

Springfield Farm Cottage, Birdsedge

Bat Survey Report

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1 Introduction

This report presents the results of a bat survey undertaken on a cottage located at Springfield Farm, Penistone Road, Birdsedge, Huddersfield, HD8 8XP. The bat survey has been completed in relation to the planning application for the erection of single and two storey extensions to the property (App no. 2016/62/90685/E).

The cottage is part of a collection of homes and garages which form around a central courtyard to the west of Penistone Road. Agricultural land surrounds the property along with several woodlands, farms and small settlements. Figures 1 and 2 provide an illustration of the location of the property.

The bat survey was completed with information obtained from a desktop study, a daytime assessment and a dusk emergence survey. The aim of this report is to inform the development of all considerations relating to bats at the site. This includes presenting information to verify the presence / likely absence of a bat roost; recommendations for applying mitigation where appropriate; and, 'way forward' guidance should further detailed assessment be required.

Figure 1: Aerial image of the property (NGR: SD 86626 08477 / Elevation: 284m)



Figure 2: Area surrounding property



2 Survey Methodology

2.1 Desk Study

West Yorkshire Bat Group (WYBG) was contacted for records of bats within a 2km radius of the site.

2.2 Daytime Building Assessment

A daytime assessment of the building was undertaken on 23rd May 2016 by Ryan Knight MCIEEM (Natural England Class Licence Registration No. 2015-12611-CLS-CLS – CL18 Survey Level 2) of Quants Environmental Ltd.

The building was searched for bats and evidence of bats and for potential access points and roost features. Evidence of bats can include droppings, scratches, staining, urine marking, dead bats and feeding remains (e.g. moth wings). The survey was undertaken in accordance with the standard methodology as far as was practical¹ and included an external and internal building inspection.

The extent of the structural features of a building that are suitable to support bats roosts defines an assessment of the potential of bats being present within the building. This potential is categorised negligible, low, moderate and high. Other considerations which influence the potential of the building for use by bats are also taken into account. This includes the site location and the suitability of the surrounding habitats. This information is gathered from the site survey and web based mapping sources.

A high powered LED torch and ladders were used during the survey. A digital endoscope was available for use if required.

2.3 Dusk Emergence Survey

A dusk emergence survey was undertaken on 23rd May 2016. The survey was led by Ryan Knight (RK) with assistance from Catherine Wood (CW).

The surveyors assumed positions which enabled clear visual sightlines of all potential bat roost emergence features identified at the property. All other non-emergence bat activity was also recorded including flight locations, type of activity, time of activity and species. Table 1 details the weather conditions during the dusk emergence survey. The surveyors used Batbox Duet frequency division bat detectors.

Table 1: Dusk emergence survey conditions

Date	23 rd May 2016
Sunset	21:15
Survey duration	21:50 to 22:50
Weather conditions	Dry throughout survey. 13°C at survey start / 10°C at survey end 100% cloud cover at start (fully clear by 22:00). Wind - Beaufort scale 2 reducing to 0 after 30 mins.
Surveyor Locations	RK: Northeast corner CW: Southwest corner

¹ Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust. ISBN-13: 9781872745985.

2.4 *Survey Comments*

The weather conditions were suitable for a dusk emergence survey and bat activity was recorded throughout the duration of the survey. The dusk survey was conducted during the main bat survey season. The property was comprehensively examined both internally and externally and the surveyors covered all potential bat egress locations. The level of survey effort undertaken was considered appropriate for the low potential of use of the property by bats and also the scale of development proposals. It is therefore considered that there were no significant survey constraints.

3 Survey Results

3.1 Desk Study

Information provided by WYBG is included in Table 2. WYBG provided only 5 records of bats including common pipistrelle and *Vesper* sp. (unidentified to species level) within a 2km radius of the site. The paucity of bat data within the locality could be attributed to a lack of survey effort within this particular area rather than a low distribution of bats.

There are no records for the site itself. The most notable record is of a common pipistrelle maternity roost (45 count) located around 200m north of the property.

Table 2: WYBG bat records within a 2km radius of the property

Grid Ref	Location Name	Date	Common Name	Abundance	Record Type
SE2111908446	Old Rectory, 80 Barnsley Rd, Upper Cumberworth, Kirklees	22/04/2003	Common Pipistrelle	not recorded Range	Roost (maternity)
SE193095	127 Lane Head Road	26/06/2010	Common Pipistrelle	45 Count of Adult	Roost (maternity)
SE20360772	Penistone Road, Birdsedge, Kirklees	29/09/2004	Vesper Bat species	1 Count of Adult	Injured
SE1993208121	7 Park Head, Birdsedge, Huddersfield	20/07/2006	Vesper Bat species	50 Count of Adult	Roost
SE190089	22 Highfield Court, Shepley	01/02/2011	Vesper Bat species	1 Count of Droppings	Roost (possible)

3.2 Building Description

Also refer to photographs in Appendix 2.

The property is a stone built cottage with a pitched, stone slate roof. The property also has a small porch facing the front garden. The cottage is part of a collection of buildings which form around a central courtyard and the cottage itself is located on the south side of the courtyard. Another dwelling is attached to the west of the cottage. The property appears to be very well maintained and the mortar pointing both at the roof verge and the walls is in good repair. At the verge of the roof is a stone ledge, atop of which sits the guttering. This stone ledge also appears to be in good condition with limited crevices aside from channels in which downpipes pass through. The chimney and flashing are also structurally sound with no potential for access by bats. The main area of potential for the property to be used by bats is limited to the roof. As is typical of such roof types, there are a number of slight lifted or slightly misshaped slates which will provide small crevices for bats. The loft of the cottage is shallow (<1.2m high) and not used aside from periodic maintenance. The loft is insulated throughout and the roof is lined.

3.3 Habitat Description

Small broadleaved woodlands (mainly sycamore with lime and horse chestnut) are located to the immediate east and to the south of the cottage. These trees and the farm buildings themselves will provide a degree of shelter for foraging bats. There are also larger woodlands to the west (>200m) and east (>500m) of the cottage. In addition, there is a large pond located less than 175m east of the property across Penistone Road. The woodland and waterbody will provide optimal foraging features for bats. The surrounding area is mainly agricultural land bound by fences and drystone walls and bat activity is not expected to be significant in this landscape. Overall, there are no significant constraints to the presence of bats at the site and the surrounding area provides habitats of moderate value to bats.

3.4 Evidence of Bats & Bat Roost Potential

No evidence of bats was found during the building inspection. Taking into account 1) the extent of the features of the property which are suitable for bats; 2) the property location; 3) the suitability of the surrounding habitats; and, 4) an absence of evidence of bats, the cottage is categorised as '*low potential*' for use as a bat roost.

3.5 Dusk Emergence Survey

The results of the dusk emergence survey are summarised in Table 3.

No evidence of the use of the property as a roost was observed. 2 species of bat were recorded; common pipistrelle and noctule

Common pipistrelle bat activity was constant with up to 3 bats recorded foraging along the adjacent tree canopy and within the courtyard. A single pass of a noctule bat was recorded later in the survey. Overall, the survey yielded levels of bat activity expected for such a location.

Table 3: Summary of bat activity recorded during the dusk emergence survey

23rd May 2016 – RK – northeast elevations		
Time	Species	Activity notes
21:25	Common pipistrelle	Foraging pass from southwest along treeline.
21:28 & 21:32	Common pipistrelle	Heard not seen (faint registration).
21:33	Common pipistrelle	2 bats. Foraging along tree canopy.
21:40	Common pipistrelle	1 to 2 bats. Continued foraging along trees and within courtyard.
21:50	Common pipistrelle	Up to 3 bats foraging in courtyard (feeding buzzes registered),
22:05	Common Pipistrelle	Continued foraging (up to 3 bats)
22:20	Common Pipistrelle	2 bats. Occasional to frequent foraging passes.
22:35	Common pipistrelle	Occasional passes (activity decreased).
22:36	Noctule	Brief pass not seen
22:40	-	No activity
22:45	Common pipistrelle	Brief pass
23rd May 2016 –CW – southwest elevation		
Time	Species	Activity notes
21:22	Common pipistrelle	Brief registration unseen

21:25 to 21:30	Common pipistrelle	Foraging unseen & single pass around building
21:35 to 21:45	Common pipistrelle	Up to 2 bats. Foraging unseen (in trees behind) & occasional passes around building.
21:45 to 22:00	Common pipistrelle	Up to 2 bats. Foraging unseen (in trees behind) & occasional passes around building.
22:00 to 22:15	Common pipistrelle	Frequent foraging loops & occasional passes around building
22:15 to 22:35	Common pipistrelle	Frequent foraging (very poor light).
22:40	Common pipistrelle Noctule	Brief foraging passes
22:45	-	No Activity

3.6 *Nesting Birds*

No evidence of active bird nests was observed.

4 Conclusions and Recommendations

4.1 *Conclusions*

The main conclusions from the bat surveys conducted at the property are listed as follows:

- **No evidence of use of the cottage as a bat roost was observed during the surveys conducted on the building.**
- There were no significant constraints to the surveys and the visit was conducted in suitable weather conditions.
- The property is in a good state of repair with very limited features that are suitable to support a bat roost. Therefore, the cottage was defined as 'low' in its potential for use by bats.
- The surrounding habitats are of moderate significance to bats in terms of providing linear connectivity and foraging value. In terms of numbers and species encountered on the site, bat activity levels were considered to be representative of the area.
- No evidence of actively nesting birds was observed and there is a very limited potential for nest sites to be present within the building.

Given the above findings, it is concluded that a bat roost is very likely to be absent from the property and bats do not present an ecological constraint to the development plans. Standard precautionary mitigation for the work is advised below.

4.2 *Recommendations*

Bats

In the very unlikely event that bats or evidence of a bat roost is found at any stage during the development, work must stop immediately and advice sought from a licensed bat worker or from Natural England. A Natural England license will be required if the continuing work is likely to result in the contravention of current legislation afforded to bats. All works must cease until a licence is obtained.

In the interests of ecological enhancement, the provision of a 2F Schwegler bat box is recommended. The bat box should be fixed on one of the mature trees located to the immediate east of the property and fixed to the main trunk of a tree at over 3m in height. Preferably, the box should also be south / southeast facing. Further advice can be provided if requested.

Appendix 1: Legislation and Conservation Context

Bats

All British bat species are fully protected through The Conservation of Habitats and Species Regulations 2010 as European Protected Species (EPS). They also receive some protection through inclusion in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

It is an offence to deliberately capture, injure or kill a bat. It is an offence to damage or destroy a breeding site or resting place of a bat. It is an offence to deliberately disturb a bat; 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) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or (b) to affect significantly the local distribution or abundance of the species to which they belong.

Under the Wildlife and Countryside Act 1981 (as amended), it is also an offence to intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection; or obstruct access to any structure or place which any such animal uses for shelter or protection.

The 'appropriate authority' (Natural England in England) has powers to issue licences for various purposes including - (a) scientific or educational purposes... and (e) 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. The appropriate authority shall not grant a licence under this regulation unless they are satisfied - (a) that there is no satisfactory alternative, and (b) that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range. It is an offence for any person authorised by virtue of a licence to which this paragraph applies to contravene or fail to comply with any condition which the licence requires him to comply with.

Several species of bat including brown long-eared and soprano pipistrelle *Pipistrellus pygmaeus* are identified as UK Biodiversity Action Plan (BAP) priority species.

Nesting birds

All wild birds in the UK are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs. Bird species listed in Schedule 1 of the 1981 Act, such as barn owl, receive further protection which makes it an offence to intentionally or recklessly disturb these species while building a nest or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird.

Appendix 2: Photographs

Photo 1: View of loft



Photo 2: Southeast elevations



Photo 3: East gable



Photo 4: North elevation



Photo 5: Close up of stonework (solid) & stone verge.



Photo 6: View of verge at gable (solid)

