



# The hen harrier in England



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The hen harrier is one of England's most spectacular birds of prey and it is an unforgettable sight to watch this bird floating effortlessly, low over the ground, in search of prey. Unfortunately, the opportunity to see the hen harrier on its moorland breeding haunts has become all too rare in recent years and there is now a very real danger that it will be lost as a breeding bird in England. English Nature has launched the Hen Harrier Recovery Project to monitor the remaining breeding birds, assess the factors responsible for the recent decline and help begin the process of restoring its fortunes.

## History

The hen harrier was once a widespread and fairly common bird in Britain and there are breeding records from many English counties from the early part of the 19th century. Numbers declined as a result of changes in habitat, for example the drainage and cultivation of marshes and heathland, and because of persecution by those seeking to protect poultry or gamebirds. By the end of the 19th century the hen harrier had been lost from mainland Britain and only a small population survived in the Hebrides off western Scotland and on Orkney.

After the Second World War the hen harrier started to make a comeback, probably due to a reduction in the number of active gamekeepers and a corresponding drop in the intensity of persecution. Northern England was recolonised in the mid-1960s and in the 1970s and 1980s up to 25 nesting attempts were made each year in Cumbria, Derbyshire, Durham, Lancashire, Northumberland and Yorkshire. It was hoped that this was just the start of a more complete recovery but this was not to be. The population did not increase



Nestlings are delicately fed small pieces of flesh by the female until they are old enough to tear prey apart for themselves.  
Laurie Campbell / NHPA

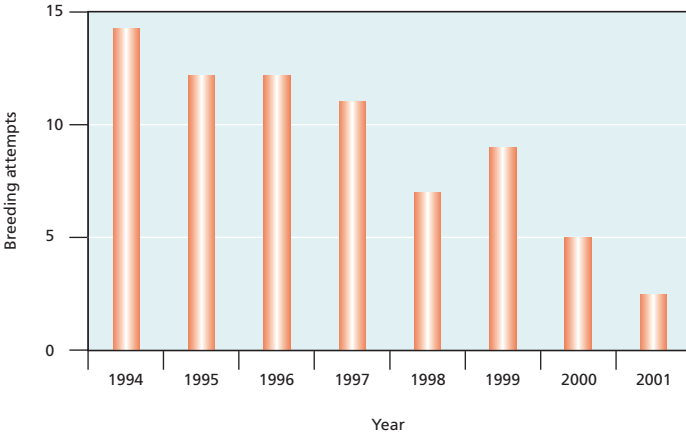
further and, to the contrary, from the mid-1990s there has been a significant decline in the bird's fortunes.

### Habitat requirements

In the past, hen harriers bred in many areas of Britain, and nests were sited in crop fields, marshes and heathland in the lowlands, as well as on the remote upland moorlands that provide the main breeding habitat today.

In parts of Europe, including northern France, hen harriers still breed successfully in arable crops although the nests often require human intervention to prevent the chicks being killed by machinery as the crop is harvested. In Britain, although both marsh harriers and Montagu's harriers breed successfully in fields of crops, the hen harrier is now restricted to moorland in the breeding season and occurs on lowland farmland only in winter.

## Successful hen harrier breeding attempts in England



### The breeding season

Most hen harriers arrive back on their breeding grounds in March or April and the males soon begin to indulge in spectacular, aerobatic display flights in order to attract a female. Aerial displays between paired birds include turning over in flight with talons outstretched, rapid, roller-coaster chases and dramatic stoops towards

the ground on folded wings. Some males are polygynous and may be paired' to as many as six different females in extreme cases. The hen harrier has a strong association with heather in England and nests are almost always sited so that the surrounding heather bushes provide cover and protection. A clutch of 4-6 eggs is laid, usually in May, and incubated mainly by the female for about 30 days.



In flight the hen harrier holds its wings in a shallow 'V' giving it a distinctive profile as it quarters low over the ground.  
Richard Brooks / FLPA





Eggs hatch at regular intervals so there is a substantial size difference between the chicks in a nest. In years when food is short only the largest chicks may survive. Martin Withers / FLPA

The chicks spend 30-40 days in the nest and are dependent on food brought in by the adult birds until they have learnt to hunt for themselves. The male does the majority of the hunting and transfers food to the female at the nest in a breathtaking display of agility known as the food-pass. This involves the female flying up from the nest and snatching the prey in mid-air with her

feet, just after it has been dropped from above by the male.

Although the hen harrier takes a wide range of different prey species, the diet in the breeding season is dominated by small birds and mammals. Voles and meadow pipits are important, particularly early in the breeding season, and skylarks, gamebirds and wader chicks are also taken regularly.

## Winter

A small number of hen harriers remain on the moors outside the breeding season, but most move south to spend the winter in lowland areas within England or further south on mainland Europe. Flat landscapes with wide expanses of unbroken wetland, farmland or heath are favoured as they provide ideal conditions for the bird's long foraging flights, low over the ground.

As with many birds of prey the male hen harrier is somewhat smaller than the female and tends to hunt for smaller prey species. RSPB Images

The English population is boosted in winter by variable numbers of immigrants from northern and central Europe and, in some years, the population is thought to be as high as 750 birds. Communal roosts often form and up to 20 birds may gather together to spend the night resting on the ground, concealed from potential predators within a reedbed or other rank vegetation.





The male hen harrier is pale grey, giving it an almost ghostly appearance as it floats silently over the moors. RSPB Images

### Conflicts with grouse shooting

It is well-known that hen harriers feed on both young and adult grouse during the breeding season and, as a result, the bird is unpopular with grouse moor owners and game keepers. Studies in Scotland have confirmed that in certain situations, high densities of breeding hen harriers can limit red grouse populations and reduce the number of birds available for shooting.

The situation in northern England is very different. Only very small numbers of hen harriers are present and breeding densities are currently far too low to have any significant impact on grouse numbers. As breeding hen harriers have been absent or present in only very low numbers in England during the 20th century, they have clearly played no role in the decline in grouse bags seen in some areas.





Although there are large tracts of apparently suitable breeding habitat in England, the hen harrier is severely limited by illegal persecution.  
Andy Brown / English Nature.





Despite this, illegal persecution carried out primarily on moorland managed for grouse shooting is thought to be the main factor limiting the hen harrier breeding population in England.

It has been estimated by the Game Conservancy Trust that there is sufficient moorland habitat in England to support about 230 pairs of hen harriers. There are, however, only two small areas in England where hen harriers have bred regularly in recent years, Bowland Fells in Lancashire and the Geltsdale area straddling the Cumbria/Northumberland border.

In 2000, these areas supported only five successful pairs and, in 2001, the situation deteriorated further. A small number of pairs bred at Bowland but none at all were found at Geltsdale. It is clear that urgent action is required in order to save the hen harrier from becoming extinct in England for the second time in its history.

### **The Hen Harrier Recovery Project**

English Nature has launched a three-year project, starting in spring 2002, to monitor the remaining hen harriers on their northern England breeding grounds and try to identify the reasons why numbers are currently so low.

Although persecution is thought to be the main factor limiting hen harrier numbers in England as a whole, other factors such as the suitability of local habitats and food availability may also be significant in some areas. Before we can start to tackle the problems currently faced by the hen harrier in England it is important that we have a good understanding of all the factors involved and their relative importance.

A project coordinator and four seasonal fieldworkers will spend as much time as possible on the moorland breeding areas around Bowland and Geltsdale. Landowners in these two areas have been contacted and we have sought their permission to carry out fieldwork on private estates where monitoring effort is currently low. Fieldworkers will log every hen harrier seen and record details such as age, sex, behaviour and habitat choice. Evidence suggesting that a pair has settled to breed will be followed up and, once identified, nest sites will be monitored closely throughout the breeding season until the young have fledged.

It is hoped to attach small radio-transmitters to some birds

so that their movements can be followed remotely by radio-tracking. This technique has been used with great success on other birds of prey in England and should help to reveal information about survival rates, ranging behaviour and dispersal patterns. Radio-tracking will be especially useful for locating dead birds, allowing them to be recovered quickly so that the cause of death can be established.

This project aims to provide a starting point for an upturn in the fortunes of the beleaguered English hen harrier and, given the current state of the hen harrier population, even a small rise in numbers would be welcome.

## Contacts

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The female hen harrier is rather drab in comparison with the male, ensuring that she is well concealed from potential predators when at the nest. Laurie Campbell / NHPA





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Hen harrier *Circus cyaneus* adult female  
at nest in heather. Chris Gomersall



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