



Unimproved Grassland

Local Biodiversity Action Plan

Ecology

What is an unimproved grassland?

Before the influence of humans on the British landscape, grassland was limited to natural clearings in woodlands, high altitudes above the tree limit and coastal areas. Once people began clearing the woodlands for agriculture around 6,000 years ago, grasslands flourished with the new opportunities this provided. Since then grassland has been valuable agricultural land, managed by a combination of grazing, mowing and the light application of manure. However, this century the need to increase productivity has led to management techniques; ploughing, reseeding and the use of herbicides and artificial fertiliser that have destroyed the traditional grasslands.



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This is a group action plan covering the following grassland types:

Lowland dry acid grassland

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. It includes the NVC communities U1-4. 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, the latter being covered in the separate lowland heathland action plan. Following the 2007 review, occurrences of this habitat on roadside verges are also covered by the definition.



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Lowland calcareous grassland

Lowland calcareous grasslands are developed on shallow lime-rich soils generally overlying limestone rocks, including chalk. These grasslands are now largely found on distinct topographic features such as escarpments or dry valley slopes and sometimes on ancient earthworks in landscapes strongly influenced by the underlying limestone geology. More rarely, remnant examples occur on flatter topography such as in Breckland and on Salisbury Plain. They are typically managed as components of pastoral or mixed farming systems, supporting sheep, cattle or sometimes horses; a few examples are cut for hay. Following the 2007 review, occurrences of this habitat on roadside verges are also covered by the definition.

Upland calcareous grassland

Upland calcareous grasslands occur on shallow lime-rich soils situated above the upper limit of agricultural enclosure, both in the sub-montane and montane zones mostly above 250-300 m altitude. Upland calcareous grasslands typically occur as components of habitat mosaics, which are generally managed as rough grazing land for domestic livestock. These are relatively rare upland vegetation types, which support a wide range of uncommon species.

Following the 2007 review, this habitat includes examples of CG1, CG2 and CG10 that clearly occur in an upland setting (i.e. above the level of agricultural enclosure).

Lowland meadows

Lowland meadows are taken to include most forms of unimproved neutral grassland across the enclosed lowland landscapes of the UK. In terms of National Vegetation Classification plant communities, they primarily embrace each type of *Cynosurus cristatus* - *Centaurea nigra* grassland, *Alopecurus pratensis* - *Sanguisorba officinalis* floodplain meadow and *Cynosurus cristatus* - *Caltha palustris* flood-pasture. The plan is not restricted to grasslands cut for hay, but also takes into account unimproved neutral pastures where livestock grazing is the main land use. Following the 2007 review, occurrences of this habitat on roadside verges are also covered by the definition.

Purple moor grass and rush pasture

Purple moor grass and rush pastures occur on poorly drained, usually acidic soils in lowland areas of high rainfall in western Europe. Their vegetation, which has a distinct character, consists of various species-rich types of fen meadow and rush pasture. Purple moor grass *Molinia caerulea*, and rushes, especially sharp-flowered rush *Juncus acutiflorus*, are usually abundant. Just as the best examples of lowland heath contain a wide range of plant communities, so the same is true for this habitat: the characteristic plant communities often occur in a mosaic with one another, together with patches of wet heath, dry grassland, swamp and scrub. Following the 2007 review, occurrences of this habitat on roadside verges are also covered by the definition.



Current status

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Since then grassland has been valuable agricultural land, managed by a combination of grazing, mowing and the light application of manure. However, this century the need to increase productivity has led to management techniques; ploughing, reseeding and the use of herbicides and artificial fertiliser that have destroyed the traditional grasslands.

Britain has lost more than 95% of its unimproved grasslands and, since 1939, the Cheshire region has lost 99%. In the Cheshire Grassland Inventory only 860ha of unimproved grasslands were found (McHarry 1997).

There are many different types of unimproved grassland, from acid to calcareous, from wet to dry, from short turf to coarse swards. True meadows are managed to produce a crop of hay that is cut in late June to July. The flowering plants in a meadow set seed before the crop is removed and the aftermath is then grazed. Pastures are used for stock grazing at any time of the year.

After hundreds of years of such traditional management distinctive regional variants of grasslands have evolved. Lowlands of the Cheshire region typically sustain grasslands with great crested dog's-tail, common bent and black knapweed (Newton 1971). The grassland ecosystem contains communities of specialised insects which are tuned to the traditional patterns of management and many other animals are dependent on this rapidly declining habitat.

Threats

- * Intensification of management: ploughing and reseeding, drainage, application of herbicides, pesticides and artificial fertilisers.
- * Neglect of meadows leading to increased coarse grasses and scrub invasion.
- * Overgrazing causing the loss of herbs and the increase of grasses.
- * Abandonment of traditional management methods, especially after change of ownership.
- * Poorly advised tree planting scheme on 'poor' agricultural land assisted by grants for creating woodlands.
- * Non-agricultural developments.



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How are we helping to conserve unimproved grassland in the Cheshire region?

- * Grassland surveys by volunteers leading to designation of many grasslands as Sites of Biological Importance.
- * Continuing the ongoing work on the Grassland Inventory by identifying new sites and surveying known ones in the Cheshire region.
- * Visits to landowners by CWT and FWAG staff.
- * The River Dane Grassland Survey.
- * Local BAP Group established .
- * Definition of grassland restoration areas as part of Life EConet Project.
- * Grassland creation included in restoration proposals for closed landfill and mineral extraction sites.

Objectives, targets and actions

Objectives, targets and actions to help conserve unimproved grasslands in the Cheshire region can be found on the [Biodiversity Action Reporting System \(BARS\)](#) along with full details of our progress so far.

How to find out more about unimproved grassland

[UK BAP Definitions](#)

Contact details

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References and Glossary

McHarry, J. (1996): Cheshire Grassland Register, Cheshire Wildlife Trust

Newton, A. (1971): Flora of Cheshire, Cheshire Community Council.

