

HEDGEROWS: INCLUDING ANCIENT AND/OR SPECIES-RICH HEDGEROWS

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CURRENT STATUS

A hedgerow generally consists of a line of shrubs, sometimes with trees and a layer of herbaceous vegetation beneath, and often has an associated feature such as a field margin, bank, ditch, or roadside verge.

Hedgerows were traditionally planted to define parish boundaries and land ownership, and to contain stock. They are often the oldest remaining features in the countryside, providing important evidence of its historic development. As well as providing benefit to both wildlife and the landowner, they can help prevent soil erosion and water run-off, and provide livestock with shelter.

Although hedgerows remain a widespread feature of Nottinghamshire's landscape, they have suffered large-scale decline over recent decades, primarily as a result of post-war agricultural intensification. Pressure on farmers to increase production and the use of large, modern machinery led to the removal of hedgerows in order to increase field sizes. Between 1947 and 1985, the East Midlands lost an estimated 16,000 miles of hedgerow.

Today, with much of rural Nottinghamshire dominated by intensive arable farming, the remaining hedgerows often represent the most significant wildlife habitat in a landscape. In urban and other built environments, hedgerows may provide a haven for flora and fauna where other refuges are often limited or absent.

Hedges are especially important for butterflies, moths and other invertebrates, birds, and mammals such as bats, harvest mice, stoats, weasels and hares. They provide a source of food for insects, which in turn support predatory invertebrates and vertebrates. In addition they provide cover (e.g. for nesting birds) and shelter from the elements. Mature trees within hedgerows can provide roosts for bats and owls, particularly the little owl, which is declining in numbers and relies on old, standard trees. Hedges are also important breeding sites for many birds and insects.

Hedgerows are thought to act as wildlife corridors for animals such as mammals, reptiles and amphibians, allowing dispersal and movement between habitats. They are often used as linear feeding routes by bats.

Nationally, hedgerows are a primary habitat for at least 47 species of conservation concern in the UK, including 13 globally threatened or rapidly declining species, more than for most other key habitats.

Ancient hedgerows tend to support the greatest diversity of plants and animals, and may be defined as those that were in existence before the Enclosure Acts (passed mainly between 1720 and 1840). They may have originated from early woodland clearances; today they often support a diverse, relict woodland flora and fauna.

The lengths of existing and lost ancient, species-rich hedgerow in Nottinghamshire are unknown and the majority of present-day hedgerows are considered neither ancient nor species-rich. Many are narrow, straight lines of a single or small number of species (e.g. dominated by hawthorn).

Species-rich hedgerows are classified as those containing 5 or more native woody species on average in a 30 metre length. This includes recently planted species-rich hedgerows. Hedges adjacent to roads, green lanes, tracks and wooded ground tend to be particularly species-rich. Efforts should therefore be made to improve the state of all Nottinghamshire's hedgerows, not just ancient and species-rich hedgerows, as required in the UK BAP.

THREATS

The main factors currently affecting the County's hedgerows are:

- Loss and fragmentation due to intensified farming practices, residential and industrial development, road schemes, landfill and mineral extraction.
- Lack of management (laying and trimming) where hedges are no longer required to be stock proof (due to conversion of grassland to arable land or use of fencing alongside hedgerows to contain stock) and through neglect on new development sites. These hedgerows eventually become 'gappy,' tall and 'leggy', with a poor base structure, offering little cover.
- Unsympathetic, over-management through modern methods, preventing saplings from reaching maturity (i.e. no hedgerow standards remaining), and damaging remaining hedgerow trees.
- Managing too frequently, which may totally eradicate certain species of invertebrate with an annual life cycle. Ideally, hedges should be cut on at 2-3 year rotational basis.
- Management at the wrong time of the year disturbing breeding birds or removing fruit, an important winter food source. Ideally hedges should be cut in December or January.
- Cutting hedges all at once. Cutting in rotation means some hedgerow tips are left in tact, which are important as an invertebrate food source, and for winter fruit.
- Disturbance of leaf litter, which is an important habitat for a number of invertebrate, reptile, amphibian and mammal species. Beetles, molluscs and other invertebrates, which rely on leaf litter, provide an important food source for birds such as the Song thrush.
- Chemical pollution from spray and fertiliser drift, and pesticides. Fertilisers encourage the more common plant species at the hedge base, especially vigorous grasses such as cocksfoot and rye grass, which will out-compete species of greater floristic interest, such as cowslips, bluebells and many other hedge bottom flowers.
- Cultivation right up to hedge base, reducing the value of the hedgerow by reduction of field margins, loss of ground flora, and damage to hedgerow roots.
- Automatic removal of dead wood from hedgerows, which removes food and shelter for beetle larva and other invertebrates, without considering alternative measures such as crown reduction, causing loss of feeding and roosting sites.

CURRENT INITIATIVES – EXAMPLES

- A UKBAP Habitat Action Plan has been prepared for Ancient and/or Species-rich Hedgerows.

- The Hedgerow Regulations 1997 protects hedgerows qualifying as 'important' under its criteria. Local authorities should be consulted regarding any proposed removal. They will advise on whether a 'removal notice' application is required and will issue 'retention notices' for hedgerows qualifying as 'important'.
- The Hedgerow Regulations 1997 are under review, and possible amendments may include protection for ancient and/or species-rich hedgerows, and for hedgerows that provide habitat for UK BAP priority species.
- Local Authorities work to protect hedgerows through implementation of Local and Structure Plan policies, including securing their retention, management and planting through the development control process.
- Local Authorities, Nottinghamshire Wildlife Trust (NWT) and the Nottinghamshire Biological and Geological Records Centre (NBGRC) provide wildlife training sessions for planning officers, including information on the importance of hedgerows, the protection of nesting birds within hedgerows and the Hedgerow Regulations 1997.
- The Hedgerow Survey Handbook (DEFRA, 2002) promotes widespread survey of the UK's hedgerows in order to gain a comprehensive and accurate picture of the status of the hedgerow network across the country. The handbook gives local communities the opportunity to help deliver the UK BAP for ancient and/or species-rich hedgerows. The information collected will be made available to local authorities, records centres and others to assist the safeguard of hedgerows and monitor their conservation status.
- The Nottinghamshire Biological and Geological Records Centre continues to survey hedgerows and record data on hedgerow quality and species as part of its ongoing county wildlife audit.
- A partnership project between the Nottinghamshire Biological and Geological Records Centre and (NBGRC) Nottinghamshire County Council (NCC) is looking at mapping hedgerows using aerial photography.
- Nottinghamshire Wildlife Trust (NWT), on behalf of the Biodiversity Action Group, conducted an ancient tree survey in 2003/4.
- Several advisory bodies, including Farming and Wildlife Advisory Group (FWAG), Nottinghamshire Wildlife Trust and the Royal Society for the Protection of Birds (RSPB) visit landowners and provide advice on hedgerow management for wildlife and assistance with Countryside Stewardship Scheme applications.
- The Sherwood Forest Trust provides conservation advice to landowners and operates a Sustainable Landscape Grant scheme, which offers funding for hedgerow planting and management. This is useful as a preliminary stage prior to applying for government grants, facilitating gapping-up, etc. to make schemes eligible for higher funding streams.
- In 2002, the Department of the Environment Food and Rural Affairs (DEFRA) accepted approximately 28 km of Nottinghamshire's hedgerows into the Countryside Stewardship Scheme for restoration (coppicing, laying, gapping-up) over the next 10 years and agreements were made for the planting of over 3 km of new hedgerow and for enhancement of existing hedgerows (through agreed trimming practices). These agreements add to those of previous years and there will be further agreements in future years.
- Hedgerows management and restoration forms a key component of DEFRA's Environmental Stewardship Package. This package of agri-environment grant aid

launched in 2005; the three strands of the scheme are Entry Level Stewardship; Organic Entry Level Stewardship and Higher Level Stewardship. Entry Level Stewardship and Organic Entry Level Stewardship will reward extensive hedgerow management. This management will go beyond the requirements of the Cross Compliance measures needed to qualify for the Single Farm Payment. The Higher Level Scheme will have options under which hedgerow restoration can be considered.

- Private and public landowners carry out positive hedgerow management, including work funded through DEFRA Environmental Stewardship Package.
- BTCV and NWT provide training in and carry out practical hedgerow management.
- British Waterways are preparing specific hedgerow management plans for local waterways.
- The Forestry Commission conserves and manages ancient and locally significant hedgerows on their land.
- Several conservation organisations and nurseries (including the Skegby Horticultural Unit) are working to grow and supply local provenance hedgerow plants.

TARGETS

The UK steering group have decided to take away the 'ancient and species rich' element of this HAP, to include all hedgerows. This makes estimating a baseline resource for the County difficult, although there may be a figure from the Phase 1 survey for the County, as hedgerows should have been included in this.

Further research into the Phase 1 survey needs to be conducted to ascertain the baseline figure.

The overall condition of hedgerows is also difficult to estimate, therefore it was decided that hedgerows created under the Entry Level Scheme should be taken as favourable resource. It is estimated by DEFRA that 70% of farmland will be under either Entry Level or the Higher Level scheme by 2015, therefore the target for 2015, for the condition of this habitat is set at 70% of the 2005 baseline resource.

RDS supplied a 3 year estimate of hedgerow creation under ELS to Lianne, this needs to be added to the target review.

UK Broad Habitat classification indicates boundary features such as hedgerows. Priority classification stipulates ancient hedgerows (those which were in existence before the Enclosure Acts, 1720 and 1840). Species-rich hedgerows are those which contain 5 or more native woody species on average in a 30 metre length. Hedges containing fewer woody species but a rich basal flora of herbaceous plants should also be included. Thin straight hawthorn hedges, as well as most hedges consisting mainly of beech, privet or yew or non-native trees, are excluded.

TARGET TYPE	TARGET TEXT	UNITS	2005 BASELINE	2010 TARGET	2015 TARGET
Maintain extent	Maintain the extent of all existing ancient and species rich hedgerows.	Km	No data	No data	No data
Achieve condition	Maintain and improve by management existing ancient and species rich hedgerows.	Km	No data	No data	No data (70% of the 2005 baseline resource)
Restoration	Improve the condition of relict habitat so that it qualifies as ancient and species rich hedgerows.	Km			
Expansion	Encourage the re-establishment and increase the area of ancient and species rich hedgerows.	Km		No data	No data

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 ditch 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 ditch 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 hedgerow habitat and consider notifying further sites as necessary.

ACTION: Government Agencies.

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 ditch 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 ditch 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 ditch 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 ditch 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

14. Improve public awareness and appreciation of ditch 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 ditch habitat among site owners and occupiers.

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

WHAT YOU CAN DO

- Join a local conservation organisation such as British Trust for Conservation Volunteers (BTCV), Nottinghamshire Wildlife Trust (NWT) or a local Volunteer Group; go on task days to plant hedgerows or carry out hedgerow management. Manage your hedgerow in a wildlife-friendly manner. The Hedge Management Good Practice Guide is available from the Biodiversity Officer. Plant a new hedgerow using a mix of species appropriate to the local area. Refer to the Landscape Character guidelines available from Nottinghamshire County Council. Where appropriate, consider replacing fences with hedges.
- Assist with the collection of county and national hedgerow data by carrying out hedgerow surveys using the Hedgerow Survey Handbook methodology and sending the results to the Nottinghamshire Biological and Geological Records Centre (NBGRC). This will help to build a picture of our local resource, identifying where particular hedgerows may need special protection.
- Don't burn hedge clippings – this could injure or kill amphibians and other animals such as hedgehogs, which use brush and log piles as refuge habitats.
- Send all records of species found in hedges to NBGRC – for protected species legislation, records only count if they are lodged with the biological records centre.
- Rubbish in hedges can damage wildlife – remove debris from local hedges.

SPECIES LIST

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

- Kestrel
- Grey Partridge
- Turtle Dove
- Dunnock
- Song Thrush
- Lesser Whitethroat
- Tree Sparrow
- Linnet
- Bullfinch
- Yellowhammer
- Reed Bunting
- Brown hairstreak butterfly
- Purple hairstreak butterfly
- White-letter hairstreak
- Scarce vapourer moth
- Small eggar moth
- Brown hare
- Harvest mouse
- Badger
- Stoat
- Weasel
- Common shrew
- Hedgehog
- Brown Long-eared bat
- Daubenton's bat (particularly near water)
- Noctule bat
- Pipistrelle bat.
- Bluebell
- Common lizard