

**Hilgay
Upper Warren Avenue
Caversham
Reading
Berkshire
RG4 7EB**

Bat Emergence and Re-Entry Survey

Ref: R2807/a

June 2021



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1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was commissioned by Mr Andrew Norton to undertake a survey for the presence of bats at Hilgay on Upper Warren Avenue in Caversham, Berkshire. The survey was commissioned to accompany a planning application seeking consent for the demolition of the existing property followed by the construction of a replacement dwelling.
- 1.1.2** A preliminary bat roost assessment was conducted by John Wenman Ecological Consultancy LLP on the 1st December 2020 (Report Reference: R2675/a). The assessment found low numbers of small bat droppings – resembling those typically deposited by pipistrelle species (*Pipistrellus* spp.) – around hanging tiles on the front extension/conservatory and noted other external features suitable for crevice-dwelling bats. Evening emergence surveys were undertaken on the 6th and 20th May 2021 with a dawn re-entry survey on the 4th June 2021.
- 1.1.3** Three common pipistrelle bats (*Pipistrellus pipistrellus*) were observed emerging from behind hanging tiles on the single-storey front extension/conservatory during the first evening emergence survey, but no bats were recorded emerging or re-entering during the two subsequent survey visits. These observations indicate that hanging tiles on the single-storey front extension/conservatory are being used as a day roost by small numbers of male or non-breeding female bats.
- 1.1.4** The proposed demolition would result in the permanent loss of a common pipistrelle (*P. pipistrellus*) day roost, and in the absence of mitigation, the demolition work could result in any bats present being disturbed and potentially injured or killed. A European Protected Species Mitigation Licence (EPSML) will be required to allow the work to proceed lawfully, and the site would qualify for registration under the Bat Mitigation Class licence WML-CL21.
- 1.1.5** Before the demolition work begins, one Schwegler 2F-DFP box (or equivalent woodcrete box) will be fixed to a suitable mature tree at the front of the house providing long-term replacement roosting opportunities for bats.

2 INTRODUCTION

2.1 Background

2.1.1 John Wenman Ecological Consultancy LLP was commissioned by Mr Andrew Norton to undertake a survey for the presence of bats at Hilgay on Upper Warren Avenue in Caversham, Berkshire. The survey was commissioned to accompany a planning application to be lodged with Reading Borough Council seeking consent for the demolition of the existing property followed by the construction of a replacement dwelling.

2.1.2 A preliminary bat roost assessment was conducted by John Wenman Ecological Consultancy LLP on the 1st December 2020 (Report Reference: R2675/a). The assessment found low numbers of small bat droppings – resembling those typically deposited by pipistrelle species (*Pipistrellus* spp.) – around hanging tiles on the front extension/conservatory and noted other external features in the form of gaps under roof tiles around rooflights and a small piece of missing verge mortar.

2.1.3 To confirm the status of the bat roost, determine the presence or absence of any other bat roosts and to ascertain an appropriate mitigation strategy, three emergence and re-entry surveys were conducted by John Wenman Ecological Consultancy LLP. The results of the surveys and subsequent mitigation proposals are detailed within this report.

2.2 Legislative Background

2.2.1 All British bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations') (as amended). 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 significantly affect 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 Mitigation Licences (EPSML) that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. An EPSML 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(3e) 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 EPSML is necessary, before granting any necessary planning permission.

2.2.4 EPSML 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 Bat Mitigation 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 EPSML applications or the registration of the site under the Bat Mitigation 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 property is situated on northern side of Upper Warren Avenue in Caversham, Berkshire (OS grid reference: SU 69656 75354).
- 2.3.2** The property is in a suburban setting to the north of Reading with neighbouring residential properties along Upper Warren Avenue. The properties on the southern side of the Avenue back onto a wooded escarpment overlooking the River Thames, approximately 250m to the south of the property. The wider landscape consists of open countryside to the west, which includes Chazey Wood ancient woodland (approx. 775m from the property).
- 2.3.3** Overall, the wooded suburban setting and River Thames provides bats with high-quality commuting and foraging habitat in the vicinity.

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; **Section 5** presents a discussion of the survey findings and recommendations; and **Section 6** outlines the mitigation and compensation proposals. **Appendix 1** presents plans of the emergence and re-entry survey findings; **Appendix 2** presents the raw survey data; and **Appendix 3** includes the proposed elevations with annotated bat roost provision.

3 SURVEY METHODOLOGY

3.1 Evening Emergence and Dawn Re-Entry Surveys

3.1.1 Evening emergence surveys were undertaken on the 6th May and the 20th May 2021, and a dawn re-entry survey was undertaken on the 4th June 2021. Each survey was carried out by two surveyors experienced in conducting bat detector surveys: one surveyor was positioned in the rear garden to the north of the property (Location 1) and the second surveyor was situated in the front garden to the south (Location 2).

3.1.2 The surveys were conducted with the aid of EchoMeter Touch 2 Pro and Elekon Batlogger M bat detectors. The EchoMeter recordings were converted to ZC files in Kaleidoscope and analysed in the AnalookW computer software; the Batlogger recordings were analysed using the BatExplorer computer software.

3.1.3 The evening emergence 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 Survey Constraints

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

4 SURVEY FINDINGS

4.1 Evening Emergence Survey – 6th May 2021

- 4.1.1** Three common pipistrelle bats (*Pipistrellus pipistrellus*) were recorded emerging at 21.11 from behind hanging tiles on the single-storey front extension/conservatory.
- 4.1.2** The level of bat activity was moderate and included at least three species: common pipistrelle (*P. pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and a *Myotis* species. Common pipistrelle bats (*P. pipistrellus*) were recorded as early as 20.55 behind Location 2 and were observed commuting and foraging at canopy height along Upper Warren Avenue. A pipistrelle bat (*Pipistrellus* sp.) was observed flying silently around the gable of the neighbouring property and was considered likely to have emerged. Common and soprano pipistrelle bats (*P. pipistrellus/pygmaeus*) were periodically recorded commuting and foraging throughout the survey up until 21.58. A *Myotis* bat was heard only by both surveyors at 21.32.

4.2 Evening Emergence Survey – 20th May 2021

- 4.2.1** No bats were observed emerging from the property during the emergence survey. However, approximately five pipistrelle bats (*Pipistrellus* spp.), including two soprano pipistrelle bats (*P. pygmaeus*), were considered likely to have emerged from the neighbouring property between 21.00 and 21.43.
- 4.2.2** The level of bat activity was moderate but consisted only of common and soprano pipistrelle bats (*P. pipistrellus/pygmaeus*). There was consistent foraging activity recorded in the front garden adjacent to Upper Warren Avenue, which continued beyond the end of the survey.

4.3 Dawn Re-Entry Survey – 4th June 2021

- 4.3.1** No bats were observed returning to roost in the property during the re-entry survey, but a soprano pipistrelle bat (*P. pygmaeus*) was repeatedly recorded looping and landing on the verge of the eastern gable end between 04.15 and 04.23 before flying away. Prior to this behaviour, two soprano pipistrelle bats (*P. pygmaeus*) were observed flying close to the roof of the property before disappearing behind the dormer window at 04:09 and 04:11, respectively. In addition, two separate soprano pipistrelle bats (*P. pygmaeus*) were considered likely to have returned to roost earlier in the neighbouring property at 03.56 and 04.01, respectively.
- 4.3.2** The level of bat activity was moderate and consisted of four species: long-eared (*Plecotus* sp.), common pipistrelle (*P. pipistrellus*), soprano pipistrelle (*P. pygmaeus*) and noctule (*N. noctula*). The long-eared bat (*Plecotus* sp.) was heard only by both surveyors at the beginning of the survey and the noctule (*N. noctula*) was heard at 03.48 by the surveyor at Location 2.

5 DISCUSSION AND RECOMMENDATIONS

5.1 Assessment of Bat Roost Status

5.1.1 Three common pipistrelle bats (*Pipistrellus pipistrellus*) were observed emerging from behind hanging tiles on the single-storey front extension/conservatory during the first evening emergence survey, but no bats were recorded emerging or re-entering during the two subsequent survey visits. These observations indicate that hanging tiles on the single-storey front extension/conservatory are being used as a day roost by small numbers of male or non-breeding female common pipistrelle bats (*P. pipistrellus*). Common pipistrelle bats (*P. pipistrellus*) are widespread and common throughout the UK (Richardson 2000) and roosts supporting small numbers of non-breeding adults are considered to be of low conservation importance (Mitchell-Jones 2004).

5.2 Impact of Proposals and Recommendations

5.2.1 The proposed demolition would result in the permanent loss of a common pipistrelle (*P. pipistrellus*) day roost, and in the absence of mitigation the demolition work could result in any bats present being disturbed and potentially injured or killed.

5.2.2 A European Protected Species Mitigation Licence (EPSML) will be required to allow the work to proceed lawfully and the survey findings show that the site would qualify for registration under the Bat Mitigation Class licence WML-CL21. Under the terms of a full EPSML or the Bat Mitigation Class licence, mitigation for the impacts of the demolition work on bats in order to avoid harming bats and provide a like-for-like roost replacement in the replacement dwelling, will be required and mitigation proposals detailing the approach to be adopted are set out in **Section 6** below.

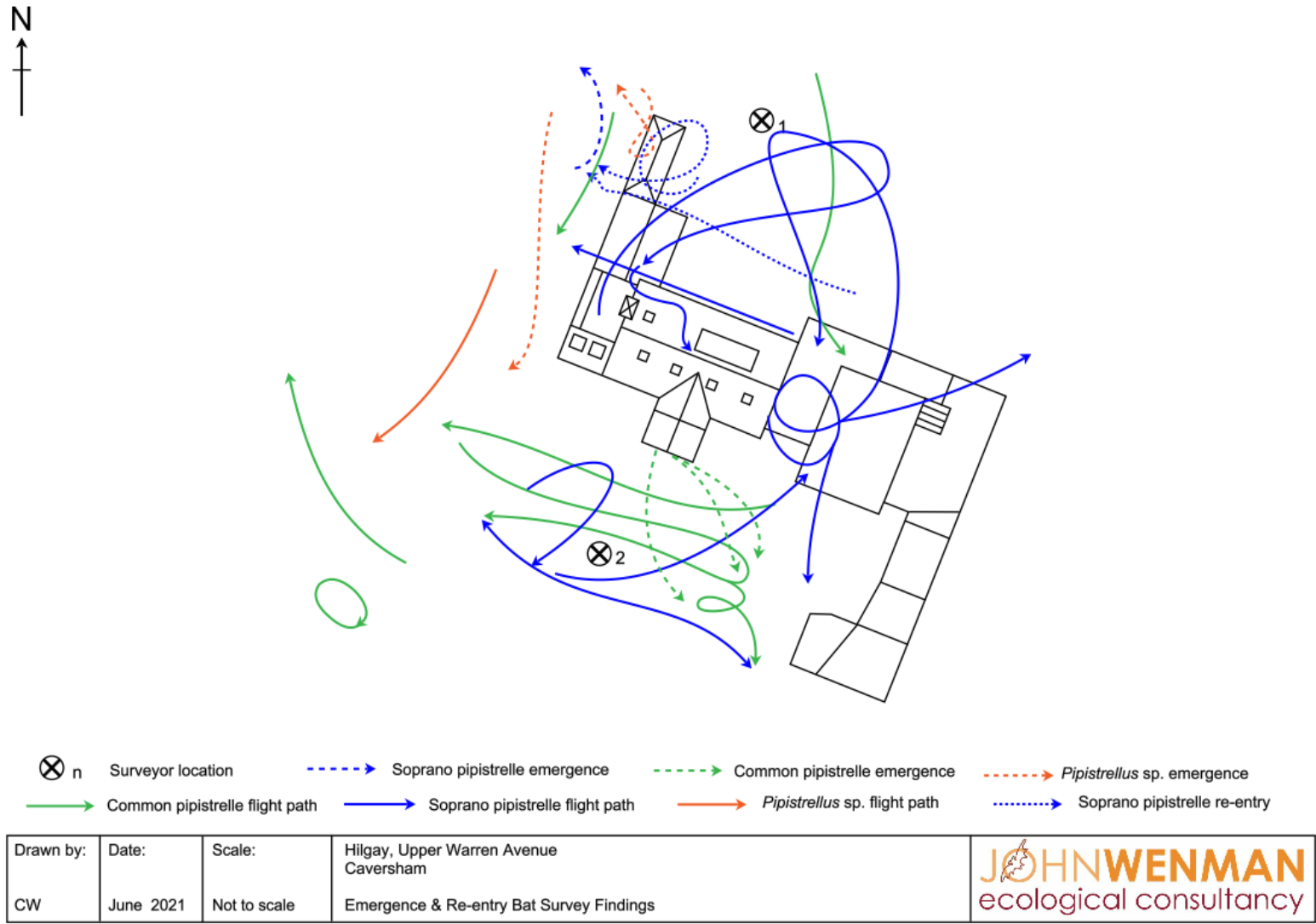
6 MITIGATION AND COMPENSATION PROPOSALS

- 6.1.1** Before the demolition work commences, a European Protected Species Mitigation Licence (EPSML) or confirmation of the registration of the site under the Bat Mitigation Class Licence (BMCL) WML-CL21 will be obtained.
- 6.1.2** All licensable works to the property i.e., removal of hanging tiles, will be undertaken outside of the winter hibernation season (mid-November to February) to minimise the risk of disturbing torpid bats. Before the demolition work begins, one Schwegler 2F-DFP box (or equivalent woodcrete box) will be fixed to a suitable mature tree, building or purpose-built pole on site and will be in place for a minimum of five years (boxes can only be removed after the five years if no evidence of use has been found at this stage).
- 6.1.3** Before the demolition work commences, the licensed ecologist or 'Registered Consultant' if working under the BMCL, will give a toolbox talk to the contractors on site detailing bats are present, the legislation protecting bats, the location of the roosting site in the property, good working practices, the measures that are required to protect bats during the work and what to do if bats are found. A copy of the licence will be available for inspection on site during all licensable works.
- 6.1.4** A 'soft strip' approach to the demolition work will be adopted i.e., the careful removal of hanging tiles by gloved hands under the supervision of a licensed ecologist, or Registered Consultant if working under the BMCL, before mechanical demolition. If bat(s) are discovered during the course of the work, the licensed ecologist or Registered Consultant would capture the bat(s) and transfer it/them directly to a bat box erected in advance of the works.
- 6.1.5** The tree-mounted Schwegler 2F-DFP (or equivalent woodcrete box) will provide long-term replacement opportunities for day roosting common pipistrelle bats (*Pipistrellus pipistrellus*).

7 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.
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- Richardson, P. (2000). *Distribution atlas of bats in Britain and Ireland 1980 – 1999*. Bat Conservation Trust, London.
- Schofield, H. W. & Mitchell-Jones, A.J. (2004). *The Bats of Britain and Ireland*. Vincent Wildlife Trust, Ledbury.

APPENDIX 1 – BAT EMERGENCE AND RE-ENTRY SURVEY FINDINGS



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APPENDIX 2 - BAT EMERGENCE AND RE-ENTRY RAW SURVEY DATA

Evening Emergence Survey – 6th May 2021

Survey date: 06/05/2021 Location 1: Rear garden (north) Surveyor: Conor Watson Detector: Elekon Batlogger M Weather conditions: Dry; 1/8 cloud cover; wind force 2; 10-8°C Start time: 20:19 Sunset: 20:34 Finish time: 22:04		
Time	Species	Survey notes
20:56	Common pipistrelle	Bat observed commuting northwest at front of house – call not detected
20:56	Common pipistrelle	Bat observed commuting northwest at front of house – call not detected
20:59	Common pipistrelle	Bat observed commuting northwest at front of house – call not detected
20:59	<i>Pipistrellus</i> sp.	Bat observed flying near neighbouring gable – likely emergence
21:04	Common pipistrelle	Distant pass, unseen
21:09	Soprano pipistrelle	Bat observed commuting west along eave of house
21:19	Common pipistrelle	Bat observed commuting from behind heading south over garage/workshop
21:32	<i>Myotis</i> sp.	Nearby pass, unseen
21:33	Common pipistrelle	Distant foraging, unseen
21:46	Common pipistrelle	Distant foraging, unseen
21:52	Soprano pipistrelle	Pass, unseen
21:52	Common pipistrelle	Pass, unseen
21:55-6	Common pipistrelle	Distant intermittent foraging, unseen

Survey date: 06/05/2021 Location 2: Front garden (south) Surveyor: Ruth Coxon Detector: Elekon Batlogger M Weather conditions: Dry; 1/8 cloud cover; wind force 2; 10-8°C Start time: 20:19 Sunset: 20:34 Finish time: 22:04		
Time	Species	Survey notes
20:55-21:04	Common pipistrelle	Continuous foraging behind surveyor, unseen – multiple bats
21:01	Common pipistrelle	Bat observed circling near trees to southwest
21:04	Common pipistrelle	Bat observed flying near trees to southwest
21:09-10	Soprano pipistrelle	Two passes, unseen
21:10-16	Common pipistrelle	Continuous foraging behind surveyor, unseen – multiple bats
21:11	Common pipistrelle	Three bats observed emerging from hanging tiles on single-storey front extension
21:16	Common pipistrelle	Social calls heard
21:16-17	Soprano pipistrelle	Foraging, unseen
21:19	Soprano pipistrelle	Two bats observed flying over front garden
21:19	Common pipistrelle	Pass with social calls, unseen
21:24	Soprano pipistrelle	Pass, unseen
21:28	Soprano pipistrelle	Pass, unseen
21:28-29	Common pipistrelle	Foraging, unseen
21:32	<i>Myotis</i> sp.	Pass, unseen
21:32-35	Common pipistrelle	Foraging with social calls, unseen
21:33	Soprano pipistrelle	Pass, unseen
21:39	Common pipistrelle	Pass, unseen
21:44-47	Common pipistrelle	Foraging, unseen
21:45	Soprano pipistrelle	Pass, unseen
21:50-52	Soprano pipistrelle	Foraging with social calls, unseen
21:52	Common pipistrelle	Pass, unseen
21:53	Common pipistrelle	Pass, unseen
21:55-58	Common pipistrelle	Foraging with social calls, unseen

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Evening Emergence Survey – 20th May 2021

Survey date: 20/05/2021 Location 1: Rear garden (north) Surveyor: Ruth Coxon Detector: Elekon Batlogger M Weather conditions: Periodic drizzle; 6/8 cloud cover; wind force 4; 14-13°C Start time: 20:41 Sunset: 20:56 Finish time: 22:26		
Time	Species	Survey notes
21:00	<i>Pipistrellus</i> sp.	Bat observed emerging from neighbouring property
21:09	<i>Pipistrellus</i> sp.	Bat observed flying away from neighbouring property
21:10	<i>Pipistrellus</i> sp.	Bat observed emerging from neighbouring property
21:18	Common pipistrelle	Pass, unseen
21:21	<i>Pipistrellus</i> sp.	Bat observed emerging from neighbouring property
21:28	<i>Pipistrellus</i> sp.	Pass, unseen – call not recorded
21:43	Soprano pipistrelle	Two bats observed emerging from neighbouring property
21:46	Common pipistrelle	Pass, unseen
21:55-56	Soprano pipistrelle	Foraging, unseen

Survey date: 20/05/2021 Location 2: Front garden (south) Surveyor: Conor Watson Detector: Elekon Batlogger M Weather conditions: Periodic drizzle; 6/8 cloud cover; wind force 4; 14-13°C Start time: 20:41 Sunset: 20:56 Finish time: 22:26		
Time	Species	Survey notes
21:06	Soprano pipistrelle	Pass with social calls, unseen
21:09	Soprano pipistrelle	Distant pass, unseen
21:19	Soprano pipistrelle	Distant pass, unseen
21:21	<i>Pipistrellus</i> sp.	Bat observed commuting away from neighbouring property
21:26	Common pipistrelle	Brief pass, unseen
21:27	Common pipistrelle	Unseen foraging followed by observed foraging overhead
21:28-29	Common pipistrelle	Intermittent foraging, unseen
21:30	Common pipistrelle	Bat observed commuting and foraging
21:33	Soprano pipistrelle	Bat observed foraging overhead
21:33-35	Common pipistrelle	Foraging, unseen
21:34	Soprano pipistrelle	Foraging, unseen
21:35	Soprano pipistrelle	Bat observed commuting and foraging
21:36-43	Soprano pipistrelle & common pipistrelle	Intermittent foraging, unseen
21:41	Soprano pipistrelle	Foraging, unseen
21:41	Common pipistrelle	Bat observed foraging and commuting
21:45-46	Common pipistrelle	Bat observed foraging in garden
21:45	Soprano pipistrelle	Distant foraging, unseen
21:48-50	Soprano pipistrelle	Intermittent foraging, unseen
21:53	Soprano pipistrelle	Bat observed foraging in garden
21:54	Common pipistrelle & soprano pipistrelle	Foraging, unseen
21:56	Soprano pipistrelle	Bat observed foraging in garden
21:58-22:07	Common pipistrelle	Intermittent foraging, unseen
22:16	Soprano pipistrelle	Distant pass, unseen
22:22	Common pipistrelle	Pass, unseen
22:25-26	Common pipistrelle	Distant foraging, unseen

Dawn Re-entry Survey – 4th June 2021

Survey Date: 04/06/2021 Location 1: Rear garden (north) Surveyor: Conor Watson Detector: Elekon Batlogger M Weather conditions: Dry; 7/8 cloud cover; wind force 1; 12°C Start time: 03:20 Sunrise: 04:50 Finish time: 04:50		
Time	Species	Survey notes

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03:21	<i>Plecotus</i> sp.	Pass, unseen – call not recorded
03:25	<i>Plecotus</i> sp.	Pass, unseen
03:27	Common pipistrelle	Pass, unseen
03:37	Common pipistrelle	Pass, unseen
03:38	Common pipistrelle	Two brief passes, unseen
03:39	Soprano pipistrelle	Pass with social calls, unseen
03:39	Common pipistrelle	Pass, unseen
03:40	Soprano pipistrelle	Distant foraging, unseen
03:45	Soprano pipistrelle	Distant pass, unseen
03:56	Soprano pipistrelle	Bat observed flying towards neighbouring property and likely returned to roost
04:01	Soprano pipistrelle	Bat observed looping and likely returned to roost in neighbouring property
04:04	Common pipistrelle	Brief pass, unseen
04:05	Soprano pipistrelle	Distant pass, unseen
04:07	Soprano pipistrelle	Brief pass, unseen
04:09	Soprano pipistrelle	Bat observed looping around garden and flying behind dormer heading east
04:09	Common pipistrelle	Pass, unseen
04:11	Soprano pipistrelle	Bat observed flying behind dormer heading east
04:15	Common pipistrelle	Very brief pass, unseen
04:17	Soprano pipistrelle	Bat observed looping above garage and landing on gable verge
04:22-23	Soprano pipistrelle	Bat observed looping above garage and landing on gable verge

Survey Date: 04/06/2021

Location 2: Front garden (south)

Surveyor: Meghan Porter

Detector: EchoMeter Touch 2 Pro

Weather conditions: Dry; 7/8 cloud cover; wind force 1; 12°C

Start time: 03:20

Sunrise: 04:50

Finish time: 04:50

Time	Species	Survey notes
03:20	Brown long-eared	Heard not seen, two foraging passes
03:25	Brown long-eared	Heard not seen, brief foraging passes
03:37	Common pipistrelle	Heard not seen, brief pass
03:38	Common pipistrelle	Heard not seen, brief foraging pass
03:39	Common pipistrelle	Heard not seen, brief foraging pass
03:40	Common and Soprano pipistrelle	Foraging around trees to the south of the garden
03:48	Noctule	Heard not seen
03:48	Soprano pipistrelle	Seen, foraging across garden flying west to east
03:55	Soprano pipistrelle	Heard not seen, foraging
04:02	No call - presumed <i>pipistrellus</i>	Seen, flying east to west in front of house
04:03	Soprano pipistrelle	Heard not seen, brief pass
04:07	Soprano pipistrelle	Heard not seen, brief pass
04:08	2x Soprano pipistrelle	Seen, circling around the eastern end of the house and above garage, flying south towards trees
04:09	Soprano pipistrelle	Seen, flying from south-west and over the front garden
04:09	Common pipistrelle	Heard not seen
04:15-18	Soprano pipistrelle	Seen, looping around the eastern gable, landing on top of the roof tiles, before flying above the garages
04:18-19	Soprano pipistrelle	Two bats seen, circling around the eastern end of the house and above garage, flying south towards trees