

4 Birds overview

The birds fact sheets show:

- the relationships between birds and their habitat (vegetation and food supply); and
- how changing either of these affects bird species and populations

The information is derived from the study on sustainable and economically viable grazing systems in the uplands.

Bird Species Covered

The study focussed on a range of bird species that are considered typical moorland breeding birds (Box 1). It:

- Related the abundance (or the occurrence for scarcer species) of different bird species to detailed measures of vegetation composition and structure
- Assessed 154 study plots distributed so that regional variation in the nature of these relationships could be assessed. The four regions were:
 - South Scotland
 - North Pennines
 - South Pennines
 - North Wales
- Assessed relationships based on the presence or absence of bird species on plots (which was relatively coarse), providing much less detail than for the other species, and did not consider regional variation

Bird species for which relationships with moorland vegetation characteristics were produced

Abundance and regional effects

Red grouse
 Golden plover
 Curlew
 Snipe
 Stonechat
 Whinchat
 Wheatear
 Meadow pipit
 Skylark

Presence/absence only

Hen harrier
 Merlin
 Lapwing
 Dunlin
 Short-eared owl
 Ring ouzel

- Determined which invertebrate groups are most important as food for moorland birds (many birds depend on them), so enabling linkages between studies of bird and invertebrate habitat preferences (see fact sheet 5 on invertebrates). The existing scientific literature on the diets of invertebrate-feeding moorland birds was reviewed for this

Key findings

- Moorland bird species showed considerable variation in the vegetation characteristics which were associated with higher densities of moorland birds or with a higher chance of being present on a plot
- To support high densities of a wide range of bird species, management on moorlands should aim to produce a diversity of vegetation-types, which vary in both composition and structure
- Variation in the composition and structure of moorland vegetation was also linked to higher densities of several species. Vegetation-types with a diverse composition and/or structure (e.g. grass-heather mosaics) are important for these species
- Densities of several species, including some of high conservation importance, were higher where there was more vegetation typical of flushes and wet areas (e.g. sedge and rush dominated areas)
- Little regional variation was found in the form and direction of the relationships between bird abundance and vegetation. Therefore, a particular change to vegetation (e.g. increasing heather cover) would generally produce the same direction of change in the density of particular bird species in each of the four regions (e.g. consistent increase or decrease). These findings may be widely applicable across the UK uplands
- However, the densities of eight of the nine species studied differed markedly between the regions (wheatear being the exception). These differences were irrespective of vegetation condition. A consequence of this is that in regions where a species is scarce, then management to produce favourable vegetation characteristics on a moorland holding is likely to result in a small change in density only
- Many moorland birds take a wide range of different invertebrate-types, with spiders, beetles, true flies, true bugs, ants, wasps and bees, moths, earthworms, caterpillars and the larvae of some flies being most important. (See fact sheet 5 on invertebrates). Different bird species and even populations of the same species select different types of invertebrate. Beetles and true flies are key groups, and amongst these ground beetles, weevils, click beetles and craneflies tend to be most important

Other Information Sources on Moorland Birds

The following literature and websites will provide a useful starting point for those wanting to find out more about moorland birds, their ecology and habitat requirements. This includes information on some species of high conservation importance in the UK but which are not covered in any detail in these fact sheets (e.g. black grouse, moorland raptors and ring ouzel).

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www.blackgrouse.info

www.gct.org.uk

www.ringouzel.info

www.rspb.org.uk

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