



Barn Owl

Tyto Alba

UK List of Priority Species:

No

Schedule 1 Species, under the Wildlife and Countryside Act 1981 (additional protection during the breeding season, as does their nest, eggs and dependent young)

Scottish Biodiversity List:

Yes

Birds of Conservation Concern UK (2020)

Green

European Status:

Species of European concern

Summary

There are regular sightings of Barn owls in North Lanarkshire, and we are beginning to make progress towards attaining a better idea of their numbers. The main limiting factor for breeding is down to the lack of suitable nest sites that are available to them. There is a substantial amount of suitable hunting habitat, within North Lanarkshire, for the population of the species to be higher. We aim to further our work in partnership with landowners and farmers to erect, or install, nest boxes in areas of good barn owl habitat.

A steady decline over most of Europe in Barn owl numbers during the 20th century has accelerated to such a degree that the current UK population is estimated to be around 4000 breeding pairs, from a 1950 estimate of 7000. Scotland's Barn owl numbers have reflected this decline. Even so the UK population is probably the third largest in Europe. The barn owl is found in the Americas, Africa, India, Southeast Asia, and Australia, none of the populations here have suffered the marked declines of the European population.

The UK Biodiversity Group recognises the Barn owl as a "Species of Conservation Concern". The Red Data Book for birds now lists them at the "green" level, recovering gradually and, with much needed conservation work, promoting itself upwards from "amber". This still means that they are of medium conservation concern. The criteria for green listing of the barn owl means that they are recovering from being classed as: moderate (25-49%) decline in UK breeding population or range over the previous 25 years; they continue to be classed as a species with an unfavorable conservation status in Europe.

Species Profile

Scottish Barn owls live almost entirely within grasslands, farmlands, and open forests, particularly forest, or woodland edge. Their diet consists almost wholly of small mammals associated with these habitats, such as voles, shrews, mice, and juvenile rats, with 90% of prey, normally, taken within a 1km radius of the nest site. Areas of moist, moderately long grassland are especially important for foraging, as is unmanaged ground below, and alongside, hedgerows. The natural provision of woodland belts for shelter and hunting perches also assists this species



Their feathers are specially structured for silent flight, and by using their extremely sensitive hearing, barn owls can pick out and swoop noiselessly on prey. Although they can see perfectly well in daylight, they tend to hunt at night, the main reasons for this being that it reduces competition, chances of predation and/or getting mobbed by other bird species, crows being an example of this.

Suitable roosting and natural nesting sites can be holes in trees and rock faces, and derelict buildings such as farm buildings, church towers and old chimneys. Sites, such as these, with appropriate space for barn owls, are becoming less common. Artificial nest sites have an important role to play in the conservation and enhancement of breeding populations of Barn owls. Artificial nest sites should be placed in areas of prime, or good quality habitat. Barn owls are not selective when choosing a nest box and will occupy boxes in areas where there is poor foraging habitat; this could possibly lead to the Barn owl being unable to feed its young (owlets), and ultimately failure of the brood. Therefore, it's very important that nest boxes are sited in areas of good foraging habitat.

Barn owl hunting ground includes a mixture of the following habitats:

- rough grassland, supporting a high field vole population
- damp, tussocky grassland in fallow or lightly grazed pasture
- weedy field margins
- hedgerows with rough margins
- woodland edge
- stubble fields
- drainage ditches
- farm grounds
- roadside/motorway verges

Research funded by Barn Owl Trust (BOT) has produced estimates of the quantity of rough grass habitat required by British Barn owls in different landscape types.

In arable landscapes, it is estimated that Barn owls require about 35 km of rough grass field margin within 2 km of a suitable nest site.

In pastoral landscapes, it is estimated that Barn owls require about 78 km of rough grass field margin within 2 km of a suitable nest site.

In pastoral landscapes Barn owls require between 31 and 47 ha of rough grassland within 2 km of a nest site.

In mixed landscapes it is estimate that Barn owls require about 43 km of grassy margin within 2 km of a suitable nest site.

Research has also shown that on all types of site Field voles require the margins to be greater than 4 meters wide, and ideally around 6 meters wide.

Indoor nest sites should be, preferably, dry and warm to prevent the fatal chilling of owlets in wet weather. Boxes that are erected outdoors should be made sturdy and waterproof. These should, ideally, be positioned high on a mature tree within the Barn



owl's territory. Outdoor competitors for nest sites are Grey squirrels, Jackdaws, Tawny owls, Pine martens, Stock doves, Goosanders, and Kestrels in natural sites. A major factor influencing Barn owl population levels is the number of voles in any particular year, as vole population levels are cyclical, peaking approximately every 3 years.

Barn owls usually produce between 4-8 eggs, laid at intervals of 2 days. This gives a staggered hatch, with the first hatchling being as much as 2 weeks older than the last. In poor prey years, the youngest chicks are unlikely to fledge. On the other end of the spectrum, in a particularly good "vole year" barn owls can lay twice and rear two broods.

Legal Protection

The Barn owl is on Schedule 1 of both the Wildlife and Countryside Act 1981 and the Wildlife (Northern Ireland) Order, 1985: therefore, the birds, their eggs and young are fully protected, at all times, throughout the UK. It is therefore illegal to release barn owls into the wild, in Britain, without a license.

Current Status

Barn owls are now breeding in a large percentage of suitable areas within North Lanarkshire. The population has increased since we were mainly seeing them around Coatbridge, Cumbernauld, and the Kelvin Valley. We are coming across them more now in areas to our east, like Harthill and Shotts. Within the last 10 years, we have dealt with several Barn owl road kills on the M73 and A73 close to Cumbernauld and, more recently, along the A8/M8 at Eurocentral, where we have had an injured adult rescued from here that recovered and was later released. Barn owl sightings are now on the increase throughout our council area, with our Countryside Rangers receiving data from landowners, local naturalists, and the public in general. Additional data is collated with records from surveys associated with the planning process, development projects and external partners.

The previous Barn Owl Species Action Plan was a success with all actions being met with progress achieved.

As part of the previous 2014-2020 North Lanarkshire Biodiversity Action Plan, another 20 boxes were made and erected in areas of suitable habitat. From these 20 new boxes, some older boxes, that were no longer suitable, or damaged, were replaced. Some boxes are replenished on site. All these boxes, and also other natural sites, are monitored, within guidance, and on a regular basis by the Countryside Ranger Service and Central Scotland Raptor Study Group. The monitoring results are collated and managed by the Countryside Rangers and forwarded to the Biodiversity Team, who then input them in to a GIS layer and associated database so that their location is easily accessed for reference when providing comment on planning applications and projects. From our boxes we now have records of 12 breeding pairs over the last 6 years, these records are from Newhouse, Newarthill, Moodiesburn, Kilsyth Hills, Eurocentral, Kingshill, Overtown, Luggiebank, Morningside, Auchinloch and Chryston and Cumbernauld.

As previously stated, we also keep records of Barn owls breeding in NL that are not in any of our boxes but are still a valuable part of our project.



Future Status

As it seems that the availability of nest sites is the factor limiting the Barn owl population locally, increasing the number of suitable nest sites should lead to an increase in the population. A nest box scheme in Stirlingshire has helped raise the population, of monitored breeding Barn owl pairs, from 4 pairs in 1991 to 47 pairs in 2018.

Continued expansion of urban areas into surrounding farmland will reduce potential feeding areas but this can be mitigated to an extent by the creation and suitable management of Greenspace within these urban areas, and the maintenance of habitat corridors. The population of Barn owls is low at the moment, so this will only become an issue when all available habitats are occupied, and expansion of the population is limited by the lack of suitable habitat.

Pine martin are now recorded in North Lanarkshire, mainly in the Cumbernauld/Palacerigg area. The location of Barn owl boxes should be taken into consideration whenever there is any records of Pine marten in that area, or if there are any provisions made for them at these locations.

Current Factors Affecting This Species

The main factor affecting this species is lack of suitable nest sites caused by the demolition or refurbishment of farm steadings, and old trees either blowing down or being felled for safety reasons.

Other minor factors

- Vermin proof grain storage has lessened the availability of prey around farmyards.
- Land take for new roads, factories and housing schemes has reduced and fragmented suitable grassland habitats around urban areas.
- Secondary poisoning due to the use of toxic rodenticides.
- Barn owls hunting along road verges and railway lines can be killed.
- Egg, owlet thieves, falconers, or illegal breeders.

Current Action

- The construction and distribution of 12 boxes taken forward by North Lanarkshire Biodiversity Partnership since 2020.
- Landowners with boxes have agreed to record use of the boxes by species.
- A fully licensed Countryside Ranger and qualified ringer has been monitoring boxes, liaising with landowners and ringing any Barn owlets that are accessible.
- Pest control firms are currently advised to take into account the risk to fauna when carrying out their work. Increasingly rodenticides less toxic to birds are used and dead rodents are quickly removed.
- Barn owl requirements Incorporated within the North Lanarkshire Local Plan design guidance notes information to encourage the construction of artificial barn owl nest boxes in proposed developments or conversions of rural or agricultural buildings. More detailed guidance and training for Planners would help reinforce this.
- CSFT Barn owl leaflet and information produced to increase records.



Proposed Objectives, Targets and Actions.

Objectives

1. Increase, stabilize and maintain, the number of breeding Barn owls in North Lanarkshire.
2. Improve, monitor and increase barn owl habitat.

Actions	Meets objective number	Action by	Target
Policy and legislation			
1.1 Incorporate within updated Local Plan design guidance notes information to encourage the construction of artificial barn owl nest boxes in proposed developments or conversions of rural or agricultural buildings.	1	NLC	Advice and information included in design guidance when reviewed.
Habitat management and protection			
2.1 Work with farmers and land managers to manage and enhance barn owl habitat, through increasing the extent of grass margins and conservation headlands.	1,2	NLC, SWT, RSPB	6 management schemes, which include habitat improvement for barn owls, implemented by end of 2027.
2.2 Assess current distribution of barn owl boxes and determine if more are needed.	1	NLC, RSPB.	Develop a barn owl box strategy (BOBS) 2024
2.3 Replace boxes	1	NLC, RSPB	Annually as determined by the BOBS.
Survey research and monitoring			
3.1 Monitor barn owl boxes	1,2	NLC, CSRSG	Boxes monitored annually by Countryside Ranger Service and Central Scotland Raptor Study Group.
Communication and awareness raising			
4.1 Appeal for sightings of barn owls.	1,2	NLC, SOC, RSPB	Social Media campaign launched by 2024.

Plan updated by Jackie Gilliland (NLC Countryside Ranger), Laura McCrorie Conservation and Biodiversity Manager, and Scott Shanks RSPB 2022