THE BLACK GROUSE RECOVERY PROJECT
NORTH PENNINES

NEWS

Summer/Autumn 2002

Welcome to a new project officer and a partner

In March 2002, Philip Warren (pictured right) replaced John Calladine as the Black Grouse Recovery Project Officer. John has moved to Stirling and is now surveying peregrines. For the past five years, Philip has been actively studying black grouse chick survival and brood movements in the North Pennines.

The Black Grouse Recovery Project has now completed its first five years. In recognition of both the progress made and the need for further development, we (The Game Conservancy Trust, English Nature, the Ministry of Defence and the Royal Society for the Protection of Birds) have committed ourselves to a second five-year phase. We have now been joined by a new partner, Northumbrian Water. Dr Chris Spray MBE, Environment Director with Northumbrian Water, says, "We at Northumbrian Water take our biodiversity responsibilities seriously, and support of the Black Grouse Recovery Project fits well with our published Biodiversity Strategy. The black grouse is a deserving flagship for upland conservation and we look forward to the next five years helping to ensure that this bird remains a part of our upland scene."

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ENGLISH NATURE
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The number of males has increased

This spring, we surveyed all the lekking males in England. The present population stands at 850 males. This is an increase of 50 males since the last complete count in 1998, which estimated the English population at 800 males.

The increase was partly attributable to a period of warm, dry weather in June 2001, which resulted in improved breeding success (see Figure 1). June is the month of peak hatching for black grouse and young black grouse are particularly susceptible to inclement weather during their first weeks of life. The declines of black grouse on the moorland fringe during the 1990s may in part be related to a string of poor summers and subsequent poor breeding success.

Our latest counts reveal more blackcocks at leks than in 1998. (Laurie Campbell)

Figure 1

Comparison of black grouse breeding success over the past 10 years

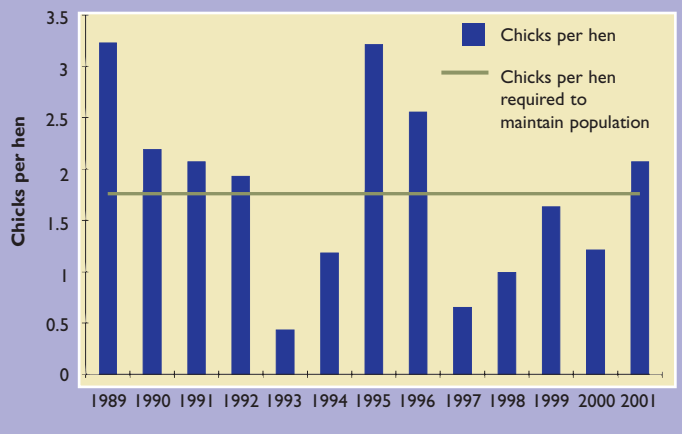
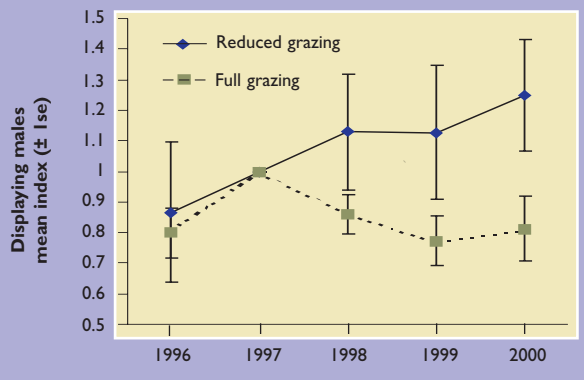


Figure 2

Numbers of displaying males has increased where grazing has been reduced



Since 1996, we have promoted and helped implement the necessary management to stabilise and enhance black grouse numbers. The management package includes sheep grazing reductions, planting small native woodlands, blocking drains and moorland grips and predator control. We have gauged the achievements of the management prescriptions, particularly the effect of reduced grazing, using 10 paired sites within the North Pennines. One of each of the paired sites was within an agri-environment scheme, with reduced grazing, whereas the other plot was a control site where grazing remained the same throughout the study. During the study we have found that black grouse breeding success was better and the numbers of displaying males increased at the 10 sites where management prescriptions to reduce grazing had been used (see Figure 2).

Still a long way to go

Despite the increase in the number of males and the successes seen at sites where appropriate management has been implemented, many of the increases were within the core of the range and there is still a long way to go before we will see population expansion and re-colonisation of former haunts, even though there were reports of sporadic sightings of hens in Nidderdale this past winter.

How do we expand the range?
The results of a Game Conservancy Trust study into the ecology of black grouse has provided us with essential information on black grouse habitat requirements, movements and the causes of death within the North Pennines.

One of the key findings of the study is that the present population is maintained by the very high survival rates of adult birds. Some of our birds are already over four years old. As a result, each hen needs only to produce an average of 1.8 chicks to maintain a stable population. Despite this, poor weather in the 1990s and a resultant low number of chicks produced has left the population on a knife edge. The population is vulnerable and would fare badly during a cold winter. To increase and expand the present population we have to increase the breeding success of black grouse.

How do we increase breeding success?
We cannot control the weather in June, one of the most crucial factors determining chick survival. However, there are some things we can all do to increase black grouse breeding success.

1. Improve breeding condition
In winter and early spring hens forage on areas of heather and cotton grass (draw-moss). The condition of the heather moorland can be improved by grazing at appropriate levels and burning to create a mosaic. Similar grazing regimes for mires (bogs) and blocking moorland grips (drains) create more wet areas and subsequently more cotton grass, an important spring food. Our research has found that small grazing exclosures are particularly favoured by and beneficial to black grouse.

2. Improve brood rearing habitat.
The key food items for black grouse chicks are sawfly larvae. Sawflies are related to bees, wasps and ants and their larvae are like small caterpillars, which feed on rushes and grasses, such as fescues and bents. It is therefore important that the rough grazing allotments on the moorland edge are grazed by appropriate numbers of sheep, and perhaps cattle to maintain the mosaic of rushes and white grasses to maximise the food supply for sawfly larvae and therefore provide more food for black grouse. Too much heather (regeneration) and we lose our key sawfly habitats. At present we don't know how best to maximise sawfly abundance. We hope to secure research funds for a specialist study on this key subject.

3. Predator control
Stoats and weasels have been identified as major predators of eggs, chicks and poults, even on some of the more intensively-keepered grouse moors.

How will improving the breeding success expand the range?
Our study on juvenile black grouse found that all juvenile hens were dispersing over distances of up to 20km. In a North Pennines context these movements were often into another Dale where they settled on heather moorland close to a group of lekking males. In some cases juvenile hens moved again in spring to suitable breeding habitat. These movements by hens are in direct contrast to the behaviour of the juvenile cocks which, during the present study, have moved very short distances, taking their positions at the lek closest to where they hatched. Thus, movements by hens are very important when we are trying to restore populations at the edge of the range and illustrates that if we can get the conditions right for black grouse we can restore numbers in many edge areas as long are they close to (within 20km) of a viable population. The problem is, with cocks travelling such short distances, how do we get them to establish in new areas? The answer may be to move the cocks artificially to establish new lekking groups.

Controlling key predators such as stoats and weasels (pictured) will help with breeding success. (David Mason)

What you can do for black grouse

1. **Maintain and improve habitat for black grouse.** Habitat loss and fragmentation has been one of the major factors in the decline of black grouse. A viable population of black grouse requires, on a farm unit scale, a mosaic of habitats comprising heather moorland, rough grazing allotments, hay meadows and small upland ghyll woodland. Such a mosaic was once common in a traditionally managed upland landscape. At present there are agri-environment and forestry grant schemes in place to restore these habitats. Advice on these issues is available from the project officer, Phil Warren. Please contact him on 01833 622208 and arrange a FREE site visit to discuss your management options for black grouse.
2. **Practise effective and legal predator control.** Black grouse, like all ground-nesting birds, are vulnerable to predation by corvids, foxes and, particularly in the North Pennines, stoats and weasels.
3. **Please don't shoot black grouse, particularly greyhens.**
4. **Ensure new fences in black grouse areas are appropriately sited and marked.** Fences are potentially fatal hazards for black grouse.

Please contact the Project Officer for further information.

The black grouse is a Biodiversity Action Plan species. Sportsmen, who have an incentive to ensure that there are plenty of black grouse, are likely to be the ones who can reverse the decline. (Laurie Campbell)

THE GAME CONSERVANCY TRUST

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The Black Grouse Recovery Project is a partnership between The Game Conservancy Trust, English Nature, The Royal Society for the Protection of Birds, The Ministry of Defence and Northumbrian Water.

The Project Newsletter is sent periodically to supporters of the project.

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