

Mill Farm House, Oxspring

Bat Survey Report

26th September 2019



Prepared by:

Middleton Bell Ecology, 33 Wilthorpe Road, Barnsley S75 1JA

Document ref : MBE/BAT/2019/86				
Purpose and Description	Originated	Checked	Reviewed	Date
For Planning	R Bell MCIEEM <i>R Bell</i>	P Middleton MCIEEM <i>P Middleton</i>	R Bell MCIEEM <i>R Bell</i>	26/09/19

Disclaimer

This report is issued to the client for the sole use and for the intended purpose as stated in the agreement between the client and Middleton Bell Ecology (MBE) under which this work was completed, or else as set out within the report. This report may not be relied upon by any other party without the express written agreement of MBE. The use of this report by unauthorised third parties is at their own risk and MBE accepts no duty of care to any such party.

MBE has exercised due care in preparing this report, it has not, unless specifically stated, independently verified information provided by others. No other warranty, express or implied, is made in relation to the content of this report and MBE assumes no liability for any loss resulting from errors, omissions or misrepresentation made by others.

Any recommendations, opinion or finding stated in this report is based on circumstances and facts as they existed at the time that MBE performed the work. Nothing in this report constitutes legal opinion. If legal opinion is required, the advice of a legal professional should be secured.

Contents

1. Summary	2
2. Introduction	3
3. Habitat Assessment	3
4. Methodology	4
5. Results	6
6. Assessment	11
7. References	13
Appendix 1. Bat Records	14

1. Summary

- 1.1.1 The bat survey works at Mill Farm House, Oxspring were commissioned by the architect Robin Jackson on behalf of the client Jim Garside on 22nd August 2019.
- 1.1.2 The survey was undertaken to support a planning application to comprise demolition of the existing dwelling and construction of a single new house.
- 1.1.3 The bat survey works carried out comprise a preliminary roost assessment undertaken on 22nd August 2019 followed by nocturnal surveys undertaken on 28th August and 25th September 2019.
- 1.1.4 Two common pipistrelle day roost locations, used by a maximum count of three bats, were recorded within the dwelling during the bat survey works. These roosts are considered to be of low conservation value.
- 1.1.5 The two bat roosts recorded will be destroyed during the proposed demolition works. Consequently, it will be necessary to obtain some form of bat mitigation licence from Natural England to permit the proposed scheme.
- 1.1.6 No further survey work is considered necessary at this time. It should however be noted that Natural England typically require some of the nocturnal survey work to have been undertaken during the most recent survey season. Consequently, update survey may be required, in instances where there is a delay between the original bat surveys and the application for a bat mitigation licence.
- 1.1.7 A bat mitigation plan, suitable to inform bat mitigation licensing, is proposed in this document. This includes the supervised removal of roof tiles and the installation of long-term replacement roost provision in the new dwelling. It is proposed to install a set of three joined integrated bat boxes on the south elevation of the new dwelling, with single integrated boxes to be installed on the east and west elevations.

2. Introduction

- 2.1.1 The bat survey works at Mill Farm House, Oxspring were commissioned by the architect Robin Jackson on behalf of the client Jim Garside on 22nd August 2019.
- 2.1.2 The survey was undertaken to support a planning application to comprise demolition of the existing dwelling and construction of a single new house.
- 2.1.3 The bat survey works carried out comprise a preliminary roost assessment undertaken on 22nd August 2019 followed by nocturnal surveys undertaken on 28th August and 25th September 2019.

3. Habitat Assessment

- 3.1.1 Mill Farm House is bordered to the north and south by lawns with scattered trees. The site is surrounded by woodland with a strong deciduous woodland belt, which connects to the River Don, along the southern boundary. The River Don is present 90m south of the site.
- 3.1.2 Extensive high quality bat foraging habitat is present immediately adjoining the site and bat abundance in the local area is expected to be high, with a varied range of species present.

Table 1. Location and habitat table

Name and address: Mill Farm House, Oxpspring, S36 8WF			
OS Grid Ref. SE 27247 02212		Altitude. 185m	
Local Planning Authority: Barnsley Metropolitan Borough Council			
Features on site and adjacent to site			
Feature	On site	Adjacent	Comments
Buildings			Other dwellings located nearby
River bordered by trees			River Don located 90m south of site
Standing water			
Bridges tunnels and culverts		✓	A bridge over the River Don is present 65m south of the site
Trees	✓	✓	Scattered trees are present on site 65m south of site
Woodland		✓	A belt of woodland extends along the southern boundary of the site. An ancient woodland is present 30m east of the site
Grassland	✓	✓	Lawn is present to the north and south of the dwelling

Figure 1. Site location, as indicated by red circle



3.2 Aims

3.2.1 The survey was conducted to help determine the following:

- The presence/absence of roosting bats.
- Bat roosting areas and access/egress points into the structure.
- The level of bat roost potential associated with the structure.
- The number and species of bat roosting within the structure.
- Identify further survey work or mitigation requirements.

4. Methodology

4.1 Data Consultation

4.1.1 Bat records were requested from South Yorkshire Bat Group (NYBG) for locations within a 2km radius of the site. A search of the Multi-Agency Geographical Information for the Countryside (MAGIC) website was also undertaken to identify historic European Protected Species (EPS) licences obtained for locations within 2km of the site.

4.2 Field Survey

Preliminary roost assessment

4.2.1 The following personnel conducted the preliminary roost assessment on 22nd August 2019:

- Robert Bell (MCIEEM; Class license WML-A34-Level 4, 2016-25236-CLS-CLS)

4.2.2 The following activities were carried out during the surveys in compliance with relevant Bat Survey Guidelines (Collins 2016):

- A brief inspection and assessment of the site and habitats present to within 300m.
- An extensive examination of all parts of the building both inside and out to record structural features and condition and to record features that may be suitable for roosting bats. Particular attention was paid to any crevices or gaps in walls, lintels, gaps between beams and joists and to the possibility of finding droppings stuck to walls, floors or other surfaces, or insect remains below beams, among a number of other factors. All signs indicative of a bat roost presence including live or dead bats, droppings, feeding remains, scratch marks and staining were recorded.
- An assessment of the building's bat roost potential (negligible, low, moderate, high or confirmed roost).

4.2.3 The following equipment was used or at hand during the survey:

- Clulight
- Binoculars
- Endoscope
- Ladders
- Camera

Nocturnal surveys

4.2.4 The following personnel conducted the nocturnal surveys:

- Robert Bell (RB), Dr Amanda Murphy (AM), Louisa Malloy (LM)(Grad CIEEM; Bat survey class license WML-A34-Level 1, 2016-22694-CLS-CLS) and Greg Slack (GS)(MCIEEM; Class license WML-A34-Level 4, 2017-28068-CLS-CLS).

4.2.5 The following activities were carried out in compliance with relevant Bat Survey Guidelines (Collins 2016):

- A dawn return survey on the building was undertaken by RB, LM and AM on 28th August 2019, continuing from 90 minutes prior to sunrise until 15 minutes after this time.
- A dusk emergence survey was undertaken by RB, GS and AM on 25th September 2019, continuing from 15 minutes prior to sunset until 1.5 hours after this time.

4.2.6 The following equipment was used during the surveys:

- Wildlife Acoustics EM Touch bat detectors and iPad/iPod recorders

Figure 2. Nocturnal surveyor location plan



4.3 Survey Limitations

- 4.3.1 The first nocturnal survey was undertaken within the peak bat activity survey season but after some maternity roosts would have dispersed, in particular many pipistrelle maternity roosts. The building was inspected for signs of past maternity roost presence, such as accumulations of droppings, however there remains a chance such evidence may have been removed during periods of wet and/or windy weather.
- 4.3.2 A roof void, approximately 2m high, is present beneath the hipped roof in the northeast corner of the dwelling. This roof void cannot be accessed due to the lack of a loft hatch. Any evidence of bats deposited in this roof void could not be recorded however this section of the building could be comprehensively viewed during the two nocturnal surveys.

5. Results

5.1 Data Consultation

- 5.1.1 South Yorkshire Bat Group supplied eighty bat records for locations within 2km of the site. These records related to either common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Daubenton's bat *Myotis daubentonii*, Leisler's bat *Nyctalus leisleri*, noctule *Nyctalus noctula*, whiskered bat *Myotis mystacinus*, an unidentified *Pipistrellus* species, an unidentified *Myotis* species or an unidentified bat species.

- 5.1.2 No records relate to the site itself. The closest records to site were collected from the River Don, approximately 120m southeast of the site. These records collected in 2011 related to a maximum count of 20 Daubenton's bats. It is assumed these records may relate to a roost. The closest confirmed maternity roost is likely to comprise a common pipistrelle maternity roost, recorded in 2019 from a location approximately 350m west of the site.
- 5.1.3 No European Protected Species (EPS) bat mitigation licences have been issued for locations within 2km of the site.

5.2 Field Survey

Preliminary roost assessment

- 5.2.1 The two storey detached dwelling was constructed in 1966 from imitation stone concrete blocks with a multi-pitched concrete tile covered roof. The dwelling is partly constructed into a northwest to southeast orientated slope with a basement garage included at the southwest end of the dwelling. Roof fittings including wooden soffit boards, fascia board and barge boards are present, whilst the building has cavity walls and timber framed double-glazed windows. A dormer built into the southeast roof pitch has timber cladding. Dense vegetation is growing against the southwest gable. Security lighting is present on all elevations of the dwelling.

Plate 1. Northwest corner of dwelling



Plate 2. Southeast corner of dwelling



- 5.2.2 The dwelling exterior is generally in a reasonable state of repair, however, there are occasional small crevices (up to 20mm deep) between soffit boards and the adjacent walls. There are also crevices between roof tiles above gables verges on all elevations of the house and there are crevices between hip tiles. A rotten soffit board is present at the southeast corner of the dwelling.

Plate 3. Potential bat access points between soffit and wall



- 5.2.3 A roof void, approximately 2m high is present beneath the hipped roof in the northeast corner of the dwelling. This roof void cannot be accessed due to the lack of a loft hatch. Other sections of the roof are vaulted.
- 5.2.4 Taking into account surrounding habitat, the dwelling was considered to offer moderate bat roost potential. No site trees, likely to be impacted by the proposed scheme, were considered to offer greater than negligible bat roost potential.

Nocturnal surveys

- 5.2.5 All bat roost observations are shown on Figure 3. Two roost locations were recorded

from the dwelling, used by a maximum count of three bats. All bats were confirmed, or assumed to be common pipistrelle.

- 5.2.6 **Dawn survey, 28th August 2019** – (Sunrise 06:06) – The temperature at the beginning of monitoring was 15°C with a Beaufort Scale (BS) Force 1 southerly wind and 80% cloud. The wind increased to BS Force 2, with other weather conditions remaining the same. The weather was dry throughout.
- 5.2.7 A single common pipistrelle was recorded returning to roost in the roof verge of the dormer window (southeast pitch) at 05:49 (17 minutes before sunrise). This was preceded by regular common pipistrelle activity recorded on all sides of the dwelling. A single soprano pipistrelle pass was heard at 04:46, with a pass by a *Myotis* bat species recorded at 05:26. This bat is considered likely to be Daubenton's bat on the basis of automatic species identification and the close proximity to the river.
- 5.2.8 **Dusk survey, 25th September 2019** – (Sunset 18:59) – The temperature at the beginning of monitoring was 15°C with a BS Force 2 westerly wind and 60% cloud. The temperature decreased to 13°C by the end of monitoring whilst other conditions remained largely the same throughout the survey. The weather was dry throughout.
- 5.2.9 At 19:11 (12 minutes after sunset) a silent bat emerged from the northeast roof verge. This bat was considered likely to be a common pipistrelle on the basis of time of emergence, flight pattern and the predominance of this species on site. At 19:17 (18 minutes after sunset) two further common pipistrelle bats emerged from the verge of the dormer window, the roost location also recorded during the dawn survey.
- 5.2.10 Common pipistrelle bats were recorded from the time of the first emergence, throughout the remainder of the survey, with a bat of this species engaged in constant song flight along the southern tree line. Between 19:12 and 20:07, 5-10 noctule bats were recorded commuting along a flightpath taking them in a northwest direction over the dwelling (Figure 4). At 19:38 a single *Myotis* bat pass (thought to be Daubenton's bat) was recorded to the south of the dwelling.

Figure 3. Roost observations made during nocturnal survey



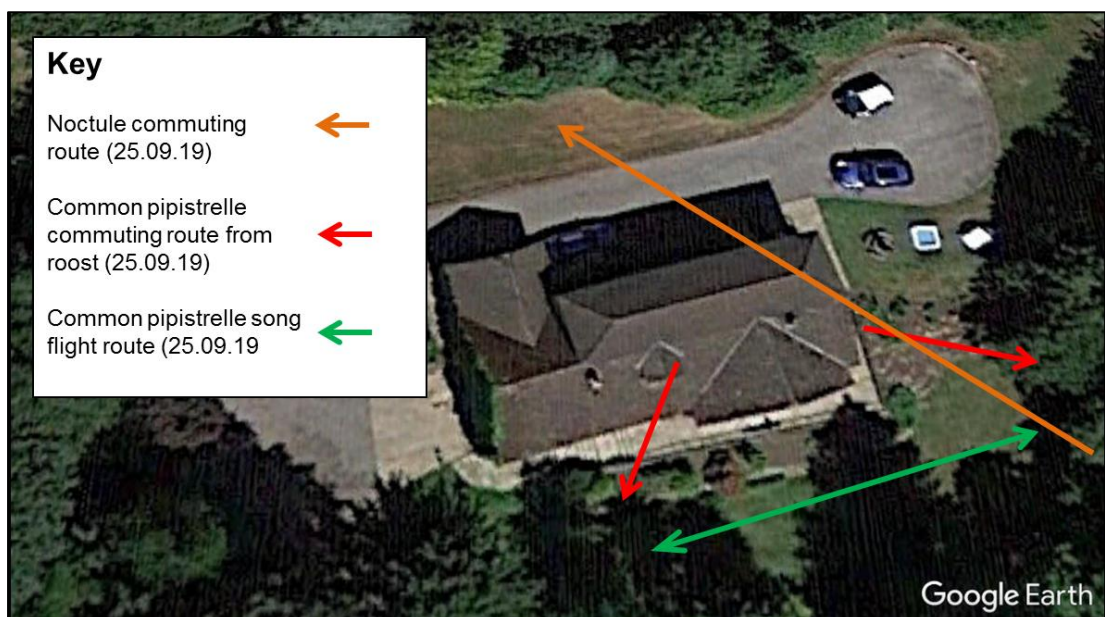
Plate 4. Common pipistrelle roost location on dormer



Plate 5. Roost location on northeast verge



Figure 4. Key bat activity plan



6. Assessment

6.1 Summary and Evaluation of Findings

- 6.1.1 Two common pipistrelle day roost locations, used by a maximum count of three bats, were recorded within the dwelling during the bat survey works. The common pipistrelle is considered to be common in South Yorkshire by South Yorkshire Bat Group and these roosts are considered to be of low conservation value.
- 6.1.2 The bat survey undertaken accords with the bat survey guidelines (Collins, 2016), however it was undertaken towards the end of the bat survey season. Whilst unlikely, there remains a low residual chance that a pipistrelle maternity roost could have been overlooked. To guard against this possibility, the mitigation proposed in this report will be suitable for use by a pipistrelle maternity roost. The building is not considered to display any particular suitability for use by hibernating bats.
- 6.1.3 The two bat roosts recorded will be destroyed during the proposed demolition works. Consequently it will be necessary to obtain some form of bat mitigation licence from Natural England to permit the proposed scheme.

6.2 Legislation and Policy Guidance

- 6.2.1 Bats receive protection under the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended).
- 6.2.2 It is an offence to:
- Deliberately capture (or take), injure or kill a bat.
 - Intentionally or recklessly disturb bats whilst they are occupying a structure or place used for shelter or protection or obstruct access to any such place.
 - Damage or destroy the breeding or resting place (roost) of a bat.
 - Possess a bat (live or dead), or any part of a bat.
 - Intentionally or recklessly obstruct access to a bat roost.
 - Sell (or offer for sale) or exchange bats (dead or alive), or parts of parts.
- 6.2.3 The Convention on Biological Diversity, signed in Rio de Janeiro, Brazil in 1992, requires member states to develop national strategies and to undertake a range of actions aimed at maintaining or restoring biodiversity. The UK Biodiversity Strategy was produced in response to the Convention.
- 6.2.4 In England & Wales, the Natural Environment and Rural Communities (NERC) Act, 2006 imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, “to have due regard, as far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. It notes that “conserving biodiversity includes restoring or enhancing a population or habitat”. *Barbastella barbastellus*, Bechstein’s *Myotis bechsteinii*, brown long-eared, greater horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *Rhinolophus hipposideros*, noctule and soprano pipistrelle bats are included as priority species within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. At a more local level there are Local Biodiversity Action Plans for smaller geographical areas which may cover a greater or lesser range of bat species.
- 6.2.5 Where it is proposed to carry out works which will have an adverse impact on

roosting bats, the site must either be registered on the Bat Mitigation Class Licence (BMCL) or a European Protected Species (EPS) license must first be obtained from Natural England. This requirement applies even if no bats are expected to be present when the work is carried out.

- 6.2.6 The National Planning Policy Framework for England was revised in 2019. This document states that plans should ‘promote the conservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity’.

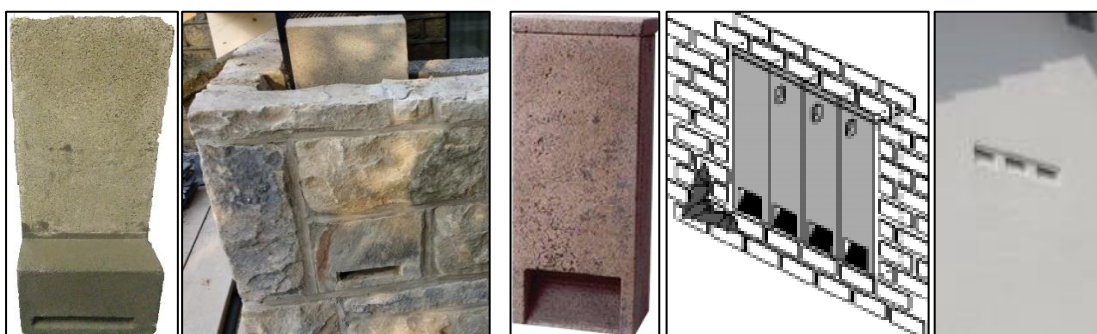
6.3 Further Survey, Recommendations and Enhancements

- 6.3.1 No further survey work is considered necessary at this time. It should however be noted that Natural England typically require some of the nocturnal survey work to have been undertaken during the most recent survey season. Consequently, update survey may be required, in instances where there is a delay between the original bat surveys and the application for a bat mitigation licence.

- 6.3.2 It will be necessary to implement detailed mitigation proposals in order to inform either the BMCL site registration or the EPS Licence. These mitigation measures will include:

- Bats to be captured and moved from the building prior to demolition works commencing. This work should be undertaken by a licensed bat surveyor following the delivery of a Toolbox Talk to contractors. If the supervised demolition is undertaken during the bat activity period (May-September), it should be preceded by a dawn survey to confirm roost types present.
- Any bats that are removed during the supervised roof-strip to be placed within a release box to be installed on a site tree. If the works are to be undertaken during the winter period, then this box will comprise an insulated bat box with suitability for bat hibernation. Any injured bats will be taken into care, pending future release on the site.
- Long-term bat roost retention will need to be provided within the new dwelling. This should include a bank of three joined integrated bat boxes on the south elevation with single integrated boxes on the east and west elevations. These boxes should be fitted at wall top height, away from artificial light spill. Two suitable box designs are shown in Plates 6 - 10.

Plates 6 - 10. Build-In Woodstone Bat Box shown on left (Plates 6 & 7), with Schwegler 2FR shown on right (Plates 8, 9 & 10)



6.4 Conclusions

- 6.4.1 The surveyed buildings support two common pipistrelle day roosts, considered to be of low conservation value.
- 6.4.2 Works may not proceed until the site is either registered on the BMCL or an EPS mitigation licence has been obtained. Neither option is possible until full planning consent has been granted and any outstanding planning conditions that may have a bearing on the mitigation scheme have been discharged.
- 6.4.3 A bat mitigation plan suitable to inform bat licensing has been detailed within this report.

7. References

Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines. The Bat Conservation Trust.

Appendix 1. Bat Records

In accordance with best practice and the requirements of bat licensing, bat records collected during surveys are supplied to the relevant biological record centres and bat groups. The records to be supplied in accordance with this survey are shown below. House names/numbers are not given out by record holding organisations except under very particular circumstances. Please let us know if you object to the distribution of these records.

Date	Species	Site Address	OS Grid Reference	Number	Notes
25/09/19	Common pipistrelle	Mill Farm House, Oxspring	SE 27247 02212	3	Across 2 day roosts
28/08/19	Soprano pipistrelle	Mill Farm House, Oxspring	SE 27247 02212	1	Pass
25/09/19	Noctule	Mill Farm House, Oxspring	SE 27247 02212	5-10	Commuting in northwest direction over site
25/09/19	Probable Daubenton's bat	Mill Farm House, Oxspring	SE 27247 02212	1	Pass