ROEFIELD LEISURE CENTRE, EDISFORD ROAD, CLITHEROE, LANCASHIRE

BAT SURVEY AND ECOLOGICAL ASSESSMENT

September 2019

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INTRODUCTION

Background and rationale

Chris Swindells (Consultant Ecologist) was commissioned to carry out a bat survey at Roefield Leisure Centre, Edisford Road, Clitheroe, Lancashire in September 2019. September is not an optimal time of year to undertake a survey of this type but because a preliminary visual survey of the barn proved the building unsuitable and unlikely to provide a roosting or hibernating habitat the survey was undertaken. A physical search and an emergent and returning bat surveys were undertaken aided by the use of an ultrasonic bat detector.

The survey was required in connection with a planning application to add a second storey to a building connected to the rear of the barn itself.

Wildlife Legislation

A bat survey is required as all British bat species and their roosts are legally protected under the *Wildlife and Countryside Act 1981* (as amended) and the *Conservation of Habitats and Species Regulations 2010*. Under this legislation it is an offence to intentionally kill, injure or capture bats, deliberately disturb bats and damage, destroy or obstruct access to bat roosts. Since the introduction of the Countryside and Rights of Way (CROW) Act in 2000 it is also an offence to recklessly harm or disturb bats in their roosting places.

The survey also includes an examination of the building for evidence of use by nesting birds including House Sparrow, Starling and Swift all of which are on the red list of birds in the UK. All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding, including nest building.

Brief description of Site and Vegetation

The Roefield Leisure Centre complex is located 1.5 kilometres west of the town of Clitheroe, Lancashire. The River Ribble lies approximately one hundred metres to the West. The barn where the bat survey is required is part of a modern complex of buildings that have been added to in recent years. The barn itself is a single storey open plan structure built of stone and with a slate roof **(Insert 1)**.

Land surrounding the wider area of the barn comprises grazed pasture with hedgerows and associated mature trees. The hedgerows would provide bat foraging connectivity to the nearby countryside that provides good bat foraging habitat. Hedgerows and mature trees also border Edisford Road. The town of Clitheroe lies immediately to the East and would provide a wide variety of bat roosting and hibernating opportunities.

Insert 1: South and front elevation of barn overlooking Edisford Road

Objectives and Scope of Survey

The objectives of the survey are to:-

a. Assess and identify the suitability of the barn to support roosting bat species at any time of year.
b. Examine the exterior and interior of the barn for evidence of the presence of roosting bat species.
c. Examine the barn for evidence of use by breeding birds, including House Sparrow, Starling and Swift.
d. Provide guidance in accord with wildlife legislation, *National Planning Policy Framework* (NPPF), local planning policy, the *Bat Worker's Manual* (2004), the *Bat Mitigation Guidelines* (2004) and best practice in relation to the proposed works.

SURVEY APPROACH

Surveyor, Survey dates and Conditions

A daylight survey of the barn was carried out on 23rd September 2019 by Chris Swindells B.Sc. (HONS) a consultant ecologist. The weather on this date was sunny with scattered cloud with a light westerly wind and a maximum temperature of 18°C at 18.00; conditions were suitable for the survey.

Survey Methods

The survey comprised the following methods:-

Daylight examination and inspection of the exterior

1. An examination was made of the exterior elevations, roof and perimeter of the barn where accessible. Searches were carried out for droppings, urine stains, feeding signs and grease marks. Particular attention was paid to areas where bat droppings may accumulate such as the ground beneath the eaves, on window sills, the elevation walls and any other surfaces beneath the eaves around the perimeter of the barn.
2. Searches were also made to find potential bat roosting habitat or accesses into internal areas and cavities where roosts may be present.
3. Where possible, gaps were illuminated with a high powered torch. A pair of 10x50 binoculars was used to facilitate the search of the exterior walls.
4. Ladders were used to gain better access to specific features above eye level to search for droppings.

Internal inspection

1. The barn does not have any roof voids and are plaster boarded directly below the slates with the roof timers exposed. A thorough and extensive search was carried out along the bottom of the internal walls where bat droppings are most likely to accumulate if present.
2. Although not the optimal time the scope of survey possible at this time of year was carried out in accordance with the recommendations specified in the *Bat Mitigation Guidelines* (Natural England 2004), *Bat Workers' Manual* (2004) and *Bat Surveys – Good Practice Guidelines* (Hundt 2012).

Nocturnal Emergence and Dawn Return Surveys

1. A nocturnal emergence survey of the barn was carried out on the evening of the 23rd September 2019 by two surveyors (Chris Swindells and Chris Davies). One surveyor was located at the south of the barn on Edisford Road and another surveyor was located on the flat roof at the rear of the barn thus maximising coverage of all the external elevations and roof.
2. A bat return survey was done on the morning of the 25th September 2019 following the same methodology as the emergence evening survey.
3. Prior to the start of both surveys a search for bat droppings were carried out around the external perimeter of the barn.
4. A heterodyne bat detector (Pettersson ultrasound detector D100) was used to assist in determining the bat activity at the site.
5. The weather on the emergent survey done on the 23rd September was overcast with an occasional light rain shower and light south easterly winds and a temperature of 16°C at 06.56hrs. The survey was started at 04.56 hrs and finished at 07.56 hrs. Sunset was at 06.56hrs.

6. The weather on the return survey done on the 25th September was overcast with a light south easterly wind and a temperature of 13°C at 07.00hrs. The survey was started at 05.00 hrs and finished at 08.00hrs. Sunrise was at 07.00hrs.
7. Several Common Pipistrelle bats were recorded commuting along the hedgerows and tree line on Edisford Road during the evening survey on 23rd September and several were heard feeding in the surrounding area but none emerged from the barn in the evening or returned in the morning.

Equipment

1. The equipment used to facilitate all the surveys comprise of a ladder, binoculars, high powered torch, bat detector and digital camera.

Barn Owl and Breeding Birds

The external walls and eaves of the barn were searched for evidence of the presence of nesting House Sparrow, Starling and Swift but no evidence was found.

Survey Limitations/Constraints

As mentioned in the introduction September is not the optimum time for a survey of this type but because a preliminary visual inspection of the barn deemed it unsuitable for roosting and hibernating bats the survey was carried out. There were no survey limitations or constraints during the survey.

A comprehensive internal and external bat survey and assessment was possible. All areas of the site were accessed.

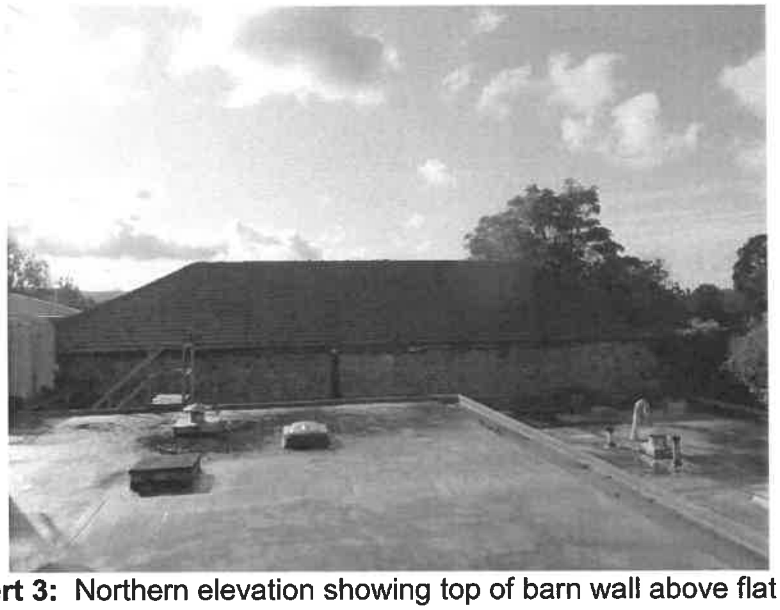
RESULT/REPORT OF SURVEY

External inspection of the barn

The barn is a single storey building constructed of stone and having a slate roof. Only the southern (front) and western elevations are completely visible and accessible to bats or birds **Inserts 1 & 2**. The northern (rear) elevation only has the top 1.5 metres of the external wall visible and the eastern elevation only a 3 metres section of wall visible due to existing modern buildings already associated with the barn **Inserts 3 & 4**.

The rear of the barn was checked from the flat roof of the adjoining building which allowed access to the top of the wall and provided extensive views of the slate roof and ridge tiles **Inserts 5 to 7**.

Insert 2: Eastern elevation showing Ivy on well pointed stone



Insert 3: Northern elevation showing top of barn wall above flat roof

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Insert 4: Eastern elevation showing narrow section of existing external wall


Insert 5: Rear elevation showing upper section of external wall and barge boards

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Insert 6: Rear elevation showing recent adjoining building with no bat access

Insert 7: Western section of roof showing gap in ridge tiles

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There are no timber soffit or facia boards below the roof line because the roof tiles reach down to the surrounding gutters. Only the rear of the barn has barge boards but no access was possible for bats and cobwebs cover all the gaps.

There were small gaps between some of the slates within the barn that would have provide access the to the roof void if there had been one.

No bat droppings were observed on the building elevation walls, window sills or ground around the perimeter.

There were several small gaps in the mortar on the barn walls but no droppings were observed below these and no urine stains were visible.

Internal inspection of the barn

The entire roof timbers were visible and accessed during the survey using a ladder and an extensive search was made of all timbers for evidence of bat droppings but none were found.

All the uncovered beams along the roof were searched for evidence of use by bats but none were found.

The flooring around the walls within the gymnasium were checked for bat droppings but none were found.

No evidence of use of the barn by nesting House Sparrow or Starling, such as nest material or feathers, was detected.

All the roof structure showing evidence of the survey is presented in **Inserts 8 to 11**.

Insert 8: Northern (front) elevation internal wall showing exposed roof beams

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Insert 9: Western internal elevation showing exposed stone on upper wall

Insert 10: Rear section of exposed internal wall and roof structure

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Insert 11: Eastern elevation of roof timbers showing lack of roof void

EVALUATION OF RESULTS AND RECOMMENDATIONS

There is no evidence that the barn has been used by roosting or hibernation bats either recently or in the past.

The use of the barn as an existing gymnasium and the proximity of the adjoining buildings will deter any bat species from using it as either a roost or somewhere to hibernate.

No evidence of any House Sparrow, Starling or Swift nests were found during the survey.

The NPPF seeks to promote ecological networks and the protection and recovery of Priority Species/Species of Principal Importance. House Sparrow, a Priority Species was recorded within the immediate area of the building and the surrounding habitats will provide a source of food.

To comply with the NPPF, it is recommended that the barn provides additional habitat for use by nesting House Sparrow. This can be achieved by the installation of a House Sparrow terrace box on any external elevation of the building. The box should be sited at a height of over 2.5 metres.

There is also an opportunity to erect a Barn Owl nest box on the western elevation of the barn that would attract them as they are expanding their range in this part of the North West of England.

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CONCLUSIONS

There is no evidence that the building is used by roosting or hibernating bats so there will be no net loss of bat roost provision in the local area and the barn will encompass other opportunities for biodiversity, namely opportunities for nesting House Sparrow and Barn Owl both of which are UK Biodiversity Action Plan Priority Species.

REFERENCES

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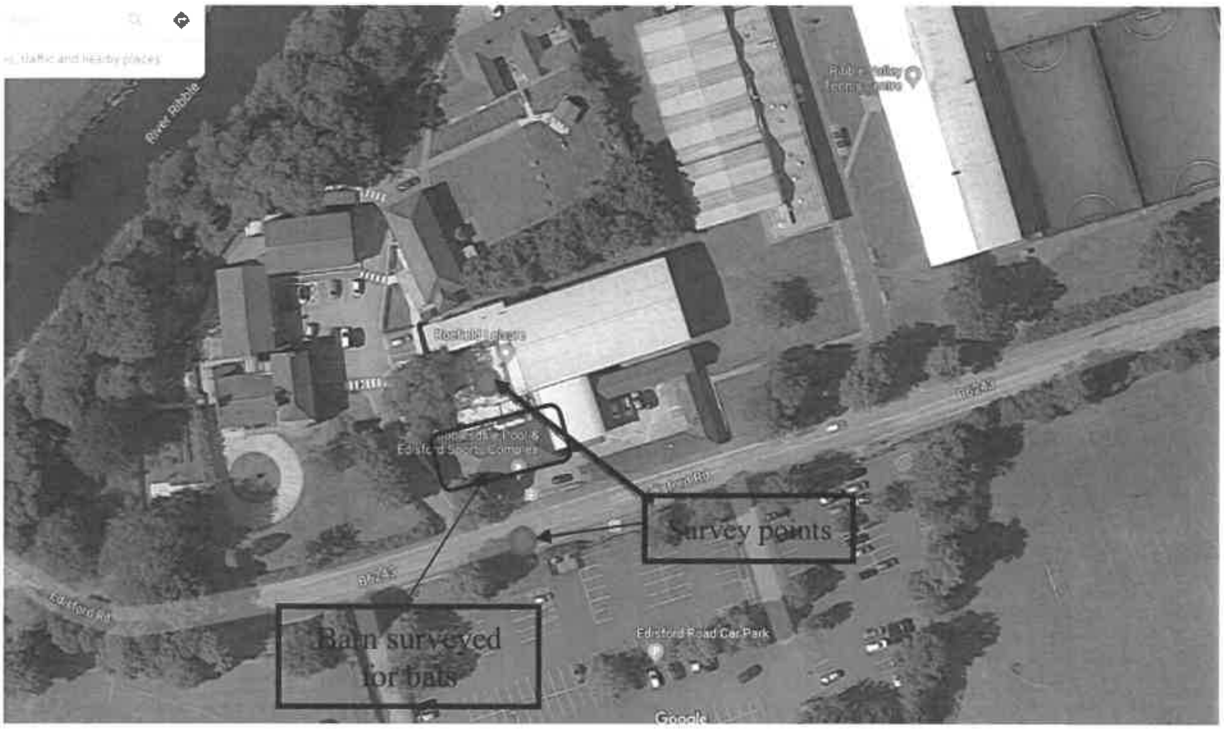
Map of bat survey carried out at Roefield Leisure Centre, Edisford Road, Clitheroe, Lancashire showing the barn in relation to the existing modern buildings and where the bat surveyors were positioned.



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