



Capercaillie

Tetrao urogallus

Status

Red listed: BD
Non-SPEC

National monitoring

National surveys: 1992–93 (RSPB, ITE and Game Conservancy Trust – Pinewoods Birds Project), 1998–99.

Population and distribution

The capercaillie became extinct in Britain in the mid-18th century but was successfully re-introduced to Scotland in the mid-19th century. After becoming more common in the 20th century, the numbers of breeding capercaillie declined dramatically and its range has contracted in recent years. It is now found from central Scotland to the Dornoch Firth. The decline in numbers and range has been attributed in part to habitat loss and overhunting, but also to increased mortality from birds flying into deer fences, decreased productivity as a result of a run of poor summers and, perhaps, increased predator numbers. The current breeding population is estimated to be 2,200 birds (Catt et al 1994).

Ecology

The capercaillie is a bird of open mature pinewoods on hills and valleys with an undergrowth of heather (*Calluna vulgaris* and *Erica* spp) and bilberry *Vaccinium myrtillus*. They are solitary birds, but males will gather at traditional sites to display (lek) to females. Eggs are laid mid-April to early July, there is a single brood and the young fledge by mid-June to late July (*Red Data Birds*).

Breeding season survey – population and breeding success

The breeding population is counted at the same time as breeding success is estimated.

Information required

- total number of hens
- average number of chicks per hen
- average brood size.

Number and timing of visits

One visit in late July or early August.

Time of day

Any time of day.

Weather constraints

Avoid cold or wet conditions.

Sites/areas to visit

All areas known or suspected to hold capercaillie. Capercaillie are usually found in mature, open, semi-natural pinewoods with extensive heather and bilberry/blaeberry. Populations are sometimes found in other types of woodland such as mature Scots pine and other plantations, especially non-native pinewoods which have wind-blown areas and equivalent undergrowth.



Equipment

- trained dogs (pointers or setters) and a trained dog-handler – it may be necessary to hire these
- compass
- 1:25,000 map of the area to be visited
- prepared recording form.

Safety reminders

Nothing specific, see *General health and safety advice* in the *Introduction*.

Disturbance

Inevitable and unavoidable. However, there is no reason to suspect that the disturbance caused by the survey method has any effect on numbers or breeding success. Breeding capercaillie are not monitored at the nest because of the risk of desertion.

Methods

Use a team of people walking with dogs in a line. The dogs locate any chicks by scent. In July the chicks, which have hatched in early June, will be big enough for dogs to find easily. In early August, the broods should still be together. Cover the survey area systematically.

Record the total number of chicks and hens (including hens with no chicks). Use these figures to calculate the average number of chicks per hen. Calculate the average brood size as the number of chicks found divided by the number of hens with at least one chick.

Winter survey

There are two methods:

1. Transect counts – less disruptive and require fewer participants.
2. Winter drives – have been used at a number of sites for many years.

1. Transect counts

For a detailed method used by the RSPB over a number of winters – the pinewood bird survey – see the generic survey methods section.

2. Winter drives

Information required

- total number and density of birds of both sexes within set areas counted annually.

Number and timing of visits

One per annum per count area, between November and March.

Time of day

0900–1600 BST.

Weather constraints

None.

Sites/areas to visit

As for population survey (above).

Equipment

- 1:25,000 map of the area
- compass
- whistles, notebooks and walking sticks.

Safety reminders, Disturbance

As for population survey.

Methods

This method is mainly used for annual comparisons in areas which are counted this way every year. Up to 70 people can be involved.

The size of the sections to be counted varies according to the site's topography and the number of personnel available. A line of beaters should walk through the section of woodland to be counted, walking a few metres apart and maintaining a slightly curved line with left and right edges a little further forward. They should make much noise by shouting, clapping, using whistles and tapping trees with sticks as they walk through the section being counted. End beaters should be alert to flushed birds flying out and back round into areas already counted.

A line of counters should stand at the opposite end of the section being counted, spaced in such a way as to count all birds being 'driven' from the wood. The counters should be in position before the beaters start. Each counter should record any birds flying over their right shoulder noting the number of males, the number of females and the time. At the end of the 'drive' one person should collate all the records.

Reference

Catt, D C, Baines, D, Moss, R, Leckie, F and Picozzi, N (1994) *Abundance and Distribution of Capercaillie in Scotland 1992–1993*. Final Report to SNH and RSPB from ITE and Game Conservancy Trust.