## THE DARK PEAK





sided valleys or cloughs cut by fast-flowing streams. Below the moorland edge the enclosed land comprises pastures and meadows extending down into the bottoms of wide shale valleys. Oak woodland occurs particularly in cloughs and on valley-sides, whilst reservoirs have been constructed in some valleys and the surrounding land planted with conifer forest.

On the moorlands the high plateaux have developed deep peat dominated by extensive areas of blanket bog where cottongrass predominates. Blanket bogs are an internationally rare habitat confined to areas where the climate allows extensive peat development. They can be found in Norway, Newfoundland, Alaska, Kamchatka and Japan in the northern hemisphere, and Tierra del Fuego, the Falkland Islands, Tasmania and New Zealand in the south. Britain supports about 2 million hectares some 10-15% of the world total. Together with upland heathland this is one of the most extensive habitats in the Peak District, dominating the areas of moorland on deep peat.

The abundance of crowberry on the blanket bogs of the Peak District is



unique to the southern Pennines, whilst the northern arctic species cloudberry can be locally abundant on these high moors. Some of this blanket bog has suffered from severe gullying and erosion with up to  $33 \text{km}^2$  of bare or eroding peat present. Recent restoration work by a number of conservation organisations has focused on large-scale restoration of these degraded areas. Together with the drier heather moorlands they are of particular importance for breeding golden plover, whilst dunlin occur in the vicinity of bog pools.



Below the watershed upland heath dominated by heather occurs with other dwarf shrubs such as bilberry and cowberry occurring locally. Heather or bilberry dominated moorland habitats are mainly confined to the UK, Ireland and the western seaboard of Europe due to the dependence of plants such as heather on the relatively mild "Atlantic" climate of this region. Britain and Ireland therefore support a substantial proportion of the world's heather moorland and it is a habitat of global conservation importance. Some types, such as heathlands with western gorse which occur locally on some of the lower moors in the Peak District, are particularly rare outside the UK. These moorland areas are of considerable importance for breeding birds, notably merlin, golden plover and short-eared owl. There are also significant populations of red grouse and curlew. The Peak District moors are also home to the only English population of mountain hares, which particularly favour the boulderstrewn slopes below scarps and gritstone edges. Characteristic insects include the northern eggar and emperor moths, and the green tiger beetle. Several wetland habitats are found in association with areas of upland heathland. These areas support large quantities of invertebrates which are a vital food source for many moorland birds. They include acidic flushes characterised by bog mosses, star sedge and rushes, a type of vegetation which is rare outside the UK, and "transition mires" characterised by bottle sedge and bog mosses (sphagnum). Local plants include sundew, bog asphodel and cranberry.





Bracken is extensive on some moorland areas, providing an important habitat for birds like whinchat and nightjar, but its

spread at the expense of other important habitats such as upland heathland is a serious problem. Gritstone cliffs (the "Edges") and boulder slopes are a dramatic feature of the moorland fringe in many places with gritstone or shale outcrops occurring in other sites, particularly along streamsides. These rocky habitats are important for breeding peregrine and ring ouzel and, despite historically high levels of air pollution, unusual lichen communities, including nationally scarce species can be found locally.

The moorland valleys or cloughs support fast-flowing acidic streams, often with interesting lichens, mosses, liverworts and invertebrates, whilst on the clough slopes springs and flushes emerge at the junction of different rock layers. These small wetlands are often very rich in plantlife and can support uncommon species including marsh arrowgrass, ivy-leaved bellflower and bog pimpernel.

Oak and birch woodland is local in the Dark Peak, occurring principally on valley sides and as patches of relic woodland in moorland or farmland cloughs. Small areas of wet woodland

occur within these woods along streams and in valley bottoms. The ground flora can range from frequent bilberry on more acid soils to bluebell-dominated woodland on deeper, more neutral soils. The bluebell is a particularly striking example of a relatively common species in this country, but which is nevertheless of major conservation importance. Although fairly widespread and common in British woodlands it is very dependent on the mild Atlantic climate of the Western European seaboard, and between a quarter to a half of the world population is to be found in the UK. The oakwoods are also important for local bird species such as pied flycatcher and wood warbler and support a rich invertebrate community including the purple hairstreak butterfly.



On the enclosed land of the Dark Peak, rushpastures, hay meadows and unimproved acid and neutral grasslands can be found amongst a mosaic of more agriculturally improved fields. The unimproved hay meadows can be rich in species such as vellow rattle, eyebright, common knapweed and sorrel, and are a vital habitat for twite, a species at the southern edge of its UK range here. This small moorland finch is dependent on seed from such meadows for feeding. Alder-lined rivers such as the Derwent and Noe are characteristic of the larger valleys, providing habitat for fish and invertebrates, whilst goosander and common sandpiper nest along some stretches.



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