

Space for Wildlife

Leicester, Leicestershire and Rutland Biodiversity Action Plan 2010 - 2015

Priority Species

The 16 Species Action Plans set out in the earlier versions of the Leicester, Leicestershire and Rutland Biodiversity Action Plan have been retained in Space for Wildlife to help promote habitat management and creation.

Barn Owl

Action plan objectives

- Increase the number of breeding barn owls in Leicestershire and Rutland
- Encourage the provision of artificial nesting sites

Introduction

The Barn Owl *Tyto alba* is a good indicator of a healthy farmland environment. Throughout the United Kingdom in the 19th Century it was relatively common in lowland agricultural habitats. However since the 1940s it has been in serious decline. By 1997 there were fewer than 10 pairs in Leicestershire and Rutland. Since that time numbers have increased.

Key habitats

Barn Owls prefer to hunt and feed over unimproved rough grassland. Action to maintain and enhance this habitat is outlined in the neutral grassland, roadside verge and field margin action plans. Roosting and nesting sites are found in hollow trees and in old farm buildings. Many of these sites have been lost in recent years. The mature trees, lowland wood-pasture and parkland, and rocks and built structure habitat plans cover actions to preserve and increase the extent of these habitats and as a consequence should also benefit the Barn Owl.

Most important factors affecting species

Positive factors

- Climate change – mild winters
- Barn Owl box schemes

Negative factors

- Loss of feeding habitat due to agricultural change
- Loss of nest and roost sites
- Road kill, particularly of young birds, whilst hunting along roadside verges
- Increased urbanisation

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Bats

Action plan objectives

- Maintain the known distribution of all bat species
- Monitor known roosts using National Bat Monitoring Programme protocols

Introduction

Although several bat species are still considered to be common, available evidence suggests an overall decline in populations (Harris et al. 1995). The Pipistrelles, for instance, are thought to have declined by an estimated 70% between 1978 and 1993 (National Bat Colony Survey). Twelve of the 16 UK species have been recorded in the Counties, with a thirteenth (Serotine) suspected. Following a number of academic studies, the habitat needs of most species are well understood.

Status

Common: Soprano Pipistrelle, Common Pipistrelle, Daubenton's, Brown Long-eared

Uncommon: Brandt's, Whiskered, Natterer's, Noctule.

Rare: Leisler's, Barbastelle, Serotine

Vagrant: Greater Horseshoe, Grey Long-eared.

Key habitats

British bats are insectivorous, occupying many habitat types. With their complex life cycle, they need warm summer breeding roosts and cold, secure hibernation sites, both usually found in built structures. However at least six local species also rely on trees for roosts throughout the year. All species will benefit from the successful implementation of the Mature trees and Broad-leaved Woodland habitat action plans. Other habitat plans that will benefit bats included Hedgerows and Lowland Wood-pasture and Parkland.



Most important factors affecting species

- Intensification of agriculture and inappropriate riparian management leading to a decline in the amount of insect prey for all species.

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- Widespread misunderstanding of the legislation protecting bats, leading to loss or damage of many roosts when consultation procedures have been ignored.
- Changes in agricultural practices, and to a lesser extent urbanisation, have reduced areas of insect-rich habitat and the connective flyways, which act as feeding and commuting routes between these habitats.
- Loss of winter roosting sites, which need to be cold, humid and undisturbed.
- Loss, destruction and disturbance of other roosts, particularly maternity roosts, through the use of toxic timber treatment chemicals, intolerance by roosts owners, building practices, and tree felling.
- Climate change.

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Black Hairstreak Butterfly

Action plan objectives

- Maintain the only known colony at Luffenham Heath

Introduction

The Black Hairstreak butterfly *Styrmonidia pruni* butterfly is included on the Long List of Globally Threatened/Declining Species. It has a very restricted distribution in Britain, being confined to an area of central England from Oxfordshire north to Rutland. The borders of woods, and rides and clearings within woods, where the larval food plant Blackthorn *Prunus spinosa* is present, are the habitat of this shy and elusive butterfly. The adult keeps mainly to the top of oaks *Quercus spp.*, coming down to feed on honeydew and the nectar of flowers such as bramble *Rubus spp.* and Privet *Ligustrum vulgare*. In Leicestershire and Rutland the only certain location for Black Hairstreak is on and around Luffenham Heath Golf Course, where it is associated with the large areas of scrub woodland containing stands of Blackthorn.

Key Habitats

Black Hairstreak depends upon Blackthorn scrub managed by coppicing on a long rotation. Negative views of scrub, particularly on agricultural land has resulted in a reduction in the amount of this habitat across much of the landscape. Where Blackthorn scrub still exists, it is often over mature due to lack of management, again resulting in loss of habitat for the Black Hairstreak.

Most important factors affecting species

- Lack of scrub management leading to dying out of Blackthorn and development of mature woodland.
- Deliberate destruction of scrub habitat.
- Habitat fragmentation preventing colonisation of new sites.

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Black Poplar

Action plan objectives

- No further loss of existing Black Poplars
- Increase the population of Black Poplars by propagation of cuttings taken from local stock

Introduction

The Black Poplar includes many varieties, sub-species and cultivars of the species *Populus nigra* is found throughout most of central Europe, into Asia, where trees are widely planted. The native Black Poplar in Britain is the sub-species *betulifolia*, which is thought to occur naturally in the south and east of England, and parts of Wales. The tree was a distinctive feature of lowland river valleys but for a variety of reasons it is now scarce and the remaining populations are scattered. As a result the Black Poplar is one of the most endangered native trees in Britain. The species has separate male and female trees. The female is now very rare, having been selectively removed because of the large quantities of fluffy seeds produced in spring. Despite confusion with hybrids the native Black Poplar has probably always been rare in Leicestershire and Rutland, at least since botanical recording started in the early eighteenth century. Only a single specimen, at Barlestone, was known until recently, but there have been a further 13 trees reported from 10 sites, perhaps as a result of increased interest in this tree. All of the recent records are from west or northwest Leicestershire. The gender of very few of the trees has been determined, but there is at least one female, at Quorn.

Key habitats

The native Black Poplar is predominately a tree of open ground, not woodland, and will not tolerate side shade. A tree of river floodplains it is frequently associated with riverside meadows. This species should benefit from management covered by the Floodplain Wetland habitat action plan.

Most important factors affecting species

- The scattered nature of the population, making reproduction by natural means very difficult.
- Hybridisation with non-native poplars resulting in seed of doubtful provenance.
- The likelihood that the rarity of the native tree has resulted in little genetic variation within the population.
- Loss of appropriate habitat for germination as a result of drainage, river engineering schemes and agricultural improvement.
- Loss of, or damage to, remaining trees through agricultural operations including hedgerow removal, felling of hedgerow trees and close ploughing damaging the roots.
- Indiscriminate planting of black poplars at inappropriate sites, using inappropriate stock and with little or no documentation

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Dingy Skipper and Grizzled Skipper

Action plan objectives

- Safeguard all known colonies and have their sites in favorable management.



Introduction

Both species have undergone losses of around 50% across the UK over the past 30 years although there are still some strong colonies in Rutland. Recent surveys have shown that losses in Leicestershire appear to be greater than the national average, especially for the Dingy Skipper *Erynnis tages*. The Grizzled Skipper *Pyrgus malvae* is approaching the northern edge of its range in Leicestershire. Both are candidate species for the 2005 revision of the UK BAP. These are our earliest butterflies to emerge in spring, and are on the wing from late April until mid June. They live in small, self-contained colonies. However, for long term survival inter-connections between colonies are necessary, so that if one dies out it can be re-established from another nearby. Both butterflies can be difficult to spot because of their small size (wingspan 27-29 mm) and rapid flight close to ground level. In poor weather they remain stationary on dead flower heads.



Key habitats

Although the caterpillars of the two species need different foodplants, (principally Common Bird's-foot Trefoil *Lotus corniculatus* for the Dingy and Wild Strawberry *Fragaria vesca* or Creeping Cinquefoil *Potentilla reptans* for the Grizzled Skipper), colonies are often in similar habitats. Historically these have been sheltered chalk and limestone grasslands and woodland rides and clearings with relatively sparse and short vegetation. Nowadays in both counties colonies are found almost entirely in brownfield habitats, especially quarries and disused railway lines.

Most important factors affecting species

- Inappropriate (often misguided) development of brownfield sites for amenity use - cycleways, tree planting, grassed areas, soil enrichment.
- Site destruction through development for industry or housing.
- Habitat neglect, excessive scrub re-generation, dumping or other abuse.

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Dormouse

Action plan objectives

- Maintain the existing Dormouse population in Pickworth Great Wood.

Introduction

The Dormouse *Muscardinus avellanarius* is a nocturnal animal, which lives among the branches of trees and shrubs, rarely coming to the ground, except to hibernate. It requires a mixed, species-rich habitat to supply a sequence of foods throughout its active seasons. In winter, Dormice hibernate on the ground in woven nests, which are sometimes in coppice stools, under brushwood or in tree roots. The Dormouse has a mainly southern distribution, being absent from Scotland, Northern Ireland and most of Wales and northern England. In the past 100 years it has become extinct in half the counties it formerly occupied. Even in good habitats, densities are less than 10 adults per hectare. Leicestershire and Rutland are sparsely wooded, and it is likely the species was always relatively rare. The most recent records are from Pickworth Great Wood, in eastern Rutland, where 40 boxes were put up in 1995.

Key habitats

Dormice are found in woodland. They have most often been associated with hazel coppice but probably are better thought of as a woodland edge species. They prefer areas with a high diversity of trees and shrubs, in which the shrub layer is dense and unshaded but which has a scattering of mature canopy trees. Shrubs that produce berries and nuts provide good sources of food. Many woods are surrounded by a hostile agricultural environment leaving isolated populations of Dormice vulnerable to extinction. Linking up woods, for instance through the planting of hedgerows, as promoted by the hedgerow action plan can help to reduce such isolation. Management of woods for Dormice is covered by the Broadleaved Woodland habitat action plan.

Most important factors affecting species

- Lack of traditional woodland management, notably Hazel *Corylus avellana* coppicing.
- Fragmentation of woodland habitat, and removal of hedges linking them, leaving isolated, non-viable populations.

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Nightingale

Action plan objectives

- Bring all known Nightingale breeding sites in Leicestershire and Rutland into favourable management

Introduction

The Nightingale *Luscinia megarhynchos* is included on the U.K. Long List of Globally Threatened/Declining Species. It is a summer migrant to Britain, with a south-east distribution. It tends to occur in loose colonies and prefers coppice woodland, but also occurs in hedgerows, scrub, young conifer plantations and mature deciduous woodland. The species' current and historical status in Leicestershire and Rutland has been described by Jeeves (*Leicestershire Red Data Book: Birds*, LRTNC, 1996). From being more widespread, the Nightingale had become restricted to eastern Rutland by the 1990s, with only 11 singing males in 1994 spread between Barnsdale and Hambleton Woods, Luffenham Heath and Coppice Leys (Barrowden). The absence from some woodland sites but not others is difficult to explain.

Key habitats

Nightingales prefer dense scrub for both feeding and nesting. Traditionally they were associated with hazel coppice although with the decline of coppicing Nightingales are now more likely to be found in blackthorn scrub and tall, thick hedgerows. After initiating scrub management for Nightingales vegetation takes about seven years to become sufficiently dense for it to be suitable for breeding birds. Relevant action plans, which are of relevance to the Nightingale, are those for Broadleaved Woodland and Hedgerows

Most important factors affecting species

- Losses associated with wintering grounds.
- The decline in traditional coppice woodland management.
- Planting of ancient woodlands with conifers.
- Climatic change, which may account for the retreat eastwards.
- The increase in deer populations, especially in eastern Rutland, leading to damage to woodlands and reluctance of owners to re-introduce coppice regimes.

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Otter

Action plan objectives

- To restore breeding Otters to all catchments (Avon, Soar, Tame, Welland) by natural recolonisation.

Introduction

Formerly widespread, the otter *Lutra lutra* has declined rapidly since the 1950s. Its range contracted until it was effectively lost from central and south-eastern England by the 1980s. Significant populations remained in Wales, south-west England, Scotland and Northern Ireland. The decline now appears to have halted and otters seem to be slowly recolonising former habitats. Up to the late 1950s the otter was still relatively numerous in Leicestershire, but as in other English counties, the population crashed after the 1950s. Throughout the 1980s and early 1990s there have been occasional records of otters from the Welland, Avon and Trent catchments. In 1994, The Otter Trust released seven captive-bred otters, on the Rivers Gwash and Welland in Rutland.

Key habitats

Otters have large ranges, which can be between 40-70km, where quantities of prey are limited. They exploit a wide range of aquatic habitats from small ditches to large rivers, as well as ponds, lakes and reservoirs. The key factor determining the use of any body of water by otters is the quantity of fish present. Other factors are water quality and the presence of suitable places of refuge. Bankside trees, woody debris, brambles and scrub provide the latter. Action at the river catchment scale is necessary to ensure the return of otters to the area. However site based management as promoted by the Floodplain Wetland, Mesotrophic Lakes, Eutrophic Standing Water and Wet Woodland action plans can help to improve habitat quality for otters along individual watercourses.

Most important factors affecting species

- Use of organochlorines and, more recently, PCBs.
- Insufficient prey associated with poor water quality and unsympathetic riparian management.
- Impoverished bankside habitat features
- Road deaths.
- Disturbance, especially through increased recreation on rivers, canals and reservoirs.
- Mink traps.

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Purple Small-Reed

Action plan objectives

- No loss of known populations of Purple Small-reed in Leicestershire and Rutland

Introduction

Purple Small-reed *Calamagrostis canescens* is a tall, attractive grass. It occurs in fens, marshes and open wet woods in scattered localities in England, especially the south-east, and Scotland. In Leicestershire and Rutland Purple Small-reed seems to prefer open woods on wet soils. Confusion with the very similar *Calamagrostis epigeijos* means that some old records of *C. canescens* are questionable. Nevertheless there are only seven post 1970 site records. Owston, Stretton and Cloud Woods are the only sites where colonies are still known for certain to occur. At these sites the plant is restricted to the margins of wet woodland rides.

Key habitats

In Leicestershire and Rutland Purple Small-reed is restricted to woodland habitat. This is covered by the Broadleaved and Wet woodland action plans. Under these plans actions covering conifer removal, ride and coppice management will all benefit this plant.

Most important factors affecting species

- Cessation of traditional woodland management (coppicing) leading to loss of open areas through development of a closed canopy.
- Planting of woodlands with conifers.
- Neglect of woodland ride systems.

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Redstart

Action plan objectives

- Return of breeding Redstarts to Leicestershire and Rutland

Introduction

The Redstart *Phoenicurus phoenicurus* is a summer visitor to most of Britain, but is absent from Ireland. In Eastern England it is localised in occurrence. It feeds mainly on insects and nests in holes in trees and other places, in open woodland or parkland. In Leicestershire and Rutland it was once fairly common and widespread, but in recent years there have been no records of breeding in the Counties. Former sites, where two or more pairs bred regularly, are Burley Wood, the upper Chater valley, and possibly the Eye Brook valley.



Key habitats

The Redstart requires open woodland with mature trees for both nesting and feeding. Many local woodlands were clear felled within the past 60 years and now contain few mature trees with suitable nest holes. Lack of management such as coppicing has resulted in the vegetation becoming increasingly dense and shaded with the resultant loss of feeding habitat. In the wider countryside hedgerow and streamside trees have been removed, often as a result of agricultural intensification. In the long-term favourable management of woodland, hedgerows and mature trees should benefit Redstart. Management of Redstart habitats is covered by the Mature trees, Hedgerows, Broadleaved Woodland and Lowland wood-pasture and parkland action plans.

Most important factors affecting species

- Felling and re-planting of woodland habitat.
- Woodland neglect and lack of management leading to loss of open areas and development of thick understorey.
- Loss of hedgerow and stream-side trees.
- Fragmentation of suitable breeding sites.

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Sand Martin

Action plan objectives

- Increase the number of Sand Martin colonies

Introduction

The Sand Martin *Riparia riparia* is a summer visitor to Britain and Ireland. It is still relatively common throughout Eastern England. It feeds on insects and nests in excavated tunnels, in riverbanks and man-made cliffs. In spring and autumn, Sand Martins gather with other hirundines in large flocks over large bodies of water and roost in suitable vegetation such as reedbeds. The species is included in the long list of Globally Threatened/Declining species. In Europe the Sand Martin has been identified as a species of European Concern (Category 3) on account of significant declines in populations. Drought conditions in the wintering grounds of the Sahel in the 1970's and 1980's saw large reductions in colony sizes within the Counties. Seven colonies have been recorded in recent years including at artificial Sand Martin walls at Watermead Country Park and Rutland Water nature reserve.

Key habitats

Natural nest sites for Sand Martins are holes excavated in banks and cliffs, particularly along riverbanks. But in Leicestershire and Rutland they are more often associated with man-made excavations such as gravel and sand pits where the faces and spoil heaps provide suitable nesting sites. Artificial Sand Martin banks have also been a success locally, even on sites such as Rutland Water, with no previous record of breeding. Reedbeds provide roosting habitat for Sand Martins and are covered in the Reedbed habitat action plan. Sand Martins feed on invertebrates associated with wetlands and areas of open water, some of which are covered by the Floodplain Wetland, Mesotrophic Lakes and Eutrophic Standing Water plans.

Most important factors affecting species

- Habitat changes in wintering areas
- Loss of suitable nesting banks
- Flood defence and straightening of suitable rivers in the past resulting in the loss of suitable nesting area
- Disturbance to colonies
- Loss of roost sites due to drainage and scrub encroachment
- Loss of feeding sites such as wet meadows, river margins, field ponds and other wetland habitats.

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Violet Helleborine

Action plan objectives

- No loss of Violet Helleborine colonies from any known site

Introduction

The Violet Helleborine *Epipactis purpurata* is an uncommon woodland orchid with a southeastern distribution in Britain and Ireland. It is found especially in beech woods on lime-rich soils, in heavy shade. In Leicestershire and Rutland this plant is at the northern limit of its distribution in the UK and is restricted to ancient woodlands on heavy basic soils. Since 1970 it has only been recorded from eight sites, of which only Great Merrible and Sheet Hedges Woods have populations of more than one or two individuals. The total number of individual plants in the counties is likely to be less than 100.

Key habitats

Ancient woodland with mature stands and heavy shade. Often under Oak *Quercus robur* and Beech *Fagus sylvatica* (where planted on Ancient woodland sites). Although covered by the broadleaved woodland plan many of the aims of that plan are likely to be detrimental to the survival of Violet Helleborine. It is therefore important that management of woodland sites where Violet Helleborine is found, takes into account this species requirement for shade. Activities such as coppicing and felling should be directed to areas well away from colonies of this plant.

Most important factors affecting the species

- Felling and planting of ancient woodlands.
- Restoration of coppicing to ancient woodlands without consideration of the needs of the Violet Helleborine (minimum intervention and long rotation coppicing).

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Water Vole

Action plan objectives

- Maintain the current distribution in order to arrest the decline of the species in Leicestershire and Rutland.

Introduction

The Water Vole *Arvicola terrestris* is found throughout Britain but is confined mainly to lowland areas near water. A national survey in 1989-90, by the Vincent Wildlife Trust, failed to find signs of voles in 67% of sites where they were previously recorded. Once common and widespread in Leicestershire and Rutland until at least the 1970s, this species has suffered a significant decline in number and distribution. In 2002/2003 a survey of Water Voles found only six significant colonies in the two counties. The isolated nature of these colonies means that they are susceptible to extinction as a result of predation or habitat destruction, with little possibility of recolonisation from other populations.

Key habitats

Water Voles favour slow-moving water and canals. Sites should not be subject to large fluctuations in water level, or dry out in summer. Tall marginal and emergent vegetation provide feeding sites. Low scrub vegetation can provide cover but sites shaded by taller shrubs and trees are avoided. Water Voles also require steep, vegetated earth or clay banks in which to make their burrows.



Most important factors affecting species

- Riverside work and flood alleviation schemes.
- Intensive land use, including both arable farming and pasture with high stocking rates, adjacent to water courses
- Predation by American Mink.
- Pollution.
- Fragmentation of the population.

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White-Clawed Crayfish

Action plan objectives

- Maintain the present distribution of White-clawed Crayfish

Introduction

White-clawed Crayfish *Austropotamobius pallipes* is the only species of freshwater crayfish which is native to the UK. It has a wide distribution in the British Isles across lowland England and Wales and in central Ireland, mainly in areas with relatively hard, alkaline water. It occupies a range of habitats, including streams, rivers, lakes, reservoirs and water-filled quarries, with a preference for streams and rivers without too much sediment and with adequate shelter. In Leicestershire, in the Trent catchment, crayfish are found in the headwaters of the Soar and in several of its tributaries, including the Wreake (River Eye SSSI), Twyford Brook, Rothley Brook and particularly the Charnwood streams. They are also present in the (Coalville) Sence and the Sence Brook. There are stillwater populations at Nanpantan and Blackbrook Reservoirs, and in flooded quarries at Stoney Cove and Markfield. In the Environment Agency Anglian Region, there are crayfish populations in the Welland, Chater and Gwash.



Key habitats

The White-clawed Crayfish will benefit from implementation of the Fast-flowing Streams and Eutrophic Standing Water Habitat Action Plans which cover streams, rivers, lakes and reservoirs favoured by this species.

Most important factors affecting species

- Crayfish plague, a disease caused by the fungus *Aphanomyces astaci* which is carried by some North American crayfish including the Signal Crayfish *Pacifastacus leniusculus*.
- Direct competition for food and habitat from non-native crayfish; three non-native crayfish species are now breeding in the wild, and two of these occur in Leicestershire and Rutland.
- Habitat modification and management of waterbodies.
- Pollution, particularly pesticides and sewage.

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Wood Vetch

Action plan objectives

- No further loss of Wood Vetch from known sites

Introduction

The Wood Vetch *Vicia sylvatica* is a widespread but localised species in Britain and Ireland, occurring in open woods and wood borders, scree, scrub, maritime cliffs and shingle. It is rare and declining in the East Midlands. For example, a severe decline has been noted in Lincolnshire due to the planting of conifers in deciduous woodlands, and the plant is now confined to just three sites in that county. Recorded from 11 sites in Leicestershire and Rutland, this plant has been seen recently at Hallaton Wood, in newly felled and planted woodland, and in scrub at Clipsham Old Quarry. It could still occur at Loddington Reddish, Tugby Bushes and Tugby Wood, from where it was last recorded in the 1970s.

Key habitats

Wood Vetch appears to respond to light in woodland and scrub, and shows a strong association with ancient woodland sites (the Clipsham population may originally have colonised from the adjacent Pickworth Great Wood). It will benefit from a number of the actions proposed in the Broadleaved woodland habitat plan.

Most important factors affecting species

- Cessation of traditional coppice woodland management, leading to heavy shading of the herb layer.
- Reduced ride management, also leading to shading.
- Planting of trees producing heavy shade, as has happened at Hallaton Wood.
- Conflict of management objectives resulting in excessive scrub removal at Clipsham Quarry.