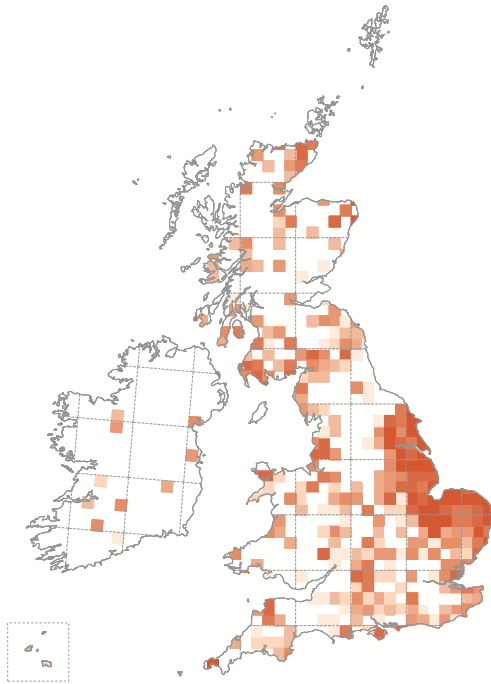




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LAND MANAGEMENT FOR WILDLIFE

BARN OWL (Tyto alba)



Breeding abundance map reproduced from Balmer et al 2013 Bird Atlas with permission from British Trust for Ornithology.



Ben Andrews (rspb-images.com)

The barn owl's presence is most easily detected by its ghostly image hunting at dawn or dusk, its eerie shrieking call or the presence of large dark pellets at roosts. The barn owl is primarily a farmland bird, hunting for small mammals over rough grassland and along field edges.

Barn owl population decline is largely a result of reduced food supply caused by changes in farming practices. The loss of old barns and increased road deaths are also significant in many areas. Barn owls can be encouraged by providing prey-rich rough grassland and artificial nest sites.

WHAT DO BARN OWLS NEED?

Nest and roost sites

Barn owls are traditionally associated with old barns and hollow trees but take readily to nestboxes placed in modern farm buildings, trees, or spaces provided in barn conversions. It is often beneficial to site them in pairs, up to 500m apart.

Food and habitat

Barn owls primarily eat voles but also regularly include mice, shrews and rats in their diet. Their prey occurs at highest densities in rough grassland – tall, tussocky grass with a thick litter layer. Grass that's too short, lacks a litter layer, or is overgrown with scrub is far less suitable for barn owls.

ANNUAL LIFECYCLE

	J	F	M	A	M	J	J	A	S	O	N	D
Hunts up to 5km from nest site	■	■						■	■	■	■	■
Pairs roost at nest site, male courts and feeds female		■	■									
Egg laying and incubation, male hunts within 2km of nest				■	■							
Rearing of young, adults hunt within 2km of nest						■	■					
Young disperse and adult home range increases								■	■	■	■	

WHAT IS A LITTER LAYER?



It's a layer of horizontal grass 7-10cm deep at the base of the sward, providing cover for small mammals like voles, shrews and mice. A deep litter layer enables these animals to reach the densities needed to ensure barn

owls can overwinter and breed within an area.

To create a litter layer, allow grass to grow tall through the spring and leave it to collapse in the autumn. The collapsed (horizontal) grass will be shaded out by the following spring's growth thus forming the litter layer as shown. Maintenance usually involves topping at a height of 13cm or occasional light grazing by cattle.

Isolated patches of rough grass and corridors such as field margins are equally important. Depending on the type of land, barn owls need between 14ha and 47ha of rough grassland within 2km of suitable roosting and nesting sites.

BARN OWLS AND NESTBOXES

In some modern landscapes there are few nesting opportunities for barn owls. This has made the provision of artificial nest sites a crucial part of any conservation initiative. Luckily, barn owls readily use nestboxes which are relatively easy to make and erect. Nestboxes at least 450mm deep can help reduce nestling mortality.

The type of box you wish to use will depend upon your location. If you have an outbuilding at least 3m high that is not subject to irregular loud disturbance you may wish to erect an internal box. This is the cheapest and simplest option. If you don't have a suitable building, then mounting a nestbox in a prominent tree is another choice. Where there are no suitable buildings or trees, nestboxes can be mounted on telegraph poles.

When choosing the best position for your nestbox, remember that barn owls are not interested in boxes, they are interested in holes. Maximising entrance hole visibility can increase the chances of occupation.

Pole mounted nestboxes

Although pole nestboxes involve a lot more work and expense than other types, in areas of very rich habitat without suitable buildings or trees, pole nestboxes are certainly worth providing, and can significantly boost barn owl numbers. Ensure the design you choose is deep, over 540mm in this case, spacious and sufficiently watertight.



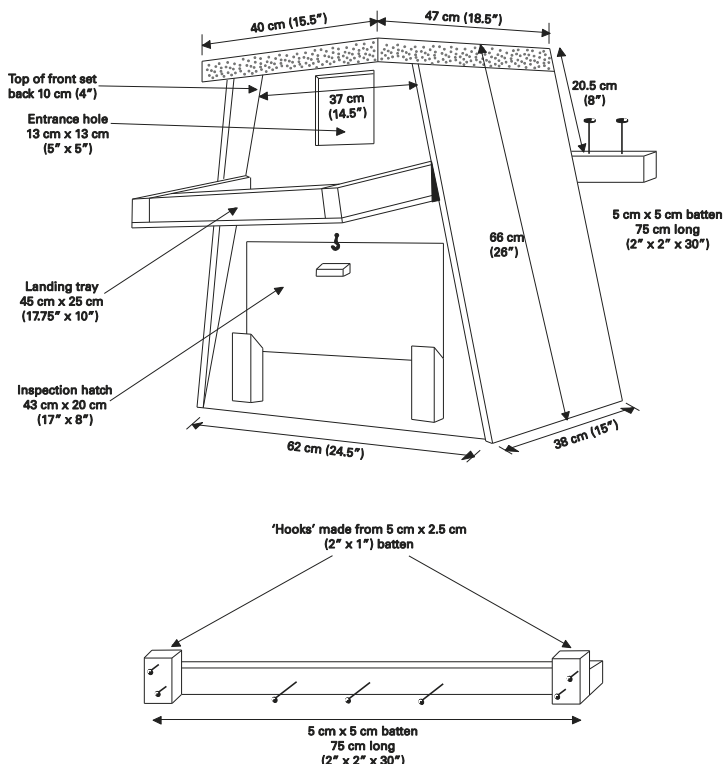
IMPORTANT NOTE: If your site is within 1km of a motorway, dual carriageway, or similar trunk road please **DO NOT** provide nestboxes. Barn owls that attempt to live close to modern trunk roads generally don't survive long.

TYPES OF NESTBOXES



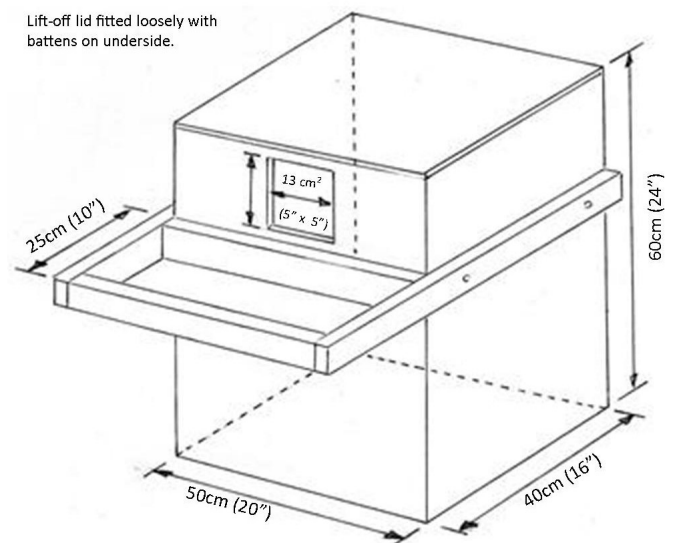
Tree-mounted nestbox

The barn owl is not a woodland bird; suitable trees are large isolated trees, ideally more than 100m from any wooded area. To help avoid failure it is essential that the interior remains dry during incubation and many commercially made boxes fail in this respect. Ensure the nestbox is well designed and all the joints are sealed. If in doubt, place a piece of tissue inside and leave it under a sprinkler over night. Once you are confident the box is watertight, try to mount it at a height that is safe from human interference - 3m or higher is ideal.



Internal nestbox

Contrary to popular belief, barn owls don't need an isolated quiet site. Provided that there is somewhere for them to hide at high level, they will roost and nest in busy farm buildings, occupied houses, and even in rural industrial units. As well as providing a nest place, nestboxes give the birds somewhere to hide, enabling them to live with all kinds of regular activity— disturbance is the unexpected. They find it difficult to tolerate irregular disturbances. Almost any type of rural building is suitable for a nestbox provided that the entrance opening and nestbox are at least 3m above ground level. In traditional buildings the box is usually attached to a wooden roof truss and in a big modern sheds it is generally fixed to the wall.



You can either build your own nestboxes or you can purchase a ready made one from either the [Barn Owl Trust](#) or the [RSPB](#). If you want to build your own you can find plans and advice on the [Barn Owl Trust](#) website and in our 'Farm Nestboxes' leaflet.

HOW CAN I ENCOURAGE BARN OWLS?

Nesting Habitat

- Protect and maintain existing nest sites in buildings or tree holes.
- Existing nest sites can be supplemented with nestboxes.
- Review the safety and condition of existing nestboxes and gradually replace with deep nestboxes that are built to last.
- With many barn owls killed each year by vehicles, it is strongly advised that nestboxes are not mounted within 1km of a major road.

Summer and winter food

- A pair generally hunts within 2km of the nest site whilst breeding, and requires rough grassland in the form of blocks and/or wide strips along field margins, woodland edges or watercourses.
- The ideal amount of rough grassland to aim for is 31-47ha in pastoral areas, 14-21ha in arable areas or 17-26ha in mixed farming areas.
- At other times, most foraging is done within 5km of their former nest. Overall the proportion of the landscape that needs to be rough grassland is 2.5-3.7% in pastoral, 1.4-2% in mixed and 1.1-1.7% in arable landscapes.
- Ungrazed and uncut strips of rough grass should ideally be 6m wide although narrow strips and field corners may also be used. For

highly mobile species like the barn owl habitat connectivity is less important, and isolated fields and patches of rough grass are recommended.

- Rough grassland can be established using a grass-seed mix that includes tall, tussock-forming species (eg cocksfoot and timothy) along with shorter, softer grasses (eg Yorkshire fog, fescue and bent species).
- During the first year, new grass should be left to grow tall and collapse in the autumn thus forming the litter layer above which the second season's growth will appear.
- Following establishment, areas should be topped, or lightly grazed every second or third year.
- Cutting should be undertaken in the autumn with the cutting blades set at 13cm (5in) or higher.
- Where possible, cut rotationally within the landscape (eg cut each ditch-side in alternate years).
- Retain areas of extensive grassland and maintain with low inputs of fertiliser.
- Take care to protect barn owls from secondary poisoning during rodent control and be aware that bait-covering does not reduce the risk. Contact the Barn Owl Trust (*Barn Owl Trust, Waterleat, Ashburton, Devon, TQ13 7HU, England*) or visit their [website](#) for detailed information.

MORE INFORMATION

Barn owls can be an elusive species, and it's important we keep track of where and how the population is changing. To help with this The Barn Owl Trust has designed and launched a barn owl survey to track nests, roost sites and sightings of these spectacular birds. If you see a barn owl you can record the sighting, quickly and easily, at [The Barn Owl Trust survey website](#).

The Barn Owl Trust also produces an annual [State of the UK Barn Owl Population](#) which you can access on their website.

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