and adjustments to the conservation actions will need to be made regularly depending on how the population responds to management.

A project's management strategies will often include disturbance control, heather management, predator control, monitoring, grit provision, improving public awareness and education as well as the reviewing of management practices. These are best summed up as the 6 P's of Red Grouse Management¹.

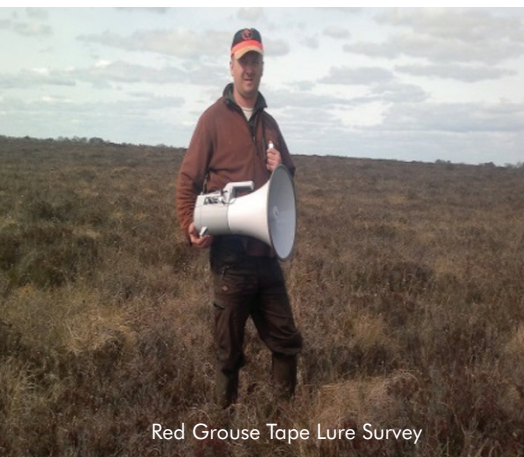
The Six P's of Grouse and Upland Management

1. Population Assessment
2. Preservation of Habitat
3. Predator and Pest Control
4. Public Relations
5. Provision of Grit
6. Prevention of Parasites

1. Population Assessment

The annual monitoring/counting of Red Grouse and other wildlife species on your project site will be essential to assess the impact of your management practices. It is important that the method of counting remains consistent every year. Surveys can be conducted using pointing dogs and by using a tape-lure survey method. It is always beneficial to take note of other birds and mammals during monitoring.

When carrying out population assessment, it is important to use the same methods over the same area of ground and at the same time of year. Spring counts should establish the number of breeding pairs in the area and autumn counts will establish how well (or not) the same pairs have produced. The autumn counts will therefore establish a ratio of young–old birds for that year. Early morning (i.e. dawn chorus) surveys are also useful to monitor (i.e. listening to) your local Red Grouse population.



Red Grouse Tape Lure Survey



Red Grouse Dog survey. Photo: Jim Sheridan

When carrying out population assessment, it is important to use the same methods over the same area of ground and at the same time of year.

2. Preservation of Habitat

Red Grouse require a broad age-range of heather to allow for cover, shelter, nesting and feeding. Hen Red Grouse usually nest in mature heather adjacent to freshly cut/burnt or second year cut/burnt heather complete with wet flushes, where fresh shoots will be available for chicks and insects will be readily available for the first ten days to two weeks of the chicks' lives. This improved micro-climate is beneficial to the reproduction of invertebrates, which are a vital food source for chicks. A patchwork of old and new heather is widely considered as the best management practice for Red Grouse.

¹ Appendix 1 contains a yearly plan outlining the correct times of the year to carry out the 6 P's of Red Grouse management¹.

Grouse moor management typically consists of burning/cutting heather in rotation, so that the moor becomes a diverse patchwork of different-aged heather. The traditional way of managing heather moorland is to burn the heather periodically in small patches. This alters the structure of the heather, and the young heather which regenerates after burning/cutting is more nutritious than old heather. Research suggests that good stocks of Red Grouse can be maintained by burning heather regularly in well-spaced narrow strips or small patches on a 10-12 year rotation.

Well managed moorland results in a patchwork effect offering grouse a mosaic of differing heather lengths. Remember that when fire is used, it does not kill the heather, but rather it causes re-germination from the seed bed in the case of a hot fire, or regrowth from the plant itself in the case of a cooler fire. Where large areas of over 200 metres wide are burned, Red Grouse will not colonise that ground for several years, until the heather has grown enough to provide cover. A suitable fire size should not be wider than 30 – 40 metres in width, so that a bird foraging at the centre of a burnt area has no further than 15 – 20 metres to travel should it be threatened by adverse weather or a predator.

Heather management work should be carried out from September 1st until the end of February under the appropriate legal framework (i.e. the Wildlife Acts 1976-2012). Gun Clubs are required to consult with NPWS prior to undertaking heather management particularly if the site is designated as a Special Area of Conservation (SAC), Special Protection Area (SPA) or Natural Heritage Area (NHA).

Objectives for Heather management on your project site

- To cut/burn long narrow strips of mature heather on a rotational basis;
- When cutting/burning heather, it is important that the strips do not exceed 40m in width as Red Grouse are reluctant to stray further than 15–20m from heather stands with good cover. Strips can be up to 100m in length;
- Avoid areas where heather is naturally wet (e.g. on blanket bog habitat) or short as a result of wind exposure;
- Consult NPWS before managing heather on your project site.



Heather management using fire



Heather management using fire



Heather management benefits sheep and grouse



Heather can also be managed using strimming/flails

3. Predator and Pest Control

Research has shown that predation is, and has always been, a major cause of Red Grouse mortality. Predation during nesting and early brood-rearing has the greatest influence on Red Grouse populations. Nest predators include foxes, grey crows, magpies and mink. Reducing predation rates can lead to increases in Red Grouse productivity. Controlling predation is most likely to be effective when undertaken over a wide area, hence requiring cooperation with numerous farmers. Remember that it is legal to trap/kill only certain predator species: fox, mink and some corvid species. See Appendix 2 for detailed advice on predator control and the law.

FOX

Foxes can have a significant impact on Red Grouse numbers as they will take nesting hens in the breeding season and broods of young, as well as adults, in winter. Foxes can be shot at night on and around your project site under a lamp with a high-powered rifle. In an ideal situation, once a site has had intensive fox control in place, a significant effort should be invested in preventing foxes from accessing the site by controlling numbers surrounding it. Remember that nature hates a vacuum; foxes will always recolonise vacant territories.

Some dawn and dusk fox calls can be useful along with the use of cage traps on the project site (particularly in hard weather). Snaring of foxes is a valuable tool but requires high level of skill to avoid catching non-target species. It is very time consuming as best-practice suggests that a snare should be checked at least once every twenty four hours.

CORVIDS

Hooded crows and magpies are the main corvid species likely to reduce Red Grouse breeding success as they will feed on Red Grouse eggs. Reducing the number of crows is achieved by shooting and by using larsen traps. As crows are highly territorial in spring, larsen trapping has proved to be most effective after the crows established their territorial pairs. Large pit-fall (ladder) traps can also be very successful.

MINK

North American Mink can be controlled using cage traps strategically placed around the project site, particularly adjacent to drains, stream sides and under piles of stones. Baited tunnel traps and bridge traps should have a restricted entrance of 8cm and used only with an approved 'Fenn' or 'Springer' Mk 6 trap.



Foxes need year round control



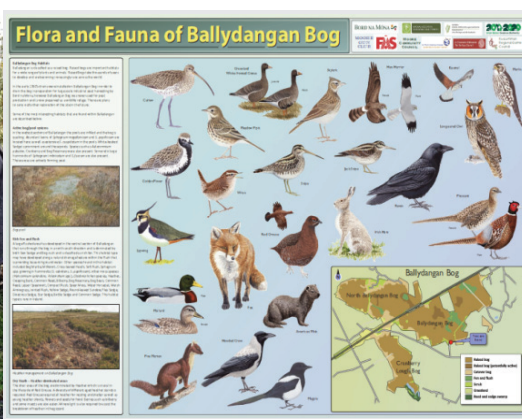
Magpies are nest predators

Controlling predation is most likely to be effective when undertaken over a wide area, hence requiring co-operation with numerous farmers.

4. Public Relations

As Red Grouse are mostly threatened by human influences, education is an important accompanying measure in Red Grouse conservation programmes. Public awareness and education can greatly improve the success of conservation efforts. In general, farmers, the general public and decision-makers require better education on habitat requirements, threats and ecology of the species on their land and under their responsibility.

As a community-based venture, your Grouse project should aim to engage with the local community and create awareness within the wider general public about the importance of Red Grouse conservation. Some of the educational and public awareness activities could include the development of educational material, hosting school visits and disseminating the project's outcomes through local media. Increased awareness about your project can also be obtained by placing signs at access points to inform people about the project.



Far left: Public awareness is key to a successful project.

Left: Education posters can be sent to local schools.

5. Provision of Grit

Depending on local conditions, coarse/angular grit may need to be placed in multiple locations on your project site to improve Red Grouse digestion. These raised sites also serve as useful vantage points for Red Grouse. Man-made gritting stations, every 300 meters, recorded with a grid reference, will allow your Club to regularly monitor their use. Grit stations allow easy access to the essential dietary requirement and offer suitable high points.

Remember that:

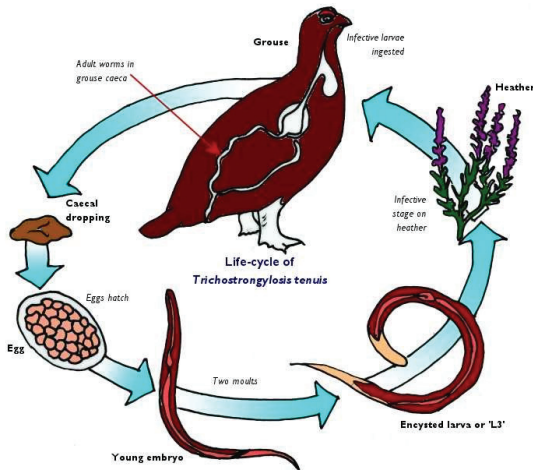
- Grouse require grit in their diet and will travel considerable distances to source it;
- The angular grit or small stone is eaten and acts as a pestle and mortar in the birds' gizzard to help digest the fibrous, low nutrient value heather that forms almost 90% of their diet;
- Natural grit is often found on road sides or where exposed stone is found;
- Providing grit for Red Grouse may encourage birds to establish territories. It should be placed on a high point that can be used as a vantage point for Red Grouse to look out for predators and for the cock bird to survey his territory.

6. Prevention of Parasites

The nematode worm (*Trichostrongylus tenuis*), which causes the disease Strongylosis, is widespread in grouse populations in Britain and it is believed that high levels of infection can reduce grouse breeding success and also cause direct mortality. Research and management in the north of England using worm-killing drugs has shown that this parasite can cause cyclical fluctuations in grouse numbers on moors in that region. However, there is little information on the status of these (or other) diseases in the Republic of Ireland. The other parasite commonly known to affect grouse is the Sheep tick (*Ixodes ricinus*).

Strongyle Worm:

- The larvae of the worm are found on heather and are ingested by the grouse;
- The worm develops into an adult within the birds' blind ended gut or caeca;
- Eggs produced by the worm are passed by the grouse in the caecal dropping;
- The larvae go through two progressive moults;
- The adult larvae is then ingested by the grouse and the cycle repeats itself.



Strongyle Worm life cycle

All grouse will have Strongyle worms at some stage in their life, but it is only when the worm burden in a bird becomes too high that the effects are seen via:

- Poor flight
- Lack of body condition
- Dull plumage are some of the signs of a high worm burden

Worm numbers in grouse tend to be higher where there is a larger density of birds and is treated in the UK with medicated grit. A worming agent adheres to the ordinary grit through a waxy coating.



Sheep tick

Sheep tick:

- Sheep tick act as vectors for the disease Louping ill, which effects grouse as well as sheep;
- Ticks can effect young birds, which are not fully feathered and therefore more susceptible to an infestation;
- All birds of all ages will lose condition if they have a tick burden.

APPENDIX 1

Calendar: Applying the Six P's of Red Grouse Management

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Population Assessment												
Spring survey		High	Low									
Autumn survey							Low	High	Low			
Preservation of Habitat												
Cutting/burning	Low	High							High	Low		Low
Predator Control												
Fox control												
Lamping	Low	Low	High	High	High	High	High	High	High	Low	Low	Low
Bolting with terriers			High	High	High	Low						
Snares	Low	Low	Low	High	High	High	High	High	High	Low	Low	Low
Middens	High	Low	Low								Low	High
Corvid control												
Larsen traps		High	High	High	High	High	High	Low	Low			
Public Relations	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Provision of Grit			Low	Low	High	High	High	High	High	Low	Low	
Prevention of Parasites												
Looking for ticks				High	High	Low	Low	High				

Adapted from: Hudson, P. & Newborn, D. (1995)
 A manual of red grouse and moorland management.
 The Game Conservancy.

HIGH PRIORITY LOW PRIORITY

APPENDIX 2

Predator Control and the Law

Use of fox/crow callers & crow decoys

Section 35 (1) (d) of the Wildlife Acts 1976 to 2012 states that a person shall not - *use an electrical or other instrument or appliance (including recording apparatus) emitting sound, for the purpose of hunting any wild bird or any wild animal.* The use of the term "...or other instrument..." obviously does not restrict the definition to electrically operated instruments/appliances only. For example, metal and plastic callers and possibly even polystyrene rubbed against a window could be interpreted as an "instrument or appliance" under the legislation. Calling a fox with one's mount, however, would be acceptable.

In effect, this means that it is illegal to use callers for grey crow, magpie and fox. However, Section 35 (4) allows the Minister to grant a licence to a person to *use an instrument or appliance emitting sound for the purpose of repelling, scaring or capturing any wild bird or any wild animal for scientific research or for another purpose approved of by the Minister.* Note that the legislation refers to "repelling, scaring or capturing" and does not say for the purpose of killing.

In this context, the wording of the license application is important and the author is aware that licenses have been refused to applicants seeking to use electric callers "to assist in controlling corvids and foxes". However, the author is aware of applicants being granted a license to "assist in the identification of these species" as part of a predator control programme.

Section 35 also makes the use of decoys for crows, including grey crow and magpie, illegal without a license. Artificial decoys can only be used for the purpose of hunting ducks, geese and woodpigeon. If you wish to use decoys for grey crow, magpie or fox, you must apply for a specific licence under Section 35 of the Wildlife Acts 1976 to 2012. The same license (Section 35) covers the use of callers and decoys.

Destroying the nests of magpie and grey crow

Section 22 (4) (e) makes it an offence to wilfully disturb a protected wild bird on or near a nest containing eggs or unflown young. Note that **all birds are protected in Ireland** under the EU Birds Directive. However, Section 22 (9) (d) states that the Minister may grant a licence to a person to *"examine, inspect or take the nest or eggs of protected wild birds of a species so specified for such educational, scientific or other purpose as shall be so specified"*. Therefore, if you wish to remove/destroy the nests of magpies and grey crows, you must apply for a specific licence under Sections 9 and 22 (9) (d) of Wildlife Acts 1976 to 2012.

Lamping/Hunting from a vehicle

It is not an offence under the Wildlife Acts to hunt fox and rabbit using a lamp (and other dazzling equipment, etc.) as they are **not protected wild animals**. It is, however, illegal to lamp protected species such as hare and deer. Furthermore, the use of a mechanically propelled vehicle may not be used for the purposes of hunting **any wild animal**, including a fox or rabbit, whether the vehicle is stationary or moving. Therefore, a hunter must not be in any vehicle while lamping as the definition of hunting in the Wildlife Acts includes to "search for". More specifically, hunting means: *"stalk, pursue, chase, drive, flush, capture, course, attract, follow, search for, lie in wait for, take, trap or shoot by any means whether with or without dog except in sections 28 and 29 of this Act, includes killing in the course of hunting and kindred words shall be construed accordingly"*. Legally, lamping and shooting would both be considered as "hunting" under the Wildlife Acts.

However, if you wish to hunt from a vehicle (with or without a lamp regardless of whether the vehicle is stationary or moving), you must apply for a specific licence under Section 36 of the Wildlife Acts 1976 to 2012. An application for a license under Section 36 requires the applicant to specify the areas where he/she intends to hunt (county and townland) and the period for which the licence is required.

Shooting from a road or near public places/dwellings

It is illegal to shoot from a public road or near public places/houses. While lamping, a shot should be taken from inside the field and then at a distance of not less than 60 feet (18.3 metres) from the road and shooting away from the direction of the road. However, care should be taken because there is a tendency not to use the legal provision of specifying 60 feet but rather to use a charge of "reckless discharge of a firearm" where no proof of distance may be required.

Snaring

Irish legislation states that a stop snare must have a minimum length from noose to stop of 13 inches (33cm) if it is intended to snare foxes and 6½ inches (16.5cm) if it is intended to snare rabbits and which complies with the following:

1. A swivel is incorporated in the snare;
2. The snare is designed so that when it is used it will be securely tied to a fixed object;
3. The snare is designed so that for the purpose of avoiding catching large animals (for example deer, cattle or horses) by the leg when it is used a jump bar, i.e. a cross-bar at least two feet above the ground and supported by a pair of forked sticks fixed not less than two feet apart, may also be used.

Semi-automatic shotguns

It is an offence (under Section 33 of the Wildlife Acts 1976-2012) for a person to shoot, hunt or injure in the course of hunting **any wild bird** with a repeating or automatic shotgun (other than a repeating or automatic shotgun which is adapted or modified so as to render it incapable of carrying more than three shotgun cartridges).

Shooting birds with a rifle

It is illegal under the Wildlife Acts 1976-2012 (i.e. the primary legislation) to shoot any bird with a rifle.

Poison

Since 2010, the use of poison (except for rodents) is illegal in Ireland. More specifically, the (Restrictions on Use of Poison Bait) Regulations (2010) make it illegal to use any poison to kill birds or animals, with the exception of rats and mice, without a special exemption. Therefore, it is now an offence to use meat, eggs or any other animal-based product as poisoned bait, unless in accordance with a specific licence granted by the National Parks and Wildlife Service (NPWS).

Spring (or Fenn) traps

Spring (or Fenn) traps (but not Gin traps, which are illegal) must be designed to cause the immediate death of the target species or the immediate unconsciousness and subsequent death without intervening consciousness. Spring traps (i.e. the Mark 6 Fenn Trap for mink and Mark 4 for Grey squirrels/rats) can be set in tunnels, but trap entrances must be well protected and measured (e.g. for mink, not greater than 8cm) to avoid catching non-target species (e.g. pine marten, otter, etc.).

Derogations for controlling crows and pigeons

Under the terms of the EU Birds Directive, **all wild birds** (including grey crows and magpies) are protected in Ireland. However, each EU Member State is allowed to make derogations for the control of certain bird species that cause damage to crops, livestock and fauna or represent a threat to public health or to air safety. Every year, the Minister permits the control of grey crows, magpies, rooks, jackdaws, woodpigeon and feral pigeon. However, Gun Club members should note that different control methods are allowed for different bird species in different situations.

Minister Heather Humphreys TD recently signed a nationwide Declaration for the 12 month period from 1st May 2015 to 30th April 2016. Note that the derogations do not allow for the control of grey crows and magpies for the protection of fauna (notably the nests and young of game birds) from 1st of October 2015 to 31st of January 2016. This means that magpies and grey crows can only be controlled if they are a **threat to public health and a vector in the spread of disease from 1st of October to 31st of January** (and from December 1st 2015 to 30th April 2016 **to prevent serious damage to livestock**). From the 1st of February 2016, control can take place for the 'protection of fauna' i.e. protecting nesting birds and their young from corvid predation.

Section 42 Licences

Protected wild birds and animals can be controlled under a Section 42 licence (Wildlife Acts 1976-2012), where they are causing serious damage to:

- food (including human food products and animal feeds), livestock, poultry or agricultural crops (including vegetables or fruit) either on pasture or on cultivated land;
- pen-reared wild birds on any land;
- other fauna and flora;
- a woodland, forest plantation or a fishery;
- buildings and other structures and their contents, or aquaculture installations.

A property owner or occupier may, on application to the NPWS, seek a permission (i.e. Section 42 Licence) to take appropriate steps to stop the damage. All Section 42 applications are investigated by local NPWS staff to determine if serious damage is being caused and, if so, the most practical method of stopping or controlling the problem.

Larsen traps

Any larsen traps used must comply with the (Approved Traps, Snares and Nets) Regulations 2003, and Section 35(5) of the Wildlife Acts. For example, the decoy bird must only be used for hunting birds of the same species. The bird must regularly be provided with ample food and water and shall, when caged, only be kept in a cage which is of sufficient dimensions to enable it to move and exercise freely. Note that the welfare of decoy birds is covered by law (i.e. the Animal Health and Welfare Act 2013). More specifically, the following conditions must be in place:

- The live decoy may only be used to hunt birds of the same species;
- There must be suitable food readily accessible;
- There must be clean drinkable water available at all times;
- There must be shelter which protects the bird from prevailing weather conditions;
- There must be a perch placed under the shelter;
- No decoy bird should be left in a trap when the trap is not in use;
- The live decoy must only be kept in a cage which is of sufficient dimensions to enable it to move and exercise freely.



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