



TREND IN THE PEAK DISTRICT:

Dramatic declines and continued losses. 76% loss or decline in value between the mid 1980s and mid 1990s in the National Park.

ESTIMATED EXTENT IN THE PEAK DISTRICT:

Estimated 2000 ha of hay meadows of conservation interest.

NATIONAL BAP HABITATS:

Lowland Hay Meadows (priority habitat).

ASSOCIATED NATIONAL BAP PRIORITY SPECIES:

Brown hare, corncrake (extinct), skylark, grey partridge, tree sparrow and possibly great yellow bumble bee, brown banded carder bee, large garden bumble bee and short haired bumble bee.

ASSOCIATED PEAK DISTRICT AUDITS:

Hay Meadows.

INTRODUCTION

Traditionally managed flower rich hay meadows are a rich resource for wildlife, an intimate mix of grasses and herbs. They are a colourful refuge for some of our prettiest and increasingly uncommon plants. The dramatic seasonal changes in appearance of meadows reflects the cyclical nature of farming, to many they express the soul of the English countryside. Such meadows would have been an integral part of each farm, providing essential winter-feed for stock. The resource of hay meadows is now fragmented and flower-rich examples are becoming increasingly uncommon in the Peak District.

Nationally, it is recognised that flower-rich grasslands declined by 97 % between the 1930s and the mid 1980s. The National Park Authority's Hay Meadows Project (HMP) found a 50 % loss and an additional 26 % decline in hay meadows between the mid 1980s and mid 1990s. Follow-up survey to the project highlighted a further 25 % loss and/or decline in quality of meadows in the National Park from 1995 to 1998. The rate of loss and decline has varied across the National Park with the greatest losses occurring in intensive dairy areas such as Peak Forest.

Ecologically the most interesting meadows are those which are long established, each field having developed a unique assemblage of plants over a considerable period of time. Across the Peak District there are a range of community types. The majority are neutral in character and typically support ox-eye daisy, hay rattle, meadow vetchling, common knapweed and meadow clover. A smaller number of meadows support damp meadow communities with great burnet, whilst others show affinity with acid and calcareous grasslands. Many of the species found in flower rich meadows are confined to traditionally managed grasslands, having exacting management and/or environmental requirements. In addition to their floristic interest hay meadows are an important habitat for birds such as the evocative skylark and it has been shown that hay meadows are an essential habitat for the nationally significant twite.

Hay meadows make a significant contribution to the landscape of the Peak District, with their dramatic change in appearance throughout the seasons. They are often a welcome contrast to surrounding agricultural, bright green silage fields. Culturally hay meadows are significant, a product of human activity over many years. They are celebrated in folklore, customs and literature and are an outward sign of rural life that most of us have lost. The flower rich swards are part of our cultural heritage- they may be the oldest link with the past that a village has, perhaps even older than the church. The continuing loss of hay meadows can be a loss of an historical place as much as it is a wildlife habitat.

Within the White Peak Natural Area there are known concentrations of hay meadows in several parishes, for example Little Hucklow, Bonsall, Sheldon and Middleton-by-Wirksworth. Within the Dark Peak and South West Peak Natural Areas there are clusters of hay meadows around some of the hamlets and villages, including Edale, Sparrowpit, Brandside and Grindon.

ADVERSE IMPACTS	Historic	Current
Land Management		
Agricultural intensification: ploughing, re-seeding, drainage, artificial fertilisers, combined with an early cut date, slurry application and a shift from hay to silage.	✓	✓✓
Conversion to heavily grazed pasture or arable from hay meadow regime.	✓	✓✓
Practical difficulties of making hay, e.g weather dependency.	✓	✓
Application of paper pulp.		✓
Pollution		
Disposal of sheep dip.		✓
Use of Ivermectin and its associate effect on invertebrates.		✓
Tipping		
The use of hollows for the disposal of building waste etc.		✓
Quarrying		
Quarrying and mineral extraction.	✓	✓

Others

Tree planting schemes.

Fragmented sites – risk of species extinctions and negative effect on the feasibility of hay meadow restoration.

✓

✓

✓

✓

An impact ✓

Significant impact ✓✓

CURRENT ACTION

Designated Sites

- There are 20 meadows designated as SSSI, including Rose End Meadows, Bradwell Meadows, Lee Farm Meadow and meadows within the Leek Moors SSSI.
- Meadows within the Leek Moors SSSI form part of the South Pennines Moors SPA, designated for its populations of upland breeding birds.
- A number of important meadows are designated as 'Wildlife Sites'.

New Initiatives

- In 1998 the PDNPA increased the rate of payment within its conservation schemes to bring the annual payment closer to the income which would be available to a farmer who converted the meadow to intensive silage or arable.
- In 1998 the PDNPA introduced wider use of Section 39 agreements to try to overcome the problems of loss of meadows when land changes hands.
- In 1998 the payments for hay meadows were enhanced in the North Peak Environmentally Sensitive Area (ESA).

Sites Owned and Managed by Conservation Organisations

- The PDNPA owns 47 hay meadows, including those on North Lees Estate, Warslow Moors Estate, Eastern Moors Estate and at Hard Rake, Sheldon.
- The WTs own and manage important hay meadows including part of the Rose End Meadows SSSI.
- The NT owns significant hay meadows, for example at Monyash and in the Upper Derwent.

Sites Within Conservation Agreements

- 218 ha of hay meadow are managed by farmers within the PDNPA's Farm Conservation Scheme (FCS).
- 258 ha of hay meadow are within an agreement in the North Peak ESA. 95 ha of this is being managed traditionally with no fertiliser and a late cutting date.
- 818 ha of meadow are within an agreement in the South West Peak ESA.
- 664 ha of hay meadow are being managed within the national Countryside Stewardship Scheme (CSS), a total of 90 agreements (a proportion of these will not be of high conservation interest).

Research and Survey

- In 1998 the PDNPA completed a 3 year pro-active conservation project on hay meadows (the HMP), resulting in 151 hay meadows being entered into conservation agreements.
- In 1999 EN established a field trial to look at practical ways of restoring species poor semi-improved grasslands to flower rich meadows. This trial is located adjacent to Lathkill Dale, near Monyash.
- Work to restore hay meadows on tenanted farmland owned by the NT is in progress in the Edale Valley and at Monyash.

Awareness Raising

- As a result of the HMP, 'Meadows Beyond the Millennium' was published by the PDNPA, raising the profile of meadows within the farming community and landowners. It highlighted the importance of meadows, their loss and continued threats, and the report was used to progress positive action for hay meadows at both local and national level.

ACTION PLAN OBJECTIVES AND TARGETS

National Targets

Lowland Meadows:

- Arrest the depletion throughout U.K.
- Agree favourable management on all the resource in unfavourable condition within SSSIs by 2005 and achieve favourable condition wherever feasible by 2010.
- Secure favourable condition over 30 % of resource outside SSSIs by 2005 and as near 100 % as practicable by 2015.
- Attempt to re-establish 500 ha of lowland hay meadow at carefully targeted sites by 2010.
- Develop carefully researched guidelines to restore hay meadows.

A Vision for the Peak District

The targets below are ambitious but with commitment, resources, realistic financial incentives and a willingness by farmers and landowners, they are achievable. It is hoped that these targets can be turned into real action, benefiting conservation and the farming community. The realisation of the objectives will ensure that hay meadows, one of our most evocative and characteristic habitats of the countryside with their array of flowers and grasses and their strong cultural links, are not just a romantic memory. Through a co-ordinated effort we can not only save what we have left of these special places but enhance others, extending the resource of meadows, linking important sites and ensuring that birds such as the skylark can still breed in the Peak District and that the swathes of colour and texture of meadows can still be enjoyed by future generations.

The target for bringing existing flower-rich hay meadows into favourable management is in excess of national BAP targets since the HMP has already taken a considerable step towards this. This target reflects the potential to build upon the momentum in hay meadow conservation which has been generated by the HMP.

OBJECTIVES AND TARGETS

Objective 1

Bring all hay meadows of conservation interest into favourable condition.

Targets

Review the management of all hay meadows within existing SSSIs and secure favourable management on all sites by 2005.

Review the management of all hay meadows within existing conservation agreements, outside of SSSIs, by 2005, with a view to ensuring favourable condition and management.

Secure appropriate conservation agreement on 50 % of all the resource outside of SSSIs, by 2005.

Review and set a new target for 2005 - 2010.

To achieve these targets a number of sub-targets have been set:

Identify and survey all meadows of wildlife interest outside of agreement, including those within the ESA areas, by 2004.

For all hay meadows outside of existing agreements make all landowners/land managers aware of available conservation agreements by the end of 2005.

Secure appropriate conservation agreement on 30 % of the area of these newly identified hay meadows by 2005.

Objective 2

Restore semi-improved species-poor grasslands to flower rich meadows in carefully targeted areas to reverse the trend of hay meadow loss and address the problems of habitat fragmentation and isolation.

Targets

Identify the most practical, economic and widely available system for restoring meadows on a field by field basis by 2005.

Initiate restoration on a minimum of 500 ha of species poor grassland to flower rich hay meadows by 2010, targeting key areas.

Objective 3

Create new areas of flower rich hay meadows, giving priority to areas adjacent to important sites or which link existing fragmented sites.

Target

Identify the opportunities for creation of at least 10 ha of hay meadows by 2010.

Main Factors Likely to Affect Achievement of Targets

Land Management

Implementation of the Rural Development Regulation and reform of the Common Agricultural Policy.

Effectiveness of agri-environment and conservation scheme prescriptions.

Resources and Financial Incentives

Perceived low economic value of flower rich hay meadows. Decline in perceived agricultural value of species rich hay meadows and poor economic return from hay crops.

High land prices – forcing intensive management following purchase of land.

Limited rewards from agri-environment and conservation schemes and lack of incentives for favourable management.

Availability of funding for survey, negotiations and agreements.

Others

Lack of safeguard or effective conservation mechanisms outside of SSSIs. It is often at the time of change of ownership that hay meadows, as with other grassland habitats, are most at risk. At present there is no systematic procedure or mechanism for conservation bodies and local authorities to have an opportunity to safeguard such land.

ACTIONS

Key to the achievement of the proposed targets are actions relating to:

- Survey, coupled with negotiations to secure conservation agreements on sites of particular importance outside the National Park (Actions HY6 and HY26);
- Ensuring agri-environment and conservation schemes provide adequate financial incentive and appropriate management prescriptions to safeguard and restore hay meadows (HY24);
- Developing restoration techniques (HY14), and
- Developing a strategy for safeguarding sites of particular wildlife importance where this cannot be achieved through the normal channels of negotiation, since the current systems are still inadequate to secure the future of some of our best remaining meadows (HY32).

ACTIONS	TIMESCALE	LEAD AGENCY & Partners
DATA COLLATION AND SURVEY		
Data Collation		
HY1 Collate existing information on hay meadows outside of the National Park. (Objective 1)	2001	WTs/EN/NFU MAFF/LRCs/LAs Voluntary Sector

HY2	Compile a hay meadows register including classification into types, level of importance, 'Wildlife Site' status, Natural Area, condition, important species and conservation status, and initiate a programme for regular updating. (Objective 1)	2001 onwards	PDNPA/EN/WTs
HY3	Compile a register of suitable seed sources for meadow restoration projects. (Objective 2)	2001 onwards	EN/PDNPA/WTs
HY4	Identify the gaps in knowledge of hay meadows, highlighting areas which require further survey work. (Objectives 1 and 2)	2001 - 2002	EN/GBAPG
Survey			
HY5	Agree methodology for surveying hay meadows. (Objective 1)	2001	PDNPA/GBAPG
HY6	Carry out detailed habitat surveys of hay meadows in areas where existing information is inadequate. (Objective 1)	2001 - 2004	WTs/PDNPA (joint leads)
HY7	Carry out detailed surveys of potential restoration hay meadows in target areas. (Objective 2)	2005 - 2010	PDNPA/EN/NT FWAG

EVALUATING THE IMPORTANCE AND CONDITION OF SITES

Evaluating Importance and Identifying Key Sites

HY8	Agree methodology for the evaluation of hay meadows. To include definition of priorities for conservation action and identification of 'Wildlife Sites'. (Objectives 1 and 2)	2001	PDNPA/GBAPG
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Defining Favourable Condition

HY9	Agree definitions of favourable condition for the complete range of sites in the Peak District. (Objectives 1 and 2)	2001	EN/WTs/PDNPA
HY10	Agree guidelines for the range of appropriate management needed to achieve favourable condition. (Objectives 1 and 2)	2001	EN/WTs/PDNPA
HY11	Agree guidelines for the identification of key areas to target for restoration in collaboration with the Twite Action Plan. To include areas crucial for extending and linking habitats and others of importance to birds. (Objectives 1 and 2)	2001	PDNPA/EN/WTs

RESOURCES

HY12	Seek resources, in collaboration with other relevant grassland and bird action plans, for a detailed survey of hay meadows in areas where existing information is inadequate. (Objective 1)	2001	PDNPA/WTs
HY13	Seek resources for a hay meadows restoration project. (Objective 2)	2005	PDNPA/EN

RESEARCH

HY14	Continue the Monyash meadow restoration project – ensuring that a practical and economic option for meadow restoration is found. (Objective 2)	2001 - 2005	EN/PDNPA/NT
HY15	Seek to expand the Monyash project to a farm scale. (Objective 2)	2001 - 2002	NT/EN (joint leads)
HY16	Seek funding and purchase seed collection machine. (Objective 2)	2001	EN

HY17	Ensure that the results of research into the effects of Ivermectin on invertebrate communities associated with animal dung are implemented at a local level. (Objectives 1 and 2)	2001 onwards	WEG
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MONITORING

HY18	Agree methodology for and implement effective monitoring of hay meadows. Ensure that the results of the process are collated and used to update the hay meadows register. (Objectives 1 and 2)	2001 onwards	PDNPA/MAFF EN/WTs/NT
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AWARENESS RAISING

HY19	Develop an awareness-raising strategy, to include identification of key audiences, key messages, and methods of promotion/awareness-raising. (Objectives 1 and 2)	2002	PDNPA/EN/NT WTs
HY20	Share information on the wildlife importance and management needs of key conservation and restoration sites with the landowners/managers, including feedback from surveys. (Objectives 1 and 2)	2001 onwards	PDNPA/NT/EN WTs/MAFF FWAG/LAs
HY21	Make guidance available on restoration techniques, habitats suitable for restoration, available seed sources and appropriate species mixes, to land managers/owners and conservation organisation staff. (Objective 2)	2003 onwards	PDNPA/EN GBAPG

CONSERVATION ACTION AND INCENTIVES

Designations

HY22	Review coverage of hay meadow SSSIs and notify further sites as appropriate. (Objective 1)	2002	EN/PDNPA
HY23	Review desirability and opportunities for establishment of further key sites as NNRs and LNRs and establish if appropriate. (Objectives 1 and 2)	2001 - 2005	EN/LAs (joint leads)/WTs/NT PDNPA

Grant Schemes

HY24	Consider recommending a review of all agri-environment and conservation schemes with the aim that: *Targeting at national, regional and local level continues to give adequate priority to the conservation of existing meadows *Management prescriptions are reviewed to include flexible site-specific measures *Hay meadow restoration prescriptions are effective *Payments for hay meadows are increased to at least the level of profits foregone *Payments for restoration are adequate, ensuring that appropriate techniques are used in schemes (Objectives 1 and 2)	2001 onwards	MAFF/EN PDNPA/WEG GBAPG
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Negotiation and Review of Agreements

HY25	Review management of all sites within SSSIs. Where necessary agree revised management regimes with owners and managers, through appropriate mechanisms, such as WES, to ensure maintenance or restoration of favourable condition. (Objectives 1 and 2)	2001 - 2005	EN
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HY26	Negotiate appropriate agreements with landowners and managers of all key conservation and restoration sites outside of existing agreements and SSSIs, in order to achieve maintenance or restoration of favourable condition. (Objectives 1 and 2)	2001 - 2005 conservation; 2005 – 2010 restoration.	MAFF/PDNPA NT/WTs/FWAG
HY27	Review management of hay meadows in existing agreements, outside of SSSIs. Where necessary agree revised management regimes with owners/managers to ensure that favourable condition is being maintained or restored. (Objectives 1 and 2)	2001 - 2005	MAFF/PDNPA NT/WTs/FWAG
HY28	Review whole holding agreements which include unprotected hay meadows. Consider the opportunities for amending the agreement to incorporate their safeguard and enhancement. (Objective 1 and 2)	2002 - 2010	MAFF/NT/WTs PDNPA/FWAG
Alternative Incomes			
HY29	Identify and consider developing other sources of income for owners and managers of hay meadows, to include possible sale of seed for meadow restoration and links to conservation products. (Objective 1)	2002	EN/WTs/PDNPA
Land Acquisition			
HY30	Consider negotiating purchase/lease of priority sites where this would be the most effective way of achieving conservation objectives and where a negotiated conservation solution has not been successful. (Objectives 1 and 2)	2001 onwards	PDNPA/EN WTs/RSPB/NT
Direct Action			
HY31	On land owned by public or conservation bodies, ensure that: *Management maintains and where possible enhances the value of hay meadows *Options for the restoration of hay meadows are considered *Opportunities for involvement of local communities in site management are taken where possible (Objectives 1 and 2)	2001 onwards	PDNPA/WTs NT/LAs/EN
HY32	Agree a strategy for safeguarding sites of particular wildlife importance where this cannot be achieved through the normal channels of negotiation in liaison with land-owning, farming, and other land management interests. (Objective 1)	2001	WEG/NFU/CLA RLMEG

REGULATION

Planning

HY33	Ensure all planning applications and General Development Orders are adequately assessed in relation to their impact on hay meadows, that loss or damage is avoided and that opportunities are taken for enhancement. (Objectives 1 and 2)	2001 onwards	PDNPA/EN LAs/WTs
HY34	Consider the opportunities for the creation of hay meadows in relevant planning decisions, including quarry restoration schemes. (Objective 3)	2001 onwards	PDNPA/EN/LAs WTs
HY35	Ensure that the impact of disposal of waste from new buildings is addressed in the planning process. (Objectives 1 and 2)	2001 onwards	PDNPA/EN/LAs WTs

Pollution Control and Waste Management

HY36	Review procedures and consultation processes in relation to the spreading of paper pulp. (Objectives 1 and 2)	2001	EA/LAs/PDNPA EN/WTs
HY37	Ensure good practice is followed in disposing of sheep-dip, avoiding hay meadows. Implement by continuing with an awareness raising strategy amongst land managers; continuing the programme of licensing; extending consultation procedures for disposal applications to the whole of the Peak District and, where necessary, by enforcement action. (Objectives 1 and 2)	2001 onwards	EA/LAs/PDNPA
Other Regulatory Mechanisms			
HY38	Ensure that all woodland planting proposals consider the adverse effects of planting on hay meadows. (Objectives 1 and 2)	2001 onwards	FC/LAs/EN/ PDNPA/WTs

RESOURCES

It is envisaged that many of the actions proposed will be carried out by the relevant organisations using current resources. These include:

- continuing investment by landowners and managers managing their land sympathetically for wildlife;
- EN's programme of reviewing SSSI management and designation and its grant and management agreement schemes;
- MAFF's Countryside Stewardship and Environmentally Sensitive Area schemes;
- the PDNPA's advisory and grants service for landowners/managers and its rolling programme of special conservation projects;
- FWAG and the WTs' advisory services;
- continuing management of hay meadows owned by conservation organisations and public bodies (LAs, EN, PDNPA, NT, WTs), and WCs;
- EN's hay meadow restoration trials.

Additional resources are likely to be required:

- for survey of hay meadows and negotiation of agreements in areas where information/conservation action is lacking (2001 - 2002);
- for implementation of restoration both in terms of the necessary machinery (2001) and the required surveys and negotiations (2005 - 2010);
- to provide adequate financial incentives for the conservation and restoration management of hay meadows (2001 onwards);
- to aid in the production of the proposed registers (2001 onwards);
- to implement effective monitoring (2001 onwards).

The RSPB, PDNPA and EN are currently seeking resources for a Ground-nesting Bird Habitat Project (to run from 2001 - 2004) which would also have implications for hay meadow conservation.