

Bat and Protected Species Survey,
 Bat Emergence Survey &
 Automatic Bat Detector Survey



Moorpit Farm
 Yarcombe
 Devon
 EX14 9BG

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|------------------------------------|--|---------------------------------|--------------|
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CONTENTS

Summary..... 2
 Survey Objectives 4
 Survey Site Description 4
 Survey Methods 6
 Survey Results 8
 Discussion & Recommendations 10
 References..... 12
 Appendices 12

DISCLAIMER

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1.1 Introduction

It is proposed to convert an outbuilding at Moorpit Farm, Yarcombe, Devon, EX14 9BG into an annex.

1.2 Bats

It is considered unlikely that outbuilding is currently used by roosting bats as no bats were identified emerging during the bat emergence survey or recorded during the automated bat detector survey.

Precautionary recommendations are provided in the unlikely event of a bat being encountered during any stages of the proposed works.

1.3 Nesting Birds

One former nesting site was identified within the outbuilding. Whilst active, bird nest sites are legally protected from damage or disturbance (see Appendix 1). Therefore, care will need to be taken that any future re-established or newly established bird nests are not disturbed by the works.

1.4 Ecological Mitigation, Compensation & Enhancements

The National Planning Policy Framework outlines the Government's commitment to minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Therefore, in order for the proposal to result in a biodiversity gain, the development will need to include the following;

- One bat roosting provision – integrated/positioned externally on the walls of the new dwelling at a minimum height of 3 m (see Appendix 2);
- One bird nesting provision – integrated/positioned externally on the walls of the new dwelling (Appendix 3);
- One invertebrate provision – integrated/positioned externally on the walls of the new dwelling (see Appendix 4); and,
- Any external lighting associated with the development will be adapted to be based on a Passive Infrared Sensor (PIR) system (being motion-sensitive only

to large objects) and on a short timer (no longer than 2 minutes). All lighting should be directional down-lighting, illuminating below the horizontal plane. Such lighting will specifically not be positioned where it could illuminate surrounding vegetation (woodland, trees, hedgerows, hedgebanks etc), any bat roosts or any areas beyond the site.

SECTION 2

SURVEY OBJECTIVES

2.1 Survey Objectives

It is proposed to convert an outbuilding at Moorpit Farm, Yarcombe, Devon, EX14 9BG into an annex.

The survey specifically aimed to identify the following:

- The presence of, or past use of the site by, any species of bat;
- The presence of, or past use of the site by, barn owl, or other nesting birds;
- The sites potential for use by any of above; and,
- Any other ecological issues relating to the proposal.

SECTION 3

SURVEY SITE DESCRIPTION

3.1 Site Description

Moorpit farm is located 7.8 km west of Chard and 3 km east of the A303. The site comprises an outbuilding located northwest of the farmhouse (Figure 1). The site is bordered by a small section of gravel, amenity grassland and planting to the south and east, hardstanding to the north and an agricultural field to the west. The surrounding landscape is predominately comprised of agricultural land interspersed with smallholdings.

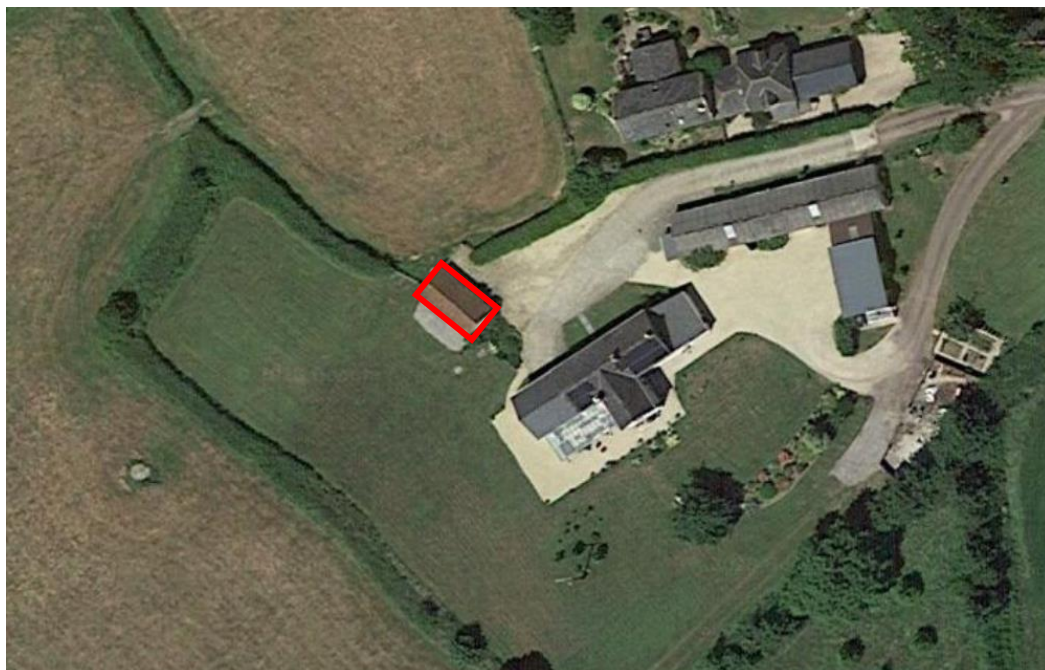


Figure 1. The outbuilding at Moorpit Farm

The single-storey outbuilding is constructed from stone and roofed with curved clay tiles (Figure 2 & 3). Hanging slate barge boards and open circular ventilation holes are present at both gable ends (Figure 4). Internally the roof is unlined on the south-western elevation and lined with roofing felt on the north-eastern elevation (Figure 5).



Figure 2. The south-western and north-western elevations of the outbuilding



Figure 3. The north-eastern and south-eastern elevations of the outbuilding



Figure 4. The south-eastern gable end of the outbuilding highlighting the hanging slate barge board



Figure 5. The internal view of the roof covering

4.1 The Bat & Protected Species Survey

The survey comprised of an external and internal inspection of the building, conducted on the 16th September 2020 by Mark Witherall, with the aid of head and hand-held torches, an endoscope, close-range binoculars, an extendable ladder and a digital camera.

The aim of the survey was to assess levels of use by bats through the presence of actual animals or their field signs, such as droppings, insect prey remains and/or urine staining, and the potential suitability of the building for roosting.

The presence of other protected species, notably nesting birds and barn owl/s, was also investigated, including the presence and behaviour of any actual animals or their field signs, such as whitewash, pellets and or nest debris.

4.2 The Bat Emergence Survey

The bat emergence survey consisted of one evening survey visit undertaken by George Greenshields and Aby Sampson on the 27th September 2020. The surveys were undertaken from 15 minutes prior to sunset until 1½ hours after sunset.

The surveyors were positioned to cover all aspects of the building, with emphasis placed on the areas which had potential to be utilised by emerging bats. When a bat was detected, it was identified with its position and activity noted on a field base plan. The time and position of each bat was recorded, along with its direction of flight (light permitting) and whether the bat was emerging, foraging or commuting. Cloud cover, wind strength, precipitation, humidity and temperature were all recorded at the start and on completion of the survey.

The surveyors were each equipped with a bat detector and recording device, comprising of an Echo Meter Touch linked to a digital recorder, a Peersonic Bat Recorder with internal recording capability or an Anabat Express with internal recording capability. To aid species identification, all recordings were analysed using BatSound (ver4.03) and Kaleidoscope Viewer (ver4.5.5).

4.3 Automated Bat Activity Survey

An automated bat detector was positioned within the outbuilding to record for 5 consecutive nights from 27th September to 2nd October 2020.

The automated bat detector consisted of a SongMeter Mini bat, zero crossing frequency division detector, programmed to commence recording 30 minutes prior to sunset until 30 minutes after sunrise.

All subsequent ultrasound recordings were analysed using Kaleidoscope Viewer (version 4.5.5), Analoow (version 4) and/or BatSound (version 4.03) computer software.

5.1 The Bat & Protected Species Survey

Table 1. Environmental conditions on 16th September 2020

| Temperature (°C) | Wind Speed (Beaufort Scale) | Cloud cover (%) | Precipitation | Sunset time |
|---------------------|--------------------------------|--------------------|---------------|-------------|
| 14 | 1 | <5% | 0 | N/A |

Constraints on the survey:

There were no perceived limitations to the survey. There was open access to the building and a thorough search was made of all available internal and external surfaces and an assessment made of the roof structure.

5.1.1 Bats

The roof and ridge tiles are tight-fitting with no visible gaps noted. Access into the building was identified via the circular vents and through gaps around the windows, doors and over the wall plates.

Gaps were noted beneath the hanging slate barge boards, however these were considered too large to provide suitable roosting opportunities for bats.

Crevices identified within the stonework, were inspected and no bats or evidence of bats were found.

One bat dropping was found within the outbuilding (Figure 6).

5.1.2 Nesting Birds

One small passerine nest was identified at the wall plate on the north-eastern gable end (Figure 7).



Figure 6. Single bat dropping found within the barn



Figure 7. Location of small passerine nesting site

5.2 The Bat Emergence Survey

The bat emergence survey comprised of one survey visit undertaken on the 27th September 2020. Weather conditions recorded at the start and end of the survey are presented in Table 2.

Table 2. Timings and environmental conditions relating to the bat emergence survey

| Date & Times | Start/End | Temp (°C) | Wind Speed (Beaufort Scale) | Cloud Cover % | Precipitation | Humidity % |
|--|-----------------|-----------|-----------------------------|---------------|---------------|------------|
| 27 th September 2020 Sunset: 18:58 | Start of Survey | 12.4 | 2 | 15 | 0 | 64 |
| Start Time: 18:43 End Time: 20:30 | End of Survey | 9.8 | 2 | 0 | 0 | 84 |

5.2.1 The Bat Emergence Survey Visit – 27th September 2020

There were no bats observed emerging during the survey.

Additional Bat Activity

Bat activity levels were low with one single pass from the following species; noctule (*Nyctalus noctula*), *Myotis* species, common pipistrelle (*Pipistrellus pipistrellus*).

5.3 Automated Bat Activity Survey

The automatic bat detector did not record any bats within the outbuilding over the survey period.

6.1 Bats

It is considered unlikely that the outbuilding is currently used by roosting bats as no bats were identified emerging during the bat emergence survey or bat automated survey.

The single bat dropping found during the Bat & Protected Species survey is considered to be from an individual bat flying within/exploring the outbuilding.

Therefore, the proposed works are considered unlikely to result in disturbance to bats or to significantly affect the distribution or abundance of local bat populations.

Although it is considered unlikely that bats may be encountered, as a matter of good practice, any contractors should be made aware of the potential presence of bats, particularly in association with the roofing layers, stonework and ridgelines. In the unlikely event that a bat is found during works, work should stop in the vicinity of the bat/s and advice should be sought from EcoLogic Consultant Ecologists LLP or from the Natural England Bat Helpline (Tel: 0345 1300 228). Bats should ideally not be handled (unless with gloves), but should be left in situ, gently covered until advice is obtained.

6.2 Nesting Birds

One bird nesting site was identified at the north-eastern wall plate of the outbuilding.

It is considered likely that the identified nesting site could be re-occupied, or supplemented by new nesting sites, during any future bird nesting seasons. Whilst active, bird nest sites are legally protected from damage or disturbance (see Appendix 1). Therefore, care will need to be taken that any future established bird nests are not disturbed by the works.

Ideally, any works to the building should be scheduled to commence outside of the bird nesting season, removing any potential for undue delays caused by nesting birds. The bird nesting season is considered to extend from March to August inclusive, although, depending upon the species, geographical area and the weather conditions, nesting can extend outside this period.

Alternatively, if works are to be commenced during the bird nesting season, a nesting bird check would be required to confirm the presence or absence of active bird nests, with any active nests protected accordingly.

6.3 Ecological Mitigation, Compensation & Enhancements

The National Planning Policy Framework outlines the Government's commitment to minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Therefore, in order for the development to result in a biodiversity gain the development will need to include the following;

- One bat roosting provision – integrated/positioned externally on the walls of the new dwelling at a minimum height of 3 m (see Appendix 2);
- One bird nesting provision – integrated/positioned externally on the walls of the new dwelling;
- One invertebrate provision – integrated/positioned externally on the walls of the new dwelling (see Appendix 4); and,
- Any external lighting associated with the development will be adapted to be based on a Passive Infrared Sensor (PIR) system (being motion-sensitive only to large objects) and on a short timer (no longer than 2 minutes). All lighting should be directional down-lighting, illuminating below the horizontal plane. Such lighting will specifically not be positioned where it could illuminate surrounding vegetation (woodland, trees, hedgerows, hedgebanks etc), any bat roosts or any areas beyond the site.
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APPENDICES

- Appendix 1: Legislation
- Appendix 2: Example of a Bat Roosting Provisions
- Appendix 3: Examples of Bird Nesting Provisions
- Appendix 4: Examples of Invertebrate Provisions

Bat Species

All bat species and their roosts are legally protected in the UK. All bats are listed as European protected species of animals in the European Union's Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as the Habitats Directive. This Directive is implemented in the UK by The Conservation of Habitats and Species Regulations 2017 (better known as the Habitats Regulations).

There is also some protection for bats and roosts in England and Wales under the Wildlife & Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000). For practical purposes, the protection of bats and their roosts now falls mostly under the Habitats Regulations

In summary, it is an offence to

- deliberately, capture, injure or kill a bat
- deliberately, disturb in a way that would significantly affect their local distribution or abundance, or affect their ability to survive, breed or rear young
- damage or destroy a roost (this is an 'absolute' offence)
- possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat

('Deliberately' may be interpreted as someone who, although not intending to injure, kill, etc, performed the relevant action, being sufficiently informed and aware of the consequences their action will probably have.)

A person who needs to carry out actions that would result in an offence being committed should apply for a derogation licence from Natural England. They have powers to grant Habitats Regulations derogation licences in certain circumstances, for certain reasons and with certain terms attached, so that the licence holder remains within the law. Application for a derogation licence should be made in plenty of time, and the services of a bat expert utilised in making the application. It is an offence to make a false statement to obtain such a licence.

This information is not provided as legal advice and before making decisions relating to the law a qualified legal representative should be consulted.

Nesting and Nest Building Birds

All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981 (as amended). Nesting is determined as being from when birds first initiate nest building up until the point when fledglings stop returning to the nest

Vincent Pro Bat Box

Material: Wood
 Width: 180mm
 Height: 720mm
 Depth: 235mm
 Weight: 4.1kg

Position: Externally in a south facing location, away from any windows and beneath eaves / minimum of 3m above ground level.

**Segovia Build-In Woodstone Bat Box**

Designed to be built into a wall with the entrance face at the front, remaining exposed and visible. The boxes have removable sides so that an extension box can be placed next to this box, to create a larger roosting space.

Width: 210 mm
 Height: 500 mm
 Depth: 170 mm
 Entrance Width: 160 mm
 Entrance Height: 25 mm

Position: Externally in a south facing location, away from any windows and beneath eaves / minimum of 3m above ground level.

**Wooden Bat Box**

Material: Timber
 Width: 18mm
 Height: 38mm
 Depth: 10mm
 Weight: 1.2 kg

Position: Internally within the void / externally in a south facing location, away from any windows and beneath eaves / minimum of 3m above ground level.



Vivara Pro Seville 32mm Woodstone Nest Box

Suitable for: House sparrow, blue & great tit, nuthatch
Material: Woodstone

Height: 310 mm
Width: 200mm
Depth: 200mm
Weight: 6.9kg

Position: Externally, at a height of at least 3m



Eco Sparrow Tower

Suitable for: House sparrow and individual blue & great tits
Material: Recycled plastic

Height: 650 mm
Width: 170mm
Depth: 170mm
Weight: 2.8kg

Position: Externally, at a height of at least 2m



Vivara Pro Seville Woodstone Nest Box

House sparrows, great tits, blue tits and nuthatches
Material: Woodstone

Height: 310 mm
Width: 200 mm
Depth: 200 mm

Position: Externally, at a height of at least 3m



Woodstone Insect Block

These durable homes will attract insects such as wild bees, lacewings and ladybirds.

Height: 270mm
Width: 185mm
Depth: 90mm
Weight: 3.2kg

Position: Place the insect block preferably in a sunny spot, ideally next to areas with flowers close by. The front where possible aimed at the south. Hang the insect block up at least 2 metres high.



Wooden Insect Hotel

This insect hotel will attract a range of invertebrates including bees.

The hotel includes nesting compartments for solitary nesting bees, including for egg laying and hibernation.

Height: 370mm
Width: 260mm
Depth: 110mm

Position: Place the insect hotel in southerly facing location, which includes part or full sun, between 1 m to 2 m above ground level, and ideally facing garden or boundary habitats.



Bee Brick

Each bee brick includes nesting compartments for solitary nesting bees, including for egg laying and hibernation

<http://greenandbluebuild.co.uk/product/bee-brick/>

Height: 216mm
Width: 105mm
Depth: 65mm

Position: Place the insect hotel in southerly facing location, which includes part or full sun, between 1 m to 2 m above ground level, and ideally facing garden or boundary habitats.

