

ASTUTE ECOLOGY

Ecological Consultants

BAT EMERGENCE AND RE-ENTRY SURVEYS

TYRONE HOUSE, NORTON LANE, CHICHESTER, PO20 3NH

Report Reference: AE20.141
June 2020

Client	Mr and Mrs Napthine	
Site:	Tyrone House, Norton Lane, Chichester, PO20 3NH	
Grid Ref:	SU 92748 06127	
Report Ref:	AE20.141	
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Summary

- Astute Ecology were commissioned by Mr and Mrs Naphine to undertake two bat activity surveys on a residential dwelling to confirm presence or likely absence of roosting bats located at Tyrone House, Norton Lane, Chichester, PO20 3NH.
- No active bat roosts were recorded on or within the building during the surveys undertaken in accordance with Bat Conservation Trust Guidelines (BCT 2016). Foraging and commuting within the local area 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 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 Mr and Mrs Naphine to undertake two bat activity surveys on a residential dwelling to confirm presence or likely absence of roosting bats located at Tyrone House, Norton Lane, Chichester, PO20 3NH, herein referred to as the 'site'.
- 2.2 A Preliminary Ecological Appraisal (PEA) was previously undertaken at the site by Lizard Landscape Design and Ecology on the 3rd April 2020 (Ref: LLD1969) which assessed the residential dwelling (Building 1) as having 'Moderate Potential' to support roosting bats. A single dusk emergence and a single dawn re-entry survey in accordance with BCT Bat Survey Guidelines (Collins 2016), was recommended to confirm presence or likely absence of bats roosting within the building. Please refer to the PEA Report for full details.
- 2.3 This report details the outcome of the presence/absence survey of the building on site, 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 and Dawn Re-entry Surveys

A single dusk emergence and a single dawn re-entry survey on Building 1 was undertaken by two experienced bat surveyors on the 16th June 2020 (dusk survey) and 30th June 2020 (dawn survey) in suitable conditions (Table 1). During the surveys, all elevations and aspects of the building were visually observed by surveyors whilst using handheld, static bat detectors and thermal imaging equipment to identify any bats potentially emerging or entering from the building 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).

Table 1. Survey conditions

Date	Sunset	Start	Finish
16/06/2020 – Dusk Emergence	21:19	21:00	23:10
Weather:	Temperature: 17°C	15°C	
	Humidity: 71%	75%	
	Cloud cover: 1/8	1/8	
	Wind: None	None	
	Precipitation: None	None	
Date	Sunrise	Start	Finish
30/06/2020 – Dawn Re-entry	04:53	03:35	05:10
Weather:	Temperature: 14°C	13°C	
	Humidity: 75%	87%	
	Cloud cover: 5/8	7/8	
	Wind: Light breeze	Light breeze	
	Precipitation: None	None	

3.2 Surveyors

Surveys carried out by Andrew Bird BSc. (Hons.) Senior Ecologist, Natural England WML-A34 - Level 2 Bat Licence Number: 2018-37905-CLS-CLS, and Emma Blackwell BSc. (Hons.) Ecological Consultant: Astute Ecology Ltd.

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:**

- 2 x Echometer Touch 2 Pro with iPad Mini 4
- 2 x Bat Box Duet
- 1 x Seek Thermal Camera
- 1 x SM4BAT with SMM-U1 microphone
- Torches, Thermometers, and Hygrometers

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

The position of each surveyor, equipment and any observed bat movements over a map are provided within Appendix 3. There were no bat roosts identified during the surveys, and no bats were seen flying out or entering the buildings at any time during the survey. Activity in the local area was low with five species recorded; Common Pipistrelle *Pipistrellus pipistrellus* (CP), Soprano Pipistrelle *Pipistrellus pygmaeus* (SP), Myotis *Myotis sp.* (MYO), Noctule *Nyctalus noctula* (NOC), and Brown Long-Eared *Plecotus auratus* (BLE) recorded. Table 2 and 3 below summarise the results of the surveys undertaken.

Table 2: Summary of Dusk Emergence

Time	Activity
	Activity in the local area was low.
21:39 – 21:52	Two CP foraging around the trees at the eastern boundary.
21:43	Single SP commuting north-east.
21:45	Single CP commuting west at the northern boundary.
21:50	Single CP commuting east at the northern boundary.
22:02 – 22:04	Single CP commuting south at the eastern boundary and foraging around the trees.
22:02	Brief NOC calls heard.
22:14	Single MYO commuting east at the northern boundary.
22:16	Single SP commuting west at the northern boundary.
22:26	Single CP commuting north at the eastern boundary. Single BLE foraging at the west of the building.

	The SM4BAT recordings correlated with those of the surveyors. No bats were seen emerging from the building at any stage.
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Table 3: *Summary of Dawn Re-entry*

Time	Activity
04:03	Activity in the local area was very low. Brief NOC calls were heard.
04:18	A single CP foraging east of the building and commuting west.
04:21 - 04:31	Brief SP calls were heard. The SM4BAT recordings correlated with those of the surveyors. No bats were seen entering the building at any stage.

5 Evaluation and Recommendations

5.1 Roosting bats

- The bat activity surveys did not reveal any bats roosting within the building.
- Foraging and commuting 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.
- Any new lighting should avoid direct light spill towards the trees at the boundaries and any areas designated for the placement of artificial bat roosts (especially during dusk and dawn when bats are known to emerge and return to roosts).
- To enhance roosting opportunities for bats within the local area, the following are recommended with any future proposed buildings:
 - 1x 1FF Schwegler Bat Box (or similar)
- The following measures could be implemented within the development to reduce impacts on foraging and commuting bats caused by artificial lighting (ILE/BCT, 2007; BCT 2014):
 - 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 (ILE/BCT, 2007; BCT interim guidance 2014).
- 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

- Bat Conservation Trust's 'Good Practice Survey Guidelines' (Rev 2012).
- 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.

Ecological Enhancement

In March 2012, the Department for Communities and Local Government published the National Planning Policy Framework. This sets out planning policies on protection of biodiversity through the planning system. The document states - *opportunities to incorporate biodiversity in and around developments should be encouraged*.

Usually when reviewing how ecological enhancements can be implemented the Local Biodiversity Action Plan for the area is considered.

For new buildings guidance such as in the following will be used:

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

Designated Protected Areas

Designated areas are Sites of Special Scientific Interest (SSSI) while others have been designated as having European protection status. Local authorities can also designate areas for nature conservation and in doing so may impose local authority byelaws to support local nature conservation objectives.

European designated status includes Special Protection Areas (SPAs) that preserve areas for birds and Special Areas of Conservation (SACs) which provides protection for habitats and the species which these habitats supports. Laws stipulate that SSSIs, SPAs and SACs have to be maintained in a 'favourable condition' which requires efforts to preventing any potential impacts to these sites.

Appendix 3. Surveyor and Equipment Positions

Observed bat pass/activity during the dusk and dawn surveys.

