



PHASE 1 BAT SURVEY

**BARN - GROVE FARM HOUSE,
GROVE LANE, ASHOW,
WARWICKSHIRE, CV8 2LE**

Date: 28th February 2021

Client: Mr Jim Mills

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Control Sheet

General Report Information	
Report title	Phase 1 Bat Survey Report
Client	Mr Jim Mills
Location	Barn - Grove Farm House, Grove Lane, Ashow, Warwickshire, CV8 2LE
Lead ecologist	J. Russ
Report author	Dr J. M. Russ

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1 Introduction

1.1 Background to activity/development

This report has been prepared by Dr Jon Russ at the request of Mr Jim Mills. Planning consent and listed building consent is being sought from Warwick District Council to weatherproof and insulate a barn at Grove Farm House, Grove Lane, Ashow. The local planning authority will require a bat survey to be carried out to support the application.

To support a 2010 application for planning and listed building consent (Planning Refs: W/10/1087 and W/10/1088/LB) which was subsequently granted, a bat survey was carried out by Ridgeway Ecology, the results of which are summarised in 3.1.2. Subsequently, a European Protected Species was obtained from Natural England to permit the loss of roosts sites (EPSM2011-3252/A). Roost compensation, which formed part of the licence, comprised the following:

- Access to the remaining areas of the roof void of the house
- A large bat loft within a nearby detached barn (the subject of the current survey)
- bat boxes erected on trees
- Cavity/lining cavities in the converted buildings
- Access created to enable bats to utilise the roof void within the stable block

1.2 Site description

The proposed site of development, Grove Farm House (GR: SP313704), is located in the village of Ashow in rural Warwickshire (Figure 1). The site is surrounded by improved grassland and arable land with an associated network of hedgerows and treelines connecting the site to the wider habitat. Within 2km of the site, there are several significant areas of woodland including Thickthorn Wood and Bullimore Wood, a combined 45ha area of ancient and semi-natural/replanted woodland 0.7km north-west of the site, The Grove, a 27ha area of deciduous woodland 0.5km north-west of the site, Glasshouse Wood, a 10.5ha area of ancient and semi-natural woodland 1km north of the site and Bericote Wood, a 10.5ha area of primarily ancient replanted woodland 0.6km south-east of the site. The River Avon runs along the southern edge of the village of Ashow, approximately 0.2km south of the site. The river, woodland, hedgerows and treelines represent good foraging habitat for bats.

Grove Farm House consists of a two-storey main house, an adjoining barn/stable building and a detached single-storey barn/stable building accessed from a gravel driveway and used as a garage. To the rear of the adjoining barn/stable building is a small former 'Pig Run and laundrette' building that is no longer used. The property is set back from the road with gardens to the front of the main house and a gravelled drive to the right of the house that is semi-enclosed by the barn/stable building and garage building. To the rear of the house is a substantial garden that leads to a large field/paddock.

1.3 Proposed works

Planning consent and listed building consent is being sought from Warwick District Council to weatherproof and insulate a barn at Grove Farm House, Grove Lane, Ashow.

1.4 Planning and legislative context

The information below is intended only as guidance to the legislation relating to these species. The Acts themselves should be referred to for the correct legal wording.

Bats – Legislative context

All bats are included in Schedule 2 of The Conservation of Habitats and Species Regulations 2010, which implement the requirements of the Habitats Directive in England, Scotland and Wales and in Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations (Northern Ireland) 1995 (as amended) which implement the requirements of the Habitats Directive in Northern Ireland. Bats and their breeding sites or resting places are protected under Regulation 39. An amendment to the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 came into force in Northern Ireland on 21st August 2007 (Conservation (Natural Habitats, etc.) (Amendment) Regulations (Northern Ireland) 2007).

It is an offence for anyone without a license to:

- Intentionally or recklessly/deliberately injure, take or kill a bat;
- To possess a bat (unless obtained legally) whether alive or dead;
- Intentionally or recklessly/deliberately damage, destroy or obstruct access to any place that bats use for shelter or protection whether bats are present or not;
- Intentionally or recklessly/deliberately disturb a bat while it is occupying a structure or place that it uses for shelter or protection.
- deliberately disturb bats in such a way as to be likely significantly to affect—
 - (i) the ability of any significant group of bats to survive, breed, or rear or nurture their young; or
 - (ii) the local distribution or abundance of that species;

Prosecution could result in imprisonment, fines of £5,000 per animal affected and confiscation of vehicles and equipment used.

Recent amendments to the Habitat Regulations in 2007 have removed many of the defences. This includes the commonly relied upon 'incidental result defence', which previously covered acts that were the incidental result of an otherwise lawful activity and which could not reasonably have been avoided. As the incidental result of a lawful operation defence has been removed from legislation (Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007) operators are now open to this strict liability offence, whether the damage occurs by accident or not. An offence will only be committed if the deliberate disturbance is likely to significantly affect a significant group of animals of that species' ability to survive, breed, or rear or nurture its young or is likely to significantly affect the local distribution or abundance of that species. Deliberate disturbance of a protected animal (species on Schedule 5 which includes EPS) in its place of shelter or protection will continue to be an offence under the Wildlife and Countryside Act 1981. However, the incidental result of a lawful operation defence will be available for that offence where the disturbance could not have been reasonably avoided.

In England, Scotland and Wales all bat species are protected under the Wildlife and Countryside Act 1981 (WCA) (as amended) through inclusion in Schedule 5. The existing offences under the Wildlife and Countryside Act (1981) as amended which cover obstruction of places used for shelter or protection, disturbance and sale still apply to European protected species.

In England and Wales, the WCA was amended by the Countryside and Rights of Way Act 2000 (CRoW), which adds an extra offence ('or recklessly' to S9(4)(a) and (b)), makes species offences arrestable, increases the time limits for some prosecutions and increases penalties.

Exemptions can be granted from the protection afforded to bats under the Habitat Regulations, by means of a EPS (European Protected Species) Habitats Regulations licence obtained from Natural England.

A 'EPS Habitats Regulations Licence' could be required for:

- Demolition of a building known to be used by bats prior to development of a site
- Conversion of barns or other buildings known to be used by bats
- Removal of trees known to be used by bats as well as tree pruning
- Significant alterations to roof voids known to be used by bats
- Road building or widening
- Bridge strengthening

There are three tests, which must be satisfied, before a licence can be issued to permit otherwise prohibited acts;

- Regulation 53(2)(e), for the purpose of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment; or
- Regulation 53(2)(f) for the purpose of preventing the spread of disease; or
- Regulation 53(2)(g) for the purpose of preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other forms of property or to fisheries; subject to Natural England being satisfied that the application additionally meets:
 - Regulation 53(9)(a) that there is no satisfactory alternative; and
 - Regulation 53(9)(b) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

A European Protected Species License is required before the commencement of any development that might impact on bats or their roosts.

Planning policy and Biodiversity Action Plan context

The National Planning Policy Framework (NPPF) is guidance for local planning authorities on the content of their Local Plans but is also a material consideration in determining planning applications. The NPPF has replaced much of the existing planning policy guidance, including Planning Policy Statement 9: Biological and Geological Conservation. However, the government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System, which accompanied PPS9 remains valid.

The Natural Environment and Rural Communities (NERC) Act 2006, in particular Section 40, places a duty on public bodies to have regard to the conservation of biodiversity. This duty is guided by the habitats and species lists in Section 41 of the Act, within which seven bat species are included: barbastelle (*Barbastella barbastellus*), Bechstein's (*Myotis bechsteinii*), noctule (*Nyctalus noctula*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), greater horseshoe (*Rhinolophus ferrumequinum*) and lesser horseshoe (*Rhinolophus*

hipposideros) bats. These seven species are also listed as Priority Species within the UK Biodiversity Action Plan (UKBAP), (the UK Government's response to the Convention on Biological Diversity).

1.5 Objectives

The bat survey was commissioned to assess:

- what species of bat are present at the site;
- what types of bat activity are occurring within the site;
- whether or not bats are roosting within the site; what population levels (size and importance) are present at the site;
- and to make recommendations on any further action that may be required to provide sufficient information for the local planning authority to support a planning application

2 Methods

2.1 Pre-survey data search

As the scale of the proposed development is small a pre-survey data search of biological records was not carried out. However, the results of a previous bat survey carried out in 2010 are summarised in 3.1.2. A search using the MagicGov and Nature on the Map (Natural England) websites was performed to identify sites of nature conservation.

2.2 Surveyor information

The survey was carried out by Dr Jon Russ CEnv, MIEEM (Natural England Class 3 & 4 Bat Licences CLS2294).

Dr Jon Russ is a terrestrial and behavioural ecologist with a specialist interest in bats. As Director of Ridgeway Ecology Ltd and through his academic research and work with the Bat Conservation Trust he has managed, designed and carried out large- and small-scale bat surveys and bat monitoring programmes in the UK and the tropics. He has extensive experience of the United Kingdom and European Union legislation regarding bats and has been a fully licensed bat worker for over 20 years, holding bat conservation, education and scientific licences for radio-tracking, mist-netting, ringing, harp-trapping, ultrasonic playback and DNA sampling. His publication record includes a large number of articles in scientific journals as well as other publications including the widely used book, "The Bats of Britain and Ireland: Echolocation, Sound Analysis, and Species Identification", "Review of ASSI designation for bats in Northern Ireland", "The Northern Ireland Bat Action Plans" which he coordinated and delivered, "British Bat Calls: A Guide to Species Identification" and more recently "Calls of European Bats". In addition, Jon has a great deal of experience of avoidance, mitigation and compensation measures relating to bats and development.

2.3 Field surveys

The bat survey was undertaken in accordance with current best practice guidelines, which include: Bat Mitigation Guidelines (Mitchell-Jones, 2004); The Bat Workers Manual (Mitchell-Jones & McLeish, 2004); and Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins 2016).

2.3.1 Habitat survey

A survey of the habitats that may be used by roosting bats was carried out.

2.3.2 Bat roost survey

On the 23rd February 2021, the building was surveyed for potential roost sites and signs of bats. The survey utilised a ladder, a high-powered torch, binoculars and an endoscope (Ridgid CA-300 with 6mm and 9mm camera heads). The external inspection involved looking for bat droppings on the ground, stuck to walls or roof tiles and on windows and sills and recording suitable entry and exit points. The internal inspection focused on those areas which may be suitable for roosting bats, such as ridge tiles, gable walls, joints and crevices in wood, crevices in walls as well as searching for bat droppings and feeding signs on the floors and other surfaces.

The following criteria were used to determine the roosting potential of the building.

Table 1. Description of roosting potential categories

Roosting potential	Criteria
Good	Buildings that have many areas suitable for roosting with a large number of potential access points. These are normally in sheltered locations, subject to low variation in temperature. Buildings with good potential could be used for a whole range of roosts including maternity roosts.
Moderate	Buildings with a smaller number of areas suitable for roosting, but still supporting features that could be attractive to bats and potentially support maternity roosts.
Limited	Buildings with limited roosting opportunities. These may be in locations that are subject to wide temperature fluctuations and drafts. They could be used as occasional or transient roosts, but are unsuitable for maternity roosts. Buildings that would otherwise be moderate to good potential but have reduced value due to other factors such as exposed location, separation from nearby foraging habitat, or presence of strong streetlight.
Low	Buildings that have no obvious places for bats to roost, but could be used on a sporadic or occasional basis for feeding or solitary day roosting.
Negligible	Buildings which appear unsuitable for roosting bats due to clear lack of roosting spaces such as voids etc and/or absence of suitable access points. Such buildings in practice are rare.

2.3.3 Bat activity survey(s)

n/a

3 Results

3.1 Pre-survey data search

3.1.1 Designated sites

There are no designated sites within 2 km of the site.

3.1.2 Protected species

Phase 1 and 2 bat surveys carried out by Ridgeway Ecology in 2010 demonstrated that the roof void of Grove Farm House contained summer roosts of brown long-eared bats and common pipistrelles and the open roof void of the adjoining barn/stable had been used as a feeding perch by brown long-eared bats. there was no evidence of bats in the barn.

3.2 Field Surveys

3.2.1 Habitat description

The focus of the survey is a single-storey brick barn (Figures 2 and 3). The gable roof is covered with clay tiles and is lined with a traditional bitumastic lining. The roof void of the northern part has been sectioned off to create a 'bat loft' in accordance with the mitigation and compensation measures associated with a European Protected Species Licence issued in 2011 (EPSM2011-3252/A; Named Ecologist: Jon Russ). The southern half is divided into two storage bays.

3.2.2 Bat roost survey

Potential Bat Access Points:

There are two bespoke access points for bats on the east and west-facing roof pitches (e.g. Photograph 4) which lead into the bat loft. In addition, there are numerous openings between and under tiles leading to the cavity between the tiles, battens and lining (e.g. Photographs 5 and 6).

Under the eaves, between the rafters tails, there are openings leading into the bat loft and the storage bays (e.g. Photograph 7).

Bat Roosting Potential:

Within the northern part of the Barn is a 'bat loft' which was designed to provide alternative roosting opportunities for the brown long-eared bats displaced by the conversion of a section of attic in the main house in 2011 (Figure 3; Photographs 8 and 9). The loft contains exposed timbers suitable for perching as well as two crevice boards to create a crawl space for bats to roost between the boards, rafters and lining. In the southern part of the Barn, there are two open roof voids containing exposed timbers suitable for perching (Figure 3; Photographs 10-13).

The ground floor area below the bat loft contains few roosting opportunities (Photograph 14).

The cavities between the tiles, battens and lining are suitable for crevice dwelling bats such as those of the genus *Pipistrellus* and the small *Myotis*.

Evidence of bats:

Within the bat loft there were around 15 medium-sized bat droppings on the floor under the ridge (Figure 3; e.g., Photographs 15 and 16).

3.2.3 Bat activity survey(s)

n/a

3.2.4 Interpretation and evaluation of survey results

The size, appearance and location (including geographical location) of the identified bat droppings within the 'bat loft' (Figure 3) indicate that they were produced by brown long-eared bats *Plecotus auritus*. The interior has not been cleaned for just under 10 years and therefore the very low numbers of droppings suggest that the loft has been rarely used. It is likely that just a single bat has very occasionally entered the loft over this period.

There could potentially be bats roosting between the tiles, battens and lining on the roof of the barn.

Site status assessment: In the absence of evidence, the barn is considered to be of moderate bat roosting potential (see Table1) as there are potential roosting sites for both crevice-dwelling and attic-dwelling species.

4 Assessment

4.1 Constraints

None.

4.2 Potential impacts of the development

Planning consent and listed building consent is being sought from Warwick District Council to weatherproof and insulate the barn. It is clear that bats have been present in the bat loft since its construction in 2011 but numbers have been extremely low over the period. It is not possible to determine whether the loft is currently used as a bat roost or whether bats are roosting between the tiles, battens and lining without undertaking additional survey work.

5 Recommendations and mitigation

The survey evidence demonstrates that bats, probably brown long-eared bats *Plecotus auritus*, have very occasionally entered the 'bat loft' in the described barn at Grove Farm House, Grove Lane, Ashow. The bat loft was created in 2011 as compensation for the loss of a brown long-eared bat roost in the house under European Protected Species Licence EPSM2011-3252/A. It is not possible to determine whether the bat loft is currently in use or whether bats are roosting between the tiles, lining and battens on the barn. Therefore it is recommended that **nocturnal surveys are carried out between May and August (inclusive) in accordance with the guidelines produced by the Bat Conservation Trust (Collins 2016) to obtain this information.**

In the absence of evidence, the barn is considered to be of moderate bat roosting potential (see Table1) as there are potential roosting sites for both crevice-dwelling and attic-dwelling species.

Planning consent and listed building consent is being sought from Warwick District Council to weatherproof and insulate the barn. It is not currently possible to determine the impact this work may have upon bats. All bat roosts (places that bats use for shelter or protection) are protected under current legislation (whether bats are present or not) and therefore if bats are present it may be necessary to obtain a European Protected Species Licence (EPSL) from Natural England or register the site under the Bat Low Impact Class Licence (BLICL) scheme to destroy existing roost sites and access point(s) and to disturb any bats present.

The application for planning consent and an application for an EPSL or registration of the site under the BLICL scheme must include details of mitigation measures (which are dependent on the outcome of the nocturnal surveys described above) to protect the bats that are currently occupying the building and to provide alternative roosting opportunities. Such mitigation can easily be achieved within the proposed scheme and may include the following:

- The creation/retention of bat roosts. For example:
 - Installing bat boxes on the south gable wall (e.g. Photograph 17).
 - Reinstating/retention of the access to the cavities between the tiles, battens and lining (see for example Photograph 4 or alternative access could be created – Figure 4 and Photograph 18).

Based on the current evidence and the general lack of use over a 10 year period it is unlikely that the bat loft will need to be retained.

- Timing of destructive work to avoid those periods when bats are most vulnerable (e.g. between 15th April and 15th September when maternity colonies may be present and between 1st December and 1st March when bats may be hibernating).
- Removal of roofing materials under the supervision of a licensed ecologist.
- The use of a BS8747 1F bitumastic lining on those parts of the roof containing bat roosts (as bats become entangled in breathable membranes).
- A lighting scheme across the whole site that takes bats into account. For example, the provision of low-level lights with UV filters and directional shrouding/shields to

prevent unnecessary light spill above the top of the ground floor level and the avoidance of floodlighting unless it is on a short timer (<2 mins).

- The avoidance of timber treatments toxic to mammals. Pre-treated timber must only use the CCA (copper, chrome, arsenic) treatment and chemicals used for timber treatment must be based on permethrin and cypermethrin compounds.

Swallows nests were identified within the barn (Figure 3; e.g. Photograph 19). In Britain, all wild birds are granted legal protection under the Wildlife & Countryside Act 1981 (as amended), the Bern Convention and the EC Birds Directive. The legislation protects the birds and their eggs and nests while being built or in use. This protection makes it an offence intentionally kill, injure, take or have in possession any wild bird or egg. It is also an offence to intentionally damage or destroy the nest of any wild bird while it is being built or in use. Therefore, the following must be adhered to:

- Works affecting the barn must not be carried out between April and September unless it can be proved that breeding birds and their young are absent when destructive works commence. Consequently, an inspection of the building must be carried out by an ecologist before work commencing during this period to assess the status of any nesting sites. If nesting birds are observed when a qualified ecologist is not present, work must stop and they must be contacted for advice.
- Consideration must be given to providing replacement nest sites for swallows within the site boundary. Swallows prefer nesting inside buildings such as barns, open-sided garages, outbuildings or stables (which can also be used as a feeding perch/night roost for brown long-eared bats) and can be encouraged to nest by attaching nest cups to beams and rafters.

6 References

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Figures

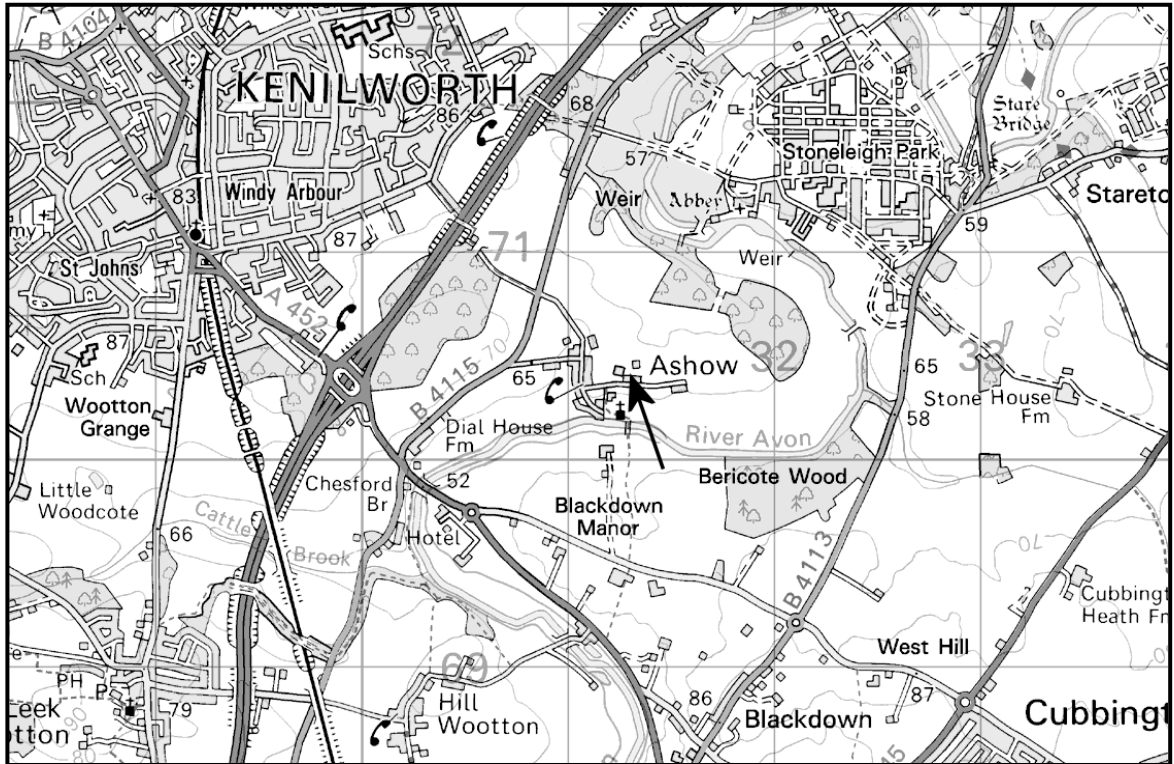


Figure 1. Location of the site (arrowed), 2006. Crown

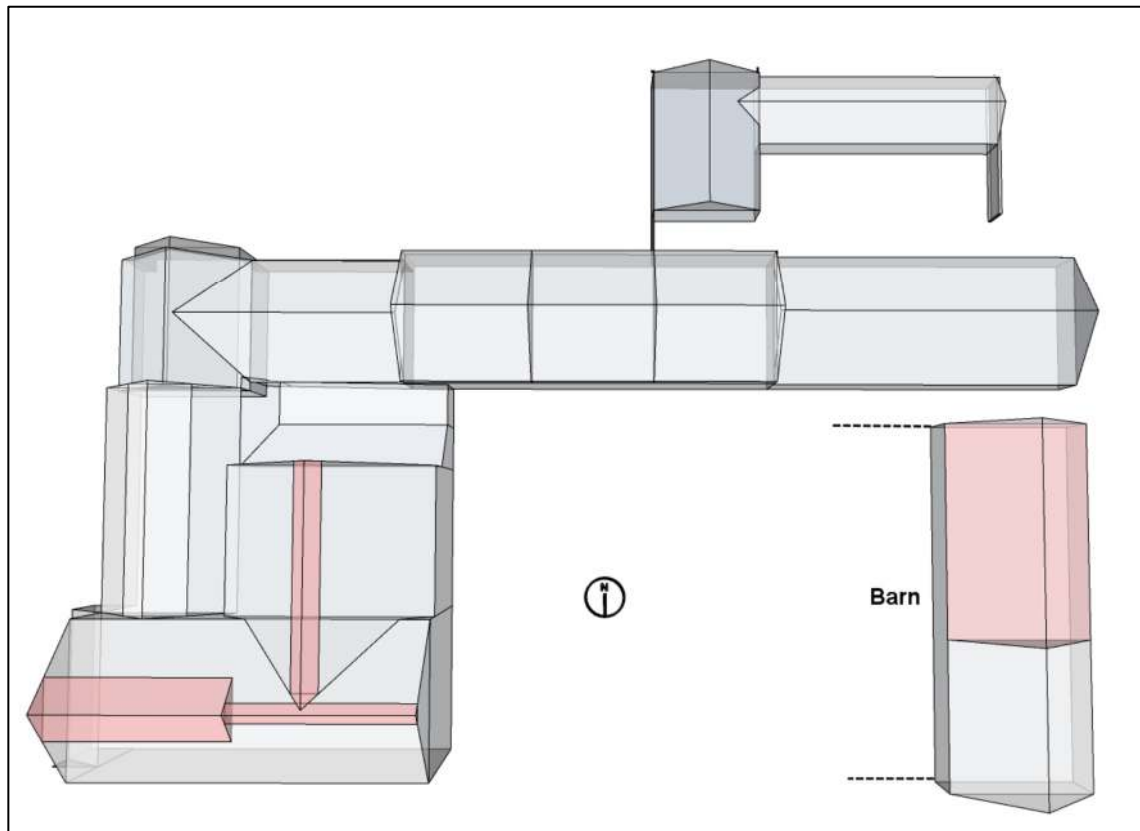


Figure 2. Rough plan of the house and outbuildings showing the location of the surveyed Barn

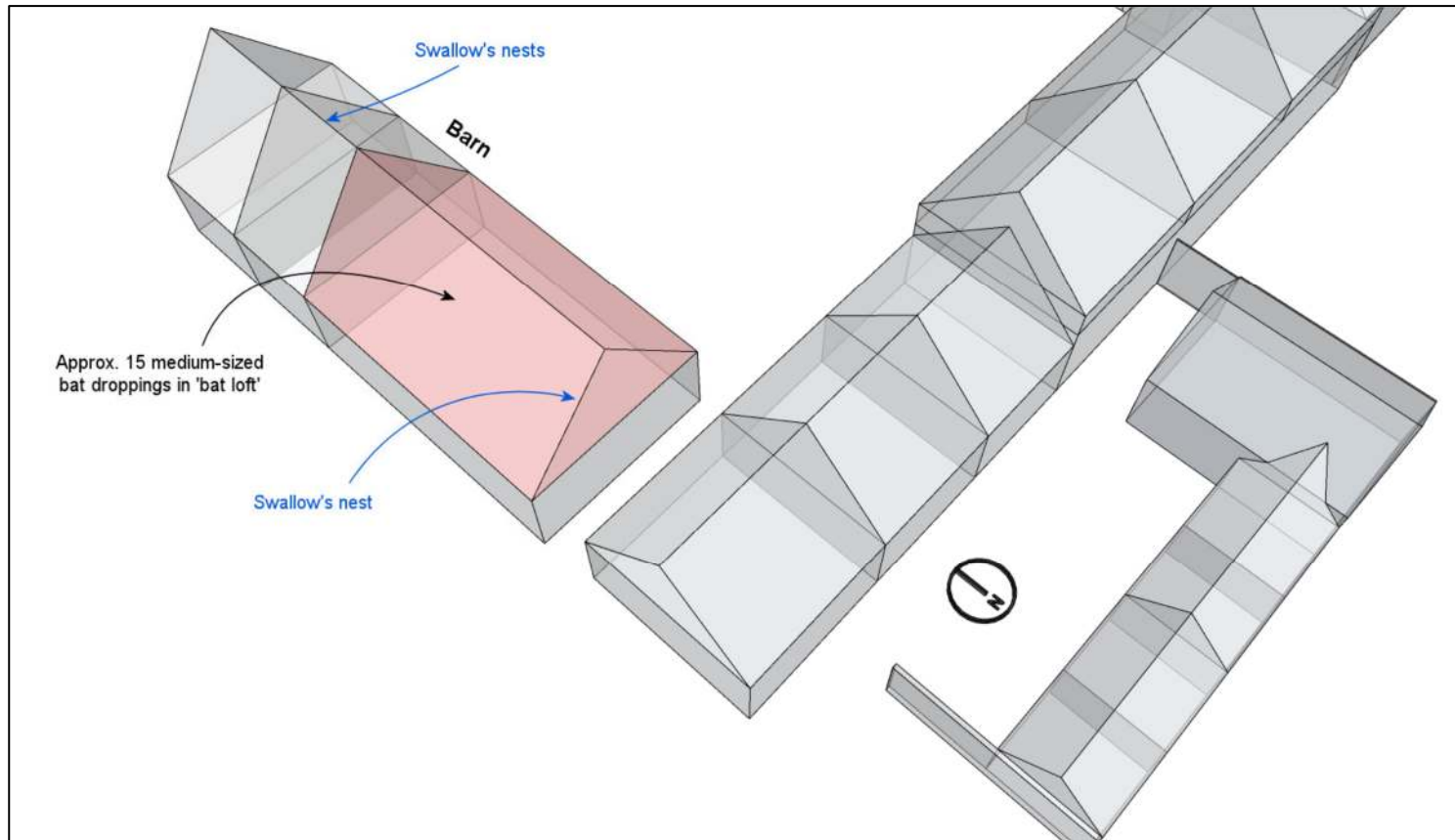


Figure 3. Plan of the surveyed barn showing the location of the 'bat loft' (shaded pink) and the evidence of bats and nesting birds.

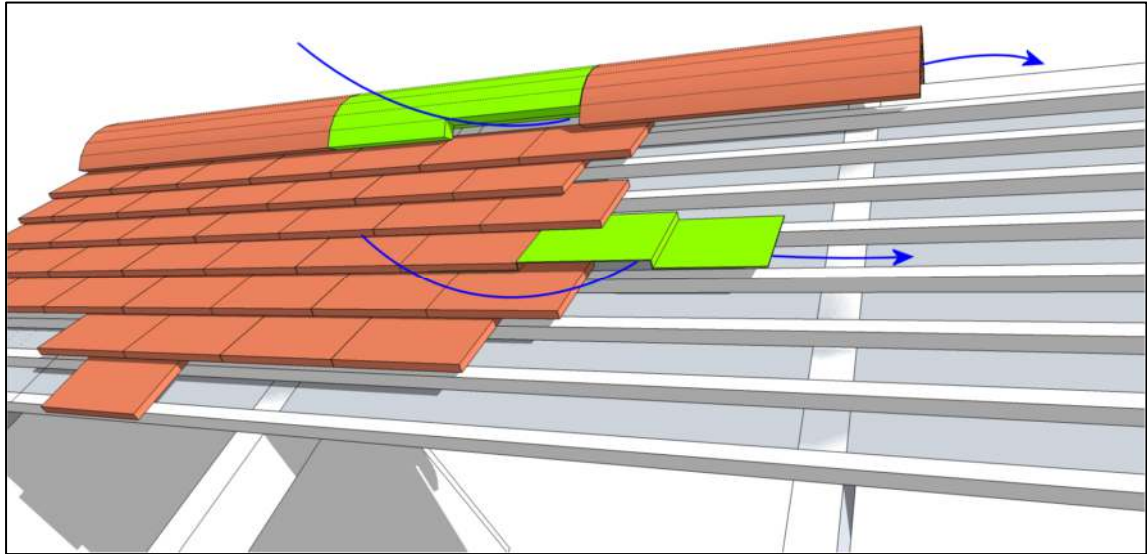


Figure 4. Access to the tile/lining cavity via a modified ridge tile and a lead saddle

Photographs



Photograph 1. The east and north elevations of the Barn



Photograph 2. The west and north elevations of the Barn



Photograph 3. The south elevation of the Barn



Photograph 4. Example of bespoke bat access into the bat loft within the Barn



Photograph 5. Example of an opening under a ridge tile on the roof of the Barn



Photograph 6. Example of openings between tiles on the roof of the Barn



Photograph 7. Access into the Barn via the eaves openings between rafter tails



Photograph 8. The interior of the 'bat loft'



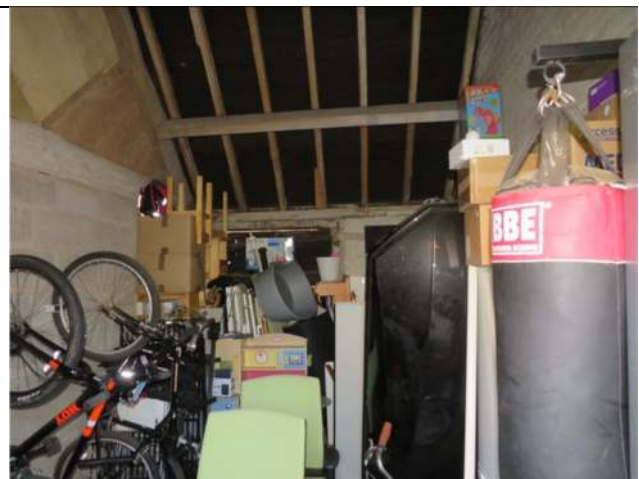
Photograph 9. Exposed timbers within the bat loft



Photograph 10. The most southerly room within the Barn



Photograph 11. The open roof void within the most southerly room within the Barn



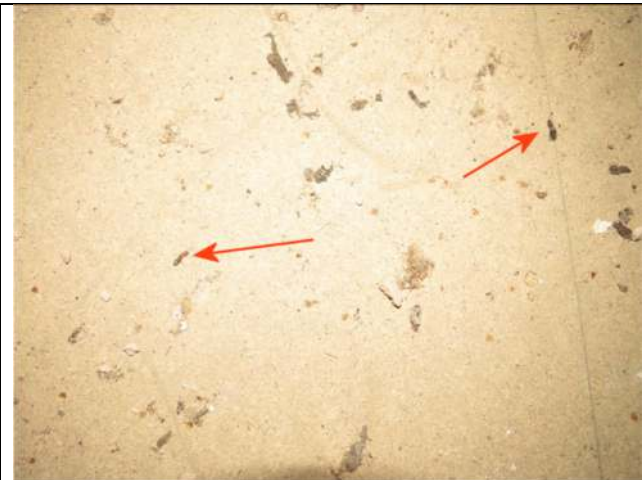
Photograph 12. The room to the north of the most southerly room within the Barn



Photograph 13. The open roof void within the room to the north of the most southerly room within the Barn



Photograph 14. The ground floor area within the Barn below the 'bat loft'



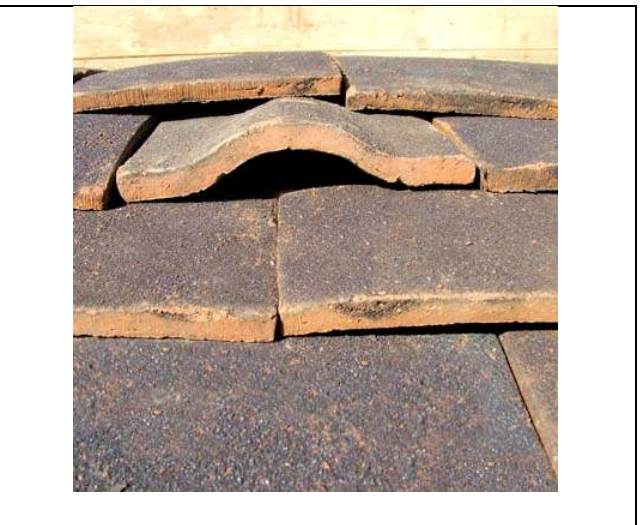
Photograph 15. Example of bat droppings within the bat loft in the Barn



Photograph 16. Further example of bat droppings within the bat loft in the Barn



Photograph 17. Greenwood's EcoHabitats single cavity bat box



Photograph 18. Example of a bat access tile



Photograph 19. Swallow's nest at the northern end of the bat loft within the Barn