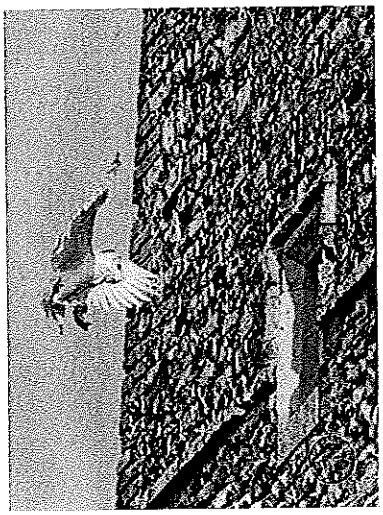
Barn Owl roosting and nesting places

Where do Barn Owls live?

Barn Owls don't only live in barns! Historically they lived in many different types of rural buildings and tree hollows. These days they mainly roost and nest in:

- Nestboxes in modern agricultural buildings.
- Nestboxes on isolated or hedgerow trees.
- Nestboxes on poles.
- Old barns.
- Hollow trees and cavities.
- Converted barns with built-in provision.



Historically, a significant proportion of nests were in church towers. This is still the case in other parts of Europe.

...and to a lesser extent in old churches, castles, dovecotes, derelict cottages, chapels, chimneys, bridges, walls, sea cliffs, quarry faces, mine buildings, mine shafts, disused factories, bunkers, observation towers, and water towers. Basically they will use anything that provides what they need: somewhere that gives them shelter from rain and wind and where they 'feel safe'. Unless the site is *extremely* isolated, Barn Owls generally roost and nest at least 3 metres above ground level.

Roosting Barn Owls seem to prefer perching on wood (such as roof timbers in an old barn), hay/straw, or stone (such as a wall-top) rather than metal. However, nests are sometimes found in the bottom of disused metal water tanks. Although individuals can learn to tolerate virtually anything, they do like to remain out of sight, at least initially.

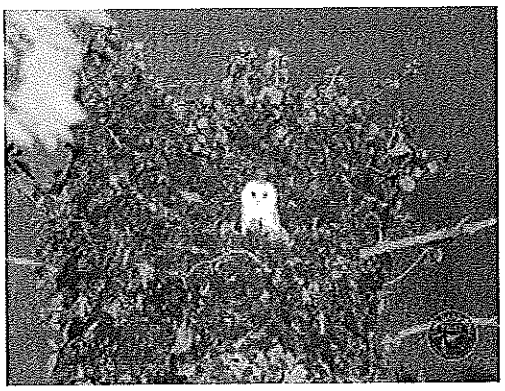


Roosting in warm straw bales helps conserve energy, especially in winter.

Barn Owls do not build a nest so they need a level or concave surface on which to lay their eggs – most often in the bottom of a cavity (such as a tree hollow or nestbox) or on a wide ledge (such as a flat wall-top or the upper floor in a church tower). Again, this is usually elevated and hidden.

What did Barn Owls live in before there were barns?

The answer must be tree hollows and rock crevices and, in some areas, natural sites like these are still used today. Farming in Britain started around 3,500 BC and as soon as haystacks, animal shelters and houses were created Barn Owls almost certainly moved in. Indeed, the remains of Barn Owls have been discovered during the excavation of several ancient human settlements including the iron age village of Glastonbury (Somerset) and a Roman site at Woodcutts, Cranbourne Chase, Dorset.



There used to be plenty of hollow Elm trunks in the countryside. This particular one was a nest site until it fell down in 1993.

The loss of Barn Owl nest sites

In Britain, the vast majority of Barn Owl roost/nest sites used to be agricultural buildings, particularly old stone, cob, or brick-built barns and stock sheds. However, due to changes in farming practices most of the traditional farm buildings that existed in the 1800s have long since gone. Most of those that exist today are in terminal decay or undergoing conversion to some other use.

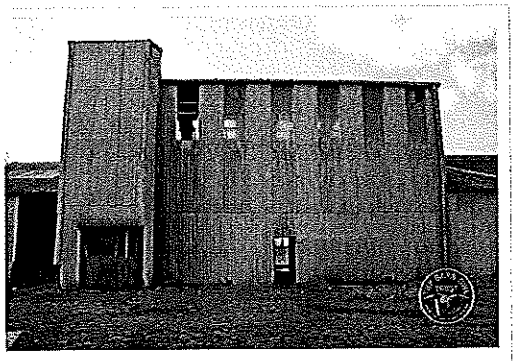


Many old barns have long since disappeared.

Barn Owls have absolutely no sense of architecture!

To a Barn Owl, an ugly steel shed surrounded by concrete can be just as attractive as a lovely old stone barn surrounded by wildflowers. Although the majority of recorded nest sites are now in purpose-made nestboxes, Barn Owls still use a very wide variety of site-types and there is enormous variation in their suitability. Not every old barn is a potential nest site and even some purpose-made Barn Owl nestboxes are far from ideal!

About poor nestbox design.



This disused rubber factory in Shropshire is a Barn Owl nest site.

Suitability and availability of nesting places for Barn Owls – facts and figures

To use any site, the owl has to be able to get in, but the absolute minimum hole size required is only 70 x 70mm. The minimum width of a nest ledge is around 250mm and the minimum floor area of a nest cavity is about 300mm x 300mm. If you are thinking of creating a **suitable access hole, nestbox**, or **built-in space for nesting** please don't use these minimum figures as a guide!

Our **Barn Conversion Research Project** (carried out in SW England) quantified the number, type, suitability, and rate of loss of potential Barn Owl sites.

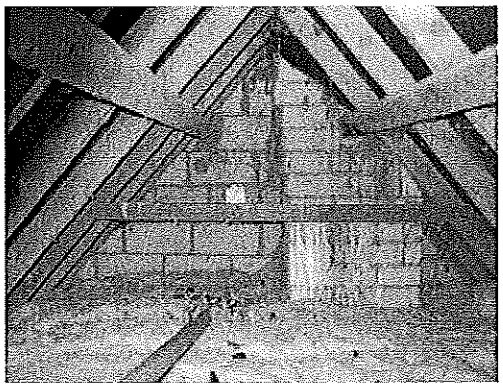
- 48% of traditional farm buildings were suitable for Barn Owls to nest in but...
- Only 4% of *modern* farm buildings had a potential nest-place (unless a nestbox was provided).
- 76% of traditional farm buildings were suitable for Barn Owls to roost in but...

- Only 41% of *modern* farm buildings were suitable for roosting in.
- Only 2% of all potential nest places were tree hollows.

In the UK, the types of sites used by Barn Owls for nesting show a clear east-west difference. In the western half of Britain the vast majority of recorded nest sites are buildings whereas in some eastern areas about 70% of sites are tree hollows. Our research in SW England suggested that there was no positive selection – that the type of sites used by the birds was simply a reflection of the types of sites available to them. This disproved the idea that Barn Owls in the west select buildings rather than trees because of the higher rainfall in western areas and extra shelter they provide. Scientific research in SW Scotland by Dr. Iain Taylor later supported our view.

Barn Owls and their proximity to humans

We also investigated whether or not Barn Owls positively selected isolated sites (away from human habitation) or avoided sites in busy farmyards or close to human habitation. Again, the findings suggested that there is no positive selection. The types of sites occupied by Barn Owls are simply a reflection of what is available. Provided that the birds can remain out of sight, they seem perfectly content in sites with lots of human/agricultural activity. Some farmhouses have had Barn Owls nesting in the attic for many years.



Barn Owls have nested in the roof of this occupied farmhouse for many years – directly above the bedroom.

The 'universal appeal' of traditional Barn Owl nest sites

Once settled into their home range (after post-fledging dispersal) Barn Owls generally use the same nest and roost sites for the rest of their lives. In areas where there are plenty of suitable-looking sites for the owls to choose from, it is often unclear why they choose the sites they use and ignore others. Interestingly, when a home range is vacated for a period (because the owls have died) and later re-occupied by new owls, the sites they choose to use are often the same ones the previous residents used. This suggests that occupied sites not only have a certain appeal to individual owls, they also have 'universal appeal' to Barn Owls as a species. This fascinating aspect of Barn Owl site-selection behaviour warrants further investigation.

More about Barn Owl nesting and roosting places:

- Within their home range, Barn Owls usually use a variety of roost sites as well as one or two nest sites.
- Barn Owls in winter will sometimes use different roost sites.
- There is more information about nest and roost sites in the Barn Owl Conservation Handbook.