

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. It is 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. It usually nests in dark chambers within buildings, large cavities in old trees, and purpose-made nestboxes.

Habitat needs

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

Nesting needs

The Barn Owl nests inside large dark chambers within relatively undisturbed agricultural buildings, in derelict cottages, mature hollow trees and occasionally, cliff faces. Today purpose-made nestboxes, owl lofts and owl towers probably account for over two-thirds of the nest sites used by this species in the UK. Barn Owls do not construct nests but usually lay 3 to 7 eggs during 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 years when Field Voles are abundant, which means that breeding can occur during any month of the year. Kestrels, Stock Doves and Jackdaws will commonly breed in nestboxes sometimes sharing them with Barn Owls.

Factors affecting the population in Britain

Until the mid 1990s, the Barn Owl's decline was largely attributed to a decrease in its food supply, largely caused by the loss of rough grassland habitat from areas of low-lying 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, 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 1900s, 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, cause high levels of road mortality in Barn Owls and 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 20th 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, that 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 their 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 which include, site maintenance or land management works.

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 offer the opportunity of re-establishing habitat connectivity for this species throughout large regions of England and Wales.

The Association of Drainage Authorities

recognise that Internal Drainage Boards have a key role to play in helping to conserve the Barn Owl in Britain.

The Association of Drainage Authorities

Species Action Plan for incorporation within Internal Drainage Board BAPs

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Conservation Status

The Barn Owl is listed in Annexes II and IV of the EC Habitats Directive, Appendix 1 of the Berne Convention and is protected under Schedule 2 of the Conservation (Natural Habitats) Regulations 1994. Most of the requirements of the above regulations concerning birds 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* 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 BAP of Anglian Water.



Conservation Action

Since 1990 concerted conservation efforts have been made by the Wildlife Conservation Partnership (WCP) 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 (supported by government agri-environment schemes), have been the main factors in helping to restore the feeding habitats essential to Barn Owls in the UK.

As the amount of foraging habitat has slowly increased, potential nesting and roosting opportunities for Barn Owls have continued to decline as traditional farm buildings are lost to decay or conversion and large hollow trees have died due to Dutch Elm disease or are felled for reasons of public health and safety.

Relevance to IDBs

Rough-grassland margins provided by the banks of watercourses, were recognised in 1987 as a vital resource for Barn Owls. The restoration of these linear habitats, therefore, offered the opportunity to re-establish habitat connectivity throughout large regions of the country.

As such, ADA recognises IDBs and other bodies responsible for water management in Britain, recognised that they had a key role to play in helping to restore the population of Barn Owls.



Successes past and present

A pioneering initiative by the Wildlife Conservation Partnership to conserve the Barn Owl has been underway in association with Internal Drainage Boards and other bodies since 1987 with large numbers of nestboxes now having been installed in Britain next to many hundreds of kilometres of favourably managed drainage banks.

An audit of success is provided annually by the Wildlife Conservation Partnership to each of the Boards involved in this creative initiative.



Barn Owl - Species Action Plan

Aim

The aim of the Drainage Board SAP for the Barn Owl is to enhance the species' present range and population by achieving a sustainable three-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

- Create and manage a network of rough, tussocky grassland habitat corridors within the IDB district.
- Provide artificial nesting sites on these habitat corridors, having regard for existing breeding pairs.
- Disseminate the levels of success that are being achieved.
- Develop a knowledge of Barn Owl distribution and abundance within the district.
- Mitigate the impact of any site development or maintenance works on Barn Owls.
- Raise awareness of Board staff, managing agents and contractors about the significance of Barn Owls in the IDB district, their obligations for the conservation of this 'Amber Listed' bird and for its statutory legal protection.

Actions

- Adopt mowing practices which maintain a minimum sward height of 150 mm to channel banks.
Cut alternate banks on a rotational basis every second or third year to maintain a rank tussocky sward to one bank.
- Instigate a well-structured rolling programme of survey and nestbox installation spaced at 2 km intervals on the network.
- Undertake annual monitoring of nestboxes and record occupancy and breeding success.
- Identify existing and potential nesting and foraging habitat and include records in an environmental database.
- Undertake a desk-top and site assessment where Barn Owl habitats might be threatened and implement conservation action.
- Instigate training for Board members, staff and contractors involved in the management of water channels.

Partners

- Wildlife Conservation Partnership.

Date

- Annually to 2020
- Annually to 2020
- Annually to 2020
- Annual audit.
- Annually
- 2011

Indicators

- Length and quality of improved habitat.
- Number of nestboxes installed.
- Annual audit of success.
- Inventory of breeding sites in district.
- Monitoring and recording the success of mitigation work.
- Training sessions held and advisory publications produced.

Species Action Plan prepared by: **Colin Shawyer and Bob Sheppard of the Wildlife Conservation Partnership** for incorporation into Local Drainage Board BAPs. August 2009. colinshawyer@aol.com Tel: 01582 832182

SAP SUMMARY: Barn Owl - Targets, Actions and Indicators

Prepared by: Colin Shawyer and Bob Sheppard - WCP August 2009

Target Reference	Target	Action Reference	IDB Action	Partners	Date	Indicators	Reporting
BO1.1	Create an unbroken network of rough, tussocky grassland habitat corridors within the IDB district.		Adopt mowing practices which maintain a minimum sward height of 150 mm to channel banks.	Wildlife Conservation Partnership	Annually to 2020	Length and quality of improved habitat.	Provide illustrated management guidelines
BO1.2			Cut alternate banks on a rotational basis every second or third year to maintain a rank tussocky sward to one bank.	Wildlife Conservation Partnership			
BO2	Provide artificial nesting sites on these habitat corridors, having regard for existing breeding pairs.		Instigate a well-structured rolling programme of survey and nestbox installation spaced at 2 km intervals on the network.	Wildlife Conservation Partnership	Annually to 2020	Number of nestboxes installed.	Report in year of completion and in five-yearly report Report in an annual monitoring and maintenance report
BO3	Disseminate the levels of success that are being achieved.		Undertake annual monitoring of nestboxes to determine occupancy and breeding success.	Wildlife Conservation Partnership	Annual audit.		
BO4	Develop a knowledge of Barn Owl distribution and abundance within the district.		Identify existing and potential nesting and foraging habitat and include records in an environmental database.	Wildlife Conservation Partnership	Annually to 2020	Inventory of breeding sites in district.	
BO5	Mitigate the impact of any site development or maintenance works on Barn Owls.		Undertake a desk-top study and site assessment where Barn Owl habitats might be threatened and implement conservation action.	Wildlife Conservation Partnership	Annually	Monitoring and recording the success of mitigation work.	Provide report of mitigation works completed
BO6	Raise awareness of Board staff, managing agents and contractors about the significance of Barn Owls in the IDB district, their obligations for the conservation of this 'Amber Listed' species and the statutory legal requirement for its special protection.		Instigate training for Board members, staff and contractors.	Wildlife Conservation Partnership	2011	Training sessions held and advisory publications produced.	Provide leaflet