



Penpont Ecology Services Ltd

8 Plymouth Road, Tavistock, Devon, PL19 8AY Tel: 07794 629288

HIGHER KELLACOTT BARN, LIFTON, DEVON

Bat & Nesting Bird Survey

November 2017

A REPORT TO:

Mr & Mrs D Tomkin
Higher Kellacott
Lifton
PL15 9SW

Report prepared by: D Medicott BSc(Hons), MCIEEM

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Surveyors: Dee Medicott BSc(Hons), MCIEEM
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Authorised By: Ian Lawson
(NE Bat Licence: 2017-27458-CLS-CLS)

Table of Contents

1 INTRODUCTION..... 4

2 SITE DESCRIPTION..... 4

3 SURVEY METHODOLOGY 6

3.1 Desk Study..... 6

3.2 Barn Owls..... 6

3.3 Bats 6

4 SURVEY RESULTS..... 7

4.1 Desk study 7

4.2 Site Survey..... 8

5 CONCLUSIONS..... 9

5.1 Bats 9

5.2 Nesting Birds 9

6 REFERENCES..... 10

Executive Summary

Penpont Ecology Services was commissioned to undertake a Bat and Nesting Bird Survey at Higher Kellacott, Lifton, Devon. This was undertaken to support a planning application to convert the building to residential holiday use.

The desk study has identified that Barn Owls and a number of bat species have been recorded, historically, within 4km of the site, and it is considered likely surrounding land-use provides suitable habitat to support these species.

The surveyed structures include the main barn, with adjoining stables and sheds.

No evidence of bat presence was identified, and it is considered the buildings have a low potential to support bats.

Barn Owl guano and pellets were identified within the main barn, although no nest site is present.

Evidence of nesting Swallows is present.

Recommendations are given to provide continued nesting habitat for Barn Owl and Swallow within the conversion design.

An opportunity to provide crevice-dwelling bat habitat exists within the conversion design.

Higher Kellacott Barn – Bat & Nesting Bird Survey

1 Introduction

Penpont Ecology Services was appointed by Mr & Mrs Tomkin (owners) to undertake a Bat & Nesting Bird Survey at Higher Kellacott Barn, Lifton, Devon. This was carried out to support a planning application to convert the barn for residential holiday use. The Bat & Nesting Bird Survey was undertaken to determine presence/likely absence of bat and nesting bird species and to assess the impact the proposed works may have on any species found to be present.

Bats are a European Protected Species under the EC Habitats Directive. In England and Wales all bat species are fully protected under The Conservation of Habitats and Species Regulations 2010, the Wildlife and Countryside Act 1981 and the Countryside and Rights of Way Act 2000. Under this legislation it is illegal to:

- intentionally or deliberately* kill, injure or capture (or take) bats
- deliberately disturb bats (whether in a roost or not)
- recklessly disturb roosting bats or obstruct access to their roosts
- damage or destroy bat roosts
- possess or transport a bat or any part of a bat, unless acquired legally
- sell or exchange bats, or parts of bats.

** In a court, 'deliberately' will probably be interpreted as someone who, although not intending to capture/injure or kill a bat, performed the relevant action, being sufficiently informed and aware of the consequence his/her action will most likely have.*

Some bat species are included on the S41 list of UK Biodiversity Action Plan species. Under the Natural Environment and Rural Communities Act 2006, local authorities must consider the conservation of these species in planning decisions.

All nesting birds are protected by the Wildlife & Countryside Act 1981. Barn Owls are specially protected under Schedule 1 of the Wildlife and Countryside Act 1981 and the Countryside and Rights of Way Act 2000, making it an offence to;

- intentionally kill, injure or take them
- take, damage or destroy their nest or eggs
- disturb them at the nest

2 Site Description

Higher Kellacott Barn is located 3.5km north east of Lifton, Devon at OS Grid Reference: SX 401 885 (Fig 1). The barn lies 800m north of the A30 main arterial road, and 1km to the south west of Broadwoodwidge and Roadford Lake. The surrounding countryside is in agricultural production of permanent pasture, grass leys and arable, with fields bordered by typical Devon hedgebanks providing good connectivity with surrounding riparian habitats associated with tributaries of the River Wolf (Fig 2).

Higher Kellacott Barn is of stone construction, adjoined to a shed and stables (Fig 3).



Fig 1 – OS Map of location (1:50 000)



Fig 2 – Aerial photograph showing surrounding land-use.



Fig 3 – Higher Kellacott main barn with adjoining open-sided shed, link shed, and stable block.

3 Survey Methodology

3.1 Desk Study

A search of the National Biodiversity Network was made to identify any previous records of bats and Barn owls in the area (NBN, 2017).

3.2 Barn Owls

Higher Kellacott Barn and its surrounding environs, were surveyed for Barn Owls using methodologies outlined by Natural England (2002) and the Barn Owl Trust (2010), and included looking for:

- Individuals, corpses, feathers, droppings and pellets
- Nests & potential nesting sites

3.3 Bats

The bat survey was conducted in accordance with guidelines given by Natural England and the Bat Conservation Trust in '*Bat Surveys for Professional Ecologists: Good Practice Guidelines*' (Collins, 2016) and '*Bat Worker's Manual*' (Mitchell-Jones,

1999). The bat survey was carried out to determine presence/likely absence of bat species, and comprised a building inspection including:

- an inspection (with a high powered torch where necessary) of the eaves, ridge beams and hips, and any other likely building habitat for bats; for signs of bats and individuals
- examination of walls and floors for droppings, dead individuals and skeletons
- a search for signs of bats including oily stains at entrance/exit holes, feeding remains, lack of cobwebs, characteristic smells and sounds
- an inspection of the surrounding area for suitable habitats.

4 Survey Results

4.1 Desk study

Barn Owls

Table 1: Records of Barn Owls within 10km

Location	Date	Distance	Recorder
Lifton	1968-2008	Within 10km	NBN* & BTO*

* British Trust for Ornithology

*National Biodiversity Network

Barn Owls (and other owl species) require mixed farmland with rough grazing, and habitat suitable for their food source, ie. small mammals. Barn Owls commonly nest in tall, mature trees and in the eaves of larger, older agricultural buildings (BOT, 2010).

A search of the National Biodiversity Network identified records of Barn Owls within 10km of the site, made by the British Trust for Ornithology and the NBN Atlas (NBN, 2017).

It is considered likely the surrounding countryside provides suitable habitat for nesting and foraging Barn Owls.

Bats

The desk study identified the following records of Bats:

Table 2: Records of bats within 5km

Species	Location	Date	Distance	Recorder
Pipistrelle sp. (<i>Pipistrellus sp.</i>)	Lifton	2016	4km	Bat Conservation Trust (BCT)
Brown Long-eared (<i>Plecotus auritus</i>)	Broadwoodwidge	2015	2km	BCT
Lesser Horseshoe (<i>Rhinolophus hipposideros</i>)	Undisclosed location	2015	Within 4km	Natural England

The Desk Study has identified three species of bat recorded within 5km of the site. It is considered likely that the surrounding countryside provides suitable habitat for foraging and roosting bats.

4.2 Site Survey

The surveyed structures include the main barn, an open-sided shed, an adjoining link shed, and stables.

Stables

The stables are of rendered block, brick and cob, with a corrugated plastic roof with clear plastic roof panels. There is a simple timber roof-frame. The building is divided into two loose boxes and a tack room. There are timber fascias (which are heavily cobwebbed) carrying plastic guttering. There are single-glazed windows, and stable half-doors. The stables are lit via the plastic roof panels. One Swallow's nest was identified. No evidence of bat presence was identified, and it is considered the building has a low potential to support bats.

Flat-roofed adjoining link shed

A small shed, approximately 3m x 3m, links the stables to the main barn. The shed is of block construction with a corrugated plastic roof covering, with clear plastic panels to admit daylight. No signs of bats or nesting birds was identified, and it is considered the building has a low potential to support these species.

Main barn

The main barn is of stone construction with a slate, hipped roof. The building is arranged over two storeys. There are glazed windows to the ground floor, which appears to be formerly cow stalls, possibly a milking parlour. The ceiling is lined with a hardboard which is rotten and collapsing in places. The first floor is accessed via external steps to the rear. The floor timbers are rotten, and the upper level was inspected from the stairs. There is a timber door, and a permanently open aperture/window to the south elevation. The unlined roof is in poor condition with many slates missing and slipped. Several Swallow's nests are present. Barn Owl guano and pellets are present, although no nesting habitat is present; indicating that the barn is being used as a resting/feeding perch only. It is considered the barn has a low potential to support bats due to the poor conditions of the roof making cold, draughty and light conditions. There is a lack of crevice-dwelling habitat.

Open-sided shed

Attached to the east elevation of the main barn is an extended open-sided section currently used to store timber. The structure is of corrugated metal with a timber clad gable end. The timbers were inspected carefully for suitable bat habitat, none was found and it is considered unlikely bats are using the building.

5 Conclusions

5.1 Bats

It is concluded that bats are absent from Higher Kellacott barn (and adjoining buildings) and these species should not provide any constraint to the proposed works being undertaken.

The conversion of the barn provides an opportunity to increase crevice-dwelling bat habitat, and this may be achieved by:

- *leaving small gaps (15-20mm) between soffits and walls*
- *making bat access to the bottoms or sides of timber cladding, mounted on counter battens*
- *leaving small gaps in masonry, soffit gaps, raised flashing*
- *installing purpose built bat bricks.*

5.2 Nesting Birds

Barn Owls

Barn Owl pellets and guano has been identified in the main barn. No nest site is present, and it is considered the barn is being used as a night-time resting/feeding perch. The conversion of the barn provides an opportunity to make nesting habitat available, and the following is recommended:

- *An external Barn Owl box will be placed to the north or west elevation. A suitable nest box design is given to the rear of this report. Further information may be found at the Barn Owl Trust website at www.barnowltrust.org.uk*
- *The owners may wish to consider erecting additional boxes in nearby trees. A suitable design can be found at the Barn Owl Trust website.*

Swallows

Swallows are nesting in several places. Swallows are faithful to their nesting sites, returning year after year to rear their young. There should be no net loss of Swallow nesting habitat therefore the following is recommended:

- *Swallow nesting habitat shall be retained within the stables and open-sided shed building.*
- *Consider creating an overhang at the eaves of the main barn to provide suitable nesting conditions for Swallows.*
- *Consider the use of Swallow nest cups in suitable buildings.*

6 References

Barn Owl Trust (2017) www.barnowltrust.org.uk

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Mitchell-Jones, A J & McLeish, A P., (Edits) (1999). *The Bat Workers' Manual.* JNCC Peterborough.

Mitchell-Jones, A J (2004). *Bat Mitigation Guidelines.* English Nature, Peterborough.

National Biodiversity Network (2017) www.nbn.org.uk

This report has been produced in good faith, with all reasonable skill, care and diligence based on the information provided and accessible at the time of its preparation and within the scope of the work agreed with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is provided for the sole use of the named client and is confidential to them and their professional advisors.

APPENDIX I

Barn Owl Trust
Waterleat, Ashburton
Devon, TQ13 7HU
Tel: 01364 653026
Email: Info@barnowltrust.org.uk

Nestboxes for use in Barns & Other Buildings



LEAFLET No 3

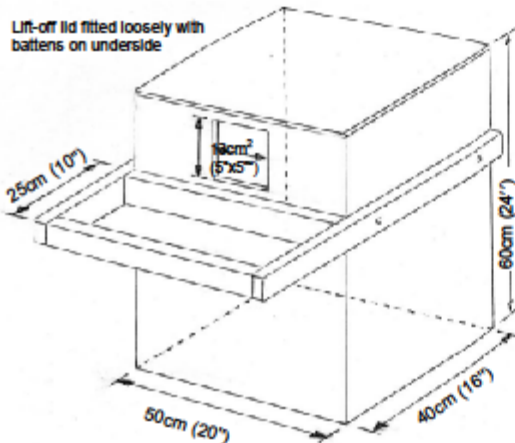
Reg. Charity No 299 035

This leaflet describes how to make and erect a Barn Owl nestbox suitable for a barn or other building. It includes plans, dimensions, materials and safety advice.

Background

Nestboxes can be of great benefit, especially in areas where there is plenty of food available but a shortage of suitable nesting or roosting sites. When you are considering an area for nestboxes remember that the Barn Owl is not a woodland species but a bird of open country, most of which is farmland. For further information see *Habitat Management* (leaflet no. 1).

Many old barns and almost all modern farm buildings are far from ideal for Barn Owls as they lack suitable cavities for the birds to nest in. Barn Owls like to roost out of sight of humans and are much less inclined to be flushed from a building if they have a box to hide in. In fact, it is amazing how much disturbance Barn Owls will tolerate at sites with a suitable nestbox. Almost any tall rural building can become an ideal roosting and nesting site when a nestbox is provided.



Indoor nestboxes can be constructed from 9mm ($\frac{3}{8}$ ") softwood shuttering ply with 50mm x 25mm (2" x 1") batten along all the edges on the inside. Please avoid using hardwood ply unless it is stamped 'FSC Approved'.

As a cheaper alternative, a tea-chest can be simply adapted by cutting an entrance hole, fixing on an exercise platform and adding a removable lid. In this

case, do ensure the foil lining and any sharp nails or strips of metal which may injure the owls are removed.

The platform on the front gives more air space for the young owls to exercise their wings before their first flight. The removable lid is essential as the box will need to be cleared out occasionally.

The internal depth of the box is important as it reduces the chances of a nestling Barn Owl falling from the box and dying as a result of neglect or predation. Therefore it is important that the box depth is maintained by clearing out the box once it has more than about 3 inches of nest debris. If Jackdaws use the box it must be cleaned out every year (wear gloves and a dust mask). Boxes only used by breeding Barn Owls will need clearing out every two or three years, ideally in November or December.

NOTE that it is illegal to disturb wild Barn Owls whilst they are breeding. It is not even permitted for the provider of the nestbox or the site owner to inspect the nest unless they have a current licence to do so. Please see *Safeguarding Wild Sites* (leaflet no. 28).

When siting your indoor nestbox, remember:

1. Fix it as high up as possible. However, remember that fully enclosed modern barns with little ventilation can become very hot in fine weather - in this type of building the box should be placed below the apex but at least 3 metres (10ft) above ground level. Bear in mind that you also need to place the box to allow removal of the lid.
2. Position the box so that an owl entering the building through the most likely opening will see the entrance hole and have an easy flight path to it.
3. If possible, position box so that emerging nestlings can walk onto beams or other flat surfaces.
4. Consider your own safety (for which you are responsible). Try to position the box where it can be easily and safely inspected at a later date.
5. The box must be in a completely dry position if it is to last many years.
6. Avoid placing boxes within 1km (half a mile) of a motorway, dual-carriageway, or other modern road.
7. Avoid buildings subject to irregular loud disturbance, for example sheds used for night-time lambing in January/February. Bale stores, covered yards and silage stores are normally okay.

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There is no need to line the nestbox. The eggs are usually laid on top of the birds' own pellet debris which is a wonderfully absorbent material - much better than anything you might provide!

Permanent access into the building for the owls is obviously essential. If there is no existing access for owls you can create access using the following guidelines:

- 1 Make the entrance hole about 12cm (5") wide x 25cm (10") high (minimum 4" x 4").
- 2 Make the hole as high up the wall as possible, ideally at least 3 metres (10') above ground level.
- 3 Position the hole so that it is likely to be noticed by a passing bird. Don't face it towards a close tree or other tall building which will obscure it.
- 4 When making access into an attic of an occupied dwelling or barn undergoing conversion please refer to *Barn Conversions* (leaflet no. 22) or the Barn Owl Trust publication *Barn Owls and Rural Planning Applications*.
- 5 In the case of an occupied house, converted barn or busy farmyard, the entrance hole into the building should, if possible, be situated on the side with the least disturbance, with direct access to an open area of good habitat.

- 3 Ensure that your ladder is secure before climbing it. If possible tie it off at the top and bottom before climbing up with the nestbox.
- 4 Avoid over-reaching - never attempt to carry out any task up a ladder if you cannot reach comfortably.
- 5 When planning how to position, support and fix a nestbox, try to create a situation where the box can rest in position without being held. This will allow you to have both hands free to fix it safely.
- 6 When carrying a nestbox up a ladder, ensure that it is kept low relative to your body (ideally not above waist height). This will keep your centre of gravity down. Try to keep the box in front of both you and the ladder so that it pulls you towards the ladder - never hold a nestbox behind or above you.
- 7 You are responsible for your own safety - assess all the risks and be careful.

Please let us know when your box is occupied.

Good luck!

Alternatively, deep indoor nestboxes can usually be purchased from our online shop: www.barnowltrust.org.uk/product_list.html?cat=2

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Safety

Before you erect your nestbox take time to consider the hazards you might face and what steps you could take to minimise the risks. Hazards might include an injury at a remote location; falling from a ladder; masonry falling from unsound buildings; injury from heavy lifting; dropping a nestbox onto another person; and poor positioning of a box resulting in additional hazards for others using the building or monitoring the box at a later date. The following are examples of precautions you should take to reduce the risks:

- 1 Ideally take a companion. If erecting your nestbox at an isolated site on your own, let someone know where you are going and when you expect to be back before you set off. Carry a mobile phone if you have one.
- 2 Time spent in reconnaissance and preparation is seldom wasted. Never carry a box up into position until all preparatory work is complete. Double-check your measuring to confirm that the box will fit.

The Barn Owl Trust is a registered charity dedicated to the conservation of the Barn Owl and its environment. You can become a **Friend of the Barn Owl Trust** and support our work by making a regular donation. Friends receive our bi-annual magazine *Feedback*, our Annual Report and an enamel pin badge.

The Trust provides a wide range of free leaflets on Barn Owl related matters. For details of these and further information about the Trust and its work, please write including a large SAE to:

Barn Owl Trust
Waterfeet
Ashburton
Devon
TQ13 7HU

Tel: 01364 653026
Email: info@barnowltrust.org.uk
Web: www.barnowltrust.org.uk



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