

# Looking after moorland habitats



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Three quarters of the world's heather moorlands are in the UK. Heather moorland covers about 25% of British uplands (15 000 km<sup>2</sup>), and about half of this area is managed for grouse. Moorland covers around 38% of Scotland, 5.5% of England and Wales and 8% of Northern Ireland. Moorland habitats are varied but three broad types can be recognised:

- Heathland communities characterised by small shrubs such as ling heather (*Calluna vulgaris*) and bilberry (*Vaccinium myrtillus*);
- Mire or bog communities characterised by mosses (dominated by *Sphagnum* spp.), sedges such as cottongrass (*Eriophorum* spp.) and small shrubs; or
- Acid grassland communities characterised by grasses such as wavy hair grass (*Deschampsia flexuosa*), Sheep's fescue (*Festuca ovina*) and Matgrass (*Nardus stricta*).

There are 17,680 ha upland heath and 15,890 ha blanket bog in the Peak District National Park (PDNP). 16% of uplands are designated as Sites of Special Scientific Interest (SSSIs), and about 30% of these are in shooting estates.



## What policies affect grouse moors?

Current regulations control when moors can be burned, who needs to be informed of the planned burn and what safety precautions should be taken when burning. All other burning practices are regulated through the voluntary Heather and Grass Burning Code. The biodiversity value of many moors means they are also protected under national and international conservation law.

Because most moors are grazed by sheep, land management also needs to be compatible with claiming agricultural payments. Single Farm Payments on grouse moors require managers to comply with the Burning Code and regulations

The burning code recognises that carefully planned rotational burning can be beneficial for grouse, sheep and wildlife. However, it also recognises that inappropriate burning can cause soil erosion, carbon loss, pollution and the loss of valuable species and habitats. The revised Heather & Grass Burning Code was launched in August and will come into force on 1 October 2007. The new code identifies environmentally sensitive features where burning should be avoided and cuts red tape. It will be supplemented by a series of best practice guides.



## How are moorland habitats protected?

Approximately 35% of the peak district national park is designated as Sites of Special Scientific Interest (SSSI), reflecting the national importance of such sites for wildlife conservation. This includes the vast majority of moorland in the Peak District, whether managed for grouse or not. Of this, most of the moorland is also recognised as being of international nature conservation importance, being designated as a Natura 2000 site. This is a European network of Special Areas of Conservation (SAC) and Special Protection Areas (SPA) protecting habitats and species that are rare, endangered or vulnerable. SACs come from the European Habitats Directive, with the South Pennine Moors SAC covering 70% of the moorland in the Peak District. SPAs come from the European Directive on the conservation of wild birds, and include the Peak District moors. The objectives of the SAC and SPA are largely fulfilled through SSSI management.

Natural England suggests that only 14% of moorland Sites of Special Scientific Interest (SSSIs) in England are in favourable condition. The two most significant reasons they give for this, in terms of area affected, are overgrazing and inappropriate burning. There is some debate, particularly between grouse moor managers and conservationists, about how 'favourable condition' for moorland habitats should be defined and how it is best achieved. Some argue that favourable condition differs between regions, as moorlands in the Peak District may have different plant assemblages to moorlands in the N Pennines, due to the air pollution legacy and differing climatic conditions.

SPA/SAC/SSSI designations are complemented by Biodiversity Action Plans (BAPs) (developed in response to the UN Convention on Biological Diversity), which establish programmes for the conservation of particular species and habitats. The Peak District local area BAP contains 15 habitat BAPs (including heather moorland and blanket bog) and 7 Species BAPs (including Curlew and Twite), brought together as part of the Peak District National Park management plan.

In addition to conservation, the Peak District BAP recognizes the social and economic benefits of moorlands. The MFF partnership has a leading role in achieving moorland restoration goals, but it is less clear how other goals can be achieved, as putting BAPs into practice does not receive any direct funding. Since large areas of Peak District moorland are privately owned, close collaboration with moorland managers is vital.

Most of the Peak District uplands are privately owned (including that National Trust's High Peak estate). Turning these estates over to the government to create new protected areas would require a huge amount of money to compensate owners and to run these new parks. In reality a mixture of legislation and working together with moorland owners is generally regarded as the best long-term way to manage these habitats. This means that there will always be differing goals for upland management between grouse moors and conservation to some extent, and a continuing need to find better ways for them to work together.

## How does grouse management affect biodiversity?

British heather moorlands have largely been maintained as a result of management for grouse, which has been a viable economic alternative to more intensive sheep farming or tree planting. The effects of grouse moor management on biodiversity are hotly debated.

Appropriate burning of heather moorland can protect against wildfire risk and create a mixture of habitats that improve biodiversity while enhancing the visual and cultural value of the landscape. However, in some areas, it has been suggested that long-term grouse management has converted blanket bogs into heather moorland. It may also result in reduced diversity of shrubs and reduce the moss and lichen layer. The impact of grouse moor management on breeding moorland birds is unclear. Whilst heather burning and predator control are likely to benefit some species (e.g. Golden Plover favour short vegetation), others (e.g. species requiring tall heather and the predators themselves) are likely to be disadvantaged. Although the relationship between grouse moor management and birds of prey is an important and highly contested issue, this question is being addressed in other fora and the site visits will not focus on it.

Very little is known about the effects of burning on erosion, and water quantity and quality. Despite many studies into the effect of burning on plant diversity in blanket bogs and heather moorland there is not enough evidence to say whether it has a positive or negative effect.



**Top:** Curlew in flight

**Middle:** Sphagnum moss, typical of blanket bog

**Bottom:** Dunlin

## How does grouse management affect fire risk?

Grouse moor management with regular burn cycles cuts wild fire risk by reducing the fuel load of older heather. Grouse moors with a mosaic of burn stages can also prevent the spread of accidental fires. Alternatively, fire breaks can be applied by cutting or burning, especially near footpaths. Well managed burns only remove the vegetation and do not damage the peat. It is likely that a reduction in the number of managed burns would lead to more damaging wildfires because there would be more fuel and less fire breaks, unless other fire reduction measures were taken.

## What would happen if we abandon or re-wild uplands?

Re-wilding involves reducing or removing management so that natural processes and habitats are restored. The only current example of this under a “re-wilding” label in the Peak District is in Alport Valley, where conifer plantations are being replaced with native woodland. However there are widespread examples of moorland where grazing and burning management do not take place, for example in the numerous Environmentally Sensitive Area (ESA) enclosure plots, and on parts of the National Park Authority and National Trusts’ estates. Grazing pressure has been reduced considerably in recent years through ESA agreements.

The effect of re-wilding on the value of open moorlands for visitors may be both positive and negative. While re-wilding would reduce the income from sheep farming and grouse moors it is not clear how it would affect upland water, carbon or ecology. Some evidence suggests that in the short term re-wilding might increase the amount of water stored in uplands and reduce the risk of flooding downstream. But the long-term consequences are less well understood, and depend on how land is re-wilded (e.g. whether past damage is remedied, control or introduction of wild herbivores and fire control). For example, it seems likely that, in the absence of any grazing, heather moorlands would change to scrub and forest. However, if blanket bogs dry out under climate change then they too may become forests in future.

### Other Research Notes in this series:

1 - Breeding Bird Survey of the Peak District moorlands

2 - Peak District Moorland Gully Blocking in Deep Peat

3 - Peak District Moorland Stream Survey

4 - Heavy Metal Pollution in Eroding Peak District Moors

6 - Monitoring of Burning in Uplands A Rapid Assessment Protocol

9 - Air Pollution in the Peak District

12 - Carbon Flux

13 - Future of Upland Farming

14 – Looking after moorland habitats

15 - Soil & water conservation: opportunities to combat climate change

16 - Tourism & recreation: opportunities and threats of the visitor economy

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### The Moors for the Future Partners are:

Natural England, National Trust, Peak District National Park Authority, United Utilities, Severn Trent Water, Yorkshire Water, Sheffield City Council, Moorland Association, Defra, Country Land and Business Association, National Farmers Union