

Bat Survey Report



35 Upper Redlands

October 2018

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1 Executive Summary

Ecology by Design Ltd were commissioned by Reading University to undertake a bat survey of 35 Upper Redlands, Reading, Berkshire, RG1 5JE (SU 72872 72317).

A preliminary roost assessment was conducted by a third party in early 2018 which identified the need for a full bat survey. The building was assessed as having high bat roost potential and therefore bat roost surveys were conducted on 12th June, 25th July and 6th August 2018 and the preliminary roost assessment was part repeated by Ecology by Design during 12th June and completed on 21st September 2018.

No emerging bats were recorded coming from the building and at no point during the survey did any bats show any interest in the building. Two bat droppings were identified inside the building, however these appeared old and may have been transported in on materials or from an exploratory bat but there was no signs of roosting or more recent evidence.

All surveys were conducted based on standard guidance for bat surveys (Collins, J. 2016).

Bats do not pose a constraint to development, however under planning policy a net enhancement to the site is sought. Six bat tiles should be installed onto the roof of the building.

Details on enhancement for bats are outlined in Section 6 of this report.

2 Introduction

2.1 Background and Survey Objectives

Ecology by Design Ltd were commissioned by Reading University to undertake a bat survey of 35 Upper Redlands, Reading, Berkshire, RG1 5JE (SU 72872 72317).

The objectives of this report are:

- Identify any potentially significant ecological constraints that may affect the proposed work;
- Identify the species of bat using the surveyed area;
- Assess the levels of activity of bats utilising the site; and
- Mitigation measures required ensuring any proposed works do not negatively affect bat populations.

2.2 Site Description

The site is formed of a university building and associated parking and soft landscaping. The site is bounded by similar buildings to the east, south and west and Upper Redlands Road to the north.

2.3 Proposed Works

The proposed works include roof repairs and subdivision of the loft space with fire barriers.

2.4 Limitations/ Constraints

The wildlife and wider ecological interest of a site can change. The report presented here is a statement of the findings of surveys carried out between June and September 2018.

Any appreciable delay in making reference to this report may necessitate a re-survey.

3 Methods

3.1 Preliminary Roost Assessment

Ecology by Design ecologist and licensed bat worker Emily Power (Class 2 licence number: 2017-23544-CLS-CLS) and assistant ecologist Joe Chidez conducted a preliminary roost assessment of the building on the 21st September 2018.

The building was inspected for potential bat use by examining internal structures for active roosts or roosting sites and suitable entry, exit and roosting points on the outside of the building, and by searching for other evidence of bat activity such as droppings, smells, sounds, carcasses or food remains. A high-powered torch was used to illuminate the dark recesses inside and outside of the building.

Equipment used included:

- LEDLenser Lamp
- Nikon 10x42mm close focusing binoculars

During the survey the building was thoroughly inspected including:

- Roof structure - gaps in tiles, under and over wall plates where accessible, gaps in wooden beam structure, between roof and beams and under the eaves. Internally through tears in roofing felt.
- Walls - Gaps in walls, between beams and the walls.

Evidence searched for included:

- The presence of free hanging bats and bats within gaps, crevices.
- Bat droppings, urine stains, rub marks, scratch marks, in wall holes, timber joints, windows, rafters and beams and across the floor.
- Feeding remains scattered around the building, on wooden beams, along the ridgeline and on top of stored materials.

3.2 Roost Survey

Ecology by Design principal ecologist Ben Gardner (Class 2 licence number: 2015-17038-CLS-CLS) assisted by Dr Amanda Lloyd, Dr Dani Linton, Dr Stacey Waring, Tony Wells, Raven Herald, Emily Powers, and Andrew Harrington undertook emergence surveys on 12th June, 6th August and a re-entry survey on 25th July 2018.

The surveys were based on the guidance included in the Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, J. (ed.) 2016). Bat Detectors utilized included Elekon Batlogger M detectors to record any bats emerging from or re-entering the buildings.

The emergence survey commenced approximately 15 minutes before sunset and lasted for at least 1.5 hours after sunset.

Surveyors were located around the building, focused on features identified during the preliminary roost assessment. These locations enabled all potential roosting features to be viewed during the survey.

4 Results

4.1 Preliminary Roost Assessment

4.1.1 Internal Inspection

The interior loft space was timber framed and bitumen felt lined, with some boarded areas allowing a thorough search of the loft space. Areas of light ingress were noted at the eaves, as well as through tears in the felt, through which the underneath of the tiles could be seen. 10 bat droppings were identified scattered throughout the loft space, although no clusters of droppings were identified. The majority of bat droppings were identified underneath the ridge, which was lightly cobwebbed. No areas of staining or scratching by bats was noted.

4.1.2 External Inspection

The building was of brick construction with a pitched tiled roof, with brick gable ends and three dormers on the north and south elevations. The eaves were not enclosed within soffit boxes and gaps were visible leading into the loft space along the exposed eaves, particularly on the southern elevation of the building. There were a number of missing, broken and lifted tiles, concentrated on the southern elevation, with only a few missing tiles on the northern elevation. Overall the building and brickwork was in good condition, and no evidence of bats was noted on any exterior elevation.

4.2 Roost Survey

Table 2. Survey weather conditions

Date	Sunset/ Sunrise	Start	End	Weather
12 th June	21:21	21:10	22:50	17°C to 15°C, 0/8 cloud cover, 0 beaufort
25 th July 2018	05:17	03:17	05:17	17°C to 15°C, 1/8 cloud cover, 1 beaufort
6 th August 2018	20:44	20:28	22:15	22°C to 26°C, 2/8 cloud cover, 1 beaufort

4.2.1 Dusk emergence 12th June 2018

There were no emergences seen from the building during the course of this dusk survey.

There was some activity from three species of bats foraging over the site, including; common pipistrelles being the dominant species (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared bats (*Plecotus auritus*).

4.2.2 Dusk emergence 25th July 2018

No re-entry to the building was recorded during the survey.

However, there was activity from a variety of species of bats foraging over the site, including; common pipistrelles again being dominant (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), and *Myotis* species.

4.2.3 Dusk emergence 6th August 2018

No bats were seen by the surveyors to emerge from the building during the survey.

Three species of bats were recorded foraging over the site, including; again most activity from common pipistrelles (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and a serotine bat (*Eptesicus serotinus*).

5 Discussion

A third party undertook a preliminary roost assessment of the building during early 2018 and identified a small number of bat droppings in the roof space of the building. Detail of the survey was held from the client and therefore Ecology by Design were commissioned to complete the work. A full emergence survey was recommended which was undertaken during June, July and August 2018 which did not identify any evidence of bats emerging or re-entering the building. The preliminary roost assessment was repeated by during September 2018 which identified two very old and deteriorated bat droppings in the loft space but no other evidence of bats. It is considered that these droppings have either been transported into the roof space on stored materials or are the result of an exploratory bat in the past, there is no evidence of roosting.

Bats do not pose a constraint to the roof work and no further action for bats is required.

6 Recommendations and Enhancements

There is no evidence of bats currently using the building so no further consideration of bats is required.

6.1 Site enhancement

To satisfy the local plan policy which seeks a net gain for biodiversity, we recommend that the proposed roofing work includes an enhancement for crevice-dwelling bats such as pipistrelles. Six bat access tiles should be installed to replace some of the broken or slipped tiles across the roof (appendix 3).

7 Legislation and Policy

7.1 Bats

Bats and their roost sites are protected by UK and European legislation. The Wildlife and Countryside Act 1981 (as amended) makes it an offence to:

- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for that purpose.

Additionally, the Conservation of Habitats and Species Regulations 2017 make it an offence to:

- Deliberately capture or kill a bat;
- Deliberately disturb a bat;
- Damage or destroy a breeding site or a resting place of a bat; and
- Keep, transport, sell or exchange or offer for sale or exchange alive or dead bat or any part of a bat.

7.2 National Planning Policy Framework

The National Planning Policy Framework (NPPF) was updated in July 2018 thereby replacing the older version of March 2012. The new framework sets out in section 15 that to protect and enhance biodiversity and geodiversity, plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation and
- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

When determining planning applications, local planning authorities should apply the following principles:

- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around

developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

8 References

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

Wray et al (2010) *Framework for valuing bats in Ecological Impact Assessment*, CIEEM journal.

Appendix 1 - Photographs



Photo 1 – Western end of northern elevation



Photo 2 – Eastern end of northern elevation



Photo 3- Central area of northern elevation



Photo 4 – Eastern end of southern elevation



Photo 5: Western end of southern elevation



Photo 6: Eastern elevation



Photo 7: Western elevation



Photo 8: Various gaps under ridge tiles



Photo 7: Various gaps under the eaves



Photo 8: Many broken/ slipped tiles



Photo 7: Inside sarked section of loft

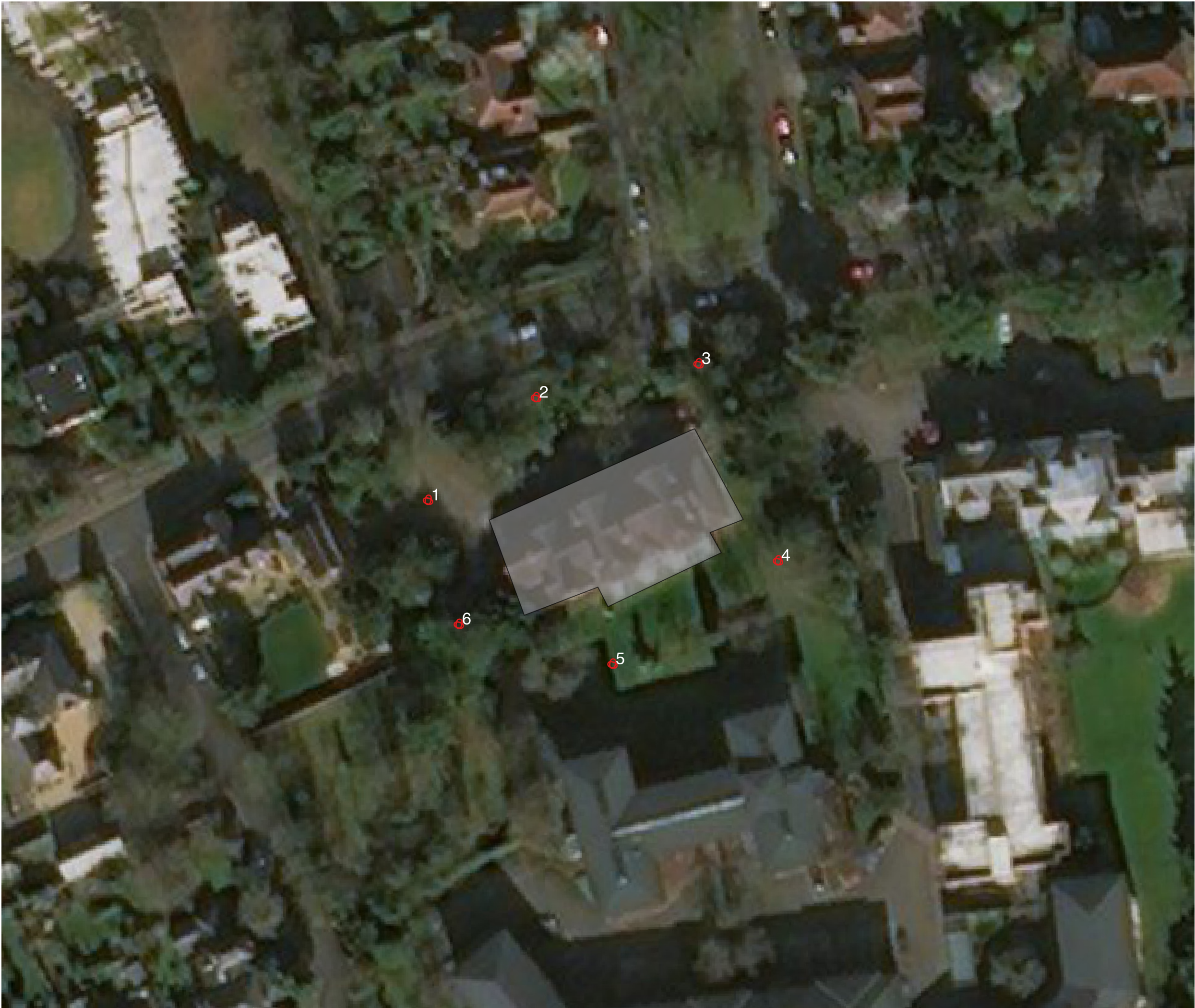


Photo 8: Inside felt lined section of loft



Photo 7: 3 very old bat droppings in loft

Appendix 2 – Survey Plan



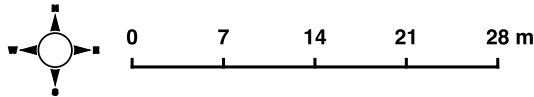
Bat Survey

- Building
- Surveyors

Project: 35 Upper Redlands

Client: University of Reading

Drawing Title: Bat Survey



SCALE (@A3): 1:580 Drawn by BG Date: 14 October 2018

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Appendix 3 – Proposed Enhancement

Products	Description
	An example of an access tile for bats. Available from; https://www.nhbs.com/bat-access-tile-set