

BAT SURVEYS OF LAND OFF HOLLINCROSS LANE, GLOSSOP, DERBYSHIRE

2019



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CONTENTS

INTRODUCTION

2

METHODOLOGY

3

RESULTS

4

SUMMARY AND RECOMMENDATIONS

9

REFERENCES

10

1.0 INTRODUCTION

- 1.1 Rachel Hacking Ecology Limited was commissioned in 2019 by Indigo Planning Limited to undertake bat activity surveys of two buildings and bat transect surveys of a site of Hollincross Lane, Glossop, Derbyshire. The site will be the subject of a planning application for a residential development with associated access and landscaping.
- 1.2 The site is located off Hollincross Lane in Glossop, Derbyshire (O.S. grid reference: SK 03110 93579). The site comprises three buildings and grounds, which were formerly used for care facilities. Building 1 is a triple-height residential building which is currently empty. Building 2 is a single-story former gymnasium, also currently empty (see Figure 1). Building 3 is a garden shed and is not the subject of this study. The site is surrounded by woodland with rough grassland, dense scrubland and residential dwellings. This offers good bat foraging and commuting opportunities.
- 1.3 A preliminary bat roost assessment was carried out in May 2019 by Ecology Solutions Limited (Manchester). Buildings 1 and 2 were considered to hold high and low bat roost suitability respectively, therefore required further emergence/re-entry surveys. Bat transect surveys were also undertaken on the site, to determine key commuting and foraging spaces on the site that are of interest to bats. The site was assessed in May 2019 as having high suitability as bat foraging habitat.
- 1.4 All bat species are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended). It is illegal to disturb or damage a bat roost.



Figure 1 showing the location of the buildings on site

2.0 METHODOLOGY

- 2.1 Two dusk emergence surveys were conducted on each of the buildings and one dusk transect survey of the site was conducted at Hollincross Lane, in accordance with the Bat Conservation Trusts 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' 2016 (3rd Edition).
- 2.2 The emergence surveys began 15 minutes before sunset and continued for 90 minutes after sunset. The surveyors used Anabat, Batscanner and Echometer Touch bat detectors to record the echolocations of emerging and foraging bats.
- 2.3 Two transect surveys were undertaken. On each transect survey, two surveyors walked a circular route around the site, stopping every 10-15metres (approx.) recording bat passes. The transects began just after sunset and continued for two hours after sunset. The surveyors used an Anabat Walkabout bat detector to record the echolocation calls of foraging bats.

Timing and Personnel

- 2.4 The dusk emergence surveys were undertaken at Building 1 on the 4th July 2019 and the 5th August 2019 and at Building 2 on the 26th June 2019 and the 23rd July 2019. The bat transect surveys were undertaken on 4th July 2019 and 5th August 2019. June, July and August are all optimal months to undertake bat emergence surveys. The surveys were undertaken during optimum weather conditions.
- 2.5 The surveys were undertaken by Joel Hacking, Ben Crossthwaite, Helen Branthwaite, Robert Johnson, Joe Walters, Kate Reed, Rosie Fisher and Steve Smith. All surveyors have many years of experience in bat surveys and are fully trained. Joel holds a Natural England Level 2 Class Survey Licence for bats (Licence Reference: 2016-24701-CLS-CLS), and Rosie holds a Natural England Level 1 Class Survey Licence for Bats (Licence Reference: 2018-35011-CLS-CLS).

3.0 RESULTS

BUILDING 1

- 3.1 Figure 2 shows the approximate locations of the surveyors at building one during the surveys.



Figure 2 showing the locations of surveyors (red stars)

- 3.2 No bats were observed emerging from Building 1 during the dusk emergence surveys. Therefore, following two emergence surveys, and the fact that no evidence of bat activity was found during the daytime internal and external survey in May 2019, it was considered that the survey effort was adequate and a further survey would be unnecessary.
- 3.3 Low levels of bat activity were recorded within the vicinity of Building 1 during the surveys, with Common Pipistrelle *Pipistrellus pipistrellus* and Brown Long-eared *Plecotus auritus* bats recorded foraging around the building during the survey.
- 3.4 Table 1 details the bat activity observed at building one during the 4th July dusk emergence survey.

Table 1. Bat activity and timings during the survey on 04/07/19	
1.	Maximum of 1 Common Pipistrelle observed foraging close to all elevations of the building between 21.32 and 22.25.
2.	Maximum of 1 Brown Long-eared bat detected at 22:27.

- 3.5 Table 2 gives the weather conditions during the survey.

Table 2. Weather conditions during the survey 04/07/19	
Sunset:	21.38
Temperature (low):	12°C
Beaufort Scale:	2
Weather:	Dry and mild

- 3.6 Table 3 details the Bat activity observed on the site during the 5th August dusk emergence survey.

Table 3. Bat activity and timings during the survey on 05/08/19	
1.	Maximum of 3 Common Pipistrelle bats observed foraging close to all elevations the building between 21.04 and 22:00.

- 3.7 Table 4 gives the weather conditions during the survey.

Table 4. Weather conditions during the survey 05/08/19	
Sunset:	20.55
Temperature (low):	16°C
Beaufort Scale:	2
Weather:	Dry and overcast

BUILDING 2

- 3.8 Figure 3 shows the approximate locations of the surveyors during the surveys at Building 2.



Figure 3 showing the locations of surveyors (red stars)

- 3.9 No bats were observed emerging from Building 2 during the dusk emergence surveys. This building was assessed as having low bat roost suitability in May 2019, therefore further survey effort was unnecessary.

- 3.10 Low levels of bat activity were recorded around building two during the survey, with Common Pipistrelle and *Myotis* sp. recorded foraging nearby during the survey.
- 3.11 Table 5 details the bat activity observed on the site during the 26th June dusk emergence survey.

Table 5. Bat activity and timings during the survey on 26/06/19	
1.	Maximum of 3 Common Pipistrelle bats observed foraging around the building and adjacent trees between 21.35 and 22.46.
2.	<i>Myotis</i> sp. also detected commuting away from the building at 22.36.

- 3.12 Table 6 gives the weather conditions during the survey.

Table 6. Weather conditions during the survey 26/06/19	
Sunset:	21.39
Temperature (low):	12°C
Beaufort Scale:	1
Weather:	Mostly cloudy

- 3.13 Table 7 details the Bat activity observed on the site during the 23rd July dusk emergence survey.

Table 7. Bat activity and timings during the survey on 23/07/19	
1.	Maximum of 5 Common Pipistrelle bats observed foraging around the building and adjacent trees between 21.24 to 22.32.

- 3.14 Table 8 gives the weather conditions during the survey.

Table 8. Weather conditions during the survey 23/07/19	
Sunset:	21.19
Temperature (low):	25°C
Beaufort Scale:	1
Weather:	Warm and humid

TRANSECTS

- 3.15 Two bat transect surveys were undertaken across the wider site, concentrating on suitable bat foraging and commuting habitat. The Bat Transect Map can be found at the back of the report.
- 3.16 The bat transect surveys were carried out on the site to ascertain important bat commuting and foraging spaces on the proposed development site. The surveys aim to determine where the key parts of the site are in terms of importance to bats, and to inform construction and post-construction mitigation plans, including the provision of a sensitive lighting scheme.
- 3.17 The transects followed a circular route across the site. The transects had multiple 'waypoints', at which the surveyors paused and recorded bat

passes. These waypoints are marked on the Bat Transect Map and the same waypoints were used on each transect.

3.18 Low levels of bat activity were recorded during the transect survey. Small numbers of bat passes were recorded and these were all Common Pipistrelle bat *Pipistrellus pipistrellus*.

3.19 Full results of the transect surveys are shown in Tables 9 and 10 below.

Table 9. Results from Transect 1				
Survey Hollincross Lane		Date	Average Temp (°C)	Sunset/ Sunrise
		04/07/2019	12°C	21:38
		Weather		
		Dry, mild, light wind		
Waypoint	Time	Results		
1	21:23- 21:28	No bat passes recorded.		
2	21:41- 21:46	One brief Common Pipistrelle call heard at 21:36. Two Common Pipistrelle passes heard at 21:42 and 21:43.		
3	21:50- 21:55	Two Common Pipistrelle bats foraging on the edge of the woodland throughout.		
4	22:07- 22:12	Common Pipistrelle foraging along the river throughout		
5	22:19- 22:24	Common Pipistrelle foraging on woodland edge throughout.		
6	22:36- 22:41	Common Pipistrelle foraging on woodland edge throughout.		
7	22:48- 22:53	Common Pipistrelle call heard at 22:50.		
8	23:11- 23:16	Distant Common Pipistrelle call heard at 23:13.		
9	23:24- 23:29	No bat passes recorded.		
10	23:39- 23:43	No bat passes recorded.		

Table 10. Results from Transect 2				
Survey Hollincross Lane		Date	Average Temp (°C)	Sunset/ Sunrise
		05/08/2019	12°C	20:55
		Dry, overcast, calm		
Waypoint	Time	Results		
1	20:45- 20:50	No bat passes recorded.		
2	21:04- 21:09	No bat passes recorded.		
3	21:14- 21:19	Common Pipistrelle foraging on woodland edge throughout.		
4	21:32- 21:37	Common Pipistrelle foraging along the river throughout		
5	21:38- 21:43	Two Common Pipistrelle passes heard at 21:40 and 21:43.		
6	21:51- 21:56	Common Pipistrelle foraging on woodland edge throughout.		
7	22:07- 22:12	Common Pipistrelle foraging on woodland edge throughout.		
8	22:22- 22:27	Common Pipistrelle foraging on woodland edge throughout.		
9	22:38- 22:43	One Common Pipistrelle pass at 22: 41		
10	22:49- 22:54	No bat passes recorded.		

4.0 SUMMARY AND RECOMMENDATIONS

- 4.1 A daytime bat survey of the buildings off Hollincross Lane was undertaken in May 2018 by Ecology Solutions Limited (Manchester). Although no evidence of bat activity was found, the survey concluded that Buildings 1 and 2 supported high/low bat roosting suitability and further bat surveys were recommended. Two dusk emergence survey were conducted on each of the buildings in June, July and August 2019. No bats were observed emerging from either of the buildings during the surveys.
- 4.2 The surveys were undertaken during optimum weather conditions with no impediment to the visit. The temperatures were optimum prior to and during the survey. Following the two survey visits, and in consideration of the May 2019 findings, it was decided that the survey effort was robust enough to determine bat likely absence.
- 4.3 Given the results of the surveys, it is the opinion of the author of this report that the buildings can be demolished without a Natural England European Protected Species Licence. However, it is recommended that the demolition takes place under a Reasonable Avoidance Measures Method Statement. If a bat is found during works to the buildings, then work must stop, and a suitably experienced and licensed ecologist must be contacted for advice. If the work is delayed by longer than two years from the date of this survey, a further bat survey will be required to update the findings.
- 4.4 It should be noted that bat absence is very difficult to prove definitively due to their mobility and size, and single or small numbers of bats are able to roost in extremely small spaces, such as in gaps between panels. Demolition should be undertaken with care, with roofing tiles lifted rather than dragged, for example.
- 4.5 **If during development works a bat (or an accumulation of bat droppings) is discovered at any time, work is to temporarily cease whilst an experienced bat ecologist is contacted for guidance and assistance.** This can be Rachel Hacking Ecology (0161 465 8971) who undertook the initial survey, any licensed bat worker, or the Bat Conservation Trust (BCT) helpline (0845 1300 228).
- 4.6 Two bat transect surveys of the site were conducted to assess the general levels of bat activity across the site and to determine if any habitat on site is of particular importance for bat foraging. Low levels of bat activity were recorded during the surveys, predominantly by the river and woodland edges. No further transects were considered necessary. There will be minimal loss of bat foraging habitat from the development. It is recommended that a sensitive lighting scheme is implemented as a part of the development and during construction to protect these habitats.

REFERENCES

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

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

BAT TRANSECT MAP

