

UPLAND HEATHLAND

Nationally

Heathland vegetation occurs widely on mineral soils and thin peats (<0.5 m deep) throughout the uplands and moorlands of the UK. It is characterised by the presence of dwarf shrubs at a cover of at least 25%.

Blanket bog vegetation may also contain substantial amounts of dwarf shrubs, but is distinguished from heathland by its occurrence on deep peat (>0.5 m).

For the purposes of this plan upland heathland is defined as lying below the alpine or montane zone (at about 600-750 m) and usually above the upper edge of enclosed agricultural land (generally at around 250-400 m, but descending to near sea-level in northern Scotland).



Heather moorland © PDNPA

Lowland heathland occurs below the upper limit of agricultural enclosure and supports a range of birds, reptiles and invertebrates not found on upland heath; this habitat is covered by a separate habitat action plan. Montane heaths, restricted to high-altitude mountain summits and ridges, are also excluded from the upland heathland plan. Blanket bog and other mires, grassland, bracken, scrub, trees and woodland, freshwater and rock habitats frequently form intimate mosaics with heathland vegetation in upland situations. This plan recognises the importance of this habitat mosaic. Habitat action plans have been produced for some elements of this complex, for example, blanket bog and upland calcareous grassland.

Upland heath in 'favourable condition' is typically dominated by a range of dwarf shrubs such as heather *Calluna vulgaris*, bilberry *Vaccinium myrtillus*, crowberry *Empetrum nigrum*, bell heather *Erica cinerea* and, in the south and west, western gorse *Ulex gallii*. In northern areas juniper *Juniperus communis* is occasionally seen above a heath understorey. Wet heath is most commonly found in the wetter north and west and, in 'favourable condition', should be dominated by mixtures of cross-leaved heath *Erica tetralix*, deer grass *Scirpus cespitosus*, heather and purple moor-grass *Molinia caerulea*, over an understorey of mosses often including carpets of *Sphagnum* species. This habitat is distinct from blanket mire which occurs on deeper peat and which usually contains frequent occurrence of hare's-tail cotton-grass *Eriophorum vaginatum* and characteristic mosses. High quality heaths are generally structurally diverse, containing stands of vegetation with heather at different stages of growth. Upland heath in 'favourable condition' also usually includes areas of mature heather.



Red grouse © Karen Shelley-Jones

An important assemblage of birds is associated with upland heath, including red grouse *Lagopus lagopus*, black grouse *Tetrao tetrix*, merlin *Falco columbarius* and hen harrier *Circus cyaneus*. Some forms of heath also have a significant lower plant interest, including assemblages of rare and local mosses and liverworts that are particularly associated with the wetter western heaths. The invertebrate fauna is especially diverse.

This habitat type is present on an estimated 270,000 ha in England, 80,000 ha in Wales, up to 69,500 ha in Northern Ireland and between 1,700,000 and 2,500,000 ha in Scotland. The total upland heath resource in the UK thus amounts to between 2 and 3 million hectares. Dwarf shrub heaths are recognised as being of international importance because they are largely confined within Europe to the British Isles and the western seaboard of mainland Europe.

Extent in UK:
1,132,988 ha

In the Peak District

Moorlands are one of the most distinctive landscapes of the Peak District, composed of a variety of different habitats and their associated communities. They are a rich portrait of ecological processes, with the myriad habitats and communities reflecting subtle changes in environmental conditions.

Extensive areas support swathes of heather dominated moor, managed as grouse moors and/or sheep grazing. This is a habitat of international importance with the UK supporting a large proportion of the global resource.

These heather dominated moors provide habitat for a range of different moorland birds, including short-eared owl, golden plover, curlew and merlin. Small numbers of nightjar are found where dwarf shrubs form mosaics with bracken and moorland scrub. A small but regionally important population of adder survive on a few sites, and the dramatic northern eggar and emperor moths are characteristic of this habitat. High quality moorlands are generally structurally diverse with heather and other dwarf shrubs at different stages of growth including mature and degenerate stands of heather. Where stands of heather have been left un-burnt and have developed into gnarled old leggy plants, lichens can be important and the cover provided is essential for the moorland birds of prey. Locally, on steeper banks and clough sides, mixed moor is found where heather grows with other dwarf shrubs including bilberry, cowberry, crowberry and hybrid bilberry. Such areas of mixed moor are often associated with a diverse moss and lichen flora and are important for invertebrates such as green hairstreak butterflies, for which the Peak District is an important stronghold.



Green hairstreak © Karen Shelley-Jones



Twite © Paul Hobson

In poorly drained areas, wet heath is found locally. Here a rich mix of cross leaved heath, cotton grass, deer sedge and sphagnum mosses can flourish. The moorland streams provide yet more interest and can be very important for water voles. They are also associated with a rich variety of invertebrates and lower plants (mosses and lichens). The streamside rock outcrops may support a diverse flora including the rare oak and beech ferns.

Bracken beds can be important for moorland and moorland fringe birds such as whinchat and twite, and moorland cloughs are sometimes used by ring ouzel. However, the spread of bracken, particularly into areas of other moorland vegetation, is generally unwelcome. Bracken beds where there is an overwhelming dominance of bracken, are generally of little botanical interest.

Scattered across the moors, particularly on the upper edges of the cloughs, moorland scrub may have developed, with rowan, birch, hawthorn and, in wetter areas, willow and sometimes alder. Such areas of scrub are often important for lichens, invertebrates and moorland edge birds.

Significant tracts of the moors support areas of acid grasslands ranging from 'white moor' dominated by purple moor grass to areas of mixed acid grasslands on well drained soils. The grass moor provides habitat for small mammals and feeding areas for moorland birds. However, locally the large extent of acid grassland and bracken, much of which will have been derived from wet and dry heath, is testament to historical loss of important heathland habitats.

Amongst the many good examples of heather moorlands are the moors of Chatsworth Estate, the Upper Derwent Valley, Broomhead and Bradfield Moors. Mixed heath is well represented in sites such as the Black Cloughs and Chunal Moor in the west.

The moorlands are of outstanding landscape importance. The dramatic gritstone edges and expanses of purple heather in late summer are complemented by the changing hues of bracken and bilberry, clough-side flushes, springheads and patches of moorland scrub. For decades the moorlands have been enjoyed by visitors both for climbing on the famous edges and for walking across the vast moorland landscapes. The moorlands of the Peak District are important for their Bronze Age landscapes and remains, and significant areas have been designated as Scheduled Ancient Monuments.

**Extent in PD:
c. 14,610 ha**

Current Factors Affecting the Habitat & Habitat Condition

There have been considerable losses of heather moorland in recent times. For example, 27% of heather moorland is estimated to have been lost in England and Wales between 1947 and 1980. An estimated 18% was lost in Scotland between the 1940s and 1970s and the trend continued throughout the 1980s with a further estimated loss of 5%. Much of this loss is attributed to agricultural land improvements, heavy grazing by sheep (and, in certain areas, red deer and cattle), and afforestation.

It has also been estimated that 440,000 ha of land in the uplands in England and Wales have less than 25% cover of heather (i.e. grassland containing suppressed dwarf shrubs). There is likely to be further significant loss of heather moorland to acid grassland if current grazing levels and pressures continue. However, the conversion of heathland to acid grassland is not a purely recent phenomenon. On some sites in Wales (and elsewhere in UK) the major decline in heathland cover probably took place in the 19th century or even earlier.

Recent Work

Recently, as a result of positive incentives within agri-environment schemes such as the North Peak and South West Peak Environmentally Sensitive Areas (ESA), and now Upland Entry Level Stewardship (UELS) and Higher Level Stewardship (HLS), there have been gains from work such as bracken control and experimental re-creation of heather-dominated moor on acid grassland. Future work should focus on restoration and management of mixed dwarf-shrub heath, including bilberry, crowberry, cowberry, and in wetter areas, cross-leaved heath and cranberry.

Associated BAP Species in the Peak District

Mountain Hare	<i>Lepus timidus</i>
Sky Lark	<i>Alauda arvensis arvensis</i>
Twite	<i>Carduelis flavirostris</i>
Hen Harrier	<i>Circus cyaneus</i>
Common Cuckoo	<i>Cuculus canorus canorus</i>
Red Grouse	<i>Lagopus lagopus scoticus</i>
Curlew	<i>Numenius arquata arquata</i>
Black Grouse	<i>Tetrao tetrix britannicus</i>
Ring Ouzel	<i>Turdus torquatus torquatus</i>
Adder	<i>Vipera berus</i>
Common Lizard	<i>Zootoca vivipara</i>
Moss Carder-bee	<i>Bombus muscorum</i>
Small Heath butterfly	<i>Coenonympha pamphilus</i>
The Forester moth	<i>Adscita statices</i>
Grey Mountain Carpet moth	<i>Entephria caesiata</i>
Argent and sable moth	<i>Rheumaptera hastata</i>
Heath Rustic moth	<i>Xestia agathina</i>
Neglected Rustic moth	<i>Xestia castanea</i>
a money spider	<i>Monocephalus castaneipes</i>
Juniper	<i>Juniperus communis</i>
Lesser Butterfly-orchid	<i>Platanthera bifolia</i>
Small-white Orchid	<i>Pseudorchis albida</i>

NVC Communities

The principal vegetation types (and their associated sub-communities) included in this habitat are:

H4 - *Ulex gallii* - *Agrostis curtisii* (restricted to Southern Britain)

H8 - *Calluna vulgaris* - *U. gallii* (restricted to Southern Britain)

H9 - *Calluna vulgaris* - *Deschampsia flexuosa*

H10 - *Calluna vulgaris* - *Erica cinerea*

H12 - *Calluna vulgaris* - *Vaccinium myrtillus*

H16 - *Calluna vulgaris* - *Arctostaphylos uva-urii*

H18 - *Vaccinium myrtillus* – *Deschampsia flexuosa*

H21 - *Calluna vulgaris* - *Vaccinium myrtillus* - *Sphagnum capillifolium*

M15 - *Scirpus cespitosus* - *Erica tetralix*

M16 - *Erica tetralix* - *Sphagnum compactum*

The distribution of these communities is influenced by climate, altitude, aspect, slope, maritime influences and management practices including grazing and burning.