

BARN OWL SPECIES ACTION PLAN

SPECIES PROFILE

Common Name: Barn owl.

Scientific name: *Tyto alba*.

UK Biodiversity Status: Conservation concern.

Relevant Priority Habitats: Lowland and Upland Meadows and Cereal Field Margins.

Statutory Protection: Special protection under Schedule I and Schedule 9 of the Wildlife and Countryside Act 1981. It is therefore an offence to injure, kill or capture the bird, to disturb nesting birds, to take eggs, and release captive owls into the wild without a licence.

BIODIVERSITY CONTEXT

There has been a steady decline in barn owl numbers over the last century throughout Europe. The situation in the UK is similar where the population has plummeted from a 1932 estimate by the Hawk Trust (now the Hawk and Owl Trust) of over 12,000 pairs (for England and Wales) to a figure of only 4,457 pairs for the whole of UK in 1982. The number of breeding pairs in Scotland at that time was thought to be 640. In 2001, there were 21 confirmed breeding pairs of barn owls in the Stirling Council Area, with the confirmed breeding population increasing every year since 1991. This increase has been largely due to the work done by Forest Enterprise.

OBJECTIVES

Objective 1 Improve the breeding success of barn owls in the Stirling Council area.

Target: To increase the number of confirmed breeding pairs (currently 21) to 60 pairs by 2010.

Objective 2 Create new nest sites by erecting artificial nestboxes

Target: To encourage farmers and other interested rural landowners to erect and maintain 400 new nestboxes (50 per year) by 2010.

Objective 3 To achieve a more accurate assessment of the breeding population of barn owls in the Stirling Council area.

Target: To encourage the public to report all known breeding attempts to one licenced recorder.

Objective 4 To raise the profile of the barn owl in the Stirling Council area.

Target: Organise talks, training courses and literature about barn owls and their requirements.

CURRENT STATUS AND DISTRIBUTION

An assessment of the status in 1980 suggested that the barn owl was a regular but very scarce breeder in Central Region. It is found principally on the rich agricultural ground of the Carse-land from

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Gartmore to Stirling, and in the Endrick and Blane Valleys, and absent on ground over 150 metres in elevation. (C.J.Henty, D.Merrie, J. Mitchell, H.Robb)

In 1991 all the recorded barn owl nest sites in Stirling Council Area were checked, to find only 4 traditional sites in old buildings still in use. In the same year Forest Enterprise started erecting nestboxes on their land and encouraged other landowners to do likewise.

By 2002 there were 150 plus nestboxes in place, and the population has increased encouragingly to 8 pairs in traditional sites and 13 pairs using nestboxes. All bar one of these nest sites are south of the highland boundary fault, with the main concentrations in the Endrick catchment, Flanders Moss, Doune/Dunblane area and spreading onto the Carse.

There are no historical records of barn owl numbers, but they will have reduced dramatically over the last century due to changes in land use and management, resulting in loss of suitable habitat and traditional nest sites.

ETYMOLOGY, CULTUR AND FOLKLORE

The Latin name for barn owl is *Tyto alba*. *Tyto* from the Greek word *Tuto* imitative of the barn owl's call. *Alba* meaning white, this refers to the white breast of the barn owl.

The unfortunate barn owl was considered to be a bad omen. Probably because it is a bird of the night and darkness, and as both night and darkness are associated with death and magic. It was called every kind of name, eg "bird of hate", "harbinger of doom", "herald of disaster", "foul bird of omen" and many more.

Over 2,000 years ago Ovid wrote in his *Metamorphoses*

*Ill-omen 'd in his form, the unlucky fowl,
Abhorr 'd by men, and called a screeching owl.*

Later in 1805, William Wordsworth wrote in his poem *The Waggoner* :

*Yon owl! -pray God that all will be well!
Tis worse than any funeral bell,
As sure as I've the gift of sight,
We shall be meeting ghosts tonight 1*

ECOLOGY AND MANAGEMENT

Barn owls are only successful in low lying areas up to an elevation of 200 metres. The best habitats for barn owls are rough unimproved grassland or moorland, lightly grazed pasture or "set-aside". Its main prey item is the field vole, which comprises 90% of its diet and is most abundant in the shelter of the long vegetation found on these sites. Heavily grazed pastures and cultivated fields do not provide this niche for voles. However, most farms can with thought provide suitable habitat. One breeding pair of owls requires only 12 kilometres of linear ungrazed grassland within 1.5 kilometres of the nest site. The banks of watercourses, hedges, field margins, tracks, forest edges and forest rides all provide suitable linear habitats.

Traditionally barn owls nest in old buildings, chimneys, haystacks, hollow trees and holes in cliffs. Nesting materials are used, with 4-8 unglossed white eggs laid amongst pellets in April to early May.

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Mature birds start incubation early, with first time birds starting later. In good vole years, barn owls will fledge more young and occasionally have two broods. Vole populations are cyclical, varying from very low numbers in the first year, building up to high numbers in the 3rd or 4th year when the population suddenly crashes.

FACTORS CAUSING LOSS OR DECLINE AND FUTURE THREATS

The main cause of the decline in numbers of barn owl has been the change in farming practices to more intensive arable and livestock grazing over the last century resulting in the loss of suitable habitat. The creation of bigger fields for easier management has resulted in the removal of important linear habitats such as hedges, ditches and fences and the all important grassy margins that are essential for the survival of the barn owl. Low lying habitats have also been lost to forestry in the past.

Further losses are caused by:

- Improvements to buildings and the demolition of those that are unsafe result in the loss of nest sites.
- Old hollow trees either blown down or cut down because they are considered dangerous –result in the loss of nest sites.
- The extensive use of herbicides eradicating weeds and the necessary shelter they provide for voles.
- Unsafe use of pesticides, this kills rodents but also the animals and birds that feed on their remains.
- Road casualties are considerable and largely unavoidable. However research by Dr.I.Taylor found that most casualties were under weight, starving and would probably have died anyway.

Future threats:

The greatest threats are the restoration of old buildings in rural areas, and the losses of veteran trees by wind and felling for safety reasons. Both result in the potential loss of breeding sites. There will be further losses to building developments and new roads.

OPPORTUNITIES AND CURRENT ACTION

- Forest Enterprise will continue with their long term barn owl nest box scheme with well in excess of 100 boxes in the Queen Elizabeth Forest Park area. The population has increased annually providing a nucleus of birds that are seeking new territories in the wider Stirling Council Area.
- Second rotation forestry is now creating ideal habitat with new clearfelled areas and young pre-thicket forests, with unplanted rides, tracks, roads, watercourses and forest edges, all long term ungrazed grassland supporting high numbers of field voles.
- Set-aside can also provide suitable hunting grounds for barn owls.
- Agri-environment scheme prescriptions such as management of species-rich grassland, management of water margin, management of grass margin, management of extended hedge and unharvested crops under the Rural Stewardship Scheme can also benefit barn owls.
- Planting small farm woodlands, hedgerow or boundary trees provide potential roosting and nesting sites.
- Farmers and landowners can be encouraged to erect owl boxes in areas of suitable habitat. When erected in unsuitable areas they will attract the wrong species, such as pigeons, jackdaws, grey squirrels, tawny owls and others.

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- Planning authorities should encourage farmers to build an accessible nest site into new farm buildings when they are first constructed.
- Finally monitoring population trends and the achievements of our LBAP targets are difficult. It is important that all nest sites are reported to one licenced recorder - otherwise the complete picture is lost. Mike Steward the Conservation Forester for Forest Enterprise and based at Aberfoyle will record this information and treat each site confidentially.

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