

Bat Scoping Survey to Berry Moor House Farm

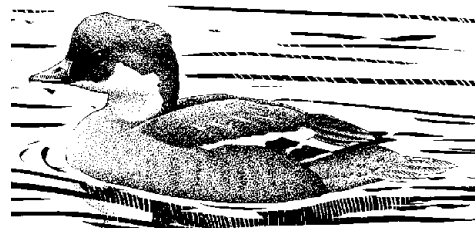
Pinfold Lane
Silkstone Common
S75 4RF

22nd August 2019



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1. Summary

- 1.1 A bat scoping survey to Berry Moor House Farm was commissioned to establish the likelihood of the building being used by roosting bats ahead of proposed development works to include an extension to the farmhouse and conversion of the barns to residential.
- 1.2 The survey was undertaken at a time of year which is considered within the optimal season for bat occupancy and therefore, aimed to establish the presence or absence of bats in the building by looking for evidence in the form of droppings, scattered prey remains, noting potentially suitable roosting cavities as well as assessing the likely impact of the work on bats. Along with the daylight survey, evening emergence and a dawn return survey were undertaken and this resulted in the discovery of a brown long-eared bat roost in the dairy and, potentially, a roost of whiskered bats in an adjacent dwelling. No bats were thought to be using the farmhouse. Barn owl was also recorded using the dairy as a roosting site.
- 1.3 The farmhouse is not considered to be being used by bats and as such, reroofing and the proposed extension are unlikely to cause any impact on bats, especially if the works are undertaken in the winter period when bats are less likely to be present. Works to convert the outbuildings, barns and former dairy to residential must not be undertaken without further survey work which will enable a method statement and full mitigation to be prepared and submitted to natural England as part of an application for a European Protected Species (EPS) licence which is required by law before any work can commence.
- 1.4 Mitigation and compensation for nesting barn owls will also be required.

2. Introduction

- 2.1 An ecological assessment and bat scoping survey was undertaken to Berry Moor House Farm, Pinfold Lane, Silkstone Common S75 4RF (NGR SE294033) in accordance with the Planning Authority's request, to determine whether bats are using or have used the property as a roost site. Consideration was also given to nesting birds.
- 2.2 The current proposal is to extend the farmhouse and then to convert the barns and outbuildings to residential.
- 2.3 The survey took place at a time considered the optimal time for bat occupancy, therefore, the survey aimed to establish the following
- the presence or absence of bats using the building by undertaking a daytime scoping survey
 - identify any potential roosting areas
 - Undertake activity surveys where necessary
 - provide an impact assessment of the development on bats
 - define mitigation proposals where required
 - assess the requirement for a protected species licence.
 - Assess the building for use by nesting birds

3. Methodology

- 3.1 The building was surveyed in accordance with best practice guidelines by John Gardner, a surveyor with over 38yrs fields experience in searching for bats (Class 20. Level 4 licence number 2015-15656-CLS-CLS).
- 3.2 The interior and exterior of the building were inspected during daylight using torches and binoculars. All normal signs of bats were looked for including bats, dead baby bats, bat droppings, prey remains, scratching and staining of entry and exit holes. Emergence and return surveys were also undertaken.
- 3.3 The building was assessed for its degree of potential to support roosting bats including assessing the building design, construction, materials and condition. This combined with an assessment of the location of the site and the surrounding habitat in terms of bat suitability allows an assessment to be made as to the potential of the building to support bats. Factors such as the proximity of good foraging areas (woodland, water bodies) and features that link the site to the wider surrounds such as linear features (hedgerows etc) were also considered.
- 3.4 This report sets out the of daylight scoping survey carried out to the above site on Thursday 22nd August 2019 and highlights the ecological constraints and opportunities associated with the proposed works and appraises the potential impacts. Appropriate actions to ensure the protection of bats are identified and mitigation measures detailed where appropriate.

4. Survey constraints

- 4.1 None.

5. Site Description

5.1 The site comprises a large stone farmhouse with extensive outbuildings and is located amid open countryside with excellent habitat all around.

Figure 1. Site location plans

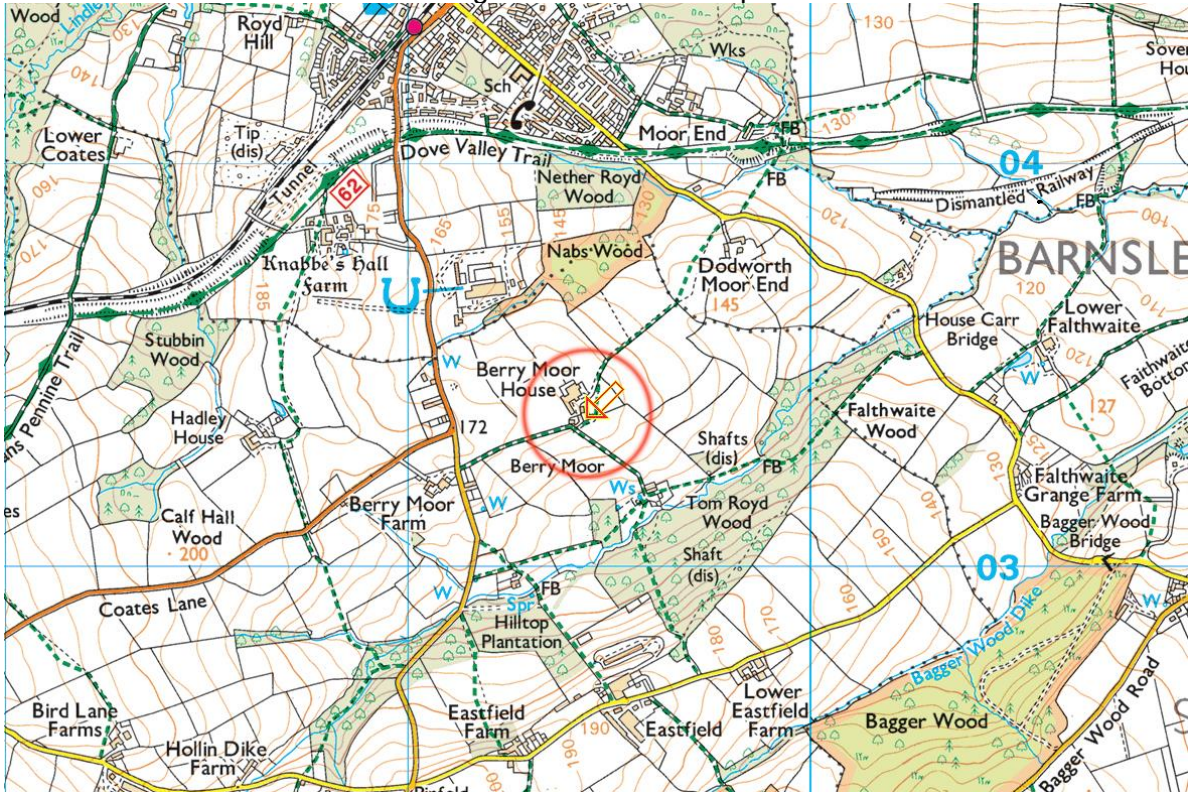


Figure 2 Aerial view of the site, surrounds and buildings surveyed

6. Desk Study

6.1 No desk study was undertaken as a data searches are now considered to be less important where a single species is involved as the results tend to plot observer activity rather than species distribution. It is unlikely that any records exist for this site as no previous surveys have been undertaken. Data from this survey supersedes all other data.

7. Activity surveys

7.1 Both the emergence survey and dawn return survey confirmed that the outbuildings support a maternity roost of brown long-eared bats (*Plecotus auritus*) and there is a maternity roost of whiskered bats (*Myotis mystacinus*) very close by.

8. Survey results

8.1 The daylight survey

The site is comprised of a large stone farmhouse and associated outbuildings and barns. The site stands close to open fields, small copses and woodland and there is a separate private residential dwelling adjacent to the site that is thought to hold a roost of whiskered bats.

Each building has been given a number for reference and these are set out in figure 3 along with the location of the bat roosts and the barn owl roost.

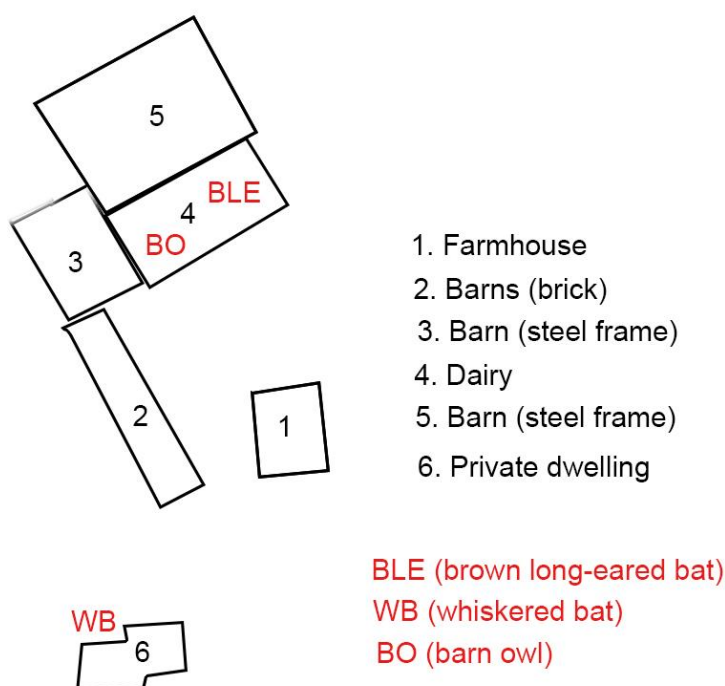


Figure 3. Building reference diagram and location of roosting species

Building 1 Farmhouse

This is a large stone farmhouse with a hipped roof covered with a natural stone tile. Internally, the roof is unlined and has back pointing over most of the underside of the roof. The ridge section is short and heavily covered in cobwebs and dirt and shows no signs of use by ridge dwelling species. The whole of the roof interior is heavy with cobwebs and there were no scattered prey remains or accumulations of droppings. The roof is not thought to be used by

bats. Externally, the ridge tiles are present and sound and there are no slipped or missing tiles. The gutters sit on metal brackets and there are no soffits or fascia that would allow bats to roost behind. The walls are well pointed and do not have gaps or cavities that would allow bats to roost. This building is not thought to be used by bats and has limited roosting opportunities and is considered to be of low roosting potential.

Building 2 Barns

This is a long run of outbuildings and cattle stalls and has two stories to the buildings. The roof has a blue slate covering and is unlined. Internally, all ridge sections are heavily covered with cobwebs and show no signs of use by bats. The floors did not have any scattered prey remains of droppings. The brick walls are sound and do not have structural cracks or crevices but the walls do have a cavity which may be accessible from the wall tops. There are no fascia or soffits that would provide roosting sites and the dry verges are sound.

Building 3 Open barns

Building 3 is a steel framed modern unit with corrugated sheet roofing and is open on three sides. This building has negligible interest to bats. No birds were nesting in this unit.

Building 4 The Dairy

This building is a large brick unit with pitched slate roof. The building has only a small upper floor at the east end and is largely an open chamber with the rafters exposed and visible. There are light panels in the roof allowing some daylight into the building but the small upper floor at the east end is blocked by a dividing wall and is less subject to light ingress. The ridges in this building are much cleaner and have far less cobwebs than the other buildings. Although there were no accumulations of moth wings or other prey items and no obvious droppings, brown long-eared bats were recorded inside this building at dusk. Barn owl was not seen but may have been disturbed by the presence of the surveyors but there was obvious fresh droppings and owl pellets suggesting at least one roosting barn owl.

Building 5 Barn

This is a large modern unit with the lower walls being constructed of single thickness block and the upper walls and roof are covered with corrugated cement fibre board. This barn is not considered to be of any interest to bats.

Building 6 Residential dwelling

This building is within 25m of the main farmhouse and is not part of the footprint of the site. It is significant, however, as the current owner is aware of a maternity roost of bats in the dwelling. The fact that bats are using this dwelling may indicate that they are not using the farmhouse or outbuildings as a roost as bats tend to be faithful to a particular roost.

9 Activity survey results

- 9.1 An emergence survey was carried out on the same evening as the daylight scoping survey with observer coverage concentrating mainly around the farmhouse using both heterodyne and RTE detectors. The site was much bigger than anticipated and ideally, more surveyors could have been used. However, surveyor experience ensured that any roosts present would be found if not counted accurately and this proved to be the case.
- 9.2 The emergence survey took place from 60 mins prior to sunset until 90mins after sunset. The first bat recorded was whiskered bat hunting along the rear of buildings marked no2 on figure 3. More whiskered bats were observed hunting in this area and inside the open barn (barn 3) as darkness fell. Regular sorties were made into the buildings to search for other ridge dwelling species and it was during one of these internal searches that brown long-eared bats were observed in pre-flight activity inside the large dairy.

- 9.4 No bats were recorded emerging from the farmhouse though whiskered bats were occasionally recorded hunting over the garden in front of the house. Up to two brown long-eared bats were recorded inside the dairy throughout the survey
- 9.5 A dawn activity was undertaken the following morning on 23rd August 2019 in an effort to locate the bat roosts. Dawn return surveys are more accurate and easier to find the roosts as bats tend to swarm around the roost before entering. Efforts were concentrated on buildings 2 and 4 and the farmhouse. The weather was perfect with a temperature of around 17°C and no breeze. Bat activity was high with a concentration of whiskered bats in around building 2 and brown long-eared bats gathering inside building 4 (the dairy). Around 8 or so brown long-eared bats were observed inside the dairy and experience suggests usually only around 10% of brown long-eared are usually observed so the colony is probably average sized at around 50-80 bats. These bats seemed to disappear into the upper section at the east end of the barn behind the walled section.
- 9.6 No bats were seen to return to roost in the farmhouse and it seemed likely that the whiskered bats returned to roost in the residential dwelling adjacent to the farmhouse. This is consistent with the information supplied by the house owner.
- 9.7 Barn owl entered the dairy at first light but was disturbed by the presence of bat surveyors and exited and headed out to a tree to the north of the site.

10. Interpretation and analysis

- 10.1 The site is in an excellent area for bats and bats are confirmed as being present on site with a brown long-eared bat roost in the former dairy and whiskered bats in the dwelling on the edge of the site and likely to be using structures within the site. Bats are not thought to be using the farmhouse in any way.
- 10.2 As not all the buildings are being used by bats, it should be possible to undertake some works without any impact on bats and without the requirement for an EPS licence. Works to the dairy should not be undertaken without further survey work that would establish the exact location of the brown long-eared bat roost and allow a method statement to be produced to support the application for an EPS licence.

11. Impact assessment

- 11.1 The work involved with the planning application is likely to be phased rather than done in a single job. Therefore, it should be acceptable to limit works to the farmhouse and leave the other buildings untouched until further survey work has been carried out in the summer of 2020. Stripping the farmhouse roof in winter when bats are least likely to be present should ensure that there is no impact on bats and that the roof could be improved for bats by the addition of felt and permanent roost access features. The proposed extension to the side of the house is unlikely to impact bats in any way.
- 11.2 Alterations and reroofing works to the dairy would directly impact a nursery roost of brown long-eared bats unless a comprehensive method statement and mitigation is prepared. With good planning and a phased approach to the conversion of the outbuildings, it should be possible to convert the buildings while allowing their continued use by bats.

12. Mitigation and compensation measures

- 12.1 No work to the outbuildings to be undertaken unless a European Protected Species (EPS) licence has been obtained and a detailed method statement been prepared. The strategy and schedule for this work will come from further survey work to be carried out during the next bat survey season.

12.2 Work to renovate the farmhouse can be undertaken without the requirement for an EPS licence as bats are not considered to be using the house at present. Bats are transient creatures and can turn up at any time and therefore some precautions and mitigation should be undertaken

- The roof of the house to be stripped and turned during October-March inclusive when bats are least likely to be present
- The roof of the house must be removed by hand by lifting rather than dragging the tiles. This will avoid crushing injuries if bats are present. If bats are found during the works, all work in that area will cease immediately and advice sought from a qualified ecologist
- All timber treatment should be permethrin based in order to avoid products that may be harmful to bats
- Permanent bat access features should be incorporated into the west and south hip coverings in the form of holes in the cement at the end of the hip ridge tiles. This will provide new areas for bats to use during future works to other buildings on site. A simple hole in the bedding cement can be created and need be no more than 150mmx50mm with access through to the hip ridge section.
- Work to the outbuildings must be done under licence and therefore, survey work on the other buildings should be scheduled for early spring (May onwards) next year in order that a method statement and licence can be obtained ahead of proposed works. This will help avoid future delays to the project.

12.3 The proposed conversion is subject to planning regulations and therefore, the above should be conditioned as part of any planning permissions that may be granted.

Appendix 1: Photographs of the survey site









rear of dairy



building 2



building 2



building 2 (south)



building 2



Building 2

Building 4

3