

Written Stone Farmhouse, Longridge

BAT SURVEY REPORT

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1 INTRODUCTION

1.1 Instruction & Background

Knight Sky Ecology was commissioned to undertake bat surveys of Written Stone Farmhouse, Written Stone Lane, Longridge, Preston, PR3 2ZN. The assessment was undertaken in relation to the proposed works to the property which are to include re-roofing, repointing and reconstruction of the chimneys.

The bat surveys comprised a preliminary bat roost assessment and dusk emergence surveys. The primary aim of the bat surveys was to gather information on the presence or absence of a bat roost(s) at the house. This report presents the results of the bat surveys and provides all the necessary data, assessment and guidance to satisfy the relevant planning and conservation policy obligations and legislative framework. Details of the legislation afforded to bats is presented in Appendix A.

1.2 Site Description

The Grade II listed farmhouse is located centrally within the farm at grid reference SD 62586 3788 and is surrounded by a cluster of outbuildings. The farm is bordered by pasture land bound by occasional hedgerows and treelines and is approximately 125m Above Ordnance Datum (AOD). Spade Mill Reservoir No.1 is located 420m west and the centre of Longridge is located 2.1km west. Figure 1.1 provides an aerial image of the property location.

Figure 1.1. Farmhouse location





2 METHODS

2.1 Survey Personnel

The preliminary bat roost assessment and all dusk emergence surveys were led by Ryan Knight MCIEEM who holds a Level 2 Natural England Class Licence (ref. 2015-12611-CLS-CLS) for bats and has held this licence for over 11 years. Ryan has also acted as the named ecologist on numerous European Protected Species (EPS) mitigation licences issued by Natural England which covered several bat species and roost types.

All other personnel who were involved in the surveys have been trained by Ryan or hold Natural England licenses and / or have several years of experience in bat surveys. Table 2.1 provides a list of surveyors that were involved in the surveys.

Table 2.1. Surveyor details

Name	Initials	No. of surveys undertaken	Natural England bat licence or experience
Catherine Wood	CW	2	Level 2 bat licence. Ref no. 2016-24176-CLS-CLS
Richard Storton	RS	1	12 + years conducting bat surveys

2.2 Overarching Guidance

The bat surveys were primarily based on the methods described in '*Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*. Bat Conservation Trust, London.' (Collins, J., (ed.) (2023)). Any deviation from standard practice is justified where required.

2.3 Field Surveys

Preliminary Bat Roost Assessment

A preliminary bat roost assessment of the property was undertaken on 12th April 2024. The assessment involved a visual inspection of the property to search for bats and evidence of bats (e.g., droppings) and an appraisal of the extent and suitability of any potential bat roost features present. The assessment included the use of binoculars, a torch and ladders.

Other considerations which would influence the suitability of the property for use by bats were also taken into account. This included the site location, expected night time lighting levels and the suitability of the surrounding habitats. This information was gathered from the site survey and web-based mapping sources (i.e., Google Earth). Following the assessment, the building was assigned a bat roost suitability category of none, negligible, low, moderate, high or confirmed roost based on the collated information.

Dusk Emergence Surveys

Two dusk emergence surveys were undertaken on the barn on 26th June and 22nd July 2024 to gather further information on the presence / absence of a bat roost(s).

With respect to the potential roost features identified during the preliminary bat roost assessment, three survey positions were used to gain clear sightlines of all the elevations of the farmhouse.

The three survey positions during the first dusk emergence survey comprised a surveyor with a (full spectrum) bat detector supplemented by infra-red cameras (commonly referred to as Night Vision Aids (NVAs)). The survey positions during the second survey comprised two surveyors and three NVAs and bat detectors. All footage from the NVAs along with the recorded bat calls were fully reviewed via a desktop media player and the appropriate bat call analysis software (e.g. Elekon BatExplorer) following the completion of the surveys.

Each dusk emergence survey started at least 15mins before sunset and continued for at least 1.5hrs after sunset. Observations made during the survey and following a review of the NVA footage and bat calls included bat species, numbers, roost access points, roost locations and flight-paths. Table 2.1 details the survey times, weather conditions, equipment used and survey positions.

Table 2.1. Survey data and conditions

Date	26 th June 2024	22 nd July 2024
Sunset	21:44	21:23
Survey Times	21:29 to 23:15	21:08 to 22:55
Weather conditions	<ul style="list-style-type: none"> • Dry throughout • 21°C at survey start • 19°C at survey end • 100% cloud cover • Wind 0-1 (Beaufort scale) • No significant weather changes were encountered throughout the survey 	<ul style="list-style-type: none"> • Dry throughout • 17°C at survey start • 16°C at survey end • 100% cloud cover • Wind 1 (Beaufort scale) • Wind picked up slightly during the survey to Bft 2-3
Equipment	<ul style="list-style-type: none"> • Ryan Knight: Elekon Batlogger M2 Bat Detector (full spectrum) and 1no. Canon XA15 IR camera with 2no. Nightfox XB5 Pro torches (both surveys). • Catherine Wood: Peersonic RPA3 (full spectrum) and 2no. Nightfox whisker with x2 Nightfox XC5 torch (both surveys) • Richard Storton: Batbox Duet & Echometer Touch 2 Pro with Tablet and 1no. Canon XA15 IR camera with 2no. Nightfox XB5 Pro torches. 	

2.4 Assessment Comments

Dusk Emergence Survey

The surveys were undertaken within the main bat activity period during weather conditions deemed suitable to conduct bat surveys in accordance with the guidance (Collins, 2023). The loft of the farmhouse was too dangerous to access so an internal inspection was not completed. Overall, no significant constraints to the surveys were encountered.



General

This report will remain valid for a period of 18 months from the date of issue. An ecologist should be contacted for advice on the revalidation requirements of the report if planning permission is not obtained (if required) or works do not commence within this time period.



3 RESULTS

3.1 Preliminary Bat Roost Assessment

3.1.1 Building Description and Potential Bat Roost Features

Photos of the property are provided in Appendix B for a general overview and an illustration of any identified potential bat roost features.

Farmhouse

The farmhouse is Grade II listed and dates to late C18th. It is a two-storey, sandstone construction and forms an L-plan shape. The west facing side elevation is rendered. Due to the rendering, no potential roost features were observed on this elevation including at the roof ridge. The south elevation (front) and the east side elevation of the gable appeared in good repair with all mortar joints and roof verge pointing in good condition. The north facing gable was of a stone rubble type wall. The stonework pointing appeared in good repair overall; however, there was a slight crack in the wall just below the chimney and there was a noticeable gap in the wall at the top of the crack. The depth of this gap was unknown.

There were also gaps in the stonework on the east elevation. This included a gap in the south-east corner just below the roof and gaps within the centre of the wall. Such gaps appeared to present suitable conditions for roosting bats.

The roof comprises two intersecting gable roofs which form an L-plan. The southern roof had slates and the northern roof had traditional stone tiles. The northern section had missing, misshapen and slipped tiles – all presenting suitable roost egress points for bats. This included lifted and missing tiles on the north roof verge. The southern section appeared to be in better repair. The lead flashing on the chimney on the north gable and the chimney on the east gable were slightly lifted presenting potential roost features for bats.

3.1.2 Habitat Suitability

The farmhouse is located centrally within the farm and is surrounded by a mix of agricultural buildings. The farm is bordered by agriculturally improved pasture land. The buildings and the mature trees in the garden of the farmhouse will provide sheltered foraging opportunities for bats. The treelines and hedgerows which bound the pasture fields do provide a network of connective foraging features for bats and there are several woodlands in the wider area. Night-time lighting levels around the farm were relatively low. No significant constraints to the presence of bats at the site were encountered.

3.1.3 Evidence of Bats and Bat Roost Suitability

No bats or evidence of bats was recorded. In respect of the above-described roost features along with the property location and surrounding habitats, a **moderate roost suitability** category was assigned to the farmhouse. In summary, potential bat roost features comprised;

- Gaps in the stonework (north and east elevation);
- Gaps in the roof; and
- Gaps under the lead flashing of the chimneys.

3.2 Dusk Emergence Survey

No bat roosts were recorded within the farmhouse on any of the two dusk emergence surveys.

Bat activity was similar on both surveys with a relatively higher level of activity around the rear (north) garden adjacent to the north gable. Activity was dominated by a mix of common and soprano pipistrelle. A maximum of 6 bats were observed on any one occasion (all foraging). Bat activity was relatively low on the frontage within the courtyard. The only other species observed was noctule bat.

It should be noted that Myotis species have also been recorded on the site during surveys of other buildings. A summary of bat activity for each survey visit is provided in Table 3.1

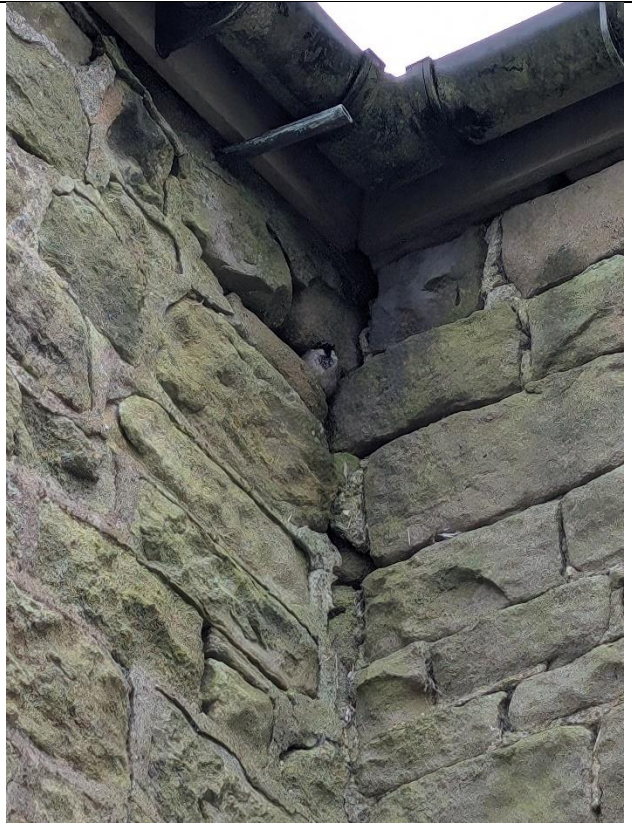
Table 3.1. Bat activity summary

Date	Activity Summary
26th June 2024	<p>First bat (soprano pipistrelle) recorded 10 mins after sunset at 21:54 (not seen). Noctule bat recorded passing over at 22:02. The surveyor on the front elevation recorded occasional activity of common pipistrelle. The surveyor on the east elevation recorded frequent activity of common and soprano pipistrelle with flights around the house and over the roof.</p> <p>The surveyor on the rear elevation recorded frequent to constant foraging of up to 4 common and soprano pipistrelle bats. One potential emergence was found to be a foraging bat only (as assessed upon review of the NVA footage).</p>
22nd June 2024	<p>First bat (soprano pipistrelle) recorded 23 mins after sunset. Occasional foraging of 1-3 common pipistrelle recorded on the front and east sides. One noctule bat pass recorded at 22:23. The vast majority of activity was observed around the rear garden with 6 bats recorded on any one occasion. This comprised a mix of soprano and common pipistrelle.</p>

3.3 Nesting birds

During the preliminary bat roost assessment on 12th April, a male house sparrow was observed exiting a gap in the wall just below the roof eaves on the east elevation (see Photo 3.1 below). This was originally attributed to a nest site. No further evidence of nesting sparrows was observed in later visits. House sparrow is a ‘red-listed’ bird of conservation concern and a priority listed species. The house contains numerous features within the roof to support nesting birds.

Photo 3.1.
House sparrow in cavity on east elevation.





4 EVALUATION & CONCLUSIONS

4.1 Bats

The main findings derived from the bat surveys of the farmhouse are listed as follows:

- No evidence of a bat roost was recorded during the preliminary roost assessment in April 2024.
- No evidence of a bat roost was recorded during two dusk emergence surveys completed in June and July 2024.
- The dusk emergence surveys recorded moderate levels of bat activity which comprised a mix of common pipistrelle and soprano pipistrelle. Noctule bats were also recorded very occasionally.
- No habitats of potential value to bats are to be affected by the proposals.

The findings of the bat surveys described in this report are considered sufficient to conclude that bat roosts are likely absent from the property.

Therefore, bats do not present a potential ecological constraint to the repair works to the house. The works will not result in any impacts to bats and will therefore remain compliant with the legislation (Appendix A). No further assessment or detailed mitigation is required.

Given the nature of bats, there will always be a very low residual risk of encountering a bat during such works. This risk can be easily mitigated via the use of standard, good practice measures that can be adopted by the relevant contractors during the repair work. These measures are detailed in Section 5.

4.2 Nesting birds

It is considered reasonably likely that the house would be used by nesting birds. The proposed development should therefore be aware of the legislation afforded to nesting birds:

- All wild birds in the UK are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs.

The nesting bird season is generally accepted as March to September. Mitigation to avoid impacts to nesting birds is detailed in Section 5.



5 RECOMMENDATIONS

5.1 Bats

In the unexpected event that a bat is discovered during the works, the contractors will be advised to stop immediately and contact the licensed ecologist whom will travel to site to provide assessment and advice. Contractors will be specifically forbidden to handle bats. Contractors will be advised that if it is necessary to remove a bat to avoid it being harmed, gloves **MUST** be worn. It should be carefully placed in a cardboard box and kept in the dark in a quiet place until the licensed ecologist arrives on site.

5.2 Nesting Birds

Any works which will potentially impact bird's nests should be undertaken outside of the main nesting bird season of March to August (inclusive). If this is not possible, any works potentially affecting bird's nests must be preceded by a nesting bird check, undertaken by a suitability qualified ecologist. If an active nest is found, it must be left in-situ until no longer in use. This may potentially delay the works programme.

The property owner is recommended to consider installing at least two-house sparrow boxes on the property or adjacent barns. Bird box models, locations and siting advice can be provided as a post-permission matter.



APPENDIX A. LEGISLATION FOR BATS

The Wildlife and Countryside Act 1981

All bat species in England are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Section 9 of the Act make it an offence to intentionally or recklessly kill, injure or take any wild animal included in Schedule 5. In addition, it is an offence to (intentionally or recklessly):

- Damage or destroy any structure or place which any wild animal specified in Schedule 5 uses for shelter or protection;
- Disturb any such animal while it is occupying a structure or place which it uses for shelter or protection; or
- Obstruct access to any structure or place which any such animal uses for shelter or protection.

In addition, under this legislation there are offences relating to sale, possession and control of bats.

The Conservation of Habitats and Species Regulations 2017

Bats are listed within Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) as European Protected Species of animals. Part 3 (Protection of animals); Regulation 43 (1) of the Habitats Regulations make it an offence to:

- Deliberately capture, injure or kill any wild animal of a European protected species;
- Deliberately disturb wild animals of any such species;
- Deliberately take or destroys the eggs of such an animal; or
- Damages or destroy a breeding site or resting place of such an animal.

For the purposes of the legislation, the disturbance of wild animals includes any disturbance which is likely to impair their ability to survive, to breed or to reproduce, or to rear or nurture their young; or in the case of hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

In addition, under this legislation there are offences relating to possession, control sale and exchange of European Protected Species.

Natural Environment and Rural Communities (NERC) Act 2006

Section 41 of the NERC Act 2006 requires the Secretary of State to publish a list of the living organisms and types of habitats which in the Secretary of State's opinion are of principal importance for the purpose of conserving or enhancing biodiversity. The Section 41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their general biodiversity objective under Section 40 of the NERC Act 2006. Bat species listed under Section 41 and known to be present within Lancashire comprise soprano pipistrelle, brown long-eared bat and noctule bat.

APPENDIX B. PHOTOS

Photo 1.
North-east
elevations



Photo 2.
North gable



Photo 3
Gap in stonework, gaps under verge roof tiles and gaps under lead flashing.



Photo 4.
West gable



Photo 5.
South-east
elevation



Photo 6.
Gap under lead
flashing on
east gable.



APPENDIX C. NVA SCREENSHOTS

Screenshot 1.
Front elevation
(22/07/2024)



Screenshot 2.
Side elevation
(22/07/2024)



Screenshot 3.
Rear and side
elevation
(22/07/2024)



Screenshot 4.
Rear and side
elevation
(26/06/2024)



Screenshot 5.
Side elevation
(26/06/2024)

