

HABITAT ACTION PLAN FOR LOWLAND DRY ACID GRASSLAND

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LEAD AGENCIES:

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HABITAT DEFINITION

Lowland dry acid grassland typically occurs at altitudes below c. 300m 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. Nottinghamshire's acid grasslands are covered by the National Vegetation Classification communities U1, U2, U4, U5 and SD10.

In Nottinghamshire, acid grasslands may be divided into two types:

a) Grassland characteristic of that found on the Sherwood sandstones which tends to be associated with Lowland Heathland. These acid grasslands generally consist of a sheep's-fescue *Festuca ovina*, common bent *Agrostis capillaris* and wavy hair-grass *Deschampsia flexuosa* sward. In Nottinghamshire, species diversity tends to be limited, and often includes a narrow range of species such as harebell *Campanula rotundifolia*, heath bedstraw *Galium saxatile*, sheep's sorrel *Rumex acetosella* and tormentil *Potentilla erecta*, with presence and abundance depending on community type and locality. Dwarf shrubs such as ling *Calluna vulgaris* and bell heather *Erica cinerea* can often be found at low densities in the sward, whilst bilberry *Vaccinium myrtillus* and petty whin *Genista anglica* also occur, but are very scarce.

b) Grassland associated with the East Nottinghamshire Sandlands (the Coversands). These parched acidic grasslands are often dominated by sand sedge *Carex arenaria* and can be rich in lichens such as *Cladonia spp.* Other herbs include heath bedstraw *Galium saxatile*, smooth hawk's-beard *Crepis capillaris*, and sheep's sorrel *Rumex acetosella*, with heather *Calluna vulgaris* occurring infrequently.

This action plan covers both types of acid grassland. However, much of the acid grassland of type a) is closely associated with lowland heathland, and only differs from it in the extent of heather cover - more than 25% being defined as heathland, and less than 25% as grassland. Nevertheless, distinguishing between the two habitats can be problematic at times, especially where extensive sites are involved where habitats often occur in mosaics. Having a separate action plans for both dry acid grassland and heathland indicates the importance of dry acid grassland in its own right, while recognising the strong links between it and heathland habitats. For this reason this action plan should be read in conjunction with that for Lowland Heathland Habitat.

Acid grasslands are of value for a range of specialist, scarce or declining fauna, with some species dependent upon a mosaic of habitats. The breeding bird fauna of acid grassland includes a number of species of conservation concern such as woodlark *Lullula arborea*, nightjar *Caprimulgus europaeus*, tree pipit *Anthus trivialis* and green woodpecker, *Picus viridis*. Many of the invertebrates that occur in acid grassland are specialists which do not occur in other types of grassland, and open parched acid grasslands in particular can support a considerable number of ground-dwelling and burrowing invertebrates such as solitary bees and wasps. A number of rare and scarce moths are associated with the habitat, including the forester *Adscita stictica*.

CURRENT STATUS

Between 1930 and 1984, unimproved lowland grassland of all types in England and Wales decreased by an estimated 97% as a result of agricultural intensification. Losses continued during the 1980s and 90s, and were recorded at 2-10% per annum in some counties. The East Midlands has had 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.

The extent of lowland dry acid grassland in United Kingdom has mirrored this general loss, with a substantial decline in the 20th century, although there are no figures available to quantify the extent or rate of loss. In Nottinghamshire, the decline is mostly attributable to agricultural intensification, commercial forestry, coal mining and urbanisation but important concentrations still occur in both Sherwood and in the Coversand areas. Many sites survive only as small fragments such as rides or clearings in plantations, although several larger sites still exist. The total extent of the resource in the county is thought to be around 740 hectares, with the distribution shown in Annex 1.

THREATS

The main factors currently affecting Nottinghamshire's lowland dry acid grassland are:

- Agricultural intensification by the use of fertilisers, herbicides, liming, ploughing and re-seeding or conversion to arable. Over-grazing, ivermectin wormers and supplementary feeding are also potential problems.
- Re-forestation of commercial timber crops on the sand land acid grasslands.

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- Lack of traditional management such as light grazing and cutting, resulting in the increasing dominance of coarse grasses, bracken, scrub and trees at the expense of acid grassland flora and fauna.
- Loss, fragmentation and disturbance caused by residential and industrial development, road building, mineral extraction, landfill activities and other development.
- Introduction and spread of non-native and other inappropriate plant species.
- The spread of bracken, a frequent component of lowland dry acid grassland, which can reduce habitat diversity. Control measures are essential, but elimination should be avoided because moderate amounts of bracken do bring wildlife benefits.
- Recreational pressure and proximity to urban areas, which may lead to damage and disturbance of the habitat and make grazing impractical.
- Atmospheric pollution, especially deposition of nitrogen compounds. This affects species composition and abundance in a similar way to the application of artificial fertiliser, but to a lesser extent.
- Conversion to heathland and woodland without careful consideration of the existing wildlife value. Acid grassland should not be thought of purely as potential heathland, as it has interest of its own and can be part of a diverse habitat mosaic.

CURRENT INITIATIVES – EXAMPLES

- A national Habitat Action Plan for Lowland Acid Grassland produced
- Many private landowners manage areas of acid grassland, and have a vital part to play in its conservation.
- The majority of the best acid grassland areas are within Sites of Special Scientific Interest (SSSIs) and there was a target to bring 95% of SSSI's into at least unfavourable recovering condition by 2010. Other acid grasslands are Sites of Importance for Nature Conservation (SINCs).
- Many organisations are involved in the sympathetic management of areas of heathland and acid grassland in Nottinghamshire through the Sherwood Habitats Forum such as the National Trust, The Forestry Commission, Nottinghamshire Wildlife Trust, and the Sherwood Forest Trust.
- Declaration of Sherwood Forest National Nature Reserve, which includes large tracts of acid grass heath, raising its profile at a European Level.
- Selected areas of acid grassland can be created, restored and managed through Natural England's Classic and Higher Level Stewardship (HLS) Scheme's, providing landowners with financial incentives. Sherwood is a target area for HLS.

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- Nottinghamshire Wildlife Trust's Flying Flock and Birklands Grazing project cover Sherwood and the Sandland areas, bringing acid grass heath into appropriate management and managing scrub.
- The Sherwood Forest Trust operates a machinery ring to provide a range of equipment to partners to bring acid grassland into condition in a sympathetic manner.
- The Forestry Commission is revising its National Open Habitats Policy and local Forest Design Plan (FDP) for Clipstone, with the potential for an increase in acid grassland creation alongside heathland.

TARGETS

Discussions continue regarding the impracticalities of splitting the Lowland dry acid grassland and Lowland heathland habitat types up for the purpose of setting targets. Due to the mosaic nature of the habitats within Nottinghamshire, the total resource for both habitat types should be pooled and split 50/50 for each type and likewise for the restoration and expansion targets. Therefore the following targets were agreed by the HAP target review group.

Target Type	Target Text	Units	2005 Baseline	2010 Target	2015 Target
Maintain Extent	Maintain the extent of all existing lowland dry acid grassland.	Ha	750	750	1750
Achieve Condition	Maintain and improve by management existing lowland dry acid grassland.	Ha	338 (45%, existing habitat in favourable condition)	600 (80% of total habitat resource)	750 (100% of 2005 baseline resource)
Restoration	Improve the condition of relict habitat so that it qualifies as lowland dry acid grassland.	Ha		500	500
Expansion	Encourage the re-establishment and increase the area of lowland dry acid grassland.	Ha			

(N.B. these figures will be updated as new targets are set during 2011)

The total lowland heath/acid grassland mosaic resource in Nottinghamshire is 1500ha, based on SSSI data and site survey by the NBGRC. Of this around 800ha is not in good condition. There are 453ha of the lowland heath/acid grassland mosaic covered by SSSI status in Nottinghamshire, of which 431.28ha are in favourable condition. The Sherwood Forest Trust has restored 737ha of heath and acid grassland to date. The restoration and expansion targets, combined, were based on the Nottinghamshire Heathland Strategy and the England targets for Lowland Heath.

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 dry acid grassland habitat.

ACTION: Government Agencies, Local Authorities, Sherwood Habitats Forum, NGO's.

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

ACTION: Government Agencies, Local Authorities, Sherwood Habitats Forum, 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.

5. Designate SINC's 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, SINC's and any other areas of lowland dry acid 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 dry acid 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 dry acid grassland habitat to land managers, site wardens, volunteers, etc.

ACTION: Government Agencies, Local Authorities, Sherwood Habitats Forum, NGO's.

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

ACTION: Government Agencies, Local Authorities, Sherwood Habitats Forum, 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 dry acid 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, Sherwood Habitats Forum, NGO's.

Communications and publicity

14. Improve public awareness and appreciation of lowland dry acid 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 dry acid grassland habitat among site owners and occupiers.

ACTION: Government Agencies, Local Authorities, Sherwood Habitats Forum, NGO's.

WHAT YOU CAN DO

- If you are a landowner or manager on naturally acid land in Nottinghamshire, consider managing part of your land as unimproved acid grassland. Contact Natural England, FWAG or Sherwood Forest Trust for advice on sources of funding.
- Join the Nottinghamshire Wildlife Trust, BTCV or another voluntary organisation, and find out how you can become actively involved in the conservation of acid grassland.

SPECIES LIST

The following are examples of Species of Conservation Concern (Appendix A) which are likely to benefit from this action plan:

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| ➤ Brown hare | <i>Lepus europaeus</i> |
| ➤ Common shrew | <i>Sorex araneus</i> |
| ➤ Grey partridge | <i>Perdix perdix</i> |
| ➤ Woodlark | <i>Lullula arborea</i> |
| ➤ Tree pipit | <i>Anthus trivialis</i> |
| ➤ Slow worm | <i>Anguis fragilis</i> |
| ➤ Common lizard | <i>Lacerta vivipera</i> |
| ➤ Forester moth | <i>Adscita statices</i> |
| ➤ Archer's dart moth | <i>Agrostis vestigialis</i> |
| ➤ Annual knawel | <i>Scleranthus annuus agg.</i> |
| ➤ Blue fescue | <i>Festuca longifolia</i> |
| ➤ Fragrant agrimony | <i>Agrimonia procera</i> |
| ➤ Prickly sedge | <i>Carex muricata ssp lamprocarpa</i> |
| ➤ Sand sedge | <i>Carex arenaria</i> |

The SoCC is currently under review and when this process is complete it will influence all the Habitat Action Plan species lists.

ANNEX 1 – distribution of Lowland Dry Acid Grassland in Nottinghamshire

[map to be inserted when available]