



## LOWLAND ACID GRASSLAND

### 1. INTRODUCTION

Lowland acid grassland typically occurs on nutrient-poor, free-draining soils with a pH ranging from 4 to 5.5. It usually overlies acid rocks such as Hartshill quartzite, or superficial deposits such as sands and gravels, though occasionally it also forms upon post-industrial sites and made up-ground such as embankments, railway sidings and spoil heaps within the above geological zones (e.g. Alvecote Pools). The habitat often co-exists with lowland heathland habitats, birch scrub or woodland and frequently contains small areas of mire.



Acid grassland habitats include the *Sheep's-Fescue – Common Bent – Sheep's Sorrel* (U1), *Sheep's-Fescue – Common Bent – Heath Bedstraw* (U4) and *Matt Grass – Heath Bedstraw Grassland* (U5) National Vegetation Classification grassland plant communities. Calcifugous plants such as bracken, foxglove, gorse and wood sage are also commonly associated with acid grassland.

Matt grass © Natural England

Acid grasslands are characteristically species poor and support few particularly rare plant species in this area. However these habitats contain important elements of the county's biodiversity, e.g. matt grass, sheep's sorrel and heath-grass. Many of the invertebrates that occur in acid grassland are specialist species, which do not occur in other types of grassland locally (though some will use calcareous grasslands or coastal dunes elsewhere) and a good number of Nationally Scarce, Regionally Scarce species rely heavily upon acid grassland. Insect species using this habitat include the dingy mocha moth and green hairstreak. The open, dry acid grasslands on sandy soils in particular, can support a considerable number of ground-dwelling and burrowing invertebrates such as solitary bees and wasps.

As with other lowland semi-natural grassland types, acid grassland has undergone a substantial decline in the 20th century. The decline is mostly due to agricultural intensification. Locally, a large proportion of sites were lost prior to this time through urban development during the 19<sup>th</sup> Century. Later significant losses came from afforestation and succession to scrub and woodland. Further development and conversion to amenity grassland have also been significant.

2.	OUR OBJECTIVES & TARGETS	Target
A.	To maintain the current extent of all lowland acid grassland above 0.5ha	2003-2015
B.	To improve the condition of all lowland acid grassland above 0.25ha, that is currently in unfavourable condition, to favourable or improving.	by 2005
C.	To increase the extent of the habitat by creating an additional 5ha of lowland acid grassland, including one site of at least 3ha.	by 2010
D.	To promote good management practice and to share knowledge	2003-2015
E.	To enhance public appreciation of lowland acid grassland	2003-2015
F.	To update the Habitat Biodiversity Audit with all known lowland acid grassland sites	by 2003

#### ASSOCIATED HABITAT PLANS

- Lowland Heathland

#### ASSOCIATED SPECIES PLANS

- Lapwing
- Adder

### 3. NATIONAL BAP OBJECTIVES AND TARGETS

- *Arrest the depletion of lowland acid grassland throughout the UK.*
- *Within SSSIs and ASSIs initiate rehabilitation management for all significant stands of lowland acid grassland in unfavourable condition by 2005.*
- *Wherever biologically feasible, achieve favourable status of all significant stands of lowland acid grassland within SSSIs and ASSIs by 2010*
- *.*
- *For stands outside SSSIs, secure favourable condition over 30% of the resource by 2005.*
- *For stands outside SSSIs, secure favourable condition over as near to 100% of the resource as is practicable by 2015.*
- *Attempt to re-establish 500 ha of lowland acid grassland of wildlife value at carefully targeted sites by 2010.*

(Above are the Revised targets as of 2003, which differ from those originally published on the UK Biodiversity website)

#### 4. CURRENT STATUS

Lowland acid grasslands are extremely rare and not extensive in Warwickshire, being mainly associated with heathland, woodland or post-industrial sites. They are largely confined to the acid glacial soils in the north of the County on the Midlands Plateau Natural Area and can be seen as outliers to the very extensive areas of acid grassland in neighbouring counties, eg. at Sutton Park, Chasewater and particularly Cannock Chase. Lowland acid grassland has been lost from Warwickshire largely as a result of urban development of heathlands in the 19<sup>th</sup> century. The largest sites are at Baddesley Common (2ha) and Grendon Wood (3ha) and the Alvecote complex and Dordon quarries.

Existing knowledge of lowland acid grasslands across the county is imperfect. The Habitat Biodiversity Audit estimates the total to be 38.2ha, with 13ha of unimproved and 25.2ha improved. Natural England estimates the total resource within SSSI and SNCI designation to be approximately 10 ha on ten sites (see Table 1). The largest area is in the order of 5ha at Grendon and Baddesley Common, where much of the acid grassland and associated heath has developed on restored open cast coal workings since the 1950s. Other fragments of lowland acid grassland, mainly of 0.5ha or less, occur at Clowes Wood, Rough Hill Wood, Coleshill Pool, Kenilworth Common and Yarningale Common, the Alvecote complex, two quarries at Dordon, Coombe Countryside Park, Kenilworth Common, rides of woods such as Poors Wood, Hay Wood, Brandon Wood, Corley Moor, Longford Nature Park, the Purley Park-Hartshill area and within the quarries / spoilheaps of the Atherstone Ridge and Kingsbury area. .

**Table 1. Natural England estimates of acid grassland in Warwickshire**

Site	Acid grassland area (ha)	Associated habitat	Site status
Baddesley Common	2.0	Heathland	SINC
Grendon	3.0	Heathland/woodland	SINC
Coleshill Pool	1.0	Woodland	SSSI
Clowes Wood	0.5	Woodland	SSSI
Rough Hill (Studley) & Wirehill Woods	0.25	Woodland	SSSI
White Hall Fm, Hartshill	0.25	Improved grassland	SINC
The Orchard, Grendon	0.5	Woodland/ bare ground	SINC
Slough Farm	0.5	Semi-improved grassland	SINC
Boons/Jees Judkins/Midland Quarries	0.5	Bare ground	RIGS/SINCs
Yarningale Common	0.25	Woodland	SINC
Whittleford Park	0.5	Unimproved grassland	SINC
Kenilworth Common	0.5	Woodland	LNR
<b>TOTAL</b>	<b>9.75</b>		

#### 4.1 Legal and Policy Status

Only about 20% of the known area is on Sites of Special Scientific Interest (SSSI). The largest area of lowland acid grassland on an SSSI (c.1ha) is at Coleshill Pool, with other small areas at Clowes Wood and Rough Hill Wood, Studley.

Work within the LBAP area is currently underway to classify other lowland acid grasslands as Sites of Importance for Nature Conservation (SINCs).

Lowland acid grasslands have been identified as a priority habitat for re-creation in the Midlands Plateau Natural Area.

#### 4.2 Current Factors Affecting The Habitat

In the past lowland acid grassland was lost across England primarily to agriculture, forestry, mineral extraction and development. The main factors affecting the habitat in Warwickshire, Coventry and Solihull at present are:

- **Encroachment of trees** and scrub and the loss of early successional stages due to a lack of conservation management such as light grazing, controlled burning and cutting.
- **Fragmentation and isolation** as the few sites in Warwickshire are widely scattered. This can result in very small and vulnerable populations of associated insects.
- **Lack of public awareness** as most lowland acid grassland has been lost to development in the 19<sup>th</sup> century, and therefore is not part of the public perception of the area.
- **Development of post-industrial sites and disused railway lines** which contain fragments of acid grassland.
- **Conversion of some sites to regularly-mown amenity sites** – especially within urban and suburban areas.

### 5. CURRENT LOCAL ACTION

The existing management of most sites is known.

- In 1997 at Grendon and Baddesley Common, the Merevale Estate began a plan to manage Warwickshire's largest lowland heathland and its associated acid grassland, with financial support of the Countryside Stewardship Scheme.
- The fragments on the SSSIs are also actively managed.

## Warwickshire, Coventry and Solihull Local Biodiversity Action Plan

- There are DEFRA Countryside Stewardship Agreements for management of acid grassland at Yarningdale Common; land adjacent to Burton Dassett Country Park, near Avon Dassett.
- Warwickshire Wildlife Trust is actively managing an area of under 1ha of lowland acid grassland at Clowes Wood and Rough Hill Wood SSSIs – also areas at Alvecote.
- Coombe Countryside Park manage a small area (the 'heathland') and have increased this recently through rhododendron removal. Whittleford Park is also being managed.
- Statutory conservation agencies, WWT, RSPB and Warwickshire Museum staff can provide advice on appropriate management, rehabilitation, extension and creation of lowland acid grasslands.
- Staff at Coventry and Warwickshire Museum, plus groups such as Butterfly Conservation, continue to increase our knowledge of the invertebrate assemblages of this habitat category.

## 6. PROPOSED LOCAL ACTIONS (some dates amended – Core Steering Group – Feb 2008)

ACTION	Lead	Partners	By	Meets objective
<b>Policy &amp; Legislation</b>				
<b>PL1.</b> Ensure that all relevant habitat policy is included in Local Planning Documents (see ODPM Planning Policy Statement PPS9).	LBAPSG	WDC SDC NBBC NWBC	2003-2015	A
<b>PL2.</b> Ensure that any site meeting the relevant criteria is considered for designation as an SSSI.	NE	WWT WM WSP	review in 2007	A, B
<b>PL3.</b> Review and select all qualifying lowland acid grassland sites >0.25ha as SINC's and enter onto database.	WSP	WDC SDC RBC NWBC NBBC NE	2003	A, F

Site / Species Safeguard & Management				
<b>SM1.</b> Actively promote the appropriate management of all lowland acid grassland sites over 0.25ha.	WWT	NE WBRC LOs	2003- 2015	B
<b>SM2.</b> Continue lowland acid grassland restoration at Grendon and Baddesley Common and management elsewhere, eg Coombe.	LBAPSG	NE LOs	2007	B
<b>SM3.</b> Identify sites for potential lowland acid grassland expansion and re-creation.	NE	WWT WM FWAG	2004	B, C
<b>SM4.</b> Establish lowland acid grassland re-creation/restoration on 3ha of acid ground, quarry restoration by 2005 and 5ha by 2010.	NE	WWT WM WCC	2005 – 2010	C
<b>SM5.</b> Actively recommend measures to increase the extent of connectivity and maintain options to expand area of habitat.	LBAPSG	WCC LAs NE WWT	2008- 2015	C
Advisory				
<b>A1.</b> Inform landowners of their lowland acid grassland resource and provide management advice, sources of machinery, etc.	FWAG	NE WWT	2005	B, D
<b>A2.</b> Provide Best Practice Guidelines to appropriate landowners.	NE	WWT FWAG	2003	B, D
Research & Monitoring				
<b>RM1.</b> Define area of current lowland acid grassland.	HBA	NE WWT	2003	F
<b>RM2.</b> Re-assess current condition of all lowland acid grassland.	WSP	NE WWT	2005	A, B
<b>RM3.</b> Continue to monitor characteristic species of acid grassland habitat.	WBRC	BC	2003- 2015	B
Communication & Publicity				
<b>CP1.</b> Link with Heathland open days to increase public awareness of the importance of, and threats to, lowland acid grasslands.	WWT	NE FWAG	2004	E

**Abbreviations:** BC – Butterfly Conservation, NE – Natural England, FWAG – Farming & Wildlife Advisory Group, HBA – Habitat biodiversity Audit, LBAPSG – Local Biodiversity Action Plan Steering Group, NBBC – Nuneaton & Bedworth Borough Council, NWBC – North Warwick Borough Council, SDC – Stratford District Council, WBRC – Warwickshire Biological Record Centre, WCC – Warwickshire County Council, WDC – Warwick District Council, WM – Warwickshire Museum, WSP – Wildlife Sites Project, WWT – Warwickshire Wildlife Trust.

**7. REFERENCES**

**8. FURTHER INFORMATION** (see separate **Links** web page for links to web sites)

UK Lowland Meadows Biodiversity Action Plan no.10

UK Lowland Dry Acid Grassland Biodiversity Action Plan no.14

Buglife (2004) Information on the habitat-management requirements of key invertebrates . CD-Rom £34.99 from Beverley Doyle by email at:

[beverley.doyle@buglife.org.uk](mailto:beverley.doyle@buglife.org.uk)

Natural England (2005) *The Importance of Livestock Grazing for Wildlife Conservation*. Leaflet from 01733 455100 or email:

[enquiries@naturalengland.org.uk](mailto:enquiries@naturalengland.org.uk). Also see [www.grazinganimalsproject.org.uk](http://www.grazinganimalsproject.org.uk)

**9. CONTACT**

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