

## LOWLAND DRY ACID GRASSLAND

### Nationally

Lowland acid grassland typically occurs on nutrient-poor, generally free-draining soils with pH ranging from 4 to 5.5 overlying acid rocks or superficial deposits such as sands and gravels.

Definition of lowland acid grassland is problematical but can be defined as both enclosed and unenclosed acid grassland throughout the UK lowlands (normally below c. 300m). It covers all acid grassland managed in functional enclosures. Swards in old and non-functional enclosures in the upland fringes, which are managed as free-range rough grazing in association with unenclosed tracts of upland, are excluded. It often occurs as an integral part of lowland heath landscapes, in parklands and locally on coastal cliffs and shingle. It is normally managed as pasture.

Acid grassland is characterised by a range of plant species such as heath bedstraw *Galium saxatile*, sheep`s-fescue *Festuca ovina*, common bent *Agrostis capillaris*, sheep`s sorrel *Rumex acetosella*, sand sedge *Carex arenaria*, wavy hair-grass *Deschampsia flexuosa*, bristle bent *Agrostis curtisii* and tormentil *Potentilla erecta*, with presence and abundance depending on community type and locality. Dwarf shrubs such as heather *Calluna vulgaris* and bilberry *Vaccinium myrtillus* can also occur but at low abundance. Lowland acid grassland often forms a mosaic with dwarf shrub heath. Acid grasslands can have a high cover of bryophytes and parched acid grassland can be rich in lichens. Acid grassland is very variable in terms of species richness and stands can range from relatively species-poor (less than 5 species per 4m<sup>2</sup>) to species-rich (in excess of 25 species per 4m<sup>2</sup>).

Parched acid grassland in particular contains a significant number of rare and scarce vascular plant species many of which are annuals. These include species such as mossy stonecrop *Crassula tillaea*, smooth rupturewort *Herniaria glabra*, slender bird`s-foot-trefoil *Lotus angustissimus*, bur medick *Medicago minima* and clustered clover *Trifolium glomeratum* and spring speedwell *Veronica verna*. Perennial taxa associated with these grasslands include, sticky catchfly *Lychnis viscaria* and shaggy mouse-ear-hawkweed *Pilosella peleteriana*.

The bird fauna of acid grassland is very similar to that of other lowland dry grasslands which collectively are considered to be a priority habitat for conservation action. Bird species of conservation concern which utilise acid grassland for breeding or wintering include woodlark *Lullula arborea*, stonecurlew *Burhinus oedicnemus*, nightjar *Caprimulgus europaeus*, lapwing *Vanellus vanellus*, skylark *Alauda arvensis*, chough *Pyrrhocorax pyrrhocorax*, green woodpecker *Picus viridis*, hen harrier *Circus cyaneus* and merlin *Falco columbarius*.

Many of the invertebrates that occur in acid grassland are specialist species which do not occur in other types of grassland. The open parched acid grasslands on sandy soils in particular, can support a considerable number of ground-dwelling and burrowing invertebrates such as solitary bees and wasps. A number of rare and scarce species are associated with the habitat, some of which are included on the UK Biodiversity Action Plan list of species of conservation concern, such as the fieldcricket *Gryllus campestris*.

**Extent in UK:**  
**61,646 ha**

### In the Peak District

On the brows of dales, wind blown deposits can obscure the influence of the limestone, resulting in distinct patches and strips of acid grassland with swathes of fescue and bent grass, with heath bedstraw, heath speedwell, tormentil and even bilberry. Notably mountain pansy can be conspicuous in such swards. These areas of acid soils can extend down the dalesides giving rise to distinct zones of acid grassland. The acid grasslands occasionally grade into dry heathland, dominated by heather, such as occurs at Coombs Dale and Back Dale. Elsewhere, interesting mosaics and transitions can be found where both acid vegetation and lime-loving plants grow in an intimate mix, responding to the varying depth and character of the soils.

Unimproved acid pastures are also found on the limestone plateau, often characterised by swathes of the distinctive mountain pansy.

Within the Dark Peak and South West Peak unimproved fields support both neutral and acidic grasslands. Such swards often exist in a mosaic and may be



accompanied by areas of wet rushy grassland and flushes. The richest examples exhibit a whole suite of species including the uncommon greater butterfly orchid and melancholy thistle.

**Extent in PD:  
c. 8,564 ha**

### **Current Factors Affecting the Habitat & Habitat Condition**

As with other lowland semi-natural grassland types, acid grassland has undergone substantial decline in the 20th century although there are no figures available on rates of loss. The decline is mostly due to agricultural intensification although locally, as in the Breckland, afforestation has been significant.

Stands remote from the upland fringe, which are the primary focus of conservation attention, are now of restricted occurrence and it is estimated that less than 30,000 ha now remain in UK. Important concentrations occur in the Breckland, the New Forest, Dorset, Suffolk Sandlings, the Weald, Dungeness, the coasts of SW England and the Welsh and English border hills of Powys and Shropshire. Scotland is estimated to have less than 5000 ha and much of this is likely to be on the upland fringe. Extensive areas of acid grassland are included within sites designated as common land, but separate figures for uplands and lowlands are not available.



### **Recent Work**

No known recent work related to this habitat in the Peak District

### **Associated BAP Species in the Peak District**

Skylark                      *Alauda arvensis*  
Lapwing                     *Vanellus vanellus*

### **Locally Significant Species in the Peak District**

Mountain pansy    *Viola lutea*

### **NVC Communities**

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

- U1** – *Festuca ovina* - *Agrostis capillaris* - *Rumex acetosella* grassland
- U2** – *Deschampsia flexuosa* grassland
- U3** – *Agrostis curtisii* grassland
- U4** – *Festuca ovina* - *Agrostis capillaris* - *Galium saxatile* grassland