



UK Biodiversity Action Plan Priority Habitat Descriptions

Lowland Meadows

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For more information about the UK Biodiversity Action Plan (UK BAP) visit
<http://www.jncc.gov.uk/page-5155>

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The definition of this habitat remains unchanged from the pre-existing Habitat Action Plan (<http://www.ukbap.org.uk/UKPlans.aspx?ID=10>) a summary of which appears below. Following the 2007 review, occurrences of this habitat on roadside verges are also covered by the definition.

A wide-ranging approach is adopted in this plan to lowland grasslands treated as lowland meadows. They 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. On many farms in different parts of the UK, use of particular fields for grazing pasture and hay cropping changes over time, but the characteristic plant community may persist with subtle changes in floristic composition.

In non-agricultural settings, such grasslands are less frequent but additional examples may be found in recreational sites, church-yards, roadside verges and a variety of other localities. Excluded from this plan are maritime grassland communities confined to coastal habitats (which will be covered in maritime cliff and machair action plans), *Anthoxanthum odoratum* - *Geranium sylvaticum* grasslands (which are treated in a companion action plan for upland hay meadows) and *Molinia* - *Juncus* pastures (which are covered in the purple moor grass and rush pasture (*Molinia-Juncus*) plan).

As indicated in the Habitat Statement included in *Biodiversity: the UK Steering Group Report, Vol 2* (1995), unimproved neutral grassland habitat has undergone a remarkable decline in the 20th century, almost entirely due to changing agricultural practice. It is estimated that by 1984 in lowland England and Wales, semi-natural grassland had declined by 97% over the previous 50 years to approximately 0.2 million ha. Losses have continued during the 1980s and 1990s, and have been recorded at 2 -10% per annum in some parts of England. Extensive agricultural modification of unimproved grasslands has also been recorded in Scotland between the 1940s and 1970s. Recent conservation survey findings in Britain and Northern Ireland reveal that the impact has been pervasive, and an estimated extent of less than 15,000 ha of species-rich neutral grassland surviving today in the UK is given in the Habitat Statement.

The plan concentrates on meadows and pastures associated with low-input nutrient regimes, and covers the major forms of neutral grassland which have a specialist group of scarce and declining plant species. Among flowering plants, these include fritillary *Fritillaria meleagris*, Dyer's greenweed *Genista tinctoria*, green-winged orchid *Orchis morio*, greater butterfly orchid *Platanthera chlorantha*, pepper saxifrage *Silaum silaus* and wood bitter vetch *Vicia orobus*. Lowland meadows and pastures are important habitats for skylark and a number of other farmland birds, notably corncrake which has experienced a major range contraction across the UK.

The overall outcome of habitat change in the lowland agricultural zone is that *Cynosurus* - *Centaurea* grassland, the mainstream community of unimproved hay meadows and pastures over much of Britain, is now highly localised, fragmented and in small stands. Recent estimates for cover in England and Wales indicate that there is between 5000-10,000 ha of this community in total. There is an especially important concentration in Worcestershire and other particularly important areas include south-west England (Somerset, Dorset and Wiltshire), the East Midlands & East Anglia (Leicestershire, Northamptonshire, Cambridgeshire and Suffolk), in various parts of Wales and in West Fermanagh and Erne Lakeland in Northern Ireland. In certain areas, such as in the old district of Brecknock in Powys, remnant examples are locally aggregated. Scotland is estimated to have between 2000-3000 ha of this community, with particular concentrations in the crofting areas of Lochaber, Skye and the Western Isles. Local data for Northern Ireland are less complete, but the West Fermanagh and Erne Lakeland ESA in NI contains an important concentration of the resource.

Unimproved seasonally-flooded grasslands are less widely distributed. They have lower overall cover, but there are still a few quite large stands. *Alopecurus* - *Sanguisorba* flood-meadow has a total cover of <1500 ha and is found in scattered sites from the Thames valley through the Midlands and Welsh borders to the Ouse catchment in Yorkshire. These include well-known but now very rare Lammas

meadows, such as North Meadow, Cricklade, and Pixey and Yarnton Meads near Oxford, which are shut up for hay in early spring, cropped in July, with aftermath grazing from early August; nutrients are supplied by flooding episodes in winter. *Cynosurus - Caltha* flood-pasture is also now scarce and localised, with probably <1000 ha cover in England and Wales. Scotland is estimated to have 600-800 ha of this community.

It will be important to ensure that such periodically flooded grasslands are taken into account during implementation of the action plan for coastal and floodplain grazing marshes; actions in the two plans need to be closely integrated.

Agricultural intensification has led to the extensive development of nutrient-demanding, productive *Lolium perenne* grasslands. These are managed for grazing and also silage production which has widely replaced traditional hay-making. Where fertiliser input is relaxed or in swards which have only been partially improved, *Lolium - Cynosurus* grassland is common; in many respects this is intermediate between improved and unimproved lowland neutral grasslands but has few uncommon species and is generally of low botanical value.