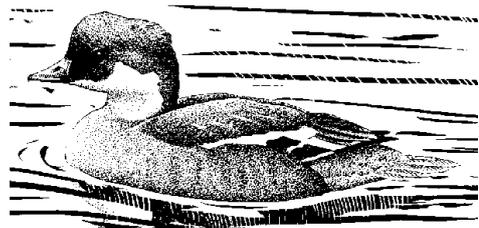


Bat Scoping Survey to
Kexborough Farm
Churchfield Lane
Kexborough
S75 5DU

1st October 2019



John Gardner ARPS
Wildlife Photographer
Wildlife Advice, Surveys, Lectures
32 Nostell Lane, Ryhill, Wakefield,
West Yorkshire WF4 2DJ.



1. Summary

- 1.1 A winter bat scoping survey to Kexborough Farm, Kexborough was commissioned to establish the likelihood of the building being used by roosting bats ahead of proposed development works.
- 1.2 The survey was undertaken at a time of year which is considered outside the optimal season for bat occupancy and, therefore, aimed to establish the likelihood of bats using the buildings 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.
- 1.3 The site comprises a series of stone barns arranged around a courtyard and they have a mix of roof coverings from stone to corrugated tin. There are also some large agricultural units adjacent to the stone barns. The survey classified the buildings as being of low interest to bats for reasons specified in the report and summarised in the table below:

Building 1	Barn	
Feature	Description	Classification
Building		
Barn 1	Large, two storey agricultural unit with unlined stone roof. Potential in stone work and tiles	Low
Barn 2	Single storey stone barn (probably modern construction) with hipped slate roof	Low
Barn 3	Period stone barn with stone walls and a corrugated tin roof	Low
Barn 4	Large modern unit, corrugated roof and walls	Negligible
Building 5	Small open fronted unit with stone roof tiles	Low
Barn 6	Large unit with corrugated sides & roof	Negligible

- 1.4 The three stone barns all have some limited degree of roost potential and, although there was no evidence of bats noted in any of the interiors, there is a chance bats could use the barns and not show evidence at this time of year. Therefore, the site should be surveyed at least once during the optimal bat period (May to August inclusive) using enough surveyors to cover the site. Either a dawn return or evening emergence survey should be undertaken and the results of this will allow a more comprehensive assessment of the site than is possible at present. The modern units with block walls and corrugated sides and roofing are of no interest to bats.
- 1.5 In summary, there was no evidence to suggest use by bats but the buildings have some limited potential and, given the style of the buildings and their proximity to excellent foraging habitat, at least one activity survey should be undertaken between May and August inclusive. This will determine whether further surveys are required and will allow the correct mitigation and compensation measures to be defined.

2. Introduction

An ecological assessment and bat scoping survey was undertaken to barns at Kexborough Farm, Churchfield Lane, Kexborough S75 5DU (NGR SE288584) in accordance with the Planning Authority's request, to determine whether bats are using or have used the property as a roost site.

2.1 The current proposal is to convert the stone barns to residential and demolish the agricultural units.

2.2 The survey took place at a time considered the outside the optimal time for bat occupancy, therefore, the survey aimed to establish the following

- the likelihood of bats using the building by undertaking a daytime scoping
- identify any potential roosting areas
- determine if activity surveys are 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 buildings were surveyed in accordance with best practice guidelines by John Gardner, a surveyor with over 35yrs fields experience in searching for bats (licence number 2015-15656-CLS-CLS).

3.2 The interior and exterior of the buildings 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.

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 findings of a daytime scoping survey carried out to the above site on Tuesday 1st October 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 This site is comprised of a number of barns with three large stone barns set around a large open farmyard. There are modern agricultural barns adjacent to these and some smaller outbuildings too. The site has residential dwellings to the north side of the site and these will also offer roosting potential. Linear features connect the site to the wider landscape.

Figure 1. Site location plans

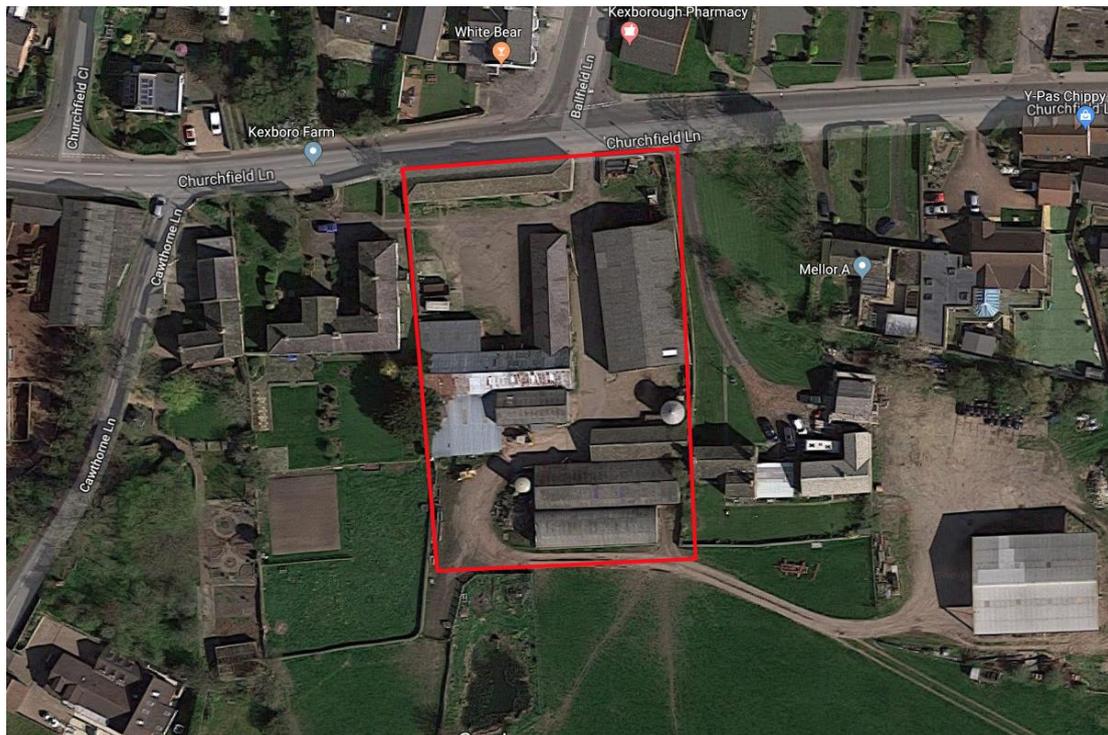
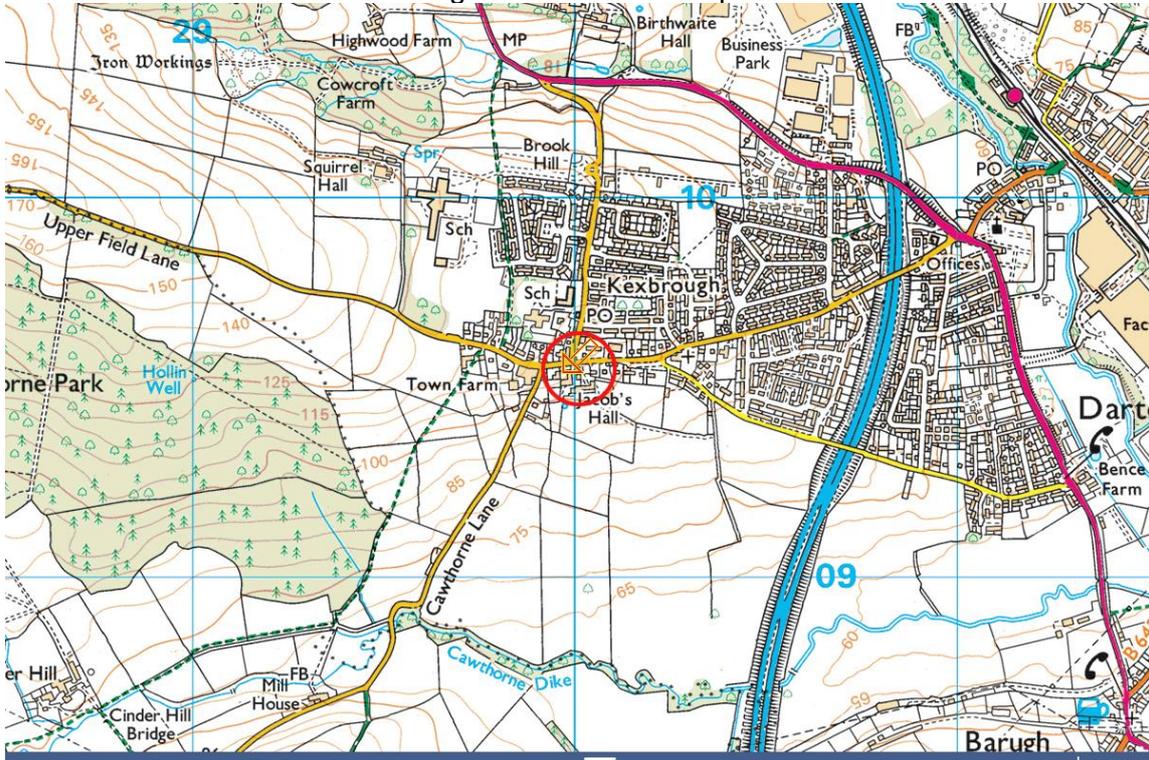


Figure 2 Aerial view of the site, surrounds and buildings surveyed

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. Data gathered from the required activity survey will provide a baseline of bat activity.

7. Activity surveys

7.1 No activity surveys were carried out as part of this survey as it was undertaken outside the optimal time for bat occupancy,

8. Survey results

8.1 The daylight survey

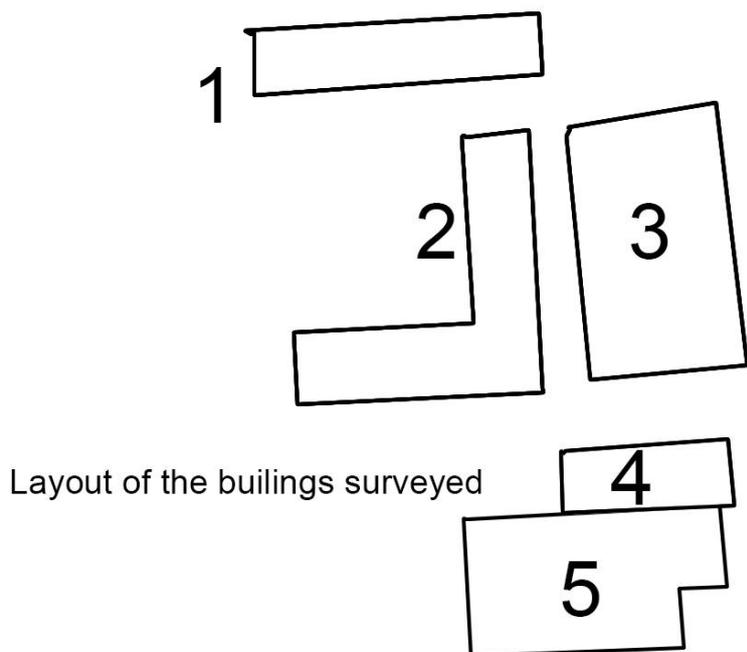


Figure 3. layout of buildings for reference

The site consists of three stone barns arranged around an open farmyard with two of the barns joined to form an L-shape (building 2). Along the outer edge of the site are a series of large, modern agricultural units and a small, open fronted building (building 4).

Buildings numbered 3 and 5 above are large agricultural units constructed around a steel frame with breeze block to the lower wall sections and corrugated tin or cement fibre to the sides and roof. These buildings are not considered to be of any interest to bats in terms of providing roost sites, though they will be used by bats as foraging areas, especially by any bats emerging locally. Both common pipistrelle and whiskered bats seem to favour hunting in this kind of units just after emerging, but the buildings do not have the cavity walls or roof voids that bats require for roosting. These units are classed as being of negligible interest to bats.

The buildings with the most potential interest to bats are the stone buildings arranged around the farmyard. Building 1 is a long, two-storey building with stone roof tiles. The roof is unlined and for the most part has a heavy build-up of dirt and cobwebs on the ridge beams. The ridge tiles are all present and have had some remedial works carried out and appear to be well

bedded and could be of interest to ridge dwelling species. The gable walls have also had some repointing works undertaken and have limited access points. The gable walls have a stone cap and do not have any kind of fascia or other features that bats could roost beneath. The walls have some structural gaps and other minor cavities that may be used by small numbers or individual bats. Although there was no evidence to suggest use by bats, the building has some potential and is classified as being of low importance to bats.

Building 2 is an L-shaped barn consisting of a single storey unit with slate roof connected to the larger, Grade 2 listed barn which has a corrugated tin roof. The single storey section appears to be modern and has a sound slate roof which is lined with felt. It is hipped on the exposed gable and all hip and ridge tiles are present and well bedded and without gaps. The stone walls are well pointed and do not have gaps. The larger section of this barn is two storey and is a stone shell built around the original (medieval) timbers but without being connected to them. The stone roof has long been taken away and replaced with a corrugated tin roof which has gaps the whole length of the ridge. The roof is of no interest to ridge dwelling species and does not provide any kind of potential roosting site. The interior of the barn is incredibly dusty due to the presence of a milling machine that is used daily to grind fodder for the cattle. The amount of dust is likely to make this barn very unattractive to bats. It is, nevertheless, categorised as being of low interest and will require at least one activity survey.

To the rear of the farmyard is a small, open-fronted, single storey building used for storing farm machinery (building 4). This has a stone roof which appears to be relatively new and is lined and may provide either roosting potential or could be used as a feeding perch by brown long-eared bats. An activity survey would establish if the building is being used by bats.

9. Interpretation and analysis

- 9.1 The modern units have no value to bats other than to possibly provide a sheltered feeding site that would probably be used just after emergence or just as bats return to roost. It is unlikely that these buildings would be used as a roost of any kind as the lower walls are solid block while the upper walls and roof are single thickness corrugated material.
- 9.2 The large Grade 2 listed barn has limited roost potential due to the tin roof with large ridge gaps and the huge amounts of dust in the interior section caused by the grinding machine. There is a slim chance individual bats could find roost sites in mortice joints in the huge medieval timbers but the dust is likely to penetrate any potential gaps. The walls have small cracks and cavities that may be of interest and a single activity survey would determine if bats were using this building in any way. The single storey building that adjoins this barn has some possibility of bats behind gutter boards and, to a much lesser extent, in the roof.
- 9.3 The large range of the stone barn on the north boundary has the most roost potential, although the stone roof is unlined and does appear to have a heavy build-up of cobwebs and dust along the ridges. There are gaps in between stone lintels and wall joints that might offer roost potential and the building is likely to be used by nesting swallows.
- 9.4 The general 'feel' of the site is that there are no obvious signs of bats but the site is large, has a range of buildings and is close to excellent foraging habitat. The buildings have been categorised as being of low interest to bats but this does mean that at least one activity survey should be undertaken in the optimal period for bat occupation (May to August inclusive).

10. Impact assessment

- 10.1 It is unlikely that bats are using the modern units on site (buildings 3 & 5) and these could be demolished at any time without any impact to bats or the local bat population. In addition to

bats not being present in these buildings, it is unlikely that birds will use them and very unlikely that barn owl or swallow would nest in them.

10.2 The stone barns should not be demolished or altered without an activity survey being carried out and checks for nesting birds should also be made.

12. Mitigation and compensation measures

12.1 Without having undertaken any form of bat activity survey on site, mitigation and compensation measures cannot be fully prescribed. However, it would be reasonable to expect that provision of permanent bat roosts would be made which would cater for both ridge dwelling and cavity dwellings species of bats. Consideration should also be given to provide bird nesting boxes, most likely in the form of sparrow nesting terraces, starling boxes and, depending on the results of a summer survey, swallow nest platforms.

12. 2 The proposed works are subject to planning regulations and therefore, any of the above could be conditioned as part of any planning permissions that may be granted.

Appendix 1: Photographs of the survey site



north range (building 1)



north range (building 1)



roof interior (building 1)



interior building 2



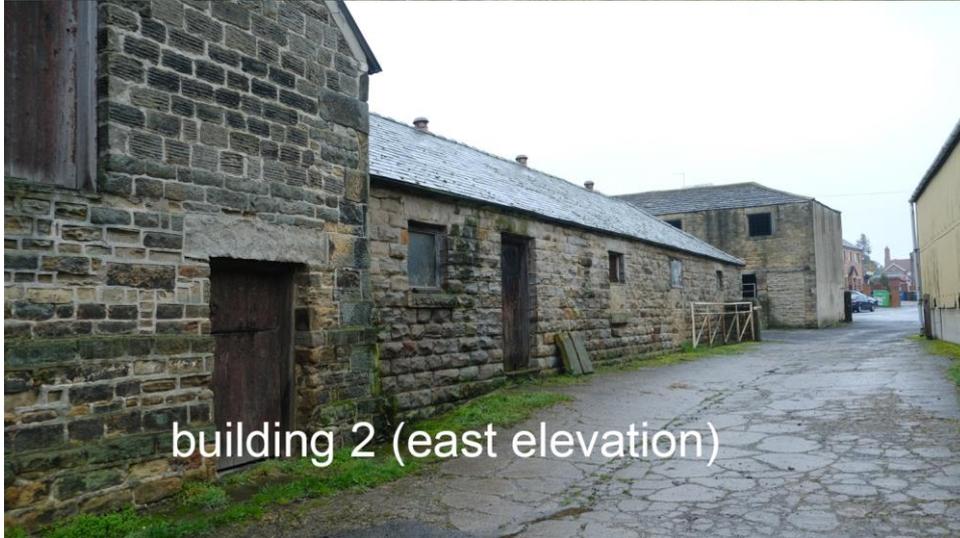
south range (Building 2)



south range (Building 2)



building 2 (east elevation)



building 2 (east elevation)



building 4 front



Building 3