

# Norfolk Biodiversity Action Plan

## Barn Owl *Tyto alba*

The Barn Owl is a much loved and charismatic bird, being distinctive with its white heart-shaped face, white underparts and golden-brown upperparts. Although considered a relatively scarce species in the UK it is regarded as an iconic bird of open countryside hunting rough grassland, particularly along the banks of watercourses, field margins and road verges, using its acute hearing to detect its small-mammal prey.

### Habitat needs

The Barn Owl is a sedentary species usually occupying a home range of 3km - 9km during the breeding season. It requires prey-rich rough-grassland habitat over which to hunt where it feeds primarily on small mammals, mainly the Field Vole, as well as other species of vole, mice, shrews and young rats. The habitats favoured by this bird are largely unmanaged permanent or semi-permanent grasslands which possess a tussocky structure and a deep matted blanket of dead grass stems at their base, beneath which voles can nest, move and feed in comparative safety.

### Nesting needs

The Barn Owl nests inside large dark chambers within relatively undisturbed agricultural buildings, derelict cottages, mature hollow trees and occasionally, rock faces. Today, purpose-made nestboxes, owl lofts and owl towers account for about three-quarters of the nest sites used by this species in the UK. The Barn Owl does not construct a nest but usually lays 3 to 7 eggs during late April or May on a bed of shredded pellets, the regurgitated remains of their prey.

The young owls hatch at about two-day intervals each taking about 60 days to fledge. Two broods can be reared in those years when first clutches are laid in early to mid April and Field Voles are abundant. This means that, unlike other wild birds, breeding can occur during any month of the year. Kestrels, Stock Doves and Jackdaws will commonly breed alongside Barn Owls.

### Factors affecting the population in Britain

Until the mid 1990s, the Barn Owl's decline in the UK was largely attributed to a decreasing food supply, caused by the loss of rough grassland habitat from farmland, primarily field margins associated with the banks of ditches, rivers and other watercourses. In particular, the fragmentation of rough-grassland habitat throughout Britain resulted in Barn Owl communities becoming small and isolated, which was the major factor threatening the future viability of this species.

Habitat degradation for this and other forms of wildlife, was largely the result of two main factors, the drive for increased food production resulting in progressively intensive methods of farming, coupled with increased urbanisation.

As part of this drive, the increasing use of agricultural pesticides, such as DDT, in the mid 1990s, and more latterly, second generation anticoagulant rodenticides, whose toxic residues can accumulate in Barn Owl tissues as a result of secondary poisoning, may also have contributed to the Barn Owl's decline.

Urbanisation, which resulted in a rapid expansion of Britain's road network and increased vehicle speeds, now cause very high levels of road mortality in Barn Owls which has been shown to affect the population density of this bird at the local level.



### Population status

Although the Barn Owl is one of the most widespread birds in the world, its numbers crashed throughout much of Europe in the 20<sup>th</sup> century, undergoing a major decline in England and Wales between 1932 and 1985 from an estimated 12,000 to 3,800 breeding pairs. A more recent survey completed in 1997, indicated a similar breeding population of 4,000 pairs suggesting that although numbers remained very low, the decline may have begun to slow.

### Legal protection

The Barn Owl is protected under Section 1 of the WCA 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or intentionally to destroy its nest, eggs or young. The Act affords additional and special protection to the Barn Owl which is listed on Schedule 1, making it unlawful to intentionally or recklessly disturb it whilst preparing to nest or is at the nest with eggs or young or to disturb its dependent young.

Although licences can be issued by the relevant Countryside Agency to disturb breeding Barn Owls, for reasons such as, scientific research or to protect public health or safety there is no licensing provision to permit development-related activities. This places a responsibility on local planning authorities to ensure Barn Owls are adequately protected and that appropriate mitigation is undertaken.

*Rough-grassland margins provided by the banks of watercourses were recognised in 1987 as a vital resource for Barn Owls. The restoration and careful management of these linear grasslands coupled with the installation of nestboxes throughout the counties of Britain offer the opportunity of re-establishing habitat connectivity for this species throughout eastern England.*

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## Conservation Status

The Barn Owl is listed in Appendix II of the Berne Convention and is protected under other European legislation involving wild birds and habitats. Most of the requirements concerning the protection of birds in the UK are included in the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CROW) Act 2000 and the Natural Environment and Rural Communities Act 2006.

The Barn Owl is listed in the UK Biodiversity Steering Group Report as globally threatened being on the list of Species of European Concern, having declined throughout most of its European range. In the UK it is included in *Red Data Birds in Britain*, a book that catalogues those birds which are rare or in danger of extinction and Natural England identified the Barn Owl as High Priority List 2. The species is *Amber Listed* in *Birds of Conservation Concern* on account of a moderate decline of between 25% and 40% over the last 25 years and as a species of European concern.

The Natural Environment and Rural Communities Act 2006 requires public bodies to fulfil their duties to conserve biodiversity, and biodiversity action plans (BAPs) are designed to help achieve this. The Barn Owl features in over 100 LBAPs in England and Wales, and is included as a priority species in the national BAPs of the Highways Agency and regional BAPs of Anglian Water and the Internal Drainage Boards through the Association of Drainage Authorities.



## Conservation Action

Since the Barn Owl Conservation Network-UK and Ireland (BOCN) was founded in Norfolk in 1988 concerted conservation efforts have been made to encourage riparian owners and managers to reduce the intensity of grassland management. These efforts, together with greater public awareness and significant changes in agricultural practice during the last 20 years, which have given emphasis to reducing food surpluses and more latterly to achieve greater farmland biodiversity (assisted by the BOCN and government agri-environment schemes), has been the main factor responsible for restoring the feeding habitats essential to Barn Owls in the UK.

## Relevance to Norfolk

Rough-grassland margins provided by the banks of watercourses, were recognised in 1987 as a vital resource for Barn Owls. Large areas of Norfolk's farmland is drained by a complex network of ditches, drains, rivers and streams. The careful management of the grassy banks of these linear habitats and the provision of regularly-spaced nestboxes, offer the opportunity to re-establish habitat connectivity for Barn Owls and other wildlife, throughout the county.



## Successes past and present

A pioneering initiative by the Barn Owl Conservation Network which began in Norfolk in 1988 and continues to this day throughout the UK and Ireland has resulted in an estimated 4,000 nestboxes having been installed alongside many hundreds of kilometres of favourably managed rivers, drains and drainage channels. Of these about 65% are now used annually by breeding Barn Owls.



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## Barn Owl - Species Action Plan

### Aim

This SAP aims to enhance the species' present distribution and abundance in the county of Norfolk by achieving a sustainable two-fold increase in its numbers by 2020, having regard of the short-term fluctuations in breeding productivity caused by the three-year cyclical fluctuations in Field Vole abundance which occur in the UK.

### Targets

1. Create new and maintain the existing network of interlinked grassland habitats in the county of Norfolk.
2. Provide artificial nesting sites at about 2.5 km intervals on these habitat corridors, having regard for any existing breeding pairs.
3. Disseminate the levels of success that are being achieved.
4. Develop knowledge of Barn Owl distribution and abundance within the county and identify existing Species Recovery Areas.
5. Through the planning system, mitigate the impact of any site development or maintenance works on Barn Owls.
6. Provide advice on the use of rodenticides, road mortality and the ecological survey of Barn Owls.
7. Raise awareness of farmers, landowners and developers about the significance of Barn Owls in Norfolk and their obligations for the conservation of this 'Amber Listed' bird and for its statutory legal protection.

### Actions

1. Adopt or maintain management practices which achieve a rough-tussocky sward to watercourses and on farmland.
2. Instigate a well-structured rolling programme of survey work and nestbox installation/replacement on habitat corridors.
3. Undertake annual monitoring of the nestbox sites to record occupancy levels and breeding success.
4. Identify existing and potential nesting and foraging habitat and include records in an environmental database.
5. Undertake a desk-top and site surveys where Barn Owl habitats might be threatened and implement appropriate mitigation.
6. Disseminate advice about rodenticides, best practice methods for avoiding road mortality and conducting ecological survey.
7. Instigate training for those involved in the management of the banks of rivers, water channels and field margins.

### Indicators for SAP success

1. Length and quality of improved habitat..
2. Number of nestboxes installed.
3. Annual audit of breeding success.
4. Inventory of Barn Owl sites in county.
5. Case study inventory for survey and mitigation involving development projects.
6. Advisory literature produced.
7. Number of training sessions held and advisory publications produced.

### Partners

- Wildlife Conservation Partnership and Barn Owl Conservation Network-UK and Ireland.

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