

Plan

HABITAT ACTION PLAN FOR LOWLAND CALCAREOUS GRASSLAND

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CURRENT STATUS

Calcareous grasslands are found in Nottinghamshire mainly on the shallow lime-rich soils of the Magnesian Limestone ridge in the west of the County. The vast majority have been 'improved' by the use of fertilisers and/or reseeded with rye grass, but traditional unimproved wildflower grasslands survive as enclosed pastures in areas such as escarpments and slopes where conversion to intensive agriculture is difficult. They may also be found in roadside verges, railway cuttings and former quarries. Equivalent calcareous grasslands also occur outside the Magnesian Limestone area where lime-rich industrial wastes or imported natural limestone have been deposited in places such as railway embankments.

Unimproved calcareous grasslands are characterised in Nottinghamshire by the occurrence and often dominance of upright brome, tor grass and meadow oat grass. Other regularly occurring species include sheep's fescue, salad burnet, quaking grass and greater knapweed. Calcareous grasslands are often species-rich and support a range of typical and rarer species including stemless thistle, fragrant orchid, pyramidal orchid, common rockrose and rue-leaved saxifrage. Scrub is frequently present, and at appropriate levels provides an important habitat, increasing the diversity of species found. Calcareous grasslands provide suitable habitat for a wide variety of animals including small mammals, common lizard, moths and butterflies such as the grizzled skipper.

Between 1930 and 1984, as a result of agricultural intensification, unimproved lowland grassland of all types decreased by an estimated 97% in England and Wales. Losses have continued during the 1980s and 90s, and have been recorded at 2-10% per annum in some counties. The East Midlands has a particularly high rate of loss, and although the current extent is not accurately known, it is estimated that Nottinghamshire's unimproved grassland has declined by 97-99% since 1930. Calcareous grassland is an internationally rare and threatened habitat, and some types are identified as a priority under European law.

THREATS

The main factors currently affecting unimproved calcareous grassland in Nottinghamshire are:

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- Clearance of grassland for industrial and urban development, including infrastructure development such as roads.
- Agricultural intensification by the use of fertilisers, herbicides, and conversion to high productivity grass species or arable crops.
- The lack of available livestock, leading to the invasion and spread of coarse grasses and herbs, trees and shrubs.
- Quarrying for limestone and subsequent land fill operations.
- Air pollution, in particular soil enrichment due to nitrogen deposition.
- Lack of incentives for private landowners to manage small grassland blocks to maintain their important characteristics, especially combining nature conservation with other management objectives.
- Increasing habitat fragmentation. Many calcareous grassland sites are small, making them vulnerable to loss and damage.

CURRENT INITIATIVES - EXAMPLES

- A UK Habitat Action Plan for Lowland Calcareous Grassland has been prepared.
- The Creswell Magnesian Limestone Strategy Group are preparing a strategy to protect and re-create habitats throughout those parts of Nottinghamshire, Derbyshire, Rotherham and Doncaster lying in the Magnesian Limestone area.
- Nottinghamshire County Council manage key areas of calcareous grassland at Linby Trail Local Nature Reserve and a number of Notified Road Verges.
- Nottinghamshire County Council and the Forestry Commission are encouraging the natural regeneration of calcareous grassland as part of the restoration of colliery spoil tips where they occur on the Magnesian Limestone.
- Nottingham City Council manage calcareous grassland at Broxtowe Country Park and Bulwell Hall Park.
- Mansfield District Council have recently prepared a district wide Nature Conservation Strategy which promotes the conservation and management of calcareous grassland.
- Selected areas of calcareous grassland are managed through the Countryside Stewardship and Reserves Enhancement Schemes, or through English Nature management agreements.
- The Nottinghamshire Wildlife Trust manage approximately 15ha of calcareous grassland on their reserves.

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- Six Sites of Special Scientific Interest (SSSI) have been designated for which the primary interest is calcareous grassland. Other SSSIs also support some calcareous grassland.
- A number of calcareous grasslands are designated as Sites of Importance for Nature Conservation (SINCs).
- English Nature has compiled a provisional grassland inventory for Nottinghamshire.
- The Nottinghamshire Nature Conservation Audit surveyed known and potential calcareous grassland SINCs between 1996 and 1998.

TARGETS

The following targets were agreed by the HAP target review group.

Falling under the UK Broad classification of Calcareous grasslands, which includes grasslands that are developed on shallow lime-rich soils most often derived from chalk and limestone rocks. The UK Priority Habitat classification further indicates that Lowland calcareous grasslands can be found on distinct topographic features such as escarpments or dry valley slopes. This is the case in Nottinghamshire where the calcareous grasslands are found mainly on the Magnesium Limestone Ridge in the west of the County. The vast majority have been 'improved' by fertilisers or reseeded with rye grass. They may also be found in roadside verges, railway cuttings and former quarries. Equivalent calcareous grasslands occur outside the Magnesium Limestone area where lime rich industrial wastes or imported natural limestone has been deposited in places such as railway embankments.

Target Type	Target Text	Units	2005 Baseline	2010 Target	2015 Target
Maintain Extent	Maintain the extent of all existing lowland calcareous grassland.	Ha	200	200	325
Achieve Condition	Maintain and improve by management existing lowland calcareous grassland.	Ha	54 (27%, existing habitat in favourable condition)	140 (70% of total habitat resource)	200 (100% of 2005 baseline resource)
Restoration	Improve the condition of relict habitat so that it qualifies as lowland calcareous grassland.	Ha		125	50 (175ha in total since 2005 baseline)
Expansion	Encourage the re-establishment and increase the area of lowland calcareous grassland.	Ha			

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Baseline data was based on a survey of grassland sites of SINC status by the Notts Biological and Geological Record Centre (NBGRC), a survey of SSSI data by English Nature, and an estimate of unaccounted for sites. It is possible that some lowland calcareous grassland may be found on Countryside Stewardship sites which could be accounted for, however the majority of sites will be on public land. The breakdown of baseline data is as follows:

(in ha)	Favourable Condition	Unfavourable Condition	Resource Total
SSSI Sites	38	21	59
Non SSSI Sites	12	73	85
Unaccounted for sites	4	52	56
Total	54 (27%)	146 (73%)	200

Expansion and Restoration targets were combined and based on an assumption of planned restoration projects and objective targets. The group agreed that they should accept no loss of resource. Planned projects counted included Gotham, by British Gypsum and Kilvington, Sutton Landfill, Cuckney and Woodhouse sites. 2015 'maintain extent' target is a cumulative figure based on achieving 2010 restoration/expansion targets.

PROPOSED ACTION

Policy and legislation

1. Ensure the incorporation of relevant (inter-)national law, policies and guidance into all plans and policies relating to the protection, enhancement and management of lowland calcareous grassland habitat.

ACTION: Government Agencies, Local Authorities, NGO's.

2. Through planning control or other land use consultation processes, allow no further loss of areas of lowland calcareous grassland habitat and seek opportunities to enhance existing areas and create new areas through approved development.

ACTION: Government Agencies, Local Authorities, NGO's.

3. Ensure agri-environment, forestry and other funding schemes include appropriate management options and design measures to suit local nature conservation needs.

ACTION: Government Agencies.

Site safeguard and management

4. Review the extent of SSSI coverage of grassland habitat and consider notifying further sites as necessary.

ACTION: Government Agencies.

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5. Designate SINCs and declare Local Nature Reserves on appropriate areas of habitat or instigate other appropriate measures for their protection.

ACTION: Government Agencies, Local Authorities, NGO's.

6. Promote the uptake of positive management with owners of SSSIs, LNRs, SINCs and any other areas of lowland calcareous grassland habitat.

ACTION: Government Agencies, Local Authorities, NGO's.

7. Carry out appropriate habitat management on sites controlled by BAP partners.

ACTION: Government Agencies, Local Authorities, NGO's.

8. Ensure sites containing lowland calcareous grassland habitat have appropriate management plans that are working towards improving site management and condition

ACTION: Government Agencies, Local Authorities, NGO's.

9. Acquire land to ensure good habitat management or to create habitat.

ACTION: NGO's.

Advisory

10. Provide formal or informal training in management techniques for lowland calcareous grassland habitat to land managers, site wardens, volunteers, etc.

ACTION: Government Agencies, Local Authorities, NGO's.

11. Establish demonstration sites or projects to demonstrate/publicise good habitat management techniques.

ACTION: Government Agencies, Local Authorities, NGO's.

Future research and monitoring

12. Establish and maintain a monitoring programme (a site register) to determine progress towards county HAP targets.

ACTION: Government Agencies, Local Authorities, NGO's.

13. Ensure that areas of lowland calcareous grassland habitat are periodically resurveyed to establish extent and condition. Update resulting habitat inventory every 5 years and revise targets and HAPs if necessary.

ACTION: Government Agencies, Local Authorities, NGO's.

Communications and publicity

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14. Improve public awareness and appreciation of lowland calcareous grassland habitat by providing appropriate interpretation, education and access (where appropriate).

ACTION: Government Agencies, Local Authorities, NGO's.

15. Improve awareness of the value of, and appropriate management techniques for lowland calcareous grassland habitat among site owners and occupiers.

ACTION: Government Agencies, Local Authorities, NGO's.

What You Can Do

- Create or restore a species-rich limestone grassland on your land. Advice on management is available from various sources.
- If you live in a limestone area, encourage those responsible for managing your local churchyard, park or roadside verges to set aside an area to be managed for wildflowers.
- Undertaken surveys and research that will contribute to the targets of the Action Plan.

Species List

The following are examples of species of conservation concern (Appendix A) which are likely to benefit from this action plan:

- Brown hare
- Common shrew
- Stoat
- Barn owl
- Skylark
- Marbled coronet moth
- Netted pug moth
- Six-belted clearwing moth
- Rustyback
- Burnt orchid
- Fly orchid
- Autumn gentian
- Clustered bellflower