

ANCIENT AND/OR SPECIES-RICH HEDGEROWS A COSTED HABITAT ACTION PLAN

1. CURRENT STATUS

Ancient hedgerows, which tend to be those which support the greatest diversity of plants and animals, may be defined as those which were in existence before the Enclosure Acts, passed mainly between 1720 and 1840 in Britain and from the mid seventeenth century in Ireland. Species-rich hedgerows may be taken as those which contain 5 or more native woody species on average in a 30 metre length, or 4 or more in northern England, upland Wales and Scotland. Hedges which contain fewer woody species but a rich basal flora of herbaceous plants should also be included but practical criteria for identifying them have yet to be agreed. Many of the thin straight hawthorn hedges which characterise later parliamentary enclosures, as well as most hedges which consist mainly of beech, privet or yew or non-native trees, are excluded. Recently planted species-rich hedges are included.

Hedges which consist only of an earth or stone bank or wall are not covered in this action plan, which is limited to boundary lines of trees or shrubs. Where such lines of trees or shrubs are associated with features such as banks, ditches, trees or verges, these features are considered to form part of the hedgerow.

It is recognised that hedges are important not just for biodiversity, but also for farming, landscape, cultural and archaeological reasons.

Hedgerows are important habitats in their own right. They are a primary habitat for at least 47 extant species of conservation concern in the UK, including 13 globally threatened or rapidly declining ones, more than for most other key habitats. They are especially important for butterflies and moths, farmland birds, bats and dormice. Indeed, hedgerows are the most significant wildlife habitat over large stretches of lowland UK and are essential refuge for a great many woodland and farmland plants and animals. Over 600 plant species (including some endemic species such as a whitebeam *Sorbus devoniensis*), 1500 insects, 65 birds and 20 mammals have been recorded at some time living or feeding in hedgerows.

Hedgerows may also act as wildlife corridors for many species, including reptiles and amphibians, allowing dispersal and movement between other habitats, although this is difficult to prove conclusively.

Elsewhere in Europe, ancient hedged landscapes are found only in parts of France (i.e. bocage), northern Italy, the Austrian Alps, Greece and the Republic of Ireland.

In 1993 it was estimated that about 329,000 km of hedgerow remained in England and 49,000 km in Wales. In 1990, a similar estimate for Scotland was 33,000 km. Between 1986 and 1991 it was estimated that there were about 125,000 km of hedgerows in Northern Ireland. Thus the current UK total, assuming a continued overall net rate of loss due to removal and neglect of about 5% pa in all four countries, may be estimated to be about 450,000 km.

The proportion of this which is ancient and/or species-rich can only be guessed at. However, if we assume that most species-rich hedges are ancient, and vice versa, then some indication can be gained from an analysis, based on 1978 and 1990 data, which found that 26% of all hedges in Britain were blackthorn dominant, 5% mixed hazel, 5% mixed hawthorn

and 4% elm dominant. In addition, beech dominant hedges (2%) were found to have an especially rich hedge bottom plant assemblage. From this it may be surmised that some 42% of British hedges, or about 154,000 km, are ancient and/or species-rich. Such hedges are concentrated in southern England, especially in the south-west, and in southern Wales, and are relatively scarce in Scotland. In Northern Ireland, where species-rich hedges are concentrated in Fermanagh, a sample survey in 1990/1 estimated that about 33% of hedges are species-rich, giving a length of about 41,000 km. Thus the total UK resource of ancient and/or species-rich hedges is in the order of 190,000 km.

Hedgerows adjacent to roads, green lanes, tracks and wooded ground tend to be particularly species-rich.

2. CURRENT FACTORS AFFECTING THE HABITAT

Since 1945 there has been a drastic loss of hedgerows through removal and neglect throughout the UK, especially in eastern counties of England, which continues even now. Between 1984 and 1990, the net loss of hedgerow length in England was estimated as 21%, in Scotland 27% and in Wales 25%. This loss was the result of a combination of outright removal (1.7% per annum) and neglect (3.5% pa). In England and Wales at least the loss continued between 1990 and 1993, with neglect becoming increasingly important and removal less so. No comparable figures are available for Northern Ireland.

- Neglect (no cutting or laying) leading to hedgerows changing into lines of trees and the development of gaps. This reflects modern high labour costs and loss of traditional skills.
- Too frequent and badly timed cutting leading to poor habitat conditions, the development of gaps and probable species changes.
- Loss of hedgerow trees through senescence and felling, without encouraging replacements
- Use of herbicides, pesticides and fertilisers right up to the bases of hedgerows leading to nutrient enrichment and a decline in species diversity.
- Increased stocking rates, particularly of sheep, leading to hedgerow damage and the need to fence fields. The presence of fences reduces the agricultural necessity for hedge maintenance and so hastens their decline. The modern practice of "ranching" (placing netting around several fields to form a grazing block) also contributes to the deterioration of internal hedges).
- Removal for agricultural and development purposes.

3. CURRENT ACTION

3.1 Legal status

The Environment Act 1995 introduces an enabling power to protect important hedgerows in Britain. Land managers will probably be required to consult local authorities before hedgerows can be removed. The Department of the Environment is currently drafting the criteria for determining whether a hedgerow is important or not. The hedgerow protection clauses in the Environment Act 1995 do not apply to Scotland where Government's view is that there is no evidence that loss of ancient and/or species-rich hedgerows is a problem of sufficient dimension to merit legal protection.

Article 10 of the EC Habitats Directive requires member states to encourage the management of hedges (and other linear features) in their land use planning and development policies and, in particular, with a view to improving the ecological coherence of the Natura 2000 network. This is reflected in The Conservation (Natural Habitats, etc.) Regulations, 1994, which recognises that such linear features are essential for the migration, dispersal and genetic exchange of wild species. PPG9 (Nature Conservation, 1994) further encourages the development of policies for the management of hedgerows.

3.2 Management, research and guidance

MAFF, SOAEFD and WOAD grant aid the restoration and planting of hedges in Britain under the Farm and Conservation Grant Scheme. However, in England and Wales this scheme is being phased out and is to end in its current form in February 1996: a similar decision has not yet been made for Scotland. It will be replaced by grants available under the Countryside Stewardship.

During the period 1991/2 to 1994/5, 3,161 km of hedge restoration work was agreed in England under Countryside Stewardship agreements (which include the former Hedgerow Incentive Scheme). This represents an expenditure of £700,000 per annum. The sympathetic management of at least an equal length of hedgerow has been secured as a condition of these agreements.

In Scotland, SNH provides discretionary grants for the improvement or creation of hedges and other landscape features. SNH has also recently produced a series of leaflets on the management of boundary habitats, including hedges.

In Wales, the Hedgerow Renovation Scheme administered by CCW provides funding for the renovation of selected hedgerows. Between December 1992 and March 1995, 346 schemes were agreed, covering 185 km, with a further 728 km retained as a condition of agreements. An application for EU funding for this scheme has been made, under the EU 5b programme.

Most ESAs offer payments for the restoration and creation of hedges and require the sympathetic management of all other hedges on holdings under agreement. No figures on current levels of expenditure are available. Many local schemes also exist which offer financial incentives, for example, in National Parks.

In 1993 Plantlife launched the Great Hedge Project aiming to create a network of hedges across the country and to foster public interest in hedges.

In 1994 the Devon Hedge Group was formed, aiming to promote the appreciation and management of hedges. Similar groups are now proposed in Shropshire, Norfolk and Cornwall.

Further guidance is also available from ADAS and the Institute of Terrestrial Ecology who recently produced a range of reports for DoE and MAFF on the status, management and wildlife of hedgerows in Britain. MAFF are also currently commissioning further research on hedge management and establishment. The Forestry Commission has published guidance on the establishment of trees in hedgerows. FWAG has produced a Hedge Pack to advise farmers on good hedge management practices. Because of the important role new

woodlands can play in strengthening the ecological linkage provided by hedgerows, the Forestry Authority grant-aids new woodlands, in particular where they are placed next to ancient hedgerows and other features which act as relict woodland habitats.

4. ACTION PLAN OBJECTIVES AND PROPOSED TARGETS

- Halt the *net* loss of species-rich hedgerows through neglect and removal by the year 2000, and *all* loss of hedgerows which are both ancient and species-rich by 2005.

The targets for halting loss of ancient species-rich hedges are based on the need to stop the loss as soon as possible, because they are largely irreplaceable features of the countryside, tempered by the practical difficulties of knowing where these hedges are and how their extent may be monitored.

- Achieve the favourable management of 25% (c.47,500 km) of species-rich and ancient hedges by the year 2000, and of 50% (c.95,000 km) by 2005.

The majority of hedges are likely to need some management in the long term; and if left for more than about 10 years there is a major risk that they will either change beyond a recoverable state or become so open that they cease to be hedges. Hence the need for the ambitious targets up to 50% by 2005.

- Maintain overall numbers of hedgerow trees within each county or district at least at current levels, through ensuring a balanced age structure.

Most surveys have shown that hedgerow tree numbers have been declining and that there is a shortage of younger age classes. Some hedgerow trees will continue to be lost, so new ones are needed to keep the total number steady. The target is therefore the minimum needed to allow the continuation of this important biological resource.

5. PROPOSED ACTION WITH LEAD AGENCIES

5.1 Policy and legislation

- Ensure that grant aid for the management, restoration and establishment of hedgerows is available to farmers. As part of this process, consider a standard payments for all hedge works across land management schemes, to facilitate up-take and administration. (ACTION: DANI, MAFF, SOAEFD, WOAD)
- Promote the uptake of, and consider extending the scope of, ESA, Countryside Stewardship, Tir Cymen, etc., for the management and restoration of ancient and/or species-rich hedgerows, for the planting of new hedgerows and for the establishment of hedgerow trees. When promoting the management and restoration of hedgerows, emphasise the term *important* hedgerows (to be defined under the Environment Act 1995 Regulations). (ACTION: CCW, DANI, MAFF, SOAEFD, WOAD)
- Explore the possibility of making the favourable management of ancient and/or species-rich hedgerows a condition of arable set aside payments. (ACTION: DANI, MAFF, SOAEFD, WOAD)

- Promote the use of practices that can protect hedges from fertilisers and pesticides, such as conservation headlands and set-aside strips. (ACTION: DANI, MAFF, SOAEFD, WOAD)
- Seek to extend the hedgerow protection clauses in the Environment Act to Scotland, then enforce the requirements of the Act with respect to *important* hedges once the necessary regulations have been passed. (ACTION: DoE, LAs, SOAEFD)
- Enforce the requirement for felling licences for hedgerow trees, as appropriate, and encourage the planting of replacements. (ACTION: FA)
- Ensure that development plans contain policies to promote the protection and management of hedges and seek to minimise adverse effects on hedges from planning proposals. (ACTION: DoE, DoE(NI), LAs, SO, WO)

5.2 Site safeguard and management

- Encourage the retention and favourable management of ancient and/or species-rich hedgerows that form an integral part of, enhance, or link Natura 2000 sites. (ACTION: CCW, DoE(NI), EN, SNH)
- Encourage favourable management of ancient and/or species-rich roadside hedges, especially favourable cutting practices. (ACTION: DoE(NI), DoT, LAs, Highways Agency)
- Consider the practicality of establishing registers of ancient and of species-rich hedgerows. (ACTION: CCW, DANI, DOE(NI), EN, LAs, SNH, SOAEFD, WOAD)

5.3 Advisory

- Consider the development of hedge management skills through training, especially for contractors. (ACTION: Agricultural Training Board, LAs)

5.4 International

- Liaise with relevant authorities in France and Eire to exchange information and ideas on hedge conservation, and in particular to form partnerships to gain EC funding. (ACTION: CCW, DANI, DoE(NI), EN, LAs, SNH, SOAEFD, WOAD)

5.5 Future research and monitoring

- Define *important* hedgerows which should be afforded protection through the Environment Act 1995.
- Refine the definition of species-rich hedges, and identify priority areas for conservation action, through supporting further systematic UK-wide research into the types of hedges that occur, their biodiversity, and their regional distribution. (ACTION: CCW, DANI, DoE, DoE(NI), EN, SNH, SOAEFD, WOAD)
- Carry out sample surveys at 10 year intervals in

regions throughout the UK to enable trends in ancient and/or species-rich hedgerow status and in numbers of hedgerow trees to be accurately determined. (ACTION: DANI, DoE(NI), DoE, SOAEFD, WOAD)

- Consider the need for further research on economic outlets for the produce of hedge management such as biomass and fuel wood. (ACTION: CC, DANI, DoE, FA, SOAEFD, WOAD)
- Consider research on the effects on wildlife of different hedge management regimes. (ACTION: DANI, DoE, MAFF, SOAEFD, WOAD)
- Research into the colonisation of wildlife from hedges into new woodlands established next to old hedges. (ACTION: CCW, DoE(NI), EN, SNH, FA)

5.6 Communications and publicity

- Continue to promote an awareness among the public and land managers of the importance of hedgerows and their associated features for wildlife, of the continuing loss of hedgerows, and of the need for management to maintain biodiversity. (ACTION: CCW, DANI, DoE(NI), EN, LAs, MAFF, SNH, SOAEFD, WOAD)

COSTINGS

The successful implementation of the action plan will have resource implications for both the private and public sectors. The data in Table 1 below provide a preliminary estimate of the likely resource costs to the public sector in the years 1997, 2000 and 2010, in addition to existing public expenditure commitments in 1995. Current public expenditure is about £2.5 million, significantly below expenditure on hedges in 1993/94 of about £3.5 million.

It is assumed that about 10% of hedgerows (ie about 19,000km) are currently under favourable conservation management. The data in the table are based on targets whereby 47,000km of species rich and ancient hedgerows will be favourably managed by 2000 and 95,000km by 2010 (continuing through from the 2005 target). Figures are provided for central estimates of costs and also for a range of alternative costs (low and high). These alternative figures reflect different payment (and cost) levels and different scheme coverage assumptions. It is assumed for the central cost estimates that 25% of the target length will require programme assistance. The low expenditure figure reflects a 20%, and the high figure a 30%, requirement for assistance of the target length.

Providing advice to land managers on hedgerow management will require an estimated further £250k per year throughout the programme to 2010. In addition, an average of £75k will be required to carry out necessary survey work and monitoring work. These figures are incorporated in the 1997, 2000 and 2010 costings below.

Habitat Type: Ancient and/or species rich hedgerows (£000 per annum)

Total Area to be maintained and enhanced (Km)	1997			2000			2010		
	Low	Central	High	Low	Central	High	Low	Central	High
95,000	900	1,000	1,200	1,500	1,700	2,200	2,500	3,000	3,800