

ASTUTE ECOLOGY

Ecological Consultants

BAT EMERGENCY SURVEY

81 MELTON LANE, SUTTON BONINGTON, LOUGHBOROUGH, LE12 5RQ

Report Reference: AE23.110.1
May 2023

Client	Scott Smith	
Site:	81 Melton Lane, Sutton Bonington, Loughborough, LE12 5RQ	
Grid Ref:	SK 52278 26153	
Report Ref:	AE23.110.1	
Prepared by:	Andrew Bird BSc (Hons).	20/05/2023
Checked by:	Oliver Bexon BSc (Hons).	22/05/2023

Liability

Astute Ecology Ltd has prepared this document in accordance with the instructions of its client, for their sole and specific use and has been prepared based on a scope of works which has been agreed directly with the client. The content of this report is, at least in part, based upon information provided by others and on the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from any third party has not been independently verified by Astute Ecology unless otherwise stated in the report.

Copyright

© This report is the copyright of Astute Ecology. Unauthorised reproduction or usage by any person is prohibited.

Astute Ecology
47 Chadwick Ave
Derby
DE24 9DH
Head Office: 07870 266446
Email: info@astuteecology.co.uk
Website: www.astuteecology.co.uk

Contents

1	Summary.....	4
2	Introduction	5
3	Methodology.....	6
3.1	Dusk Emergence Survey	6
3.4	Equipment used:	6
3.5	Limitations	7
3.6	Report Lifespan.....	7
4	Results	8
4.1	Survey Results	8
5	Evaluation and Recommendations	9
	Appendix 1. References.....	10
	Appendix 2. Legislation, Guidance and Methodology.....	11
	Appendix 3. Surveyor and Equipment Positions.....	12

1 Summary

- Astute Ecology were commissioned by Scott Smith to undertake a single bat emergence survey to confirm presence or likely absence of roosting bats within features of a detached residential building and garage previously assessed to hold “Low Potential’ to support a bat roost located at 81 Melton Lane, Sutton Bonington, Loughborough, LE12 5RQ.
- No active bat roosts were recorded on or within the buildings during the dusk emergence survey undertaken in accordance with Bat Conservation Trust Guidelines (BCT 2016) and Interim BCT Guidance Note (May 2022) on the 18/05/23. No significant foraging and commuting was recorded within the local area and activity was low.
- Due to the absence of any roosting bats recorded during the surveys, impacts to roosting bats as a result of the proposed plans are highly unlikely. A Natural England bat development licence is not required in order for the development works to proceed.
- No further surveys or mitigation are required.
- In the event, any evidence of a bat roost is found after this report, works must cease while the advice of Natural England or a suitably qualified and licensed bat ecologist is sought
- All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2010 (as amended). It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally, or recklessly disturb a bat, or intentionally kill, injure, or take any bat.

2 Introduction

- 2.1 Astute Ecology were commissioned by Scott Smith to undertake a single bat emergence survey to confirm presence or likely absence of roosting bats within features of a detached residential house and garage previously assessed to hold ‘Low Potential’ to support a bat roost located at 81 Melton Lane, Sutton Bonington, Loughborough, LE12 5RQ.
- 2.2 A Preliminary Bat and Bird Assessment (PBBA) was previously undertaken at the site by Astute Ecology on the 10th March 2023 which assessed the detached residential house and garage buildings as having ‘Low Potential’ to support roosting bats. A single dusk emergence survey in accordance with BCT Bat Survey Guidelines (Collins 2016), was recommended to confirm presence or likely absence of bats roosting within the buildings. Please refer to the PBBA Report (Ref: AE23.110) for full details.
- 2.3 This report details the outcome of the presence/absence survey of the Buildings, including an analysis of the results to inform recommendations and mitigation, where relevant, in order to prevent any breaches in legislation relevant to protected British bat species.
- 2.4 Results and recommendations contained within this report have been prepared by an experienced ecologist and are therefore the view of Astute Ecology. The surveys are based on information provided by our client, the development proposals, and the results of the desk study and our survey of the site. This report pertains to this information only. The legislation relevant to protected species within the United Kingdom is summarised within Appendix 2.

3 Methodology

3.1 Dusk Emergence Survey

A single dusk emergence survey was undertaken by experienced bat surveyors on the 18th May 2023 in suitable conditions (Table 1). During the survey, all elevations and aspects of the building considered to hold potential roost features were monitored by surveyors, bat detectors, IR and thermal imaging equipment to identify any bats potentially emerging from the buildings and to record activity, species and call type. A map of surveyor and equipment positions is included within Appendix 3. The surveys were undertaken in accordance with BCT Bat Survey Guidelines (Collins 2016) and Interim BCT Guidance Note (May 2022).

Table 1. Survey conditions

Date	Sunset	Start	Finish
18/05/2023 – Dusk Emergence	21:00	20:30	22:00
Weather:	Temperature:	16°C	14C
	Humidity:	78%	81%
	Cloud cover:	2/8	2/8
	Wind:	None	None
	Precipitation:	None	None

3.1.1 Night Vision Equipment

IR and thermal cameras is used during the survey except in areas where artificial light provides sufficient recording vision. Night vision/ thermal video footage was reviewed after the survey on PC monitors. Example screenshots of night vision views are available within Appendix 3.

3.2 Surveyors

Survey carried out by Andrew Bird BSc. (Hons.) Senior Ecologist, Natural England WML-A34 – Level 2 Bat Licence Number: 2018-37905-CLS-CLS and Amber Wood BSc. (Hons.) Assistant Ecologist. The position of each surveyor, equipment and any observed bat movements over a map are provided within Appendix 3.

3.3 Reporting

This report was prepared in accordance with the Chartered Institute of Ecology and Environmental Management; Guidelines on Ecological Report Writing. CIEEM (2017).

3.4 Equipment used:

- 5 x Echometer Touch 2 Pro with iPad
- 2 x Bat Box Duet with headphones
- 2 x SM4BAT FS with SMM-U2 microphone

- 4 x Sony FDR-AX53 with Night-shot
- 8 x XB5 IR Torches
- 1 x SEEK Thermal Camera
- 2 x Andoer IR Lamps
- X1 NightFox Whisker IR Night Vision Binoculars
- X4 Infra-red (unbranded) security lamps
- Torches, Thermometers, and Hygrometers, Tripods

3.5 **Limitations**

It should be noted that whilst every effort has been made to provide a comprehensive description and survey of the site, no investigation could ensure the complete characterisation and prediction of the natural environment during a 'snapshot' study.

3.6 **Report Lifespan**

Given the transient nature of the subject, we would consider the survey results contained to be accurate for 18 months.

4 Results

4.1 Survey Results

There were no bat roosts identified during the survey, and no bats were recorded flying out of or entering the buildings at any time during the survey. No significant foraging and commuting was recorded or associated with the site. Activity in the local area was relatively low with only occasional individual species of Common Pipistrelle (*Pipistrellus pipistrellus*) (CP) recorded foraging and commuting within the local area. Table 2 below summarise the results of the survey undertaken.

Table 2: Summary of Dusk Emergence Survey

Time	Activity
	Activity in the local area was low.
21:21	Single CP briefly foraged over driveway area.
21:29	Single CP briefly foraged over driveway area.
21:32	Brief single CP Call Heard Not Seen (HNS)
21:40	Single CP Brief HNS
21:42	Brief Single CP forage over garage
21:48	Brief Single SCP Call HNS
	No bats emerged from or entered the buildings. Video footage of the survey did not reveal any further bat movements.

5 Evaluation and Recommendations

5.1 Roosting bats

- The dusk emergence survey did not reveal any evidence of bats roosting within the buildings surveyed.
- There was no significant foraging and commuting associated with the site and activity within the local area was considered as low.
- Due to the unlikelihood of negative impacts to roosting bats, a Natural England bat development licence is not required for the development works to proceed. No further surveys or mitigation are required.
- In the event, any evidence of a bat roost is found after this report, works must cease while the advice of Natural England or a suitably qualified and licensed bat ecologist is sought, for alternative mitigation can be arranged.
- To enhance roosting opportunities for bats within the local area, the following are recommended with any future proposed site buildings:
 - 1x 1FF Schwegler Bat Box (or similar woodcrete bat box)
- The following measures could be implemented within the development to reduce impacts on foraging and commuting bats caused by artificial lighting:
 - Direct any task lighting used during construction away from any vegetation.
 - Set any necessary security lighting on short timers with a sensitivity to large moving objects only.
 - Use hoods, cowls, or directional lighting to avoid light being directed at the sky or towards any boundary vegetation.
 - Limit lighting times to provide dark periods; and low-pressure sodium security lights with glass glazing are recommended, as these produce the least amount of UV light.
 - Avoid white and blue wavelengths of the light spectrum. The brightness of the lamps should be kept as low as feasibly possible.
- All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2010 (as amended). It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally, or recklessly disturb a bat, or intentionally kill, injure, or take any bat.

Appendix 1. References

BCT (2022) Interim Guidance Note: *Use of night vision aids for bat emergence surveys and further comment on dawn surveys*. Online:

Bell, S. McGillivray, D. (2006) *Environmental Law*. 6th ed. Oxford University Press.

Byron, H (2000) *Biodiversity and Environmental Impact Assessment: A Good Practice Guide for Road Schemes*. The RSPB, WWF-UK, English Nature and the Wildlife Trusts, Sandy.

CIEEM (2017) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester

Collins, J (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, (3rd edition), Bat Conservation Trust, London

Ethos Environmental Planning (2018) *Bat Survey Report: Greenway Farm, Wick*

Mitchell-Jones A.J. McLeish, A.P. (2004) *Bat Workers Manual* (3rd Edition). Joint Nature Conservation Committee.

Mitchell-Jones A.J. *Bat Mitigation Guidelines* 2004. English Nature.

National Planning Policy Framework, (2012).
<http://www.communities.gov.uk/publications/planningandbuilding/nppf>

Treweek, J. (1999) *Ecological Impact Assessment*. Blackwell Science.

Williams, C. (2010) *Biodiversity for Low and Zero Carbon Buildings, A Technical Guide for New Build*. Riba Publishing.

Appendix 2. Legislation, Guidance and Methodology

Roosting Bats

All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2010 (as amended).

It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally, or recklessly disturb a bat or intentionally kill, injure or take any bat.

Appendix 3. Surveyor and Equipment Positions



Figure 1. IR and Camera Screenshots





