

Bat Scoping and Presence/Absence Survey

BE248.3

Rose House, Tunstead Milton



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Report title	Bat Scoping and Presence Absence Survey
Report reference	BE-248.3
Site address	Rose House, Manchester Road, Tunstead Milton, High Peak, Derbyshire SK23 7ER
Grid reference	SK 03261 80106
Report compiled by	David Watts BSc (Hons) FdSc
Client	David Shelmerdine
Date	24 th April 2015

Executive Summary	<p>The bat scoping survey was carried out by David Watts on 3rd March 2015. Twelve bat droppings were found in the roof space. Further features indicative of roosting bats were observed on the exterior of the building. The corresponding data search found several records of bats and designated habitats with good connectivity to the site.</p> <p>One dusk emergence and two dawn re-entry surveys were carried out between 12th and 22nd May. No bats were observed entering or leaving the building. Bats were observed entering another building adjacent to the site.</p> <p>An Anabat Express was placed in the roof space of the building between 12th May and 19th May 2015. No bat calls were recorded within the roof void.</p> <p>It is concluded that there are no bats roosting within the building, and there are no further considerations of the proposed demolition works in regard to bats. In accordance with the National Planning Policy Framework, it is recommended that a bat box is incorporated into the proposed development.</p>
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1. Introduction

- 1.1. Bagshaw Ecology Ltd have been requested by David Shelmerdine to carry out a bat survey at Rose House, Manchester Road, Tunstead Milton.
- 1.2. The purpose of the report is to:
 - Determine if bats are present or absent in the buildings on the site
 - If bats are found to be present, to estimate the size and status of the roost
 - Where necessary, to identify the requirement for further surveys, or for mitigation and/or ecological enhancement measures.

Site Details

- 1.3. This site is accessed off Manchester Road (B5470) in Tunstead Milton, approximately 2km west of Chapel-en-le-Firth and 2.5km east of Whaley Bridge. The surrounding area is predominantly agricultural, and is bordered by residential properties to the north, east and west. Manchester Road is adjacent to the south of the site, and there is a commercial property on the opposite side of the road.



Figure 1.1 Aerial imagery of surrounding area

- 1.4. The site consists of an end terraced two storey property and its associated gardens. The property was previously a public house, but is now in a poor state of repair, and is not currently occupied.
- 1.5. The proposed development is to demolish the existing building and to construct a new building with a similar footprint on the site.

2. Legislation and Policy

- 2.1.** All British bats are protected under the Wildlife and Countryside Act 1981 (as amended), extended by the Rights of Way Act (2000), making it an offence to deliberately or recklessly:
- Injure, kill or capture a bat.
 - Disturb a bat (whether in a roost or not).
 - Possess or control any live or dead specimen of a bat.
 - Destroy or obstruct access to any structure or place used for protection by a bat species.
 - Sell, barter or exchange a bat.
- 2.2.** All bat species are protected under Schedule II of the Conservation of Habitats and Species Regulations 2010. The Conservation of Habitats and Species Regulations makes it an offence to kill, capture or damage a bat, or to destroy a breeding site or resting place of a bat. Any development which compromises the protection afforded to bats under the regulations will require a European Protected Species License from Natural England.
- 2.3.** The National Planning Policy Framework (NPPF) states that planning decisions should aim to protect or enhance biodiversity and conservation interests, and where possible any development should aim to increase net gains in biodiversity.
- 2.4.** The UK Biodiversity Action Plan (UKBAP) includes a list of 943 national priority species and 56 habitats of principal importance, with all species and habitats having specific action plans defining the measures required to ensure their conservation. Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006 requires that any public bodies take into consideration any species and habitats listed in the UKBAP when implementing their duty and exercising any normal functions.

3. Methods

Pre-Survey Data Search

- 3.1. The Department for Environment, Food and Rural Affairs' (DEFRA) Magic Maps was consulted as to any land based designations and/or bat species records within 1km of the site.
- 3.2. The Derbyshire Bat Group was consulted as to any existing records of bats within 1km of the site.
- 3.3. Aerial imagery and other online sources were consulted in order to give an appraisal of the surrounding landscape in regard to its suitability for bats.

Scoping Survey

- 3.4. The bat scoping survey was carried out at 12:00pm on 3rd March 2015. The survey was carried out by David Watts BSc (Hons) (Class License 10248); an ecological consultant with experience of carrying out building inspections for bats.
- 3.5. The survey was based upon methodologies prescribed by Mitchell-Jones (2004), Mitchell-Jones and McLeish (2004) and Hundt (2012). This involved an inspection of the exterior and interior of the building. Any structural features with potential for use by roosting bats were recorded and any suitable access points were identified. Any direct evidence of bats, such as scratch marks, oil staining, droppings and feeding remains were also identified.
- 3.6. Taking account of structural features of the building, and the surrounding habitat, the building was assigned a level of roost suitability based upon professional judgement (see table 3.1).

Table 3.1. Bat Roosting Potential in Buildings

Roosting potential	Criteria
Confirmed Presence	Presence confirmed by the survey.
High	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.
Medium	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.
Low	Buildings with limited roosting opportunities but could be used on a sporadic or occasional basis for feeding or solitary day roosting. 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 medium to high potential but have reduced value due to other factors such as exposed location, separation from nearby foraging, or presence of strong lighting.
Negligible	Buildings which appear unsuitable for roosting bats due to a clear lack of roosting spaces such as voids etc. and/or absence of suitable access points.

Presence/Absence Surveys

- 3.7.** The dusk emergence survey was carried out between 20:25 and 22:25 on 12th May 2015. Sunset was at 20:55. The start temperature was 13°C and the finish temperature was 12°C. The weather was clear and dry.
- 3.8.** The first dawn re-entry survey was carried out between 03:25 and 05:07 on 15th May 2015. Sunrise was at 05:07. The start temperature was 11°C and the finish temperature was 10°C. The weather was clear and dry.
- 3.9.** The second dawn re-entry survey was carried out between 03:20 and 05:00 on 22nd May 2015. Sunrise was at 04:46. The start temperature was 12°C and the finish temperature was 10 °C. The weather was cloudy and dry.
- 3.10.** Dusk and dawn surveys were carried out by two surveyors, and were led by David Watts. The surveyors were equipped with Batbox Duet bat detectors. Bat calls were recorded with a Zoom H2N recorder.
- 3.11.** The property was monitored for any signs of emerging bats. Any other bats observed were also recorded. When a bat was detected, the surveyor recorded the time, the species, and the behaviour of the bat. The location of the bat was recorded on a site plan.

Anabat Recording

- 3.12.** An Anabat Express was placed in the roof void of the building at 20:20 on 12th May 2015. It was set to turn on each evening 30 minutes before sunset, and to turn off 30 minutes after sunrise each morning. The Anabat Express was collected at 10:30am on 19th May 2015.

4. Results

Pre-Survey Data Search Results

- 4.1. The surrounding area is predominantly agricultural, and has potential for bat habitats. Chapel-en-le-Firth Golf Club is located approximately 125m to the northeast of the site. Randal Carr Brook is located approximately 150m to the southwest. There is a small woodland approximately 175m to the southeast. Combs Reservoir is located approximately 300m to the southeast.
- 4.2. A search on the Magic Maps website revealed several designated habitats within 1km of the site. These include:
- One Deciduous Woodland BAP Priority Habitat, located approximately 175m southeast of the site, adjacent to the north of Combs Reservoir.
 - One Deciduous Woodland BAP Priority Habitat located approximately 500 to east of the site, to the North of Manchester Road.
 - Four Deciduous Woodland BAP Priority Habitats located approximately 650m west of the site, adjacent to Manchester Road.
 - One Deciduous Woodland BAP Priority Habitat located approximately 1km southeast of the site, adjacent to the south of Combs Reservoir.
- 4.3. Derbyshire Bat Group hold several records of bat species within the surrounding area:
- Six common pipistrelles (*Pipistrellus pipistrellus*), recorded approximately 1km west of the site in 2006.
 - One pipistrelle (*Pipistrellus* sp.) roost approximately 1.5km east of the site, recorded in 2013,
 - One brown long-eared (*Plecotus auritus*) roost approximately 1.7km east of the site, recorded in 2003.

Bat Scoping Survey Results

- 4.4. The building is an end terraced property with a pitched English tile roof and three chimneys. The gable end is located on the eastern aspect of the building and the western aspect is connected to the adjacent property.
- 4.5. An inspection of the exterior of the property found the roof to be in poor condition. There is damage and visible gaps to the ridge tiles, and gaps in several of the roof tiles on the building's southern aspect. No soffits are present, and there are gaps under the eaves. The brickwork to the southern aspect of the building is in good condition, although there are gaps in the brickwork to the building's northern aspect.



Figure 4.1 Southern aspect of building



Figure 4.2 Northern aspect of building



Figure 4.3 Eastern aspect of building



Figure 4.4 Damage to ridge tiles

- 4.6. An inspection of the roof void found the attic to be in poor condition. The roof consists of a queen post truss construction loft conversion. The ridge boards and rafters are in poor condition. The roof is lined with bitumen felt lining, which is ripped in places but with no visible gaps leading to the outside of the building. The loft space is divided into two sections.
- 4.7. The western section of the loft space is a well lit loft conversion, with a skylight on the northern aspect of the roof. There is a hole in the floor of this section, leading to the first floor of the building below. A fake wall was previously present, which has since been removed. Behind this, nine bat droppings were found on the floor, amongst mouse droppings. The bat droppings were between 2-4mm in size, and did not appear to be fresh.
- 4.8. The eastern section of the loft space is also well lit, with a window on the eastern aspect. Three bat droppings were found, of similar size and age to those found in the western section. No further signs of bats such as feeding remains were identified.
- 4.9. No access points into the loft area were identified, but it is anticipated that a solitary bat may have previously entered the roof void through gaps in the felt lining, which may lead to gaps in the ridge tiles and/or roof tiles on the exterior of the building.



Figure 4.5 Western section of roof void



Figure 4.6 Eastern section of roof void



Figure 4.7 Bat and mouse droppings

- 4.10.** The ground floor of the building was previously used as a public house, while the first floor of the building provided residential accommodation. An inspection of these floors of the building found no further access points for bats, with the exception of the three open chimney flues, which showed no signs of usage by bats. An inspection of the cellar revealed no potential access points for bats, with negligible hibernation potential.

Presence/Absence Surveys

- 4.11.** No bats were recorded emerging from the building during the emergence survey on 12th May. Several other passes of bats were recorded. Species recorded included:
- Common pipistrelle
 - Soprano pipistrelle
 - Noctule (*Nyctalus noctula*)
 - Myotis bat (*Myotis* sp.)
- 4.12.** No bats were recorded entering the building during the first dawn re-entry survey on 15th May. Bat activity overall was relatively low. The first bat was recorded at 04:16, and the last at 04:47. Bat species recorded included:
- Common pipistrelle
 - Soprano pipistrelle
- 4.13.** No bats were recorded entering the building during the second dawn re-entry survey on 22nd May. Bats were recorded foraging to the north of the site, and five common pipistrelles were observed entering one of the properties to the northeast of the site (grid reference SK 03212 80126).

Anabat Express

4.14. The Anabat Express recorded no bats within the roof void between the 12th May and 19th May.

5. Assessment

Habitat Assessment

- 5.1.** The surrounding area provides habitats suitable for bats. The site is adjacent to a Deciduous Woodland UK BAP priority habitat, and there is a high level of woodland cover within 1km of the site, with good terrestrial connectivity leading to and from the site.

Building Assessment

- 5.2.** Bat droppings were found in the roof void; however, as only a small number of bat droppings were found, and the roof void is well lit, it is anticipated that the building has been used as a transitional roost or as a night roost by a solitary male or non-breeding female. It was not possible to determine the age of the droppings.
- 5.3.** The exterior of the building exhibits features indicative of roosting bats, including damaged ridge tiles and roof tiles, gaps in the brickwork and gaps under the eaves. The surrounding area is highly suitable for bat habitats, with good habitat connectivity to the site, and the ecological data search found a number of bat records and designated habitats in the surrounding area.

Presence/Absence Surveys

- 5.4.** The presence/absence surveys found no bats entering or leaving the building. Furthermore, the data provided by the Anabat Express confirmed that there are no bats present within the roof void of the building. Due to these factors, it is considered that although a solitary bat has been present in the building at some point in the past, there is currently no bat roost within the building.
- 5.5.** A confirmed bat roost of five common pipistrelles was identified in the building located to the northeast of the property.

6. Conclusion and Recommendations

- 6.1.** As it is concluded that there are no roosting bats in the building, the proposed demolition works may be carried out with no further considerations in regard to bats.
- 6.2.** In the unlikely event that a bat is discovered during any construction or demolition works, all works should cease and a licensed bat worker should be contacted immediately.
- 6.3.** In accordance with the National Planning Policy Framework, the proposed development should include ecological enhancement measures to improve the biodiversity value of the site and the wider surrounding area. It is recommended that one bat box is incorporated into the proposed development. This should be of type Schwegler 1WI and should be situated on the wall of the proposed building, at a minimum height of 4m and as close to any gable apex as possible.

7. References

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DEFRA (2015) *Magic Maps* [online]. Available at: >www.magic.defra.gov.uk< [accessed 10th April 2015]

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Appendices

Appendix A: Survey Sheets

Site:	Rose House	Name:	David Watts
Date:	12/05/2015	Location:	South of building
Start temperature:	13°C	Finish temperature:	12°C
Start time:	20:25	Finish time:	22:25
Time	Species	Comments	
21:22	<i>Pipistrellus pipistrellus</i>	Heard, no visual	
21:25	<i>Pipistrellus pipistrellus</i>	Heard, no visual	
21:27	<i>Nyctalus noctula</i>	Heard, no visual	
21:35	<i>Nyctalus noctula</i>	Heard, no visual	
21:37	<i>Nyctalus noctula</i>	Heard, no visual	
21:41	<i>Myotis</i> sp.	Heard, no visual	

Site:	Rose House	Name:	Kath Smycki
Date:	12/05/2015	Location:	North of building
Start temperature:	13°C	Finish temperature:	12°C
Start time:	20:25	Finish time:	22:25
Time	Species	Comments	
21:19	<i>Pipistrellus pipistrellus</i>	Heard, no visual	
21:20	<i>Pipistrellus pipistrellus</i>	Commuting west to east	
21:22	<i>Pipistrellus pipistrellus</i>	Heard, no visual	
21:27	<i>Pipistrellus pygmaeus</i>	Heard, no visual	
21:30	<i>Pipistrellus pygmaeus</i>	Heard, no visual	
21:40	<i>Pipistrellus pipistrellus</i>	Heard, no visual	
21:41	<i>Nyctalus noctula</i>	Heard, no visual	
21:45	<i>Myotis</i> spp.	Heard, no visual	

Site:	Rose House	Name:	David Watts
Date:	15/05/2015	Location:	South of building
Start temperature:	11°C	Finish temperature	10°C
Start time:	03:25	Finish time:	05:07
Time	Species	Comments	
04:16	<i>Pipistrellus pipistrellus</i>	Commuting east to west	
04:22	<i>Pipistrellus pipistrellus</i>	Heard, no visual	

Site:	Rose House	Name:	Kath Smycki
Date:	12/05/2015	Location:	North of building
Start temperature:	11°C	Finish temperature	10°C
Start time:	03:25	Finish time:	05:07
Time	Species	Comments	
04:20	<i>Pipistrellus pipistrellus</i>	Heard, no visual	
04:42	<i>Pipistrellus pipistrellus</i>	Heard, no visual	
04:45	<i>Pipistrellus pipistrellus</i>	Heard, no visual	
04:47	<i>Pipistrellus pygmaeus</i>	Heard, no visual	

Site:	Rose House	Name:	David Watts
Date:	22/05/2015	Location:	North of building
Start temperature:	12°C	Finish temperature:	10°C
Start time:	03:20	Finish time:	05:00
Time	Species	Comments	
04:20	<i>Pipistrellus pipistrellus</i>	Foraging to north of building	
04:26	<i>Pipistrellus pipistrellus</i>	Heard, no visual	
04:28	<i>Pipistrellus pipistrellus</i>	Foraging to north of building	
04:29	<i>Pipistrellus pipistrellus</i>	Commuting south to north	
04:31	<i>Pipistrellus pipistrellus</i>	Five pipistrelles foraging to north of building, entered building to northeast (offsite) between 04:46 and 05:55	

Site:	Rose House	Name:	Alexandra Kaley
Date:	22/05/2015	Location:	South of building
Start temperature:	12°C	Finish temperature:	10°C
Start time:	03:20	Finish time:	05:00
Time	Species	Comments	
04:07	<i>Pipistrellus pipistrellus</i>	Heard, no visual	
04:25	<i>Pipistrellus pipistrellus</i>	Heard, no visual	
04:29	<i>Pipistrellus pipistrellus</i>	Commuting south to north	