



**THE COTTAGE, PEA FIELDS LANE,
BROMLEY.**

OS REF: SK 32347 98963.

BAT SURVEY.

Ref No: 220752 / Rev 1.

Date: 6th June 2023.

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1. INTRODUCTION.

1.1. The owners of The Cottage on Pea Fields Lane have plans to convert the property into from a currently disused barn into a residential dwelling.

1.2. Whitcher Wildlife Ltd was therefore commissioned to carry out a bat survey of the site to establish whether there are any issues that may affect the proposed works.

1.3. Both the initial daytime survey and a dusk emergence survey were carried out on 30th August 2022. As the building was assessed as having moderate bat roosting potential, a further dawn return survey was carried out on 31st May 2023. This report outlines the findings of these surveys and makes appropriate recommendations.

1.4. Appendices I and II of this report provides additional information on bats, nesting birds and the protection afforded to them and is designed to assist the reader in understanding the contents of this report.

2. SURVEY METHODOLOGY.

2.1. The buildings were thoroughly checked internally and externally for potential bat roosting sites by looking for the following signs: -

- * Holes, cracks or crevices.
- * Bat droppings.
- * Prey remains.
- * Staining on external walls.

2.2. Unless otherwise stated, all lofts were accessed and inspected using a high-powered torch and where necessary an endoscope.

2.3. A thorough external inspection was carried out from ground level for any gaps or openings in the roof and ridge tiles, behind soffits and fascia's and in the walls of the structure for suitable roost access points and field signs to indicate possible use by bats.

2.4. All window sills, walls and the ground around the structure were checked for signs of bat droppings or staining to indicate possible use by bats. Where necessary, ladders were utilised to gain access within the limits of health and safety. Any access constraints encountered are outlined within the following report.

2.5. The subsequent dusk emergence and dawn return surveys were also conducted in accordance with Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)*. It was conducted by a sufficient number of surveyors to cover all areas of roosting potential, in suitable weather conditions from fifteen minutes before sunset to at least an hour and half after.

2.6. All survey work was carried out in line with Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)*, with an assessment of the buildings suitability for roosting bats made in accordance with these guidelines.

2.7. The initial assessment and dusk emergence survey was undertaken by Mitchel Greenhalgh, a ecological consultant with an array of experience in conducting surveys on a variety of flora and fauna in a professional capacity. Mitchel holds a level two Natural England survey licence in respect of bats (2022-10386-CL18-BAT) and has attended courses run by CIEEM and the FSC. Mitchel also holds a BSc in

environmental science attained from the University of Leeds and he is an associate member of CIEEM.

2.8. The dawn return survey was carried out by Alexandra White BSc (Hons) MSc ACIEEM MIEnvSc. Alex has worked as a consultant since 2013 carrying out array of different habitat and species surveys. Alex holds Natural England Survey Licences for Great Crested Newts, Bats, Hazel Dormice and Barn Owls. She also holds Scottish Natural Heritage Licences for bats and great crested newts and Natural Resources Wales Licence for Great Crested Newts. She holds an undergraduate honours degree in Zoology and a Masters degree in Environmental Management (Landscape and Wildlife Conservation). She has successfully completed courses run by the Chartered Institute of Ecology and Environmental Management (CIEEM), Field Studies Council and the Mammal Society to further her knowledge of protected species and plant identification. Alex is an Associate member of CIEEM and a full member of IES.

3. SURVEY RESULTS.

3.1. Data Search Results.

3.1.1. A data search request was sent to the South Yorkshire Bat Group for records of bats and bat roosts within 2km of the survey area.

3.1.2. The search returned records of common pipistrelle, soprano pipistrelle, brown long-eared, Daubenton's, Natterer's and Whiskered bats within a 2km radius.

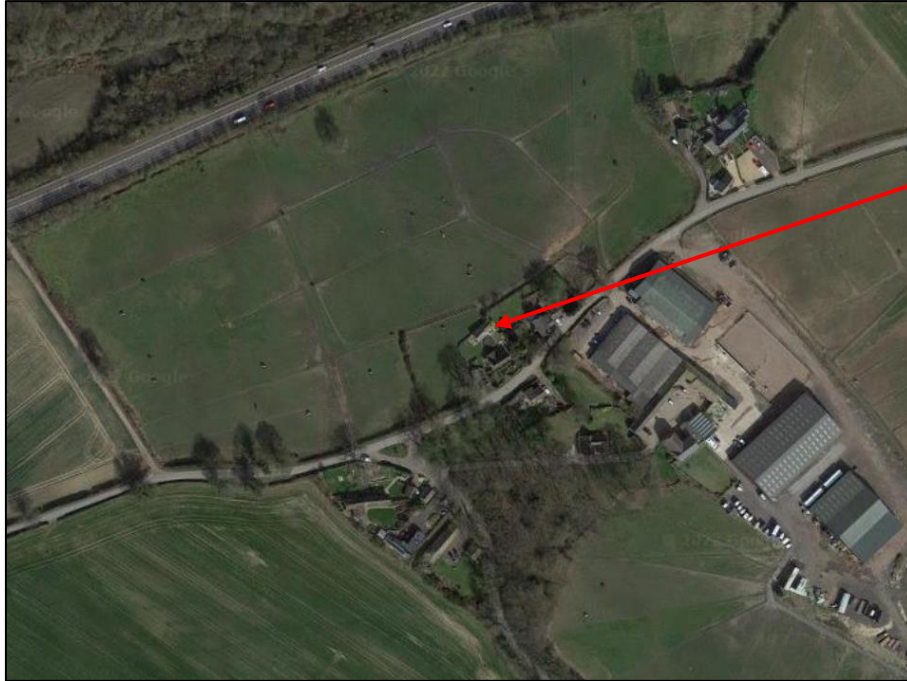
3.1.3. No records of bats are present within a 500m radius of the survey area. The closest records of bats are within the village of Howbrook over 700m south of the survey area.

3.2. Site Description.

3.2.1. The survey area is The Cottage, which is a small derelict barn currently used for storage, located on Pea Fields Lane within the village of Bromley. The building is shown below, identified by the red shape.



3.2.2. The surrounding area is largely rural, surrounded predominantly by arable land to the north, with some woodland and residential premises to the south and east. The photograph below shows the wider surroundings of the site.



3.2.3. The survey area is small, single-storey barn comprising two separate adjoining buildings, both built of stone, but with differing roof coverings. Shown below is a photograph of the barn.



3.3. Daytime Survey Results.

3.3.1. Externally, the walls of the building are in good condition to the south, east and western sides, but in a worsened state to the north. Whilst structurally sound, the wall has ample gaps within the stonework leading into the cavity. Most of these will provide suitable roosting opportunities for crevice-dwelling bats. Shown below are example photographs of these features.



3.3.2. There is also a small adjoining wall to the south-east of the barn, which joins another building, that could provide roosting features for opportunistic bats.



3.3.3. Access is available below the eaves of the building to the north, which could allow for bats both access into the barn and between the tiles and roof lining.



3.3.4. Missing mortar is present along the western gable, again providing direct access inside of the barn. The western end was not fully inspected due to only being visible from a neighbouring property. However, what could be inspected did not seem to be in as poor of a condition.



3.3.5. The roof of the building differs between the eastern and western half.

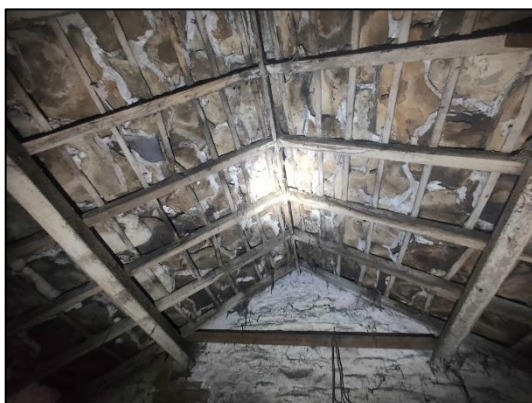
3.3.5.1. The western half comprises slate tiles which are in a moderate condition, with small numbers lifted or askew. These are considered unlikely to be used by roosting bats frequently, but small numbers could use them opportunistically.



3.3.5.2. The eastern half of the roof comprises large stone tiles, which whilst not in bad condition, do offer good opportunities for roosting bats due to their natural shape.



3.3.6. Both sections of the barn are single-storey and comprise the same roof structure with timber rafters and purlins. The main difference between the two is that the eastern section is bare to the underside of the tiles whilst the western section is lined.



3.3.7. The lining of the western section is a poor state with numerous tears and holes, which would allow access below the tiles into the building. Shown below are examples of these defects.



3.3.8. The wall separating both sections of the barn also has ample gaps that could be used by crevice dwelling bats.



3.3.9. Other entrance points to the building are shown below, although these are more likely to provide access for birds than bats. Swallow nests were identified within both sections of the building, although none were active during the survey.



3.3.10. The barn was fully inspected for signs of roosting bats, both internally and externally. Typical field signs include bat droppings, streaking and insect remains. No such field signs were found.

3.3.11. Due to the number of features suitable for roosting bats, and easy access into the property but lack of field signs, the building is assessed as providing **moderate potential** for roosting bats in line with the Bat Conservation Good Practice Guidelines.

3.3.12. The immediate surrounding habitat comprises predominantly arable and grazed land to the north, but to the east and south, there are tree lines and other vegetative features which provide connectivity to areas of suitable woodland habitat to the south. Therefore, the surrounding environment is assessed as providing **good habitat** for foraging and commuting bats.



3.4. Dusk Emergence Survey Results – 30th August 2022.

3.4.1. As the building was assessed as having moderate potential for roosting bats, an initial dusk emergence survey was carried out.

3.4.2. The survey was undertaken by Mitchel Greenhalgh, who holds a level two Natural England survey licence in respect of bats (2022-10386-CL18-BAT). He was accompanied by an experienced assistant.

3.4.3. Both surveyors were equipped with Batbox Duet detectors and two-way radios. Three Anabat recorders were deployed around the site and inside the barn to record bat activity for subsequent computer analysis using Analook software.

3.4.4. The aerial photograph below shows where the Surveyors (S) and Anabats (AB) were positioned.



3.4.5. The evening was mild, with a temperature of 15°C at the start of the survey and a wind measuring 1 on the Beaufort wind scale. Sunset was at 19:59. The survey lasted from 19:40 until 21:30.

3.4.6. The following are the observations of the surveyors.

3.4.6.1. *Surveyor 1.*

Two common pipistrelles passed west to east at 20:04 and 20:18. From 20:35, two common pipistrelles were observed foraging continuously around the survey area. At the peak of the activity during the survey, approximately five common pipistrelle bats were present at any one time foraging around the barn and neighbouring gardens and fields. This lasted until the end of the survey.

Anabat 16, situated close to surveyor 1, agreed with the findings of the surveyor, as well as recording one noctule call at 20:04.

3.4.5.2. *Surveyor 2.*

Surveyor two recorded the same two initial common pipistrelles and then continuous common pipistrelle foraging. They also recorded two further common pipistrelle passes west to east at 20:24 and 20:26.

Anabat 17, situated close to surveyor 2, agreed with the findings of the surveyor, and also recorded one noctule call at 20:04.

3.4.5.3. Anabat 21, located inside the building, recorded one common pipistrelle call at 20:53. However, it is likely that this was picked up during their close foraging to the building and therefore their echolocation being picked up internally through the barn door or open window.

3.5. Summary of dusk emergence survey.

3.5.1. Activity was moderate to high throughout the entirety of the survey with approximately five common pipistrelles foraging around the survey area at any one point.

3.5.2. No bats were seen to emerge from or enter the property by any of the surveyors.

3.5.3. The only species observed by the surveyors or Anabat recorders were common pipistrelles, with the exception of one noctule pass.

3.6. Dawn Return Survey Results – 31st May 2023.

3.6.1. As the building was assessed as having moderate potential for roosting bats, a second survey was required.

3.6.2. The survey was undertaken by Alexandra White, who holds a level two Natural England survey licence in respect of bats (2018-35087-CLS-CLS). She was accompanied by an experienced assistant.

3.6.3. Both surveyors were equipped with Batbox Duet detectors and two-way radios. Three Anabat recorders were deployed around the site and inside the barn to record bat activity for subsequent computer analysis using Analook software.

3.6.4. The aerial photograph below shows where the Surveyors (S) and Anabats (AB) were positioned.



3.6.5. The morning was mild, with a temperature of 10°C at the start of the survey and a wind measuring 2 on the Beaufort wind scale. Sunrise was at 04:45. The survey lasted from 03:15 until 05:00.

3.6.6. The following are the observations of the surveyors.

3.6.6.1. *Surveyor 1.*

One common pipistrelle passed over the pasture, behind the surveyor, at 03:20.

Anabat 13, situated close to surveyor 1, agreed with the findings of the surveyor.

3.6.5.2. *Surveyor 2.*

Surveyor two recorded no bats throughout the survey.

Anabat 17, situated close to surveyor 2, agreed with the findings of the surveyor and recorded no bats.

3.6.5.3. Anabat 4, located inside the building, recorded no bat calls.

3.7. Summary of dawn return survey.

3.7.1. Activity was extremely low throughout the survey with only one common pipistrelle passing close to the survey area.

3.7.2. No bats were seen to emerge from or enter the property by any of the surveyors.

3.7.3. The only species observed by the surveyors or Anabat recorders was common pipistrelle.

4. EVALUATION OF FINDINGS.

4.1. The building is assessed as providing **moderate** potential for roosting bats in line with Bat Conservation Trust Good Practice Guidelines.

4.2. No bats or their field signs were identified during the surveys.

4.3. The survey area offers suitable foraging and commuting opportunities. However, the works will not fragment or impact this habitat. Therefore, it is assessed that the proposed works will have no impact on foraging and commuting bats.

4.4. The dusk emergence survey found activity levels to be moderate to high, showing that good numbers of common pipistrelles are present within the surrounding area and using the gardens and neighbouring fields for foraging.

4.5. The dawn return survey found extremely low bat activity which was limited to a common pipistrelle commute across the survey area.

4.6. The barn is used by swallows for nesting and swallow cups were present within both sections. However, all nests were inactive during both the surveys.

5. RECOMMENDATIONS.

5.1. No bats were found and therefore no Natural England European Protected Species Mitigation Licence is required.

5.2. In the highly unlikely event that any roosting bats are identified during the works, all works must cease and Whitcher Wildlife Ltd should be contacted for further advice.

5.3. Swallows use the building to nest. Therefore, it is recommended that any works on the building take place outside of the nesting bird season, which extends from March to September.

5.4. Biodiversity Enhancements

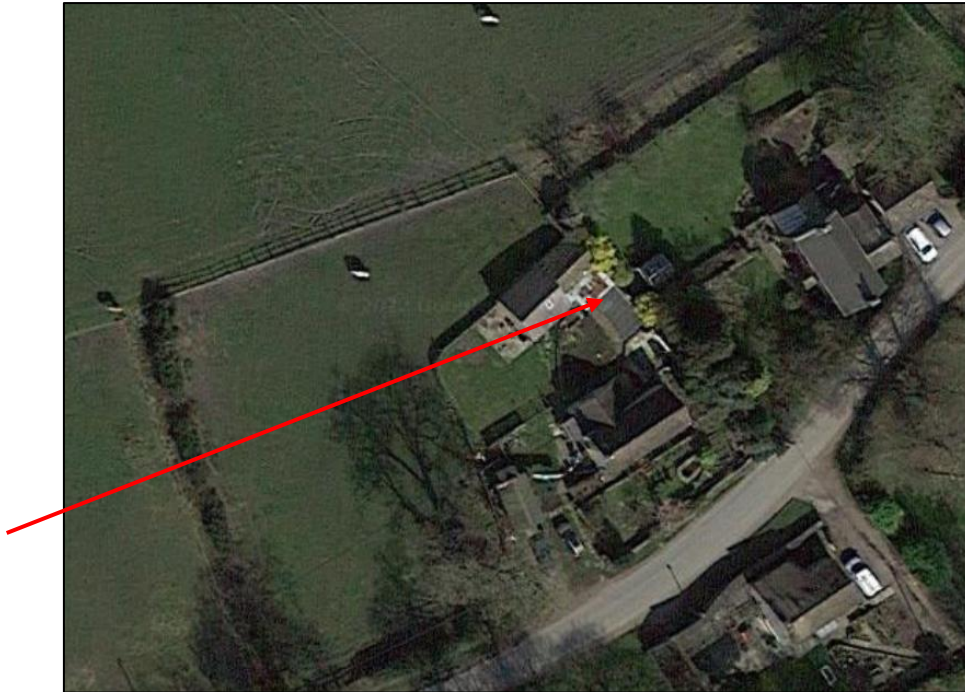
5.4.1. Under the terms of National Planning Policy Framework, biodiversity enhancement measures should be provided within the development. The following biodiversity enhancement are recommended.

5.4.2. It is recommended that one bat box of a suitable inbuilt design is included in the building designs. The Habibat in-built bat box, or similar, as shown below, should be used to ensure roosting opportunities remain post development. These can be custom faced to match the stonework.



5.4.3. It is recommended suitable habitat such as a tall open bin store, or open shed, is provided as replacement habitat for swallows and that a swallow cup be fitted within. Alternatively, a swallow cup could be fitted within the section of the property where a

roof overhangs the ground beneath the cottage and adjoining property. The location of this is shown via the red arrow below.



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Appendix I. BAT INFORMATION.

Ecology

There are currently 18 species of bat residing in Britain, 17 of which are known to breed here. They are extremely difficult to identify in the hand and even more so in flight.

All appear to be diminishing in numbers, probably due to habitat change and shortage of food, caused by pesticides, as insects are their sole diet.

As their diet consists solely of insects, bats hibernate during the winter when their food source is at its most scarce. They will spend the winter in hollow trees, caves, mines and the roofs of buildings.

Certain species, particularly the pipistrelle (the commonest and most widespread British bat) can quickly adapt to man-made structures and will readily use these to roost and to rear their young.

Surveys

During walkover surveys, bat roosts can be identified by looking for:

- Suitable holes, cracks and crevices within any building, tree or other structure.
- Bat droppings along walls, window cills, or on the ground.
- Prey remains, such as insect wings.

Further investigations can be made using endoscopes, by carrying out aerial inspections of trees or by conducting bat activity surveys during dusk and dawn over summer months.

Legislation

Bats are protected under Appendix II and III of the Bern Convention (1982), Schedule 5 and 6 of the Wildlife and Countryside Act (1981), Annex IV of the Habitats Directive (some species under Annex II), Annex II of the Conservation of Habitats and Species Regulations (2010) and EUROBATS agreement. Numerous species are

also listed under section 41 of the Natural Environment and Rural Communities Act (2006) making them species of principal importance.

All bats and their roosts are therefore protected in the UK. This makes it an offence to kill, injure or take any bat, to interfere with any place used for shelter or protection, or to intentionally disturb any animal occupying such a place.

The UK has designated maternity and hibernacula areas as Special Areas of Conservation (SAC's) under the Habitats Directive. Implementation of the UK Biodiversity Action Plan also includes action for a number bat species and the habitats which support them.

Where development proposals are likely to affect a bat roost site, a licence is required from Natural England.

Appendix II. NESTING BIRD INFORMATION.

Ecology

The nesting season will vary according to the weather each year but generally commences in March, peaks during May and June and continues until September. It is also worth remembering that some birds nest in trees and scrub but others are ground nesting or prefer man-made structures or buildings.

Surveys

Nesting bird surveys search for potential nest sites in vegetation, buildings etc. Potential nesting sites are observed over a suitable period of time for bird movements or calling male birds that would indicate the presence of a nest. The presence of a nest can be identified from the field signs without the necessity to see the nest itself, thereby avoiding any disturbance of the nests. The best way to avoid this issue is to plan for vegetation clearance to be carried out outside the bird-nesting season.

Legislation

Nesting birds are protected under The Wildlife and Countryside Act 1981.

Part 1. -(1) Of the Act states that: - If any person intentionally: - kills, injures or takes any wild bird; takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or takes or destroys an egg of any wild bird, he shall be guilty of an offence.

Part 1. -(5) of the Act states that: - If any person intentionally: - disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on, or near a nest containing eggs or young; or disturbs young of such a bird, he shall be guilty of an offence and liable to a special penalty.

The Countryside and Rights of Way Act 2000 amends the above by inserting after “intentionally” the words “or recklessly”.