
Indoor Horse Arena, Ampney Park

Bat Surveys

July-September 2021

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Non-Technical Summary

Site Name and Location	Indoor Horse Arena at Ampney Park, London Road, Ampney Crucis, Cirencester, GL7 5RY (central grid reference: SP 06438 02002).
Scope of Works	Bat surveys undertaken on 21 st July, 17 th August and 17 th September 2021: Two dusk emergence surveys and one dawn re-entry survey.
Assessment and Survey Methods	Methods refer to BCT (2016) <i>Bat Surveys for Professional Ecologists: Good Practice Guidelines</i> Bat Conservation Trust. Third Edition. Collins.
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 the demolition or re-purposing of the Indoor Horse Arena. The survey 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 Indoor Horse Arena supports one brown long-eared day roost and night roost within the interior of the building.</p> <p>Referring to the Bat Mitigation Guidelines (2004), a day/night roost for brown long-eared bat has low conservation significance, being roosts for individual bats/low numbers of bats of a common species.</p>
Impacts	Demolition/re-purposing of the Indoor Horse Arena will result in the permanent loss of the brown long-eared day roost and night roost within the building's interior.
Recommendations	<p>Registration of the site under a Bat Low Impact Class Licence by a Registered Consultant prior to any works commencing, and pre-works checks and supervision during works.</p> <p>Provision of three bat boxes on a nearby tree to provide a receptor site and, subject to the proposal, provision of a dark and enclosed void to offer long-term roosting habitat for this species.</p>



Contents

1. Introduction	4
2. Survey Method	4
2.2 Dusk Emergence Surveys	4
2.3 Dawn Re-Entry Survey	4
2.4 Constraints to Surveys	5
2.5 Personnel	5
3. Survey Results	6
3.2 Dusk Emergence Surveys	6
3.3 Dawn Re-Entry Survey	7
3.4 Surveys Summary	8
4. Interpretation and Evaluation	8
5. Legislation	9
6. Recommendations	9
6.1 The Proposal	9
6.2 Impacts	9
6.3 Mitigation	9
7. Annexes	11
Annex 1: Surveyor Locations and Survey Results (July-September 2021)	11



1. Introduction

- 1.1.1 In June 2021, Seasons Ecology was instructed by Simon Morray-Jones Architects, on behalf of the client, to undertake bat surveys of the Indoor Horse Arena at Ampney Park, London Road, Ampney Crucis, Cirencester, GL7 5RY (central grid reference: SP 06438 02002). The surveys were recommended following a *Preliminary Bat Roost Assessment and Survey* of the arena 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 the demolition or re-purposing of the Indoor Horse Arena. The survey will inform the approach to works and licensing requirements.
- 1.1.2 The *Preliminary Bat Roost Assessment and Survey* assessed the Indoor Horse Arena as *Low* suitability to roosting bats, owing to a low number of potential bat roosting features behind the external cladding and as a night roost internally. No enclosed voids are present within the Indoor Horse Arena and no evidence of bats were found within this building during the *Preliminary Bat Roost Assessment and Survey*.
- 1.1.3 This report details the results of the bat survey and should be read in conjunction with the *Preliminary Bat Roost Assessment and Survey* report produced by Seasons Ecology (April 2021).

2. Survey Method

- 2.1.1 The survey method is provided below and refers to survey guidelines in BCT (2016)².

2.2 Dusk Emergence Surveys

- 2.2.1 Two dusk emergence surveys were carried out, one on 21st July 2021 and one on 17th August 2021. The surveys commenced 15 minutes before sunset and continued for an hour-and-a-half after sunset.
- 2.2.2 Two surveyors attended the survey. One surveyor was located to the north-east of the building and one surveyor was located to the south-west of the building so that all suitable features identified were in view.
- 2.2.3 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.
- 2.2.4 Two passive acoustic recording devices (*Titely AnaBat Express*) were also deployed. 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).

2.3 Dawn Re-Entry Survey

- 2.3.1 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_02d)

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

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



- 2.3.2 Two surveyors attended the survey. One surveyor was located to the north-east of the building and one surveyor was located to the south-west of the building so that all suitable features identified were in view.
- 2.3.3 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.
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2.4 Constraints to Surveys

- 2.4.1 There were no constraints to the surveys; all aspects of the building were in view; the weather conditions were suitable, and the surveys were undertaken during the optimal survey period.

2.5 Personnel

- 2.5.1 The surveys were led by Callum Pearson. Callum is an experienced bat surveyor and ecological consultant, and qualifying member of CIEEM.
- 2.5.2 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) and full member of CIEEM.

⁴ Russ, J. (2012) *British Bat Calls. A Guide to Species Identification*. Pelagic Publishing.



3. Survey Results

3.1.1 The results of the bat surveys are provided below. The locations of the surveyors and the key results are shown at Annex 1.

3.2 Dusk Emergence Surveys

21st July 2021

3.2.1 The survey commenced at 20:57 and finished at 22:42. Sunset was at 21:12. Weather conditions were suitable, with a start temperature of 27°C and end temperature of 23°C, wind was at Beaufort 0⁵, with 0% cloud cover and 0 precipitation.

3.2.2 **Three brown long-eared bats *Plecotus auritus* were observed foraging and socialising within the interior of the Indoor Horse Arena at 22:01 (49 minutes after sunset), one of which was then observed emerging from the building via the open doors on the south elevation at 22:08 (56 minutes after sunset).**

3.2.3 Bat activity was by at least six species; common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus*, Noctule *Nyctalus noctula*/Leisler's *Nyctalus leisleri*, serotine *Eptesicus serotinus*, brown long-eared and *Myotis* species.

3.2.4 Activity was mainly by pipistrelle species which were observed foraging along the adjacent tree line and adjacent field six times from 21:30 to 21:55 (18 minutes to 43 minutes after sunset) and recorded but not seen a further two times at 21:49 and 22:14 (37 minutes and 62 minutes after sunset).

3.2.5 Noctule/Leisler's was recorded but not seen five times throughout the survey from 22:10 to 22:30 (68 minutes to 78 minutes after sunset).

3.2.6 *Myotis* species was observed commuting from the adjacent field past the building at 21:45 (33 minutes after sunset) and was recorded a further two times but not seen at 22:12 and 22:34 (60 minutes and 82 minutes after sunset).

3.2.7 Serotine was observed commuting towards the adjacent field at 21:50 (38 minutes after sunset) and was recorded but not seen at 21:57 (45 minutes after sunset).

17th August 2021

3.2.8 The survey commenced at 20:12 and finished at 21:57. Sunset was at 20:27. Weather conditions were suitable, with a start temperature of 17°C and end temperature of 15°C, wind was at Beaufort 0, with 90% cloud cover and 0 precipitation.

3.2.9 **Between one and three brown long-eared bats were observed re-entering the Indoor Horse Arena and emerging from the building via the open doors on the south elevation three times throughout the survey from 20:45 and 21:07 (18 minutes and 30 minutes after sunset).**

3.2.10 General bat activity was by at least five species; common pipistrelle, soprano pipistrelle, Noctule/Leisler's, brown long-eared and *Myotis* species.

⁵ 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>).



- 3.2.11 Activity was mainly by pipistrelle species which were observed foraging around the building on two occasions at 20:42 and 20:47 (15 minutes and 20 minutes after sunset) and recorded but not seen six times throughout the survey from 21:01 to 21:49 (34 minutes to 82 minutes after sunset).
- 3.2.12 *Myotis* species was recorded but not seen twice throughout the survey at 21:37 and 21:41 (70 minutes and 74 minutes after sunset). Noctule/Leisler's was also recorded but not seen only once throughout the survey at 21:42 (75 minutes after sunset).

3.3 Dawn Re-Entry Survey

17th September 2021

- 3.3.1 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 0⁶, with 100% cloud cover and 0 precipitation.
- 3.3.2 **No bats were observed re-entering the Indoor Horse Arena throughout the survey.**
- 3.3.3 Bat activity was by at least four species; soprano pipistrelle, noctule/Leisler's, brown long-eared and *Myotis* species.
- 3.3.4 Activity was mainly by brown long-eared bat which was observed foraging adjacent to the building from 05:26 to 06:09 (81 minutes to 38 minutes before sunrise), commuting over the building at 05:58 (49 minutes before sunrise) and foraging along the adjacent trees at 06:13 (34 minutes before sunrise).
- 3.3.5 Soprano pipistrelle was observed foraging along an adjacent hedge at 05:44 (63 minutes before sunrise) and commuting along the path which leads to the Indoor Horse Arena on two occasions at 06:02 and 06:12 (45 minutes and 43 minutes before sunrise).
- 3.3.6 One *Myotis* species was observed foraging around a nearby tree at 06:00 (47 minutes before sunrise). One noctule/Leisler's was recorded but not seen once throughout the survey at 06:21 (26 minutes before sunrise).

⁶ 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>).



3.4 Surveys Summary

3.4.1 Table 1 below summarises the results of the surveys.

Table 1: Surveys Summary – Emergence/Re-entry Surveys 21st July, 17th August and 17th September 2021

Survey	Summary
1	<u>21st July 2021</u> Three individual brown long-eared bats were observed foraging and socialising within the interior of the Indoor Horse Arena, one of which was then observed emerging from the building via the open doors on the south elevation.
2	<u>17th August 2021</u> Between one and three brown long-eared bats were observed re-entering the Indoor Horse Arena and emerging from the building via the open doors on the south elevation three times throughout the survey.
3	<u>21st July 2021</u> No bats were observed re-entering the Indoor Horse Arena throughout the survey.

4. Interpretation and Evaluation

- 4.1.1 Based on the results of the bat surveys (July-September 2021) and Preliminary Bat Roost Assessment and Survey (April 2021), the Indoor Horse Arena at Ampney Park supports one brown long-eared day roost and night roost within the Indoor Horse Arena interior.
- 4.1.2 Peak counts recorded across the surveys were three individual brown long-eared bats (emergence surveys on 21st July and 17th August 2021), which were observed emerging and re-entering the Indoor Horse Arena interior via the main, open doors on the south elevation.
- 4.1.3 The location and status of the roost is detailed below.
- **Brown long-eared bat – One Day and One Night Roost:**
 1. **Within the Indoor Horse Arena interior (maximum three individuals)**
- 4.1.4 Referring to the Bat Mitigation Guidelines (2004), a day/night roost for brown long-eared bat has low conservation significance, being roosts for individual bats/low numbers of bats of a common species.
- 4.1.5 General bat activity was by at least six bat species; common pipistrelle, soprano pipistrelle, serotine, *Myotis* species, 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.



5. Legislation

- 5.1.1 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.
- 5.1.2 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.

6. Recommendations

6.1 The Proposal

- 6.1.1 The Indoor Horse Arena is the subject of a planning proposal for demolition or re-purposing.

6.2 Impacts

- 6.2.1 The following impacts to roosting bats will result from the proposal:
- Demolition/re-purposing of the Indoor Horse Arena will result in the permanent loss of the brown long-eared day roost and night roost within the building's interior.

6.3 Mitigation

- 6.3.1 In order to maintain favourable conservation status of bats and to avoid contravening the legislation affording protection to bats, measures will need to be taken to avoid harming or injuring bats during the works. New roosting opportunities are recommended.
- 6.3.2 The following approach will be required:
- Registration of the site under a Bat Low Impact Class Licence by a Registered Consultant prior to any works commencing.
 - Registered Consultant/Accredited Agent to provide a toolbox talk to site contractors on bat legislation and sensitive working methods.
 - Provision of three bat boxes (Schwegler 1FF or similar) on one suitable tree near to the Indoor Horse Arena to offer a receptor site for any bats found and long-term roosting habitat.
 - Registered Consultant/Accredited Agent to carry out pre-works checks of the internal area of the Indoor Horse Arena and supervision during sensitive removal of the wooden cladding, with any bats found during checks/works being relocated to the bat boxes.
- 6.3.3 Due to the type of roosts present in the Indoor Horse Arena, there are no constraints to the timing of works and no monitoring requirements.



- 6.3.4 Whilst bat boxes offer a suitable receptor site for any bats found during the works, they are not considered suitable long-term replacement habitat for brown long-eared bat. Therefore, subject to future proposals for the Indoor Horse Arena, a suitable dark and enclosed void should be considered to provide replacement roosting opportunities for this species. The wider site also provides a number of suitable structures for brown long-eared bats to roost.
- 6.3.5 The works will be undertaken in accordance with the above measures, to avoid breaching legislation protecting bats and to ensure the maintenance of favourable conservation status of the bat species concerned.



7. Annexes

Annex 1: Surveyor Locations and Survey Results (July-September 2021)

