

**37 Coley Avenue
Reading
Berkshire
RG1 6LL**

Bat Emergence and Re-entry Survey

Ref: R1987/b

July 2018



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1 SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was commissioned by Mrs Hotston to undertake a survey for the presence of bats within the detached house at 37 Coley Avenue in Reading, Berkshire.
- 1.1.2** The survey was commissioned in connection with planning proposals lodged with Reading Borough Council seeking consent to construct a two-storey side and rear extension as well as a single-storey front extension (planning reference 180265; refer to existing and proposed elevations in Appendix 3).
- 1.1.3** A preliminary daylight bat survey of the house was undertaken by John Wenman Ecological Consultancy LLP in April 2018. The house had a number of features, such as gaps beneath raised and misplaced tiles and gaps behind soffits, that could potentially be used by species that occupy crevice roosts such as pipistrelle (*Pipistrellus spp.*) and *Myotis* bat species (reported separately; R1888b, April 2018). Further surveys were recommended comprising at least two emergence and/or re-entry surveys with a third survey if bats were shown to be present during the surveys. An evening emergence and dawn re-entry survey were subsequently undertaken on the 28th June and the 12th July 2018, respectively.
- 1.1.4** No bats were seen emerging or re-entering during either survey. The level of bat activity was moderate for the emergence survey, with considerable levels of foraging activity in the back garden. The bat activity during the re-entry survey was low.
- 1.1.5** The lack of observations of bats emerging from or re-entering the roof in combination with no evidence of roosting bats found in the house, suggests that the proposed extensions to the house are considered unlikely to result in the disturbance of bats or destruction of bat roosts. Therefore, a European Protected Species licence or registration of the site under a Low Impact Class licence will not be required to enable the proposed work to proceed lawfully, but there is a risk that bats could be found in the future and a precautionary approach to the work should be adopted.

2 INTRODUCTION

2.1 Background

- 2.1.1** John Wenman Ecological Consultancy LLP was commissioned by Mrs Hotston to undertake a survey for the presence of bats within the detached house at 37 Coley Avenue in Reading, Berkshire.
- 2.1.2** The survey was commissioned in connection with planning proposals lodged with Reading Borough Council seeking consent to construct a two-storey side and rear extension as well as a single storey front extension (planning reference 180265; refer to existing and proposed elevations in Appendix 3).
- 2.1.3** A preliminary daylight bat survey of the house was undertaken by John Wenman Ecological Consultancy LLP in April 2018. The house had a number of features, such as gaps beneath raised and misplaced tiles and gaps behind soffits, that could potentially be used by species that occupy crevice roosts such as pipistrelle (*Pipistrellus spp.*) and *Myotis* bat species (reported separately; R1864b, April 2018). Further surveys were recommended comprising at least two emergence and/or re-entry surveys with a third survey if bats were shown to be present during the surveys. This report details the findings and associated recommendations of those surveys.

2.2 Legislative Background

- 2.2.1** All British bat species are protected fully by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). In summary, the legislation combined makes it an offence to:
- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;
 - Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species;

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- Deliberately kill, injure or take any bat.

2.2.2 The government's statutory conservation advisory organisation, Natural England, is responsible for issuing European Protected Species licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. A licence can be issued if the following three tests have been met:

- **Regulation 55(9)(a)** - there is "no satisfactory alternative" to the derogation, and;
- **Regulation 55(9)(b)** - the derogation "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range" and;
- **Regulation 55(2)(e)** - the derogation is for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment".

2.2.3 Local authorities have a statutory duty under Regulation 7(3) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. The Council must therefore consider and determine whether these three tests are likely to be satisfied by applications where survey findings show that European Protected Species licensing is necessary, before granting any necessary planning permission.

2.2.4 European Protected Species licence applications can be submitted once all necessary planning consents have been granted and Natural England aim to issue a licence decision within 30 working days.

2.2.5 Licensable projects affecting small numbers of seven commonly occurring bat species may fall under the remit of the Low Impact Class Licence (WML-CL21). The Class Licence permits 'Registered Consultants' to carry out licensable operations on site on behalf of clients following the registration of sites with Natural England at least 15 working days before the work is due to start.

- 2.2.6** Survey data supporting EPS licence applications or the registration of the site under the Low Impact Class Licence (WML-CL21) must be up to date i.e. have been conducted within the current or most recent optimal survey season i.e. May to August. Therefore, if surveys show bats are present and licensable work is delayed until during or after the next survey season, updated surveys will be required to support an application or site registration.

2.3 Site Location and Context

- 2.3.1** The house is situated toward the centre of Coley Avenue in Reading, Berkshire on the eastern side (OS grid reference: SU 70718 72721), just south of the junction between Castle Crescent
- 2.3.2** The detached house is bordered by further residential properties and their associated gardens on all sides. There is deciduous and broadleaved woodland to the west, bordering the railway line. Prospect Park is located further west about 1.39km away. This is primarily parkland and wood pasture but also contains habitats of deciduous and broadleaved woodland. The Coley Recreation Ground - containing amenity grassland - is located 312 metres to the south-east. The Holy Brook - a channel of the River Kennet - runs approximately 725 metres away to the east. There is an area of grassland and grazing marsh that serves as a floodplain to the Holy Brook about 590 metres away. This area also has a stretch of deciduous woodland that could provide quality foraging habitat for bats.

2.4 Report Format

- 2.4.1** The report is set out as follows: **Section 3** presents a description of the survey methods; **Section 4** summarises the findings of the detector surveys; and **Section 5** presents a discussion of the survey findings and recommendations; **Appendix 1** presents the raw survey data; **Appendix 2** presents plans of the emergence and re-entry survey findings; **Appendix 3** presents the proposed plans and elevations.

3 SURVEY METHOD

3.1 Evening Emergence and Dawn Re-entry Surveys

- 3.1.1** The evening emergence and dawn re-entry surveys were undertaken on the 28th June and the 12th July 2018 respectively; carried out by two surveyors experienced in conducting bat detector surveys. During each survey, one surveyor was situated on the front drive viewing the north-west corner of the house (Survey Location 1) and the second surveyor was situated in the rear garden viewing the south-east corner of the house (Survey Location 2). A thermal imaging camera, accompanied by an Anabat SD2 detector, was placed at a third location in the rear garden on the north-east corner of the house (Survey Location 3).
- 3.1.2** The emergence survey was undertaken with an Elekon Batlogger M detector, an Anabat SD2 detector and a Pettersson D240X detector. The Batlogger recordings were later analysed using the BatExplorer software package, the Anabat recordings were analysed using the AnalookW software package and the Pettersson recordings were analysed using the Batsound software package.
- 3.1.3** The re-entry survey was undertaken with an EchoMeter Touch Pro 2 detector, a Pettersson D240X detector and an Anabat SD2 detector. The EchoMeter Touch recordings were converted to ZC files in Kaleidoscope before being analysed in the Analook software package, along with the Anabat recordings. The Pettersson recordings were analysed using the Batsound software package.
- 3.1.4** The evening surveys started 15 minutes before sunset and continued until 1.5 hours after sunset. The dawn re-entry survey started 1.5 hours before sunrise and finished at sunrise.
- #### **3.2 Background Data Search**
- 3.2.1** The Berkshire and South Buckinghamshire Bat Group were commissioned to carry out a search of data held by the Group for the site and land within a 2km radius.

3.3 Survey Constraints

- 3.3.1** There were no significant constraints to the surveys, which were undertaken at a suitable time of year for undertaking emergence surveys i.e. May to September (Collins 2016) and in conditions suitable for bat activity i.e. dry with air temperatures above 10°C.

4 SURVEY FINDINGS

4.1 Evening Emergence Survey – 28th June 2018

- 4.1.1** No bats emerged from the house during the emergence survey. The amount of bat activity was moderate with common pipistrelle (*Pipistrellus pipistrellus*) bats frequently recorded by both surveyors, with considerable levels of foraging witnessed in the back garden (Survey Location 2). Noctule (*Nyctalus noctula*) bats were recorded at all three locations between 21:53 and 22:02; with foraging on the north-west side of the house (Survey Location 1). Soprano pipistrelle (*Pipistrellus pygmaeus*) bats were frequently recorded in the rear garden throughout the survey.

4.2 Dawn Re-entry Survey – 12th July 2018

- 4.2.1** No bats re-entered the house during the re-entry survey. The amount of bat activity was low to moderate with common pipistrelle (*Pipistrellus pipistrellus*) bats most frequently recorded by both surveyors and on the Anabat SD2 detector; the bats exhibited foraging and some social calling. Noctule (*Nyctalus noctula*) bats were only recorded on the north-west side of the property (Survey Location 1) and only brief passes. The only other species recorded was the soprano pipistrelle (*Pipistrellus pygmaeus*) bat and their calls were only picked up on the detectors on a few occasions.

4.3 Background Data Search

- 4.3.1** The data held by the Berkshire and South Buckinghamshire Bat Group includes records of at least six species within a 2km radius of the site: common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared bat (*Plecotus auritus*), Daubenton's bat (*Myotis daubentonii*), noctule (*Nyctalus noctula*) and serotine (*Eptesicus serotinus*). There are 2 pipistrelle bats roosts, 1 long-eared bat roosts, 2 Daubenton's bat roosts and 1 unidentified bat roost in the 2km search radius of the site.
- 4.3.2** There are no pre-existing records of bats at 37 Coley Road. The nearest record is for a *Pipistrellus* sp. breeding roost recorded in a property in 2002, approximately 250 metres to the south west of the site. The most recent records are from 2017; three sites surveyed by a Consultancy recorded the common pipistrelle, soprano pipistrelle and noctule in flight between 1.5 and 1.8 km from the site.

5 DISCUSSION AND RECOMMENDATIONS

5.1 Assessment of Bat Roost Status

- 5.1.1** The preliminary survey carried out in April 2018 highlighted a number of features, such as gaps beneath raised and misplaced tiles and gaps behind soffits, that could potentially be used by species that occupy crevice roosts such as pipistrelle (*Pipistrellus* sp.) and *Myotis* bat species (reported separately; R1888b, April 2018). The lack of observations of bats emerging from or re-entering the roof in combination with no evidence of roosting bats found in the house, suggests that bats are not currently roosting in the house.

5.2 Impacts of Proposals and Recommendations

- 5.2.1** In the absence of any evidence of roosting bats, the proposed extensions are unlikely to lead to the loss of roosts, or disturb or harm bats. An EPS licence or registration of the site under the Low Impact Class Licence is not required for the work to proceed lawfully.
- 5.2.2** Bats, particularly the pipistrelle species, are very mobile, regularly changing roosting sites throughout the course of the year. Common and soprano pipistrelle bats were recorded foraging in the rear garden of the house suggesting that there is likely to be a roost in the local vicinity and therefore it remains possible that they could be present in the future.
- 5.2.3** In the unlikely event that bats are found during the works, the work should stop immediately, and a licensed ecologist called to site to attend to the bat(s) and provide advice on how to proceed. Work will recommence only once further written advice has been received; a European Protected Species may be required to permit the lawful continuation of the works at this point.

6 REFERENCES

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

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

Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers' Manual* (3rd Edition). JNCC, Peterborough.

APPENDIX 1 – RAW BAT EMERGENCE AND RE-ENTRY SURVEY DATA

Evening Emergence Survey of 37 Coley Avenue on the 28th June 2018

Survey date: 28-06-18 Location 1: Front drive (North-west corner) Surveyor: Vicky Potts Detector: Batlogger M detector Weather conditions: Clear; Humid; Wind 1-2; 23-18°C Start time: 21:10 Sunset: 21:25 Finish time: 22:55		
Time	Species	Survey notes
21:53	Noctule	Bat flew from behind surveyor, circled over house and back towards north-west
21:54	Noctule	Foraging unseen
21:55	Noctule	Foraging unseen
21:56	Noctule	Foraging unseen
21:56	Noctule	Bat flew down treeline along the road; north to south
21:58	Unidentified bat (likely <i>Pipistrellus</i> sp.)	Bat seen at rear gable; call not detected
21:59-22:00	Noctule	Foraging unseen
22:01-2	Noctule	Foraging unseen
22:08	Common Pipistrelle	Foraging unseen; 17kHz social call
22:10-11	Common Pipistrelle	Bat flew from behind surveyor into bushes at far side of front garden; north to south
22:22	Common Pipistrelle	Distant unseen
22:29	Common Pipistrelle	Brief pass unseen
22:38-9	Common Pipistrelle	Pass unseen
22:52	Common Pipistrelle	Pass unseen

Survey date: 28-06-18 Location 2: Rear garden (South-east corner) Surveyor: Bob Britain Detector: Petterson D240X detector Weather conditions: Clear, Humid, Wind 1-2, 23-18°C Start time: 21:10 Sunset: 21:25 Finish time: 22:55		
Time	Species	Survey notes
21:54	Noctule	Bat seen commuting east to west; twice the roof height
21:56	Noctule	Bat seen foraging over survey location 1
21:58	Common Pipistrelle	Bat seen foraging over in front of surveyor
21:59	Common Pipistrelle	Bat flew from behind surveyor towards house
22:01	Common Pipistrelle	Bat seen foraging over lawn; north of surveyor
22:04	Common Pipistrelle	Two bats seen foraging over lawn and round the house
22:05	Soprano Pipistrelle	Heard but not seen
22:07	Common Pipistrelle	Two bats seen foraging in front of surveyor and passed as in 21:59
22:14	Soprano Pipistrelle	Bat seen foraging in front of surveyor and passed as in 21:59
22:17	<i>Pipistrellus</i> sp.	Mother and pup seen foraging at house height near southern gable end
22:21	Soprano Pipistrelle	Heard but not seen
22:21	Common Pipistrelle	Bat seen foraging over lawn and passed as in 21:59
22:25	Soprano Pipistrelle	Bat flew from behind house; west to east
22:29	Soprano Pipistrelle	Heard but not seen
22:30	Common Pipistrelle	Heard but not seen
22:32	Soprano Pipistrelle	Bat flew from behind house as in 22:25 and was seen foraging
22:39	Common Pipistrelle	Heard but not seen
22:42	Common Pipistrelle	Bat seen pass as in 21:59 and forage over lawn
22:47	Common Pipistrelle	Bat seen pass as in 21:59 and commute over the house heading north
22:53	Soprano Pipistrelle	Heard but not seen

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Survey date: 28-06-18 Location 3: Rear garden (North-east corner) Surveyor: Thermal imaging camera Detector: Anabat SD2 detector Weather conditions: Clear, Humid, Wind 1-2, 23-18°C Start time: 21:10 Sunset: 21:25 Finish time: 22:55		
Time	Species	Survey notes
21:53	Noctule	Pass seen
21:56	Noctule	Pass unseen
21:57	Common Pipistrelle	Pass unseen
22:00-4	Common Pipistrelle	Pass unseen
22:04-8	Soprano Pipistrelle	Pass unseen
22:06-10	Common Pipistrelle	Pass seen
22:13-18	Soprano Pipistrelle	Pass seen; social calls
22:21-22	Common Pipistrelle	Pass unseen; social calls
22:22-25	Soprano Pipistrelle	Pass unseen
22:28-29	Soprano Pipistrelle	Pass seen
22:29	Common Pipistrelle	Pass unseen
22:32	Soprano Pipistrelle	Pass unseen
22:41-2	Common Pipistrelle	Pass unseen
22:46	Common Pipistrelle	Pass unseen
22:52	Soprano Pipistrelle	Pass unseen

Dawn Re-Entry Survey of 37 Coley Avenue on the 12th July 2018

Survey date: 12-07-18 Location 1: Front drive (North-west corner) Surveyor: Maithri Jayasuriya Detector: Echometer Touch Pro 2 detector Weather conditions: Dry; Clear; 10-12°C Start time: 03:31 Sunrise: 05:01 Finish time: 05:01		
Time	Species	Survey notes
03:36	Unidentified bat (likely Pipistrellus sp.)	Social calls; bat not seen
03:41	Noctule	Brief pass heard but not seen
03:47	Noctule	Brief pass heard but not seen
03:49	Common Pipistrelle	Pass unseen
03:58	Common Pipistrelle	Pass heard but not seen
04:01	Common Pipistrelle	Foraging pass -Heading north down Coley Avenue
04:01	Soprano Pipistrelle	Pass unseen
04:02	Common Pipistrelle & Soprano Pipistrelle	Foraging passes heard but unseen – includes common pipistrelle social calls
04:03	Noctule	Brief pass heard but not seen
04:03	Common Pipistrelle	Foraging over road; heading south
04:08	Common Pipistrelle	Foraging passes heard but unseen (assumed to be foraging over road as above).

Survey date: 12-07-18 Location 2: Rear garden (South-east corner) Surveyor: Bob Britain Detector: Pettersson D240X detector Weather conditions: Dry; Clear; 10-12°C Start time: 03:31 Start time: 05:01 Start time: 05:01		
Time	Species	Survey notes
03:32	Common Pipistrelle	Pass heard not seen – foraging
03:36	Common Pipistrelle	Seen foraging over garden
03:46	Common Pipistrelle	Seen foraging right up to gable end
03:56	Common Pipistrelle x 2	Seen foraging for several minutes over garden; approaching very close to rear of house; 2 bats flying close together
04:08	Common Pipistrelle	Foraging for several minutes
04:15	Common Pipistrelle	Distant pass heard not seen
04:22	Common Pipistrelle	Several passes close to roof by (southernmost) chimney

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Survey date: 12-07-18 Location 3: Rear garden (North-east corner) Surveyor: Thermal imaging camera Detector: Anabat SD2 Weather conditions: Dry; Clear; 10-12°C Start time: 03:31 Start time: 05:01 Start time: 05:01		
Time	Species	Survey notes
03:24-7	Common Pipistrelle	Pass unseen; social calls
03:27	Soprano Pipistrelle	Pass unseen
03:32-3	Common Pipistrelle	Pass unseen; social calls
03:35-6	Common Pipistrelle	Pass unseen
03:38-9	Common Pipistrelle	Pass unseen
03:45	Common Pipistrelle	Pass unseen
03:55-04:01	Common Pipistrelle	Pass seen, social calls
03:55-04:00	Soprano Pipistrelle	Pass seen, social calls
04:03	Common Pipistrelle	Pass unseen
04:05	Common Pipistrelle	Pass unseen
04:07-9	Common Pipistrelle	Pass unseen
04:11	Soprano Pipistrelle	Pass unseen
04:21	Common Pipistrelle	Pass unseen

APPENDIX 2 – BAT EMERGENCE AND RE-ENTRY SURVEY FINDINGS

