29 June 2023

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RAW Planning Ltd
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Dear Kerry,

Moor Farm – Bat Survey: Preliminary Roost Assessment

I write to you in regard to the Preliminary Roost Assessment (PRA) conducted on the barn at Moor Farm, Ashton Road, Minety, SN16 9QP on 26th June 2023.

Proposals

The plans involve converting the barn into a holiday cottage. This may include securing the footings of the building.

Methods

RAW Planning Ltd commissioned Ecology by Design to complete a PRA of the barn situated at grid reference SU 02889182.

The survey was conducted by Ecologist Hannah Smith (Natural England Level 2 Licence Number

2015-12267-CLS-CLS) and Seasonal Ecologist Ross Hellier in warm, bright conditions. The assessment was based on the guidance included in the Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn) (Collins, 2016) and standing advice (Gov.UK, 2015).

The building was inspected for potential bat use by examining the internal and external structures for active roosts or roosting sites and suitable entry and exit points on the outside of the building, and by searching for other evidence of bat activity such as droppings, urine stains, carcasses or food remains. A torch was used to illuminate any dark recesses inside to carefully inspect any features of potential value to roosting bats.

Equipment used included:

- Close focusing binoculars;
- 3m Telescopic ladder; and
- High powered LED Lenser spotlight torch.

During the survey, the building was thoroughly inspected including the roof structure, gaps under eaves, crevices in brickwork, around the roofing beams and windows. Internally the walls and roof were inspected for cracks and crevices and potential access points into the building.

The barn is divided into two sections with a partitioning wall. The northern section is open with no void. The southern section has a void; however, it was not possible to enter as a thick layer of debris was present rendering it unsafe to access. It was possible to view part of the void from the entrance to the void.

Results and Interpretation

The barn is situated on the outskirts of the village of Minety located equidistance between Cirencester, Malmesbury and Swindon. The barn itself is located within an equestrian set up with associated stables and main farm house. A small stream is located directly to the south of the barn running from east to west. The surrounding fields are open pasture with a series of mature hedgerows providing connectivity to the wider landscape which also comprises open pasture. The Cotswolds Water Park Site of Special Scientific Interest (SSSI) is located 1.5km to the north of the site. The Thames River is also situated north of the site at a similar distance. The local landscape therefore provides good foraging, commuting and roosting opportunities for bats.

The barn is of a stone construction on the north, east and southern elevations with brick on the western elevation. Timber barge boards are present on the northern gable end. The roof is pitched with corrugated metal. The western elevation has a number of timber framed open doorways and a partially open window. The neighbouring stables and laundry room adjoin the barn on the eastern elevation with interlinked corrugated metal roof.

External assessment

The barn is currently empty and has not been subject to recent maintenance. Open doorways and a window opening are present on the western elevation with gaps around the timber frames between the brickwork and timber. There are small gaps in the corrugated metal roof and the eaves are open. The barge board present at the northern side of the property has large gaps underneath. A small area of timber cladding is present near the apex of the southern elevation with a window below which is partially covered by the ivy present on this elevation. Numerous gaps, cracks and crevices are located in the stone and brickwork on all external elevations.

Internal assessment – northern section

The barn is divided in to two sections by an internal partitioning wall. The northern section is open with no roof void. The corrugated metal roof is exposed with no lining membrane. The barn has a

timber frame with ridge beam. Internally the elevations have been rendered; however, much of the render is now peeling away leaving exposed cracks and crevices particularly in the thick stones walls. Gaps are also present between the timber frame and the stone elevations. Low numbers (<10) of suspected pipistrelle (*Pipistrellus sp*.) droppings were scattered along the eastern elevation in this section with more droppings (approximately 30) on the brick work of the northern side of the partitioning wall and on the ground below. Droppings varied in age with some fresh droppings present. A sample of droppings was taken for DNA analysis should it be required.

Internal assessment – southern section

The southern section of the barn has a roof void; however, it was not safe to crawl within the void as a thick layer of broken debris was present throughout. No droppings or evidence were observed from the vantage point of the void entrance although, it would have been difficult to locate any evidence if present, due to the level of debris. Again, all internal walls within this section contain numerous cracks and crevices suitable for crevice dwelling bats. Suspected pipistrelle droppings were recorded on the sofa on the ground floor of this section with a few moth wings caught in a cobweb near the window on the western side of the barn. A couple of larger droppings, possibly brown long-eared (*Plecotus auritus*) were present below the roof void entrance. A sample was taken for DNA analysis. A couple of older droppings were also present at the entrance to a small crevice within the stone work on the southern elevation.

A series of nests were present on the beams and in the apex within the roof void. Swallows and white doves were observed exiting the barn during the survey.

Rat droppings were also observed in the barn.

Potential Impacts and Recommendations

Low numbers of suspected pipistrelle bat droppings of varying ages were recorded scattered within the barn. A couple of suspected brown long-eared droppings were also observed. There are multiple access points and numerous internal and external features within the barn suitable for roosting bats. The thick stone walls in particular provide roosting opportunities for crevice dwelling bats.

Conditions within the barn are also considered suitable for hibernating bats. Hibernating bats require stable, cool temperatures with high humidity. The numerous cracks and deep crevices within the thick stone walls of the barn are therefore considered to provide suitable conditions for crevice dwelling bats to hibernate. The nature of the conversion would require these internal and potentially some external features to be filled and removed.

To conclude, the building is a confirmed roost due to the presence of bat droppings and has high suitability to support roosting bats. To inform a planning application, three emergence/re-entry surveys must be undertaken, using four surveyors, to provide further information on the species, numbers, types of roosts present and the manner in which the bats are accessing the building; the results of these surveys will be needed in order to inform the mitigation required. The surveys must be spread apart (minimum of three weeks) and undertaken during the bat active season (May-August/September). Surveyors will cover the adjoining stables and laundry room where it abuts the barn as bats may be accessing the barn via these areas due to their open structure.

In addition, hibernation surveys are required to establish if hibernating bats are present. Three visits, one in mid-December, one in mid-January and one in mid-February must be undertaken. Static detectors would also be placed within the barn in December, January and February for a minimum of two weeks per month to gain information on whether bats are using the building to hibernate.

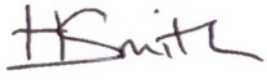
A report will then follow the surveys, to indicate the mitigation and enhancement measures necessary across the site.

A mitigation licence may be required for works to lawfully proceed. If required, a licence can be applied for if and when planning permission has been granted and will require survey data from the most recent bat season. Natural England are currently taking 45 working days (on occasions this can increase to 60) to assess licence applications, which I would like to make you aware of, as you would not be able to start the works until the licence is in place.

A stream is located directly below the southern elevation of the barn. Although there are no plans to impact the stream, it may be necessary to undertake some digging in the area if the footings require stabilising during the conversion. If it is deemed necessary to impact the ground within 10 meters of the stream, then further surveys for otter and water vole will be required.

Yours sincerely,

Hannah Smith BSc, ACIEEM



Ecologist

Appended:

- Site photographs

Appendix 1: Photographs

Photograph 1: Northern elevation of barn with attached laundry room



Photograph 2: Southern and eastern elevation of barn and adjoining stables



Photograph 3: Western elevation



Photograph 4: Laundry room on northern side of eastern elevation



Photograph 5: Internal of northern section of barn with no void



Photograph 6: Internal of southern section of barn



Photograph 7: Internal of roof void in southern section of barn



Photograph 8: Cracks and crevices in stone elevations



Photograph 9: The stream to the south of the barn

