

**Whitcher Wildlife Ltd.
Ecological Consultants.**



**BUTTERNAB FARM, BUTTERNAB ROAD,
BEAUMONT PARK, HUDDERSFIELD**

OS REF : SE 12832 13794.

DAYTIME BAT SURVEY.

Ref No: 210633.

Date: 23rd June 2021.

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1. INTRODUCTION.

1.1. There are plans to renovate five old farm buildings on the property along Butternab Road, into a single new dwelling.

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

1.3. The initial daytime survey was carried out on 23rd June 2021. This report outlines the findings of both this survey and makes appropriate recommendations.

1.4. Appendix I of this report provides additional information on bats 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 on 23rd June 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 cills, 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. 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.

2.8. The survey was undertaken by Jenny Roebuck and Ashley Reaney.

2.9. This survey was carried out by Jenny Whitcher Roebuck MCIEEM. Since 2001 Jenny has had experience in a professional capacity as a Wildlife Consultant carrying out Ecology Surveys and Phase 1 Habitat surveys. Jenny holds Natural England Survey Licences in respect of bats, great crested newts, crayfish and barn owls, NRW and SNH Survey Licences in respect of bats and great crested newts. She has also successfully completed a number of courses run by the Chartered Institute of Ecology and Environmental Management (CIEEM), the Bat Conservation Trust (BCT) and the Field Studies Council (FSC) in the relative protected species, plant species and in carrying out Phase 1 Habitat Surveys. As a full member of CIEEM she is committed to continuous professional development, a continual process of learning and career development, a condition of CIEEM membership.

2.10. Ashley has had experience in a professional capacity as an Assistant Ecologist focusing primarily on survey work for birds, protected species and Phase 1 Habitat surveys. He has also successfully completed numerous courses run by CIEEM, BCT and FSC regarding protected species and in carrying out Phase 1 Habitat surveys. Ashley joined Whitcher Wildlife Ltd in June 2021 as an Ecological Consultant.

3. SURVEY RESULTS.

3.1. Data Search Results.

3.1.1. A desktop data search has been requested from the West Yorkshire Bat Group for records of bats and bat roosts within 2km of the survey area.

3.1.2. The data search returned records of two bat roosts 0.9 and 0.6km to the east of the survey site, recorded in 2013 and 2009 respectively with the former containing thirty individuals. A large Pipistrelle roost was recorded 0.9km southwest of the site in 2005 and again in 2006 with seventy to one hundred and seventy individuals. A Pipistrelle maternity roost was also recorded 1.2km away in 2001.

3.1.3. Another ten roosts of indetermined sizes were also recorded between 0.2km and 1.9km from 2007 to 2001 with six individuals submitted as field records or were found injured.

3.2. Site Description.

3.2.1. The survey area is five old farm buildings, one of which was derelict at the time of survey, at Butternab Farm. The aerial photograph below shows the survey site with surveyed buildings outlined in red.



3.2.2. The surrounding area comprises largely mixed woodland draped over the steep valley sides with small linear settlements situated along Butternab Road. Pockets of amenity grassland, the biggest being that of Woodfield Park and Sports club to the east, are also scattered around the local area with Lockwood cemetery lying to the north. Crossland Moor Airfield is located approximately 1.5km to the west of the survey site with the town of Netherton lying <1km to the south.

3.2.3. The aerial photograph below shows the surrounding landscape where the site is situated.



3.2.4. The survey area is five old farm buildings, see Appendix II for existing site plan, with Building 2 and its attachments being the largest of those on the property. Each building on site has been used for different purposes and as such vary in their construction materials and structural integrity.

3.2.5. The walls of Building 1 are single skin concrete cladding over a metal frame. The roof is corrugated cement sheets sat on timber joists and beams with no roof lining or floor separation between the roof and the ground floor spaces. This building has primarily been used for storage.

3.2.6. Building 2 is made up of several adjoining structures with the main section in a dilapidated state with the majority of the pitched timber roof and wooden frame laid on the ground within the footprint of the building. The metal frame of the building skeleton still supports what remains of the timber joists and is shown in the photograph below.



3.2.7. The smallest lean-to structure of Building 2 has stone walls and a pitched stone tiled roof, internally lined with concrete cladding. Few cracks exist in the stonework with some small crevices in the mortar on the eastern face. A small hole was seen on its eastern aspect created for cable access from the adjacent building. This structure was also used for the storage of farm goods and materials and is shown in the left of the above image.

3.2.8. The largest lean-to structure lies on the southern aspect of Building 2 with walls constructed of stone and brick. The roof is double layered stone tiles supported by timber joists and beams with several light gaps between the tiles as shown in the photographs below.



3.2.9. There is a second floor on the eastern side of this structure but is inaccessible from the doors due to the amount of discarded debris at ground level. The north-eastern corner of the structure has large gaps under the ridge tiles and a few missing roof tiles visible from ground level. It was not possible to view the southern face of the roof due to overgrown vegetation and an unsafe gradient behind this building.



3.2.10. The walls Building 3 are constructed out of timber panels with the roof also made of timber and partially lined with bitumen felt at its northern end. A wooden fascia board is fitted to the northern end of the building over the entrance and four large single glass pane windows along its length on both sides with a couple of panes missing.

3.2.11. Building 4 is used to house chickens with the lower half of the walls made of brick and wooden panels above. The timber roof is entirely lined with bitumen felt with no light gaps thus ensuring the building is well insulated.

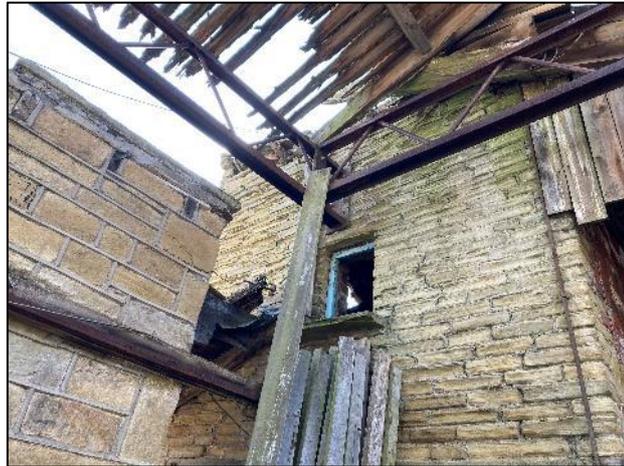
3.2.11. Building 5 houses a small number of geese with the wooden panels of the walls supported by a stone base. The roof is corrugated metal sheets with several sizeable gaps existing between it and the wooden wall panels. The roof of this building also has many light gaps with a large panel gap above the door, as shown in the photographs below.



3.3. Daytime Survey Results.

3.3.1. The walls of Building 2 are in a somewhat good condition with few cracks and mortar gaps but sizeable spaces could be seen in the north-eastern corner, which could provide access to crevice dwelling bats.

3.3.2. The roof of Building 2, with the exception of the smallest lean-to structure, are in a relatively poor condition with multiple light gaps between the stone tiles and a sizeable gap at ridge height, see right photograph. The roof-space of the building and its largest lean-to is too exposed to be suitable for bats.



3.3.3. Buildings 1 & 5 were each found to have multiple gaps between their roofs and walls providing ample access into and out of these structures. Both buildings are poorly insulated however and are likely to exhibit high temperature fluctuations depending on the external environment suggesting low suitability for roosting bats.

3.3.4. The walls of Buildings 3 are in a relatively good state but a number of gaps exist between the timber roof panels.

3.3.5. Building 4, the chicken coop, was found to have almost no gaps and was the most structurally sound of those surveyed. This was apparent from its higher internal temperature. The gap behind the fascia board was at head height and able to be inspected from ground-level during the survey and was found not to be in use by crevice dwelling bats.

3.3.6. No bat droppings or urine stains were found on the floors, window sills or outer panels of the walls during the survey. There was no urine staining on the plastic sheets in any of the storage buildings and no insect wings were found within any of the surveyed buildings.

3.3.7. It should also be noted the survey area is within a rural environment with little light pollution and ample connectivity to large areas of foraging habitat.

3.3.8. A Wren (*Troglodytes troglodytes*) was seen exiting the entrance way of the largest stone lean-to of Building 2. The following internal inspection revealed a nest in the corner atop a wooden board, see right photograph. No chicks were heard from the nest and a closer inspection for eggs was not possible due to the doorway being blocked by disused construction materials. This is likely to be an active nest and will need to be considered during construction works.



3.4. Dusk Emergence Survey Results

3.4.1. Two surveyors carried out a dusk emergence survey on the evening of 11th August 2021. The evening was overcast with light and intermittent rain during the first hour. The temperature was 17°C at 20:45, sunset was at 20:40 and the survey commenced at 20:25.

3.4.2. The two surveyors were positioned to allow for clear and unhindered views of the exterior walls and roof. The position of each surveyor (S) is shown on the aerial photograph below. Each surveyor was equipped with a Batbox Duet detector, a two-way radio and a static Anabat recorder to record bat activity for subsequent computer analysis using Analook software.



3.4.3. The following are the observations of the surveyors.

3.4.4.1. Surveyor 1.

- 20:57 – Common Pipistrelle passed over the row of residential houses north of the farm and flew south.
- 21:03 – Common Pipistrelle passed over heading from west to east.
- 21:06 – Common Pipistrelle passed over heading from north to south.
- 21:17 – Common Pipistrelle was heard but not seen.
- 21:18 – Common Pipistrelle was heard but not seen.
- 21:40 – Common Pipistrelle foraging from west to south.
- 21:48 – Common Pipistrelle foraging from north to south
- 21:54 – Common Pipistrelle foraging in front of building 2.
- 21:25 to 22:00 – Intermittent Common Pipistrelle foraging amongst the trees south of the building.

Anabat 11 located with Surveyor 1 recorded three Common Pipistrelle passes during the survey. This was most likely due to the Anabat being obscured by the large vans present on site at the time of the survey and the limit number of open spaces it could be placed.

3.4.4.2. Surveyor 2.

- 20:58 – Common Pipistrelle was heard but not seen
- 21:00 – Common Pipistrelle was heard but not seen
- 21:03 – Common Pipistrelle was heard but not seen
- 21:04 – Common Pipistrelle was heard but not seen
- 21:05 – Two Common Pipistrelles were seen foraging amongst the trees
- 21:08 to 21:36 – Intermittent foraging of Common Pipistrelle amongst trees
- 21:36 to 22:00 – Constant foraging of Common Pipistrelle amongst trees

The Anabat 10 with Surveyor 2 recorded a total of 86 passes of Common Pipistrelle during the survey.

3.4.5. Overall, no Common Pipistrelle bats were observed emerging or using building 2 during the dusk survey.

4. EVALUATION OF FINDINGS.

4.1. **Building 2 provides low potential for roosting bats** due to the numerous access points found throughout the structure.

4.2. **Buildings 1, 3, 4 & 5 have negligible potential for bats** as the internal space is likely to be susceptible to high temperature fluctuations due to the buildings' slim walls and roofs.

4.3. No bats or bat field signs were identified during the daytime survey.

4.4. The subsequent dusk emergence survey found high levels of bat foraging activity with Common Pipistrelle foraging amongst the trees immediately south of the farm.

4.5. No bats were seen emerging from building 2 during the dusk survey.

4.6. Therefore, **the proposed works will have no impact on roosting bats**, providing due care is taken by the workforce.

5. RECOMMENDATIONS.

5.1. As no bat roosts were identified during the survey, there is no requirement for further surveys or a licence. Nevertheless, it is recommended care is taken during the works and, in the unlikely event a bat is identified, all works must cease immediately, and the undersigned should be contacted for further advice.

5.2. If any works are carried out during the nesting bird season, which extends from March to September, a nesting bird survey should be carried out by a suitably experienced surveyor, before any works are undertaken.

5.3. To comply with the NPPF, it is recommended that biodiversity enhancements are incorporated into the new dwellings.

5.4. We therefore recommend that the new dwelling includes an integrated bat box as shown below, or equivalent. This can be ordered to match the outer skin of the new dwelling and should be incorporated high in a gable end wall where it is not over a door or window.



5.6. It is also recommended that two integrated swift boxes are installed in another property. The example below or equivalent should be used.



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Checked by:	
Derek Whitcher. BSc, MCIEEM, MCMi	Date: 23 rd August 2021.

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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.

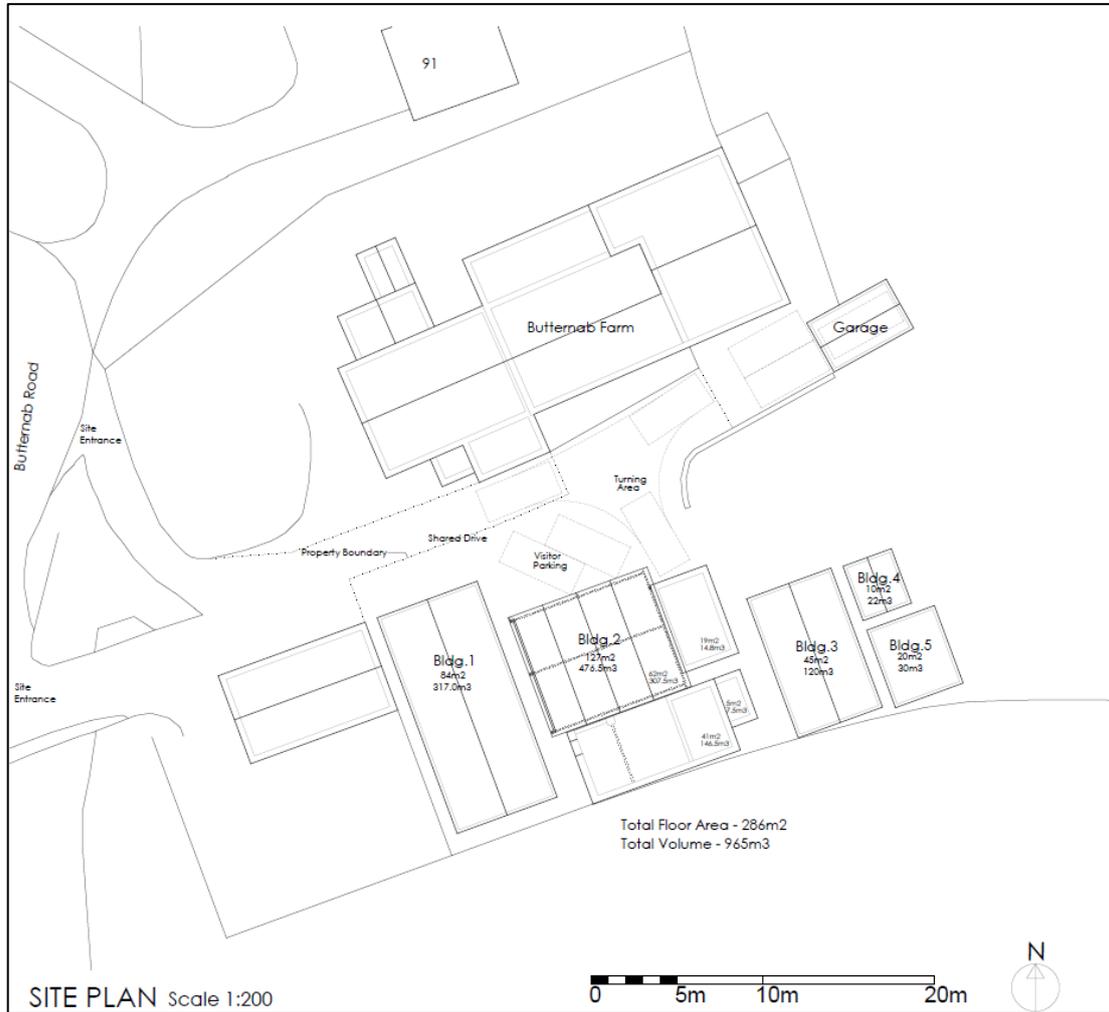
All bats and their roosts are therefore protected in the UK. This makes it an offence to kill, injure or take any bat, to interfere with any place used for shelter or protection, or to intentionally disturb any animal occupying such a place.

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. EXISTING DWELLINGS.

Existing site plan with numbered buildings



Appendix III. PROPOSED DWELLINGS.

3D renderings of proposed dwelling

