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Sensitive grazing levels can help to achieve the patchwork of vegetation types and heights required by many birds.

The semi-natural vegetation found on moorland supports a distinctive group of birds of conservation concern. Grazing animals influence the birds found on moorland, because of their effect on the vegetation type and structure. Grazing practices that help to create and maintain a diversity of vegetation types and structures on moorland can increase the diversity and number of these birds.

BENEFITS FOR WILDLIFE

 Many moorland birds of conservation concern, such as black grouse, golden plovers, curlews, ring ouzels, stonechats and wheatears. benefit from a patchwork of vegetation types and heights at a small- and large-scale across the moor. Even when one vegetation type is particularly important for a species - such as tall heather for nesting hen harriers and merlins - densities of the species' prey are often highest elsewhere - for example, in grass/heather

- mosaics. Grazing livestock can play an important part in creating and maintaining such mosaics of habitat.
- Grazing maintains the open habitats required by several wading birds that have become scarce on lowland farms. Without grazing livestock, the UK's uplands would return to woodland up to around 600 m above sea level. While such woodland and scrub adds diversity to our upland landscape, it is important to
- maintain open moorland for wading birds, such as snipe and curlews.
- The dung left by livestock increases invertebrate populations on the moor, thus providing valuable food for birds.

GRAZING MOORLAND TO BENEFIT WILDLIFE

The presence of a variety of moorland habitats - such as dry and wet heath, blanket bog, grassland, wooded cleughs, wet flushes and scrub - provides habitat for the greatest diversity of wildlife. To achieve and maintain such diversity, the grazing system must be balanced with appropriate vegetation management.

Habitat mosaics required by some moorland birds	
Hen harrier/merlin	Areas of tall, mature heather for nesting and mosaics of grass and dwarf shrubs, including heather, where prey such as meadow pipits are at their highest densities
Black grouse	A wide range of moorland habitats, containing heather, blaeberry, cotton grass, rushes, sedges, scrub and woodland
Ring ouzel	Tall, mature heather on steeper slopes for nesting, close to shorter, grassier areas for foraging
Stonechat	Long grass, bracken, deep heather and scrub mosaics in cleughs and at moorland edges
Curlew	Taller vegetation, such as heather in building phase, with shorter areas of wet grass and sedges and rushes.
Golden plover/dunlin	Short, open vegetation on moorland plateaus (with dwarf shrubs for golden plover).

Stocking density

- Inappropriately high grazing pressure can reduce the diversity of vegetation type and structure, eliminating the mosaics of habitats favoured by many birds.
- Inappropriately low grazing may increase the amount of tall, rank moorland vegetation, which is of low wildlife value.
- Moorland is a single grazing unit containing a variety of vegetation types, each with a unique response to a particular grazing system. This means that identifying a suitable grazing system is often a compromise based on the moor's most important features.

Three types of upland vegetation have a particularly high conservation value:

• Upland heath, characterised by dwarf shrubs, such as blaeberry and heather.

- Blanket bog, supporting cotton grass, dwarf shrubs and Sphagnum mosses.
- Calcareous grassland, characterised by a diversity of limestone-loving plants.

The effects of a given stocking density on a moor's vegetation and birds will vary according to local factors such as soil, climate, other moorland management and the vegetation's current condition.

Timing of grazing

- Heather is more nutritious than grass in winter, and is more likely to be grazed. Therefore, it is particularly vulnerable to high stocking rates in this period. Winter grazing may be possible on some moorland, but only at very low stocking rates.
- Supplementary feeding of livestock on moorland can directly damage moorland vegetation if inappropriately sited. If done routinely, it allows

- many more stock to be kept on the moorland than the vegetation could otherwise support. It should be avoided, except in extreme weather.
- Timing the majority of the grazing for late summer/early autumn gives botanically diverse areas, like calcareous grassland, the opportunity to flower and set seed.
- Aiming to improve grazing by burning grassland annually or every couple of years promotes purple moor grass and mat grass at the expense of other plants. This can lead to large areas becoming dominated by these species and grazing value is reduced as a result. Heavier grazing pressure in early spring, to coincide with the most nutritious phase of purple moor grass, should maintain more diverse and palatable vegetation.

Stock type

- Grazing with a variety of livestock types takes advantage of a range of grazing behaviours thus helping to achieve a mosaic of habitat and structure.
- Cattle are the least selective grazers, helping to maintain the range of vegetation types found on a moor. Grazing cattle can play an important role in breaking up stands of rush, bracken and taller vegetation. They also help by grazing species that sheep tend to avoid e.g. mat grass and purple moor grass.
- Hefted flocks and breeds adapted to uplands help to provide an even distribution of grazing pressure over the moor. Without this, sheep would congregate in areas with the most nutritious vegetation. At higher grazing densities, their selectivity for sweeter grass species, such as bents and fescues, and heather in winter, can result in the increased colonisation of the less palatable species, such as mat grass and purple moor grass.

KEY POINTS

- Sensitive grazing levels can help to achieve the patchwork of vegetation types and heights required by many birds.
- Heather is particularly vulnerable to heavy winter grazing.

See also the RSPB advisory sheets on:

- Heather moorland management
- Black grouse-habitats and land
- · Ring Ouzel

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You can get further information on this and other ways of managing your farm for wildlife from:



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