

## **Barn Owl (*Tyto alba*)**

[Image to be inserted later]

A ghostly white shape flitting through the car headlights is the most common view of this charismatic owl. Unfortunately this habit of hunting along roadside verges often results in fatal traffic accidents, and this has exacerbated the more substantial impacts of habitat loss and destruction of nest sites, resulting in a reduced population locally and nationally.

Barn Owls are nocturnal, but are sometimes seen hunting in daylight, when there are young to feed in the nest, or in the depths of winter when food is scarce. They are highly sedentary, and pairs are very faithful to nest sites. They range over about three square kilometres, and mainly hunt within one kilometre of the nest.

They do not construct a nest, and eggs are usually laid in large hollow trees or in farm outbuildings. The first clutch, usually 4 – 7 eggs, is usually laid in April or May. The incubation period is around 31 days. Both parents feed the chicks, which fledge after 10 weeks, and become independent after about 14 weeks. Pairs will relay if the first clutch fails, and some raise two broods, so there may still be chicks in some nests in late autumn, although most young will have dispersed from the breeding site by then.

Barn Owls are popular, partly because of their appearance, and partly because they control pests such as rats and mice. The steep population decline has been attributed to a number of factors but mainly:

- The loss of prey-rich foraging habitat on farmland
- A reduction in the availability of nest sites in old hedgerow and field trees and barns
- Urbanisation, pesticides and road casualties

### **1 Objectives and Targets**

#### **1.1 Objectives**

- A. In the short term, maintain existing populations and range of Barn Owl in Shropshire.
- B. In the longer term, reverse the decline in the Barn Owl population, and restore its previous population and range
- C. Establish and maintain a comprehensive understanding of the distribution, status and ecological requirements of Barn Owls in Shropshire through research, survey and monitoring.
- D. Promote communication, education and awareness of the status and needs of Barn Owls

#### **1.2 Targets**

- Increase the population above the 1985-90 estimate of 140 pairs, to 160 breeding pairs, by 2010
- Increase the population to 180 pairs by 2015
- Restore the range to the 1985-90 figure of 166 Occupied Tetrads by 2015

## **2 Current Status**

### **2.1 Importance**

Barn Owl receives the maximum protection available to birds in Britain through its listing on Schedule I of the Wildlife and Countryside Act 1981.

This is one of 20 specified species of farmland birds included by the Government in its “Quality of Life” indicators, and restoring their populations is a Defra target in its PSA agreement with the Treasury.

### **2.2 Trends**

Nationally, the Barn Owl population fell from an estimated 12,000 pairs in 1932 to around 4,000 pairs in the early 1980s. This loss has continued, and they have suffered a decline of between 25 and 50% in their breeding range in Britain in the 25 years up until 2001. In Shropshire the population has declined from an estimated 287 pairs in 1932 to around 140 pairs at the time of *The Atlas* (1992), and an estimated 121-140 pairs in 2002. It is now only half that found by the 1932 survey.

### **2.3 Population and Distribution**

The Shropshire Breeding Bird Atlas showed that the population of around 140 breeding pairs was widely but thinly distributed across the county, mainly in river valleys.

## **3 Current Factors Affecting the Species**

In spite of its adaptability, the population declined substantially during the 20<sup>th</sup> Century, due mainly to agricultural intensification, which removed much of its primary habitat – rough permanent tussocky grassland where it can forage for its prey (primarily field voles, wood mice and shrews, although rats and other mice are also taken), and mature hedgerow and in-field trees, which were important nesting sites. This has been exacerbated by the loss of other nest sites, mainly through decay, demolition, enclosure or conversion of old farm buildings.

## **4 Current Action**

### **4.1 Policy and Protection**

- Barn owl is on Schedule I of the Wildlife and Countryside Act 1981 under which it is an offence to take, injure or kill any wild barn owl, take or destroy an egg or damage a nest whilst it is in use or recklessly disturb the species whilst it is nesting. Disturbance may be deemed reckless if it is committed by someone who could be expected to know that the birds might be present but failed to check.
- Barn Owl is on the *Amber List* in the *Population Status of Birds in the UK – Birds of Conservation Concern: 2002-2007*.
- Barn Owl is one of 20 species on Defra’s Farmland Bird Index. Defra is committed to reversing the long term decline in these species, as part of its Public Service Agreement with the Treasury. Annual monitoring reports are published by Defra.

- Barn Owl is a Target Species in all five of the Joint Character Assessment (JCA) targeting statements which together cover Shropshire and which set the priorities for the Defra / RDS Environmental Stewardship. They provide guidance on the land management options that should be included in ES applications

#### **4.2 Management, Survey and Research**

- Each pair needs around four hectares (10 acres) of permanent rank or ungrazed, tussocky, grassland or 8 - 15 kilometres of 3 - 5 metre wide grassy margins to support their main small mammal prey - field voles. A thick sward of 20-40cm and a deep litter layer is essential. Conservation action on farmland to encourage Barn Owls should therefore aim to create this area of habitat through grass field margins and headlands, together with ungrazed pasture, as well as ensuring that decaying hedgerow trees with holes and cavities to provide nest sites are retained.
- The Environmental Stewardship Entry Level and Higher Level schemes, and the Countryside Stewardship Scheme, all encourage creation and maintenance of suitable habitat. ES can provide nest boxes.
- Wherever possible, retain old barns and stock shelters, or where they are to be developed, consider incorporating a loft space for breeding barn owls.
- If rodent control is unavoidable, less toxic first generation rodenticides such as warfarin should be used, rather than the more toxic second generation brodifacoum.
- The Shropshire Barn Owl Group is combating the loss of nest sites with a nest box scheme, and promoting conservation through advice to farmers and statutory authorities on protection and restoration of habitat. Nest boxes are most likely to be used, and help increase the population, if they are put near to existing Barn Owl territories and good foraging areas. A total of 176 nest boxes had been installed by the end of 2005.
- The Upper Onny Wildlife Group, and the Shropshire Hills AONB Team are now assisting this work.

### **5 Key Habitats**

- Permanent rough tussocky grassland for feeding
- Open farm buildings and mature isolated trees for nest sites

### **6 Complementary Plans**

Habitat / Species	Action No.	Action Code	Action text	Location of action	Start Date
	1	1.2	Co-ordinate Implementation of Action Plan	Shropshire	2006
	2	12.15, 13.4	Install nest boxes and monitor usage	Upper Onny area (30 tetrads)	2006
	3	12.15, 13.4	Install nest boxes and monitor usage	Clun ESA	2006
	4	12.15, 13.4	Install nest boxes and monitor usage	Shropshire	2006
	5	2.11	Visit and advise farmers with suitable or potential breeding habitat	Shropshire	2006
	6	4.1	Require provision of a Barn Owl nest box / site within the design of every new & refurbished building which replaces an old farm building funded through any Agri-environment schemes, or that one is installed nearby, where such buildings are close to good habitat (and a survey is carried out to ascertain this, in consultation with SBOG)	Shropshire	2006
	7		Encourage erection of pairs of barn owl nest boxes through all Environmental Stewardship agreements which feature significant lengths of appropriate field margin options	Shropshire	2006
	8	9.8, 12.15	Encourage all Planning Authorities to require, as a condition of Planning Permission, that a Barn Owl nest box / site is incorporated into the design of every new & refurbished building which replaces an old farm building, or that one is installed nearby where such buildings are close to good habitat (and a survey is carried out to ascertain this, in consultation with SBOG)	Shropshire	2006
	9	13.4	Monitor population, population change and breeding success at all breeding sites	Shropshire	2006
	10	4.11	Seek the necessary resources to implement Action Nos 2 - 5, & 9	Shropshire	2006

N.B. These Actions are specific to this species. In addition the "Actions For All Bird Species", listed in a separate Table of Actions, have to be undertaken for this species

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