

Upland hay meadows

WHAT ARE UPLAND HAY MEADOWS ?

Upland hay meadows are areas of permanent, neutral grassland above 250m, which are managed to provide winter fodder for stock. The fields are grazed in the winter, normally by sheep, before being shut-off to stock in the spring for eight to twelve weeks to allow the grass to grow. Although there is some variation in this regime with some sites not being grazed in spring. Traditionally hay would be cut in July, but the date was weather dependent, and could be as late as August or the beginning of September. The grass is left in the field and then turned to dry it out before it is gathered for storage. The cutting and drying processes allows for seed dispersal from the plants. The fields are grazed after the hay has been removed (aftermath grazing).

The hay is used principally as a cattle feed during the winter when the cattle are housed, for some or all of that season, inside. The accumulated manure is used as a spring dressing for the fields, thus allowing for further distribution of seed. The fields traditionally received only limited amounts of other forms of fertiliser, other additions being occasional dressings of lime to counteract the acidity of the farmyard manure.

The harsh climate and short growing season produces a very distinctive flora where the major species are sweet vernal-grass, wood crane's-bill, pignut, great burnet, yellow rattle and Lady's-mantle.

WHERE ARE THEY FOUND IN THE UK?

The main areas of upland hay meadows are found in the North Pennines with other scattered examples in Lancashire, Yorkshire Dales, western Cumbria, Northumberland and Perthshire and as far north as Aberdeenshire.

WHY ARE UPLAND HAY MEADOWS OF CONSERVATION IMPORTANCE?

Traditionally managed hay meadows are floristically species-rich, as well as being intrinsically beautiful. This form of extensive agriculture has conserved a suite of flowering plants which are found in few other places. In addition they are an integral part of a mixed agricultural system that supports a wide variety of wildlife.

Upland hay meadows were an essential habitat for the globally threatened corncrake. Whilst the last breeding records in Durham occurred in the 1970s the recent increases in the breeding population in Scotland and migratory sightings in England would suggest that the upland hay meadows of England may still have an important part to play in the long term future of the corncrake, with the adoption of appropriate cutting dates.

There is limited data on changes in the amount of upland hay meadow but there is thought to have been a more than 50% decrease since 1945. The fertility of neutral soils makes them suitable for agricultural improvement. The change to silage-making rather than haymaking

reduces the species diversity and eliminates breeding birds and in particular, the number and variety of flowering plants. There are less than 1100ha of species-rich upland hay meadow left in the UK.

HAY MEADOWS IN THE DURHAM AREA

WHAT IS THE STATE OF UPLAND HAY MEADOW IN THE DURHAM AREA?

About 25% of unimproved and species-rich hay meadows in Durham are designated as SSSIs. There are fourteen upland hay meadow SSSIs, eleven in Teesdale and three in the Wear Valley. Upland hay meadows are a priority habitat under the EC Habitats Directive. Several existing SSSIs will receive designation, as part of the North Pennines Dales Meadows SAC. There are twelve upland hay meadows designated as County Wildlife sites.

WHERE DO UPLAND HAY MEADOWS OCCUR IN THE DURHAM AREA?

The strongholds for upland hay meadows are in Teesdale, Lunedale, Baldersdale and Weardale.

UPLAND HAY MEADOWS ARE AT RISK FROM:

Agricultural improvement, including: drainage, ploughing, re-seeding and application of fertiliser.

The move to silage cutting from hay making resulting in more frequent and earlier cutting.

Changes in management from hay meadow to permanent pasture.

Loss of species diversity due to increased grazing both in overall numbers of stock and time spent in the field.

Changes in stocking priorities, particularly the reduction in numbers of farms keeping cows, leading to a reduction in the availability of manure.

Increased supplementary stock feeding associated with increased stocking levels, which can lead to patchy nutrient enrichment and damage to the grass surfaces.

Increase in the population of rabbits causing damage by grazing and burrowing.

Application of herbicides and pesticides.

Reduction in requirement for hay crop as winter fodder for farm stock.

Lack of suitable equipment to mow small fields and produce manageable bales.

UPLAND HAY MEADOWS BENEFIT FROM:

Limited application of farmyard manure and no applications of either inorganic or organic fertilisers. However, the use of organic manures from "off the farm" is better than the application of inorganic fertiliser, if the farm does not produce sufficient.

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Occasional applications of lime to counteract the acidity of the farmyard manure.

The later cutting of hay crops, one year in five, to allow seed setting.

Grazing of the re-growth following cutting, preferably by cattle.

Maintenance of uncut banks and mires as part of the management scheme.

Drying out of cut grass in fields prior to baling.

IMPORTANT SPECIES FOR UPLAND HAY MEADOWS

<i>Corncrake</i>		<i>Wood crane's-bill</i>
<i>Skylark</i>	**	<i>Great burnet</i>
<i>Quail</i>		<i>Pignut</i>
<i>Yellow wagtail</i>		<i>Lady's mantle species</i> *
<i>Twite</i>		<i>Globeflower</i>
<i>Grey partridge</i>	**	<i>Small white orchid</i>
<i>Butterflies</i>		

OTHER HABITAT ACTION PLANS COVERING ISSUES RELEVANT TO UPLAND HAY MEADOWS:

Lowland meadows and pastures. **

Upland calcareous grassland. *

N.B. ** indicates action plan produced in 1998.

* indicates action plan produced in 2000.

TARGETS FOR THE CONSERVATION OF UPLAND HAY MEADOWS IN THE DURHAM AREA:

	DATE
Target 1 <i>Maintain and enhance the quality and extent of the existing resource of upland hay meadows.</i>	ONGOING
Target 2 <i>Secure sympathetic, sustainable management for all upland hay meadow sites.</i>	2005
Target 3 <i>Increase the area of species-rich upland hay meadow, with preference for those sites, which would provide linkage between existing sites.</i>	2005

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UPLAND HAY MEADOW ACTIONS			
ACTION	DATE	POSSIBLE PARTNERS	MEETS TARGET NO.
<u>POLICY AND LEGISLATION</u>			
1. Ensure that all prime upland hay meadows are designated as SSSIs/SACs.	2004	EN	1
2. Seek designation as second tier sites for all remaining upland hay meadows.	2009	DBAP, DWT, LAs	1, 2
3. Ensure that current agri-environment schemes are effective for both maintenance and enhancement of upland hay meadows.	2002	MAFF, EN	1, 2, 3
4. Seek support for small-scale upland farms.	ONGOING	MAFF, EN, RSPB, DWT, NFU	1, 2, 3
<u>SITE SAFEGUARD AND MANAGEMENT</u>			
5. Ensure wildlife friendly management for all existing designated sites.	2004	EN, MAFF, RSPB, FWAG	2, 3
6. Investigate need and opportunities to set up an equipment ring for farmers.	2004	EN, MAFF, NFU	2, 3
<u>RESEARCH AND MONITORING</u>			
7. Resurvey extent and condition of existing hay meadows – most Pennine meadows were surveyed in the 1980s.	2004	EN, DBAP, MAFF	1
8. Develop monitoring scheme for some example meadows; use EN's Condition Assessment Protocols.	2004	EN, DBAP	1
9. Identify recently damaged upland hay meadows and target for enhancement.	2004	EN, DBAP, FWAG	3
10. Support work looking at best practice in restoration of old meadows.	ONGOING	EN, NFU, MAFF	3
11. Investigate opportunities for collection and use of local seed in restoration work.	ONGOING	DBAP, EN, NFU	3
<u>ADVISORY</u>			
12. Produce best practice management sheet.	2004	DBAP, EN, MAFF, FWAG, RSPB, ABAG	1
13. Produce guidance notes for creation of upland hay meadows.	2004	DBAP, EN, MAFF, FWAG	3
14. Provide advice on optimum cutting dates in differing meadows, according to their principal biodiversity interest - flora or ornithological	ONGOING	DBAP, EN, RSPB	2