



**FORMER COACH HOUSE
AT THE OLD VICARAGE
LONGSDON, STAFFORDSHIRE**

FURTHER BAT SURVEYS

**Prepared for
Drs. R. and V. Burnham**

August 2021

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Client	Drs. R. and V. Burnham
Project	Former Coach House at The Old Vicarage, Longsdon, Staffordshire
Report title	Further Bat Surveys
Issue date	18th August 2021
Reference number	NW/210817
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1. INTRODUCTION

- 1.1 This report has been prepared for Drs. R. and V. Burnham. It presents the results of a series of bat activity surveys carried out at the former Coach House at The Old Vicarage, Longsdon, near Leek Staffordshire during 2021.
- 1.2 The proposals are for the building to be converted into an ancillary residential unit. The proposed design for the building is detailed on the drawing *Plan and Elevations as Proposed* prepared by Hewitt Carr Architects (drawing number 01009 AL(0)02, revision B, dated November 2020).
- 1.3 A Preliminary Roost Assessment (PRA) was undertaken during February 2021. The results of the survey are detailed in our report *Former Coach House at The Old Vicarage, Longsdon, Staffordshire Preliminary Roost Assessment of Building* (dated March 2021, report reference NW/210318). It is recommended this report be read in conjunction with the previous ecological report.
- 1.4 The PRA identified several potential roost features within the fabric of the building. Features identified include gaps under the ridge tiles and at the wall verges and potentially gaps within the walls. Possible feeding remains and a single bat dropping were noted inside the building, indicating the possibility of use of the building as a feeding perch by a brown long-eared bat. The building was therefore deemed to hold high potential for use by roosting bats and consequently, in accordance with best practice further assessment was undertaken consisting of three surveys to watch for emerging bats. The results of these further surveys are detailed below.
- 1.5 The Coach House serves as an outbuilding to The Old Vicarage, which is located 25m to the south-west. It is single storey and built from brick, with a tiled, straight-forward pitched roof running between gable ends. The building is used for storage.
- 1.6 The building is located 1.7km to the south-west of Leek town in the village of Longsdon off the A53 Leek Road. It neighbours St Chad's Church to the west. The local area consists of open farmland characterised by meadow and pasture bordered by hedgerows and dry-stone walls. The Cauldon Canal runs 840m to the south with the Endon Brook just beyond this. The OS grid reference for the building is SJ 95973 54656.
- 1.7 The report describes the methods used for the surveys and any constraints encountered, along with the results of the surveys. The findings are then assessed in light of the proposals, impacts are considered and recommendations for further survey or action are given where appropriate.
- 1.8 The legislation relating to the protected species discussed in this report is given in Appendix I.

2. METHODOLOGY

2.1 Three evening emergence surveys were carried out on the building. The surveys were undertaken between May and July 2021.

2.2 the surveys were completed by Neil Watkin, Rosemary Godwin, and Carrie Alcock. Neil and Rosemary are licensed under Natural England to survey for and handle bats:

Neil Watkin - 2020-50099- CLS-CLS - Level 2

Rosemary Godwin - 2016-24027-CLS-CLS - Level 2

2.3 The surveys commenced approximately 0.5 hours before sunset and finished 1.5 – 2 hours after sunset. The surveys followed standard methodologies set out in *Bat Surveys for Professional Ecologists – Good Practice Guidelines*, Bat Conservation Trust (Collins, 2016).

2.4 The surveyors positioned themselves externally around the building to watch areas which were identified as potential roost features. During the surveys the surveyors watched for bats emerging from and bat activity associated with the building. To provide adequate coverage of the building two surveyors were used for the survey visits.

2.5 The surveyors used bat detectors (Bat Box Duet, Stag Electronics) to identify the presence and identity of bats. This model of bat detector has two modes of detection. In addition, Anabat Scout Detectors (from Titley Electronics, Australia) were placed around the exterior of the building to constantly record any bat activity (such as emerging/re-entering or foraging bats). Bat calls picked up by the Anabats were written onto a compact flash card and, where necessary, analysed on a PC to confirm species. An Echometer Touch 2 was also used to identify bat calls.

2.6 The table below summarises the weather conditions during the evening surveys.

Date	Weather Conditions	Temperature
19 th May 2021	Dry, clear skies and light air (1).	Start: 11.4°C End: 8.1°C
17 th June 2021	Dry and still (0), complete cloud cover and light air (1).	Start: 14.7°C End: 12.8°C
5 th July 2021	Dry and still (0), complete cloud cover and light air (1).	Start: 15.3°C End: 13.5°C

2.7 In addition, a static bat detector (Anabat Swift) was installed inside the building. The detector was installed centrally on a high windowsill and was deployed from 6th to 14th July 2021.

Constraints

- 2.8 No constraints were encountered during the surveys.

3. SURVEY FINDINGS & INTERPRETATION

Survey Findings

- 3.1 The building and potential roost feature locations are shown on Figure 1 and features of the building are depicted in the Plates.
- 3.2 The building is single storey. It has a straight-forward pitched roof running between gable ends. Some of the walls are built from a double skin of bricks. On the northern gable end wall, a section of the brickwork measuring approximately 60cm x 60cm is missing and on the eastern wall two gaps are loosely covered by metal plates. On the southern gable end wall, two pigeonholes are positioned above the doorway; these have been sealed internally. All of these windows are well sealed with no gaps around the frames, although one of the sash windows was open at the time of survey. A roller shutter on the west elevation has a gap along its top and the sliding doors at the southern end of the building have gaps around them.
- 3.3 The pitched roof is clad in clay tiles. In at least two places toward the northern end, the common tiles are raised and near to the ridge two tiles have fractured and slipped. The mortar bed beneath much of the ridge tiles has degraded thus creating gaps between them and the common tiles below in several places. The mortar bed on the northern wall verge has perished allowing several gaps and torching along both eaves is missing at a number of points, leaving gaps.
- 3.4 The building is divided into four rooms with an elevated lath and plaster ceiling forming a small roof void above purlin level. The two central rooms both have loft hatches. Immediately below one of the loft hatches several small tortoiseshell butterfly wings were identified and in the adjacent room a bat dropping was noted. The droppings and feeding remains are typical of those produced by brown long-eared bats *Plecotus auritus*. The roof void runs the length of the building between the gable ends and is approximately 1m in height to the apex. Much of the torching has fallen away from the tiles and forms a deep layer of mortar debris between ceiling joists. Cobwebbing is present throughout the roof void.
- 3.5 No bats were seen to emerge from the building during the evening surveys.
- 3.6 During the first survey on 19th May bat activity began at 21:28 with a brief call from a noctule bat passing over the building. The majority of activity during the survey consisted of periods of foraging by a single common pipistrelle *Pipistrellus pipistrellus* around the canopy of a sycamore tree to the north of the building and over the grassland to the west. Two brief passes by a brown-long-eared bat were also recorded but not seen.
- 3.7 On the second visit, 17th June, activity was limited to one species, common pipistrelle, with a concentration of foraging beginning at 22:03 and lasting several minutes, followed by intermittent passes until the end of the survey.
- 3.8 The final visit on 5th July saw a similar amount of activity by a single common pipistrelle foraging around the sycamore tree canopy from 21:46, becoming less

frequent through the survey. Two brief passes by noctule were also recorded during this survey.

- 3.9 Although not part of the surveys, the building was identified as having suitable opportunities for birds to use for nesting and at least two species of bird, blue tit and wren were noted as using the building for nesting during the emergence surveys. Recommendations in relation to this are given in the following chapter.
- 3.10 The static detector was installed centrally in the building and no bat calls were recorded during its deployment.

Interpretation

- 3.11 No evidence that bats make use of building for roosting was evidenced during these surveys and the static detector confirmed that bats were not recorded within the building during its deployment.
- 3.12 The surveys were well spaced out during a time of year when bats are most active and were carried out during good weather conditions reducing the likelihood that a maternity roost (where females gather together to give birth and raise their young) in particular has been missed.
- 3.13 The building provides high potential to support roosting bats associated with gaps under ridge tiles and at the wall verges and potentially gaps within the walls. The prey remains discovered inside the building show that the loft hatch inside the building has possibly been used by a brown-long-eared bat as a feeding perch, however given the limited activity during the surveys and with no new evidence of prey remains found during the surveys it is likely that the feeding perch is either not used frequently or was simply used once. For these reasons, the building is not classified as a roost, thus recommendations for precautionary working practices are given in the following chapter.

4. RECOMMENDATIONS

- 4.1 No signs that bats make use of the building for roosting have been found during the emergence surveys or through the analysis of sound files recorded by the static detector. As the building provides high potential it is advised a precautionary approach be undertaken during conversion works to reduce the likelihood of an offence being committed. The contractors/builders undertaking the work would need to be made aware of these requirements and any works should be undertaken using precautionary methods as per below.
- 4.2 During works any striping of ridge and common tiles would need to be carefully undertaken by hand to avoid injury to any bats that may be present. The tiles would then need to be lifted outwards and the exposed void below inspected for bats or signs of bats. The tiles reverse surface should be inspected as bats can cling to rough surfaces. Similarly, when repairing cavities in the brickwork and mortaring along wall verges any cavity in the brickwork should be inspected for bats prior to the cavity being blocked.
- 4.3 Should bats be found to be present, they would need to be left *in situ* and not handled or touched. If a bat is disturbed and it wishes to fly, then it should be allowed to do so. If a bat is uncovered, for example by lifting of a tile, then the tile should be gently placed back with care taken not to crush the bat below. Alternatively, if the circumstances allow a plastic or cardboard box with ventilation holes could temporarily be placed over the bat to protect the bat or if circumstances allow the bat placed into the box.
- 4.4 In the unlikely event that bats, or evidence of roosting bats (such as bat droppings) be found, works would need to be temporarily suspended and the licensed bat ecologist contacted to help resolve the situation and consulted as to the best method to proceed. A statutory licence from Natural England may need to be obtained and, as part of this, additional surveys may be necessary (which may be seasonally constrained), along with mitigation and compensation, such as the provision of replacement roosting where appropriate.
- 4.5 Works to the building, as well as clearance of any trees, hedging and other vegetation that could be used by birds for nesting may need to take account of the potential presence of nesting birds. The presence of nesting birds can be avoided as a constraint to the proposals by timing relevant works to avoid the bird nesting season. Should the works need to be carried out during the bird nesting season then surveys and a watching brief would need to be carried out during works to check for the presence of nesting birds. The findings of the surveys and watching brief would be used to ascertain the best method to proceed to avoid impacting upon nesting birds. The bird nesting season is generally deemed to run from March to July/August inclusive, although some species can nest outside this period.

5. REFERENCES

Collins, J. (ed). (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines*. 3rd Edition. Bat Conservation Trust, London.

PLATES



Plate I. Southern elevation with sliding doors and pigeon holes in masonry above.



Plate II. Northern gable with missing bricks at the base and missing mortar along the verge.



Plate III. Roller shutters and open window and door along the western elevation.



Plate IV. Multiple gaps where mortar has failed under ridge tile and cracked and missing common tiles.



Plate V. Gaps at eaves with access into roof void.



Plate VI. Southern room with bare brick walls and plastered lath ceiling.



Plate VII. Second room clad in pine tongue and groove boards



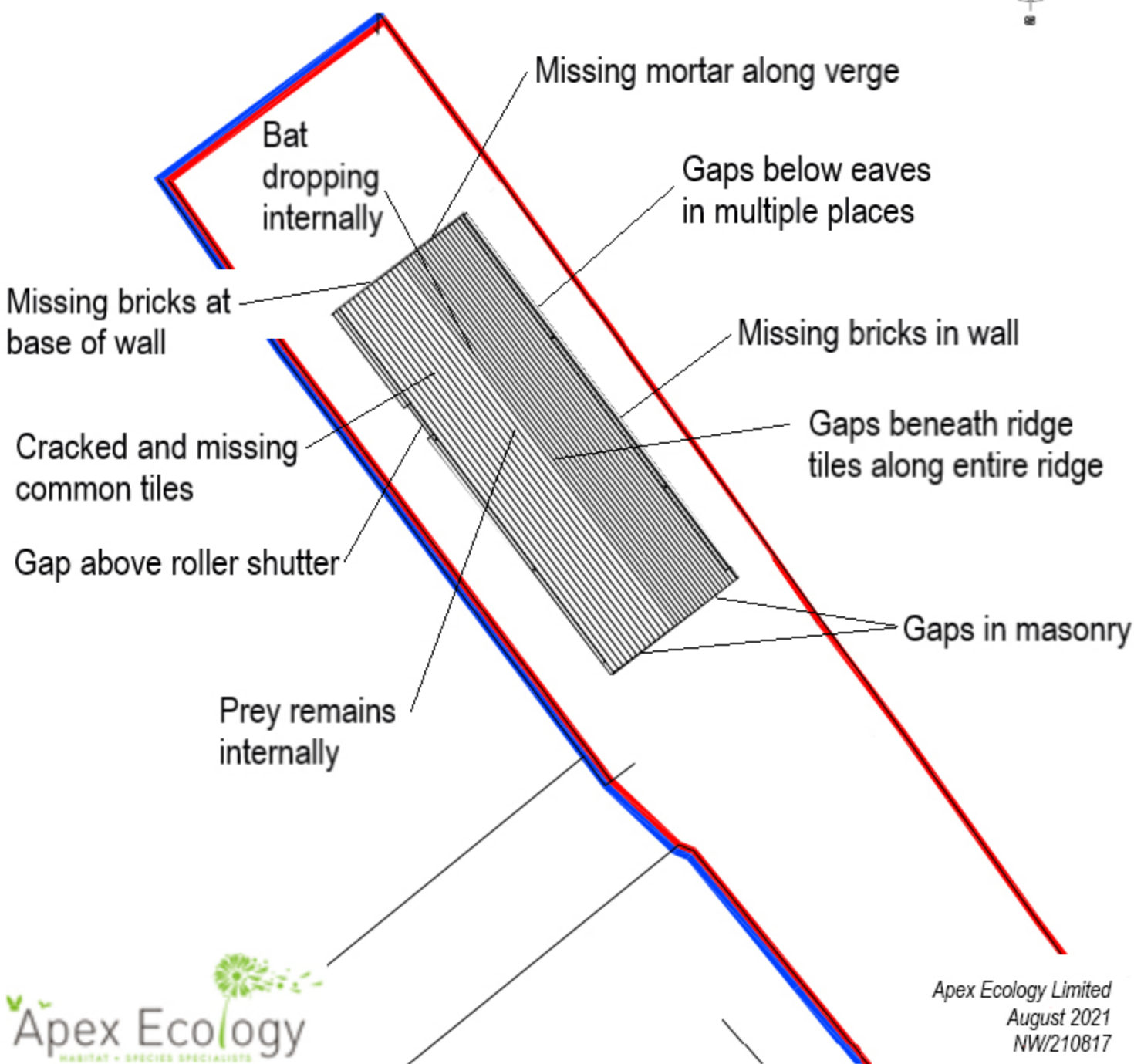
Plate VIII. Roof void looking northward. Gaps showing along the ridge, toward the gable wall.



Plate IX. Roof void looking southward with no division.



Figure 1. Layout of Building and Location of Potential Roost Features



APPENDIX I - LEGISLATION RELATING TO PROTECTED SPECIES DISCUSSED IN THE REPORT

The information below is intended only as guidance to the legislation relating to these species and relates solely to England and does not purport to provide legal advice. It is recommended that the legislative documents be referred to for the full legal wording and the services of a relevant specialist sought where legal advice is required.

Bats

There are seventeen different species of bat in the UK; some are very rare whilst others are widespread. However, because the populations of most species have declined in past decades, all British bats have been protected by law.

Bats are protected in England under European Legislation via the Conservation (Natural Habitats and Wild Flora and Fauna (92/43/EEC)) or 'The Habitats Directive'. The Directive is transposed into UK law via the Conservation of Habitats and Species Regulations 2010 (Statutory Instrument 2010/0490 known as the Habitats Regulations), which came into force on the 1st April 2010. The Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") consolidate and update the Conservation (Natural Habitats, &c.) Regulations 1994 (Statutory Instrument 1994/2716) and amendments. Due to their inclusion on Schedule 2 of the Habitats Regulations, bats are considered 'European Protected Species'.

In summary, this legislation makes it an offence to:

- deliberately capture, injure or kill a bat;
- deliberately disturb a bat;
- damage or destroy a breeding site or resting place of any bat;
- possess a bat (alive or dead) or any part of a bat.

Disturbance of bats includes in particular any disturbance which is likely:

(a) to impair their ability:

- (i) to survive, to breed or reproduce, or to rear or nurture their young; or
- (ii) to hibernate or migrate; or

(b) to affect the local distribution or abundance of the species to which they belong.

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended), which has also been amended by the Countryside and Rights of Way (CROW) Act, 2000.

In summary, this legislation makes it an offence to:

- intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection;
- intentionally or recklessly obstruct access to any structure or place which any bat uses for shelter or protection.

Birds

All wild birds, their nests and eggs are protected by law under the Wildlife and Countryside Act 1981 (as amended). It is, therefore, an offence (subject to certain exceptions) to:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird whilst it is in use or being built;
- take or destroy the egg of any wild bird.

In addition to the above, in accordance to amendments of the Wildlife and Countryside Act by the Countryside and Rights of Way Act 2000, it is an offence to:

- intentionally or recklessly disturb any species listed on Schedule 1 of the Wildlife and Countryside Act whilst building a nest, or whilst it is on, in or near a nest containing eggs or young; and
- disturb the dependent young of a Schedule 1 bird.

For example, barn owl is protected under Schedule 1 of the Wildlife and Countryside Act, protecting them from intentional or reckless disturbance during the breeding season (which is normally considered the time from when the female makes the first nest 'scrape' and lays the first egg until the time when the last dependent young stops returning to the nest (English Nature, 2002/3)).

NERC ACT AND BIODIVERSITY

A number of UK habitats and species are also included on the list of habitats and species which are of principal importance for the conservation of biodiversity in England as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act. The NERC Act came into force on 1st Oct 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England, as required by the Act.

The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of NERC Act to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. They include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland, and freshwater and marine habitats such as ponds and subtidal sands and gravels.

There are 943 species of principal importance included on the S41 list. These are the species found in England which were identified as requiring action under the UK Biodiversity Action Plan and which continue to be regarded as conservation priorities

under the UK Post-2010 Biodiversity Framework. In addition, the Hen Harrier has also been included on the list because without continued conservation action it is unlikely that the Hen Harrier population will increase from its current very low levels in England. In accordance with Section 41(4) the Secretary of State will, in consultation with Natural England, keep this list under review and will publish a revised list if necessary.

The impact that this legislation has on the Planning system is also outlined in ODPM 06/2005 Government Circular: Biodiversity and Geological Conservation – Statutory obligations and their Impact within the Planning System. This states:

The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. Local authorities should consult English Nature [now Natural England] before granting planning permission. They should consider attaching appropriate planning conditions or entering into planning obligations under which the developer would take steps to secure the long-term protection of the species. They should also advise developers that they must comply with any statutory species' protection provisions affecting the site concerned.