

Poplar Farm Briestfield, Dewsbury

Bat Survey

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1 Introduction

This report presents the results of a daytime bat roost assessment and a dusk emergence bat survey undertaken at Poplar Farm, Briestfield Road, Briestfield, Dewsbury, West Yorkshire WF12 0PA. The farm is redundant and comprises a complex of (attached) buildings including a dwelling, stone barn and a Dutch barn style construction. The farm lies within the small village of Briestfield to the south of Mirfield and Dewsbury at grid reference SE 23318 17464. Figures 1 and 2 provide an illustration of the site location.

The property is proposed for demolition in order to construct 4no. detached dwellings. This report was completed to inform planning decisions pertaining to the development plans.

Figure 1: Location of the property (yellow outline)



Figure 2: Location of property



2 Survey Methodology

2.0 Data search

Records of bats within a 2km radius of the property were requested from West Yorkshire Bat Group (WYBG).

2.1 Daytime inspection

The property was subject to a detailed inspection for evidence of bats and to assess the farm buildings in terms of their potential for use as a bat roost on 12th June 2014 by Ryan Knight MCIEEM of Quants Environmental (holding Natural England bat licence no. CLS00633 - WML-CL18 Level 2).

The exterior of the buildings was searched for signs of bats such as droppings and for suitable bat roost features and access points. An internal inspection for evidence of bats including crevice dwelling species was undertaken to record signs including droppings, scratches, staining, urine marking, corpses and feeding remains i.e. insect wings.

A high powered torch was used during the inspection. An endoscope, ladders and close focusing binoculars were available for use if required.

2.2 Dusk emergence survey

A dusk emergence survey was undertaken on 16th June 2014 by Ryan Knight (RK) with assistance from Catherine Wood (CW - East Lancs Bat Care Coordinator, > 5 years bat survey experience). Both surveyors used Batbox Duet frequency division bat detectors. A remote detector (Wildlife Acoustics SM2BAT+) was also deployed within the barn to facilitate an overall evaluation of the surveyor's findings.

RK was located to the northeast of the farmhouse (underneath the Dutch barn) and to the north of the stone barn which provided sightlines of the north and east elevations; CW was located to the southwest of the farmhouse, which provided sightlines of the south and west elevations. The weather conditions for the emergence survey are summarised in Table 1.

Table 1: Emergence survey conditions

Date	16 th June 2014
Sunset	21:38
Survey duration	21:15 – 23:15 (2hrs)
Weather conditions	Dry, 15°C @ 21:15 - 12°C @ 23:15 0% cloud cover. Light breeze (Beaufort scale 2).

2.3 Survey comments

The scope of survey work completed is considered to be satisfactory and proportionate for the scale of development and with consideration to the potential of the property to support bats and overall bat activity at the site. The weather conditions were suitable for a bat emergence surveys and bat activity was recorded throughout the duration of the surveys. The surveys were conducted during the main bat survey season (May to September inclusive). The property was comprehensively examined both internally and externally and the surveyors covered all potential bat egress locations. It is therefore considered that there were no significant survey limitations.

3 Survey Results

3.0 Data search

Records of bats held by WYBG are provided in Table 2 below. There are a limited number of records within the search radius. This is likely to be due to an under recording of bats within this particular search area rather than a low level of bat activity. The records include common pipistrelle, Leisler's (lesser noctule) and *Vesper* bats (not identified to species level). The most notable record is of a common pipistrelle roost (single bat) located at Orchard Farm 150m to the west of the site. There is also a notable roost record (40 bats) located at Whitley Road, Thornhill over 1km northeast.

Table 2: WYBG records of bats within a 2km radius of the site.

Grid Ref	Location Name	Date	Common Name	Abundance	Record Type
SE2484718727	26 Chapel Close, Thornhill	08/07/2007	Lesser Noctule Bat	not recorded Range	Roost (maternity)
SE23161745	Barn at Orchard Farm	25/05/2013	Common Pipistrelle	1 Count of Adult	Roost
SE2292718173	The Bunkers, Hill Farm, Whiteley Road, Whiteley, Dewsbury	30/04/2001	Vesper Bat species		Roost (possible)
SE2397418424	5 Whitley Road, Thornhill, Dewsbury, WF12 OLP, Kirklees	07/07/2004	Vesper Bat species	40 Count of Adult	Roost
SE2485218729	28 Chapel Close, Thornhill, Dewsbury, WF12 ODL, Kirklees	10/07/2004	Vesper Bat species	1 Count of Adult	Roost (possible)
SE23641942	21 Edward Close, Thornhill Lees, Dewsbury, Kirklees	26/07/2005	Vesper Bat species	1 Count of Adult	Casualty
SE2506018015	48 Edge Road, Thornhill Edge, Dewsbury	05/07/2006	Vesper Bat species		Roost

3.1 Property description

Also refer to photos in Appendix 2. The property is a redundant farm which is rarely accessed since the occupants left in 2013 after a house fire. The buildings are in very poor structural repair¹. For clarity, the buildings on the site are separately described in more detail below.

Farmhouse

The farmhouse is a stone built construction with a stone tile roof and is partially rendered. In general, the walls in which rendering is absent appears to be well pointed. A timber shed lies on the west elevation and a lean-to shelter is attached to the south gable end. There is an area on the western elevation in which there are a number of gaps resulting from missing mortar and loose stones. However, it must be noted that this area was subject to a recent fire (2013) which burnt down an attached lean-to building in this location.

The fire damage was extensive within the roof structure. The northern half of the roof contained no void due to fire damage and many timbers were charred. The southern half contained a very shallow roof void and visible signs of smoke damage were evident.

Due to fire damage, potential bat roost features were limited to external locations, namely, gaps underneath timber eaves on both the west and east elevations, and, timber boards that have recently been fixed to strengthen the west walls. No evidence of bats was recorded.

Attached stone barn

A stone barn is attached to the farmhouse on the lower east elevation. The barn has a stone slate covering. The barn is in a highly noticeable poor state of repair; sections of the walls appear to have moved and/or collapsed; many ridge tiles and roof slates were missing resulting in a high amount of rain egress and many roof timbers were rotten. Due to missing roof slates and two large open entrances, the barn was very light throughout. Due to such

¹ Observation of layperson only.

poor structural repair and conditions, potential roost features for bats were limited to possible crevices between roof slates.

Dutch style barns & outbuildings

The farm has a large Dutch style open barn which is constructed from use of timber stanchions, corrugated sheets, concrete blocks and stone. Typically, such constructions do not offer features of suitability for use as a bat roost and no readily observable roost features were recorded. The outbuildings including small (collapsed) sheds and lean-to's are not considered to offer any roost potential for bats and are therefore not described in any detail.

3.2 Surrounding habitat

The farm is located within unkempt grounds with hard standing, bare ground, ruderal vegetation, scrub and several semi-mature trees.

Two outgrown hedgerows connect the site to a wooded area 140m to the south. The surrounding area comprises pasture land bound by dry stone walls, fences, hedgerows and occasional trees. There are extensive linear stands of woodland in the wider area (<1km). The site and buildings are likely to provide some foraging opportunities for bats and the wider area appears to offer good foraging value. Overall, the features within the site and adjacent land provide suitable foraging opportunities for bats with no significant limiting factors to the presence of bats at the site.

3.3 Dusk emergence survey

No bats were observed to emerge from the property. Low to moderate levels of common pipistrelle bat activity and a single *Myotis* bat pass (not identified to species level) was recorded. The surveyor to the northeast of the farmhouse recorded several foraging loops of up to 2 common pipistrelle bats within a 10 minute period of the survey. Several foraging loops were observed in the courtyard and frequent foraging activity to the south of the barn was registered. The first bat appeared at 22mins after sunset which may suggest a roost nearby. The surveyor to the southwest of the property recorded similar foraging activity with up to 3 common pipistrelle bats recorded to the south of the property. Activity noticeably decreased from 22:30 onwards.

The remote detector recorded a total of 53 common pipistrelle passes and a single *Myotis* bat pass. The detector was likely registering bats to the south and north of the stone barn.

Table 2:16th June 2014 (sunset 21:38) – RK – Dusk emergence survey results (northeast elevations)

Time	Species	Activity notes
21:15 to 21:59	n/a	No activity
22:00	Common pipistrelle	Commuting pass from north over farmhouse roof to southwest
22:15	Common pipistrelle	X 2 bats. Foraging loops within courtyard & Dutch barn
22:20	Common pipistrelle	1 to 2 bats – Continued foraging
22:30	<i>Myotis</i> bat	Heard not seen.
22:30 to 23:15	n/a	No activity

Table 3: 16th June 2014 (sunset 21:38) – CW – Dusk emergence survey results (southwest elevations)

Time	Species	Activity notes
21:15 to 21:59	n/a	No activity
22:00	Common pipistrelle	From roof adjacent to chimney to south (non-emergence verified by RK)
22:10	Common pipistrelle	Foraging
22:20	Common pipistrelle	1 to 3 bats Foraging in southern grounds
22:30	Common pipistrelle	Frequent foraging
22:44	Common pipistrelle	Foraging pass & social calling
22:45 to 23:15	n/a	No activity

3.4 *Nesting Birds*

A number of birds' nests were recorded amongst the roof timber of the Dutch style barn. No evidence of nesting birds was observed within the farmhouse or attached stone barn.

4 Conclusions and Recommendations

4.0 Conclusion

The main conclusions from the bat surveys are as follows:

- **No evidence of bats was observed during the daytime inspection of the property.**
- **No evidence of use of the building as a bat roost was observed during the emergence survey.**
- Two bat species were recorded in passage and/or foraging activity including common pipistrelle bats and a Myotis bat (single pass).
- The surveys were completed during the optimal period for emergence survey and during optimal weather conditions.
- The surrounding habitats are favourable to bats in terms of connectivity to the site and foraging value and the building and adjacent land is used on a frequent basis by foraging common pipistrelle bats.
- Evidence of nesting birds was observed and the development must adhere to standard mitigation recommendations for such species to ensure compliance with the relevant legislation (see Section 4.1).

The above findings indicate that the building is not used as a roost by bats. Therefore, bats are not considered to represent a significant ecological constraint to the development proposals and no further surveys or comprehensive mitigation actions are deemed necessary. The key restricting factors in the potential of the farm for use as a bat roost are; a) the recent fire which has damaged the farmhouse both internally and externally; and, b) the poor structural condition of the buildings including the stone barn.

4.1 Recommendations

It is understood that the buildings are proposed for demolition in order to construct 4no. dwellings. Detailed development plans were not available at the time of survey and report. However, the new development presents an ideal opportunity for enhancement of the site with regards to bats.

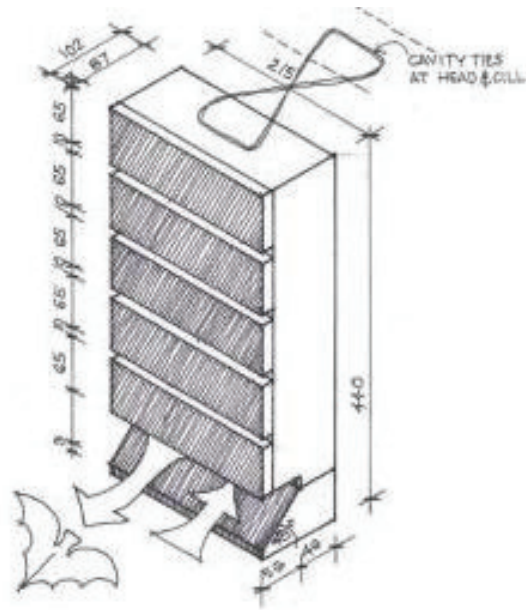
It is recommended that an integrated bat box is built into each house during construction using designs such as the Bat Conservation Trust approved integrated custom brick facing design by Habibat (www.habibat.co.uk/). Habibat is a large, solid bat box made of concrete with an internal roost space, which has been designed to be incorporated into the fabric of a building as it is built. It can be manufactured to suit any existing brick or stonework finish (other suitable bat bricks are available from different manufacturers, e.g. Schwegler 1FR bat tubes). The fixed position for bat boxes should be located underneath the eaves of each dwelling, preferably on the south elevation and have a clear 1-2m drop from the entrance point. The bat box should also be located away from windows and excessive light spill. An illustration of the design is presented in Figure 3. The integration of bat boxes should offer potential ecology accreditation within a housing scheme such as Code for Sustainable Homes.

The loss of the site to foraging bats is not likely to significantly affect local populations or the distribution of bats. Nonetheless, it is advised to incorporate green areas within the landscaping scheme which will ideally use native plants and preferably of local provenance to encourage use of the site by bats. The use of British seed stock is also advised.

Birds

Birds' nests were recorded within the roof timbers of the Dutch barn. 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. The demolition works must therefore be completed outside of the bird nesting season of March to October.

Figure 3: Illustration of Habibat bat box design - Dimensions: 215 mm wide x 440 mm high x 102 mm deep



Appendix 1: Legislation and Conservation Context

Bats

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

Under the legislation, 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 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 it uses for that purpose.

It is also 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.

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, 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: Photos

Photo 1: Southeast elevation of farmhouse.



Photo 2: Northwest elevations of farmhouse.



Photo 3: East elevations of farmhouse (stone barn to left of photo).



Photo 4: North elevation of stone barn.



Photo 5: Dutch style barn



Photo 6: Inside of Dutch barn.



Photo 7: Stone barn (looking west along north elevation)



Photo 8: South elevation of barn & connected sheds



Photo 9: Light levels within Stone barn



Photo 10: View of fire damage within upper floor of farmhouse.

