

Stone Barn, Ampney Park

Bat Surveys

July-September 2021

Client: Simon-Murray Jones
Architects
Report Ref: SEB2429_02c
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Non-Technical Summary

Site Name and Location	Stone Barn at Ampney Park, London Road, Ampney Crucis, Cirencester, GL7 5RY (central grid reference: SP 06477 01916).
Scope of Works and Survey Methods	Bat surveys undertaken on 12 th July, 2 nd August and 17 th September 2021 comprising two dusk emergence surveys and one dawn re-entry survey. Methods refer to BCT (2016) <i>Bat Surveys for Professional Ecologists: Good Practice Guidelines</i> Bat Conservation Trust. Collins. Third Edition.
Lead Personnel	Kate Hayward MCIEEM and Callum Pearson Qualifying CIEEM.
Purpose of Works	The purpose of the surveys is to determine any use of the building by bats, to inform a planning proposal for minor internal alterations. The surveys will inform the approach to works and licensing requirements.
Summary of Survey Results	<p>Based on the results of the bat surveys (July-September 2021) and previous Preliminary Bat Roost Assessment and Survey (April 2021), the Stone Barn supports one common pipistrelle maternity roost and one soprano pipistrelle day roost within a cavity in the northern-most dormer window with access via a gap in the mortar on the dormer window.</p> <p>Peak counts recorded across the surveys were 66 individual common pipistrelle and one soprano pipistrelle.</p> <p>Referring to the Bat Mitigation Guidelines (2004), a day roost for soprano pipistrelle has low conservation significance, being a roost for individual bats/low numbers of bats of a common species. A maternity roost for common pipistrelle has medium conservation significance, being a maternity roost of a common species.</p>
Impacts	Works on the Stone Barn will cause temporary minor disturbance to the common pipistrelle maternity roost and the soprano pipistrelle day roost within the dormer window cavity.
Recommendations	Due to the small-scale of the works and temporary minor disturbance to the bat roosts, a non-licensable approach to works is appropriate, including sensitive timing of works to avoid the main breeding season.



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1. Introduction

- 1.1.2 In 2021, Seasons Ecology was instructed by Simon Morray-Jones Architects Ltd, on behalf of the client, to undertake bat surveys of the Stone Barn at Ampney Park, London Road, Ampney Crucis, Cirencester, GL7 5RY (central grid reference: SP 06477 01916). The surveys were recommended following a Preliminary Bat Roost Assessment and Survey undertaken of the building in April 2021 by Seasons Ecology¹. The purpose of the surveys is to determine any use of the building by bats, to inform a planning proposal for minor internal alterations. The surveys will inform the approach to works and licensing requirements.
- 1.1.3 The Preliminary Bat Roost Assessment and Survey assessed the Stone Barn to be of *Low* suitability to roosting bats, owing to a low number of external potential roosting features and potential for features on the building roof, which could not be fully viewed. It was therefore recommended that at least one dusk emergence survey or one dawn re-entry survey be undertaken, with the aim of confirming presence/absence of bats within the building.
- 1.1.4 This report details the results of the bat surveys and should be read in conjunction with the *Preliminary Bat Roost Assessment and Survey* report produced by Seasons Ecology (April 2021).

2. Survey Method

- 1.1.5 Survey methods are provided below and refer to survey guidelines in BCT (2016)².

1.2 Dusk Emergence Surveys

- 1.2.1 Two dusk emergence surveys were carried out, one on 12th July and one on 2nd August 2021. The surveys commenced 15 minutes before sunset and continued for an hour-and-a-half after sunset.
- 1.2.2 Two surveyors were present for each survey. Each surveyor was equipped with an Echo Meter Touch bat detector supported by an Apple iPad Mini 4 interface, on which all bat activity was recorded.
- 1.2.3 Two passive acoustic recording devices (*Titley AnaBat Express*) were also deployed for the surveys. These were positioned in the same locations as the surveyors and were set on ‘continuous’ recording mode for the duration of the surveys. Recordings were later analysed using AnalookW 4.2.24. software to aid the identification of species with reference to Russ (2012³).

1.3 Dawn Re-entry Survey

- 1.3.1 One dawn re-entry survey was carried out on 17th September 2021. The survey commenced an hour-and-a-half before sunrise and continued for 15 minutes after sunrise.

¹ Seasons Ecology (April 2021) *Preliminary Bat Roost Assessment and Survey. Ampney Park (SEB2429_01)*.

² Bat Conservation Trust (BCT) (2016) *Bat Surveys for Professional Ecologists. Good Practice Guidelines*. Bat Conservation Trust. Collins. Third Edition.

³ Russ, J. (2012) *British Bat Calls. A Guide to Species Identification*. Pelagic Publishing.



- 1.3.2 Two surveyors were present for the survey. Each surveyor was equipped with an Echo Meter Touch bat detector supported by an Apple iPad Mini 4 interface, on which all bat activity was recorded.
- 1.3.3 Two passive acoustic recording devices (*Titley AnaBat Express*) were also deployed for the survey. These were positioned in the same locations as the surveyors and were set on ‘continuous’ recording mode for the duration of the survey. Recordings were later analysed using AnalookW 4.2.24. software to aid the identification of species with reference to Russ (2012).

1.4 Constraints to Surveys

- 1.4.1 There were no constraints to the surveys; all aspects of the Stone Barn were visible for the surveys, the weather conditions were suitable and the surveys were undertaken during the optimal survey period.

1.5 Personnel

- 1.5.1 The surveys were led by Callum Pearson. Callum is an experienced bat surveyor and ecological consultant, and qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM).
- 1.5.2 The surveys were overseen by Kate Hayward who has produced this report. Kate is a licensed bat ecologist registered to use Class Licence CL18 (Bat Survey Level 2) (class licence registration number 2015-15106-CLS-CLS), a full member of CIEEM and has over 20 years’ experience of advising on protected species and development projects.

2. Survey Results

- 2.1.1 The results of the bat surveys are provided below. The key results are shown at Annex 1.

2.2 Dusk Emergence Surveys

12th July 2021

- 2.2.1 The survey commenced at 21:07 and finished at 22:52. Sunset was at 21:22. Weather conditions were suitable, with a start temperature of 18°C and end temperature of 16°C, wind was at Beaufort 0, with 0% precipitation and 60% cloud cover.
- 2.2.2 **Approximately 20 common pipistrelle *Pipistrellus pipistrellus* were observed emerging from a gap in the mortar on the northern-most dormer window on the west elevation from between 21:27 and 21:47 (5 minutes to 25 minutes after sunset).**
- 2.2.3 General bat activity was by at least four species; common pipistrelle, noctule *Nyctalus noctula*/Leisler’s *Nyctalus leisleri*, brown long-eared *Plecotus auritus* and probable Daubenton’s bat *Myotis Daubentonii*.
- 2.2.4 One common pipistrelle was observed commuting across the adjacent courtyard, to the west of the building, at 21:32 (10 minutes after sunset).
- 2.2.5 One noctule/Leisler’s was recorded but not seen once throughout the survey, at 22:15 (53 minutes after sunset).
- 2.2.6 Brown long-eared was recorded twice throughout the survey at 22:18 and 22:30 (56 minutes 68 minutes after sunset), however these were both brief, unseen passes.



- 2.2.7 One Daubenton's bat was recorded commuting past the southern end of the building at 22:18 (56 minutes after sunset).

2nd August 2021

- 2.2.8 The survey commenced at 20:39 and finished at 22:24. Sunset was at 20:54. Weather conditions were suitable, with a start temperature of 15°C and end temperature of 13°C, wind was at Beaufort 0⁴, with 100% cloud cover and 0% precipitation.
- 2.2.9 **A total of 66 common pipistrelle and one soprano pipistrelle *P. pygmaeus* were observed emerging from a gap in the mortar on the northern-most dormer window on the west elevation from between 20:57 and 21:16 (3 minutes to 22 minutes after sunset).**
- 2.2.10 General bat activity was by at least four species; common pipistrelle, brown long-eared, noctule/Leisler's and probable Daubenton's bat.
- 2.2.11 Brown long-eared was recorded but not seen once throughout the survey at 20:57 (3 minutes after sunset). Noctule was also recorded but not seen twice throughout the survey at 21:10 and 21:28 (16 minutes and 44 minutes after sunset).
- 2.2.12 Common pipistrelle was observed foraging around the adjacent courtyard, to the west of the building, at 21:53 (59 minutes after sunset), and was also observed commuting past the building at 22:08 (74 minutes after sunset).
- 2.2.13 Probable Daubenton's bat was recorded twice during the survey at 21:56 and 22:13 (62 minutes and 79 minutes after sunset), however both recordings were brief, unseen passes.

2.3 Dawn Re-entry Survey

17th September 2021

- 2.3.1 The survey commenced at 05:17 and finished at 07:02. Sunrise was at 06:47. Weather conditions were suitable, with a start temperature of 12°C and end temperature of 12°C, wind was at Beaufort 0, with 0% precipitation and 100% cloud cover.
- 2.3.2 **No bats were observed re-entering the Stone Barn during the survey.**
- 2.3.3 General bat activity was by at least six species; common pipistrelle, soprano pipistrelle, brown long-eared bat, noctule/Leisler's, serotine *Eptesicus serotinus* and probable Daubenton's bat.
- 2.3.4 Activity was mainly by pipistrelle species which were observed commuting overhead at 06:21 (26 minutes before sunrise) and heard but not seen at 05:30 and 05:49 (77 minutes and 58 minutes before sunrise).
- 2.3.5 Brown long-eared and a probable Daubenton's bat were both recorded once throughout the survey at 05:32 and 05:46, respectively (75 minutes and 61 minutes before sunrise). Both recordings were brief unseen passes.
- 2.3.6 Noctule/Leisler's and serotine were both also recorded just once throughout the survey at 05:53 and 05:54, respectively (68 minutes and 69 minutes before sunrise). Both recordings were also brief, unseen passes.

⁴ The Beaufort scale of wind velocity: 0 = Calm, 1 = Light Air, 2 = Light Breeze, 3 = Gentle Breeze, 4 = Moderate Breeze, 5 = Fresh Breeze, 6 = Strong Breeze, 7 = Near Gale, 8 = Gale, 9 = Strong Gale, 10 = Storm, 11 = Violent Storm, = 12 Hurricane (<http://www.metoffice.gov.uk>).



2.4 Surveys Summary

2.4.1 Table 1 below summarises the results of the bat surveys.

Table 1: Surveys Summary – Bat Emergence and Re-Entry Surveys, 12th July, 2nd August and 17th September 2021

Survey	Summary
1	<p><u>12th July 2021</u></p> <p>Approximately 20 common pipistrelle were observed emerging from a gap in the mortar on the northern-most dormer window on the west elevation.</p> <p>General bat activity was by at least four species; common pipistrelle, noctule/Leisler's, brown long-eared and probable Daubenton's bat.</p>
2	<p><u>2nd August 2021</u></p> <p>66 common pipistrelle and one soprano pipistrelle were observed emerging from a gap in the mortar on the northern-most dormer window on the west elevation.</p> <p>General bat activity was by at least four species; common pipistrelle, brown long-eared, noctule/Leisler's and probable Daubenton's bat.</p>
3	<p><u>17th September 2021</u></p> <p>No bats were observed re-entering the Stone Barn during the survey.</p> <p>General bat activity was by at least six species; common pipistrelle, soprano pipistrelle, brown long-eared bat, noctule/Leisler's, serotine and probable Daubenton's bat.</p>



3. Interpretation and Evaluation

- 3.1.1 Based on the results of the bat surveys (July-September 2021) and Preliminary Bat Roost Assessment and Survey (April 2021), the Stone Barn at Ampney Park supports one common pipistrelle maternity roost and one soprano pipistrelle day roost within a cavity in the northern-most dormer window with access via a gap in the mortar on the dormer window (the internal area of the Stone Barn is entirely open to the roof with no enclosed voids known to be present).
- 3.1.2 Peak counts recorded across the surveys were 66 individual common pipistrelle and one soprano pipistrelle (emergence survey on 2nd August 2021), which were all observed emerging from a gap in the mortar on the northern-most dormer window on the west elevation.
- 3.1.3 Referring to the peak counts of each species recorded, the roosts are assessed as a maternity roost for common pipistrelle and one day roost for soprano pipistrelle.
- 3.1.4 The location and status of each roost is detailed below.
- **Common pipistrelle – One Maternity Roost:**
 1. **Within a cavity in the northern-most dormer window (maximum 66 bats recorded)**
 - **Soprano pipistrelle – One Day Roost:**
 1. **Within a cavity in the northern-most dormer window (maximum one bat recorded)**
- 3.1.5 Referring to the Bat Mitigation Guidelines (2004), a day roost for soprano pipistrelle has low conservation significance, being a roost for individual bats/low numbers of bats of a common species. A maternity roost for common pipistrelle has medium conservation significance, being a maternity roost of a common species.
- 3.1.6 General bat activity was by at least six species; common pipistrelle, soprano pipistrelle, serotine, Daubenton's, brown long-eared and noctule/Leisler's. The wider Ampney Park estate supports high quality bat foraging and commuting habitats and is surrounded by further moderate to high-quality habitats; the Ampney Brook flows through the estate approximately 150m to the south of the Main House, there are patches of woodland, pastures, large ponds and mature hedgerows and scattered mature trees in all directions. The adjacent church to the east of the Main House offers high suitability to roosting bats.

4. Legislation

- 4.1.1 Bat species in England and Wales are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to:
- Deliberately capture, injure or kill bats;
 - Intentionally or recklessly disturb bats;
 - Intentionally or recklessly obstruct access to any structure or place which bats use for shelter or protection; and,
 - Deliberately damage or destruction of a breeding site or resting place.



- 4.1.2 With the exception of disturbance, this legislation applies throughout the year whether bats are present or not at the time of works being carried out and irrespective of planning permission being obtained or being required.

5. Impacts

5.1 The Proposal

- 5.1.1 The Stone Barn is the subject of a planning proposal for minor internal alterations.

5.2 Impacts

- 5.2.1 The following impacts to roosting bats will result from the proposal:

- Works on the Stone Barn will cause temporary minor disturbance to the common pipistrelle maternity roost within the dormer window cavity (maximum 66 bats).
- Works on the Stone Barn will cause temporary minor disturbance to the soprano pipistrelle day roost within the dormer window cavity (maximum one bat).

6. Recommendations

- 6.1.1 Due to the small-scale of the works and temporary minor disturbance to the bat roosts, a non-licensable approach to works is appropriate. If possible, works should be timed to avoid the main breeding season, June to August.
- 6.1.2 Site contractors should be made aware of the presence and location of the bat roosts and in the unlikely event of a bat being found during the works, to contact the Licensed Bat Ecologist immediately.
- 6.1.3 Should any additional external works be required, then advice should be sought from the Licensed Bat Ecologist on the approach to works and licensing requirements.



7. Annexes

Annex 1: Survey Results (July - September 2021)

