62 London Road
Twyford
Reading
Berkshire
RG10 9EY

Bat Emergence Survey

Report ref.: R3139_BES_a

Report Quality Control Information	
Author	*Lauren Hayward (Qualifying member of CIEEM)*
Reviewer	*Verity West (Qualifying member of CIEEM)*
Authoriser	*Sarah Foot MCIEEM*

August 2026

JOHNWENMAN
ecological consultancy

1 Diesel House, Honey Hill, Wokingham, Berkshire RG40 3BL
Telephone: 0118 3271810 Mobile: 07979 403099 E-mail: info@wenman-ecology.co.uk
www.wenman-ecology.co.uk

John Wenman Ecological Consultancy LLP is a limited liability partnership registered in England and Wales with registered number OC339057.
Registered office: 100 New Wokingham Road, Crowthorne, RG45 6JP where you may look at a list of members' names.

CONTENTS PAGE

1 EXECUTIVE SUMMARY 3

2 INTRODUCTION 4

2.1 Project Background 4
2.2 Site Location and Context 5
2.3 Report Objectives 5

3 LEGISLATIVE AND POLICY BACKGROUND 6

3.1 Relevant Legislation 6
3.2 Planning Policy 6
3.3 Mitigation Licensing 7

4 SURVEY METHODOLOGY 9

4.1 Emergence Survey 9
4.2 Desk Study 9
4.3 Survey Constraints 9

5 SURVEY FINDINGS 11

5.1 Overview 11
5.2 Desk Study 11
5.3 Emergence Survey 11

6 DISCUSSION AND RECOMMENDATIONS 14

6.1 Assessment of Bat Roost Status 14
6.2 Impact of Proposals and Recommendations 14

7 REFERENCES 16

APPENDIX 1 – DARKEST POINT OF SURVEY FOR NIGHT VISION AIDS 17

APPENDIX 2 – BAT EMERGENCE SURVEY FINDINGS 19

APPENDIX 3 – BAT EMERGENCE SURVEY RAW DATA TABLES 20

APPENDIX 4 – EXISTING AND PROPOSED DRAWINGS 41

1 EXECUTIVE SUMMARY

1.1.1 John Wenman Ecological Consultancy LLP was instructed by Matt Thornton to undertake a Bat Emergence Survey at 62 London Road - a detached house in Twyford, Berkshire. The survey was commissioned to accompany a householder planning application to be submitted to Wokingham Borough Council seeking consent for a roof conversion into a living space with the addition of skylights and dormer windows, a pitched two-storey side extension and a front porch (refer to existing and proposed plans in **Appendix 4**).

1.1.2 The bat emergence survey was commissioned following a Preliminary Roost Assessment (PRA) completed by John Wenman Ecological Consultancy on the 30th January 2026 (Report ref.: S3139_PRA_a). The PRA found no evidence in the roof void, however the rear section of the roof void was inaccessible and externally this section of the roof had a gap in the soffit, which may directly provide access into this section of the void. Externally, there were numerous potential roost features identified across the roof of the property, including gaps under lifted roof tiles, within crumbling ridge mortar, under lifted lead flashing and behind the soffit across the rear gable; therefore, the house was assigned moderate suitability for roosting bats.

1.1.3 In accordance with best practice guidance (Collins 2023), two evening emergence survey visits were conducted for the house on the 16th June and 7th July 2026. No bats were observed emerging from the house during this survey. However, approximately 6 to 10 soprano pipistrelle bats (*Pipistrellus pygmaeus*) were observed emerging from the oak tree (*Quercus robur*) within the rear garden of the house (**TN1**).

1.1.4 The survey data shows that the proposals are highly unlikely to result in bat roosts being damaged or destroyed, or to bats being disturbed. As such, a European Protected Species Mitigation Licence is not required for the planned works to go ahead lawfully. Tree protection measures for the oak tree (**TN1**) located in the rear garden of the property, where pipistrelle bats were observed emerging, and a sensitive lighting measures for bats are recommended during the construction phase of the development to avoid disturbance of the roost – refer to **Section 6.2**.

1.1.5 This report contains information regarding a mobile species so it will likely be valid for up to 12 months only (CIEEM 2019b).

2 INTRODUCTION

2.1 Project Background

2.1.1 John Wenman Ecological Consultancy LLP was instructed by Matt Thornton to undertake a Bat Emergence Survey at 62 London Road - a detached house in Twyford, Berkshire. The survey was commissioned to accompany a householder planning application to be submitted to Wokingham Borough Council seeking consent for a roof conversion into a living space with the addition of skylights and dormer windows, a pitched two-storey side extension and a front porch.

2.1.2 The Bat Emergence Survey follows a Preliminary Roost Assessment for bats (PRA) conducted by John Wenman Ecological Consultancy on 30th January 2026 (Report ref.: S3139_PRA_a). The PRA report states the following:

'*No evidence of roosting bats was observed externally or internally during the survey. Whilst there was a lack of evidence, i.e. droppings, within the main section of the roof void, the rear section was inaccessible and externally this section of the roof had a gap in the soffit, which may directly provide access into this section of the void. As such, the use of the void by void-dwelling species, such as long-eared bats (Plecotus spp.) cannot be ruled out at this stage. Externally, there were numerous potential roost features identified across the roof of the property, including gaps under lifted roof tiles, within crumbling ridge mortar, under lifted lead flashing and behind the soffit across the rear gable. These features may offer potential crevice roost sites for occasional use by small numbers of crevice-dwelling bat species such as the locally recorded common pipistrelle (Pipistrellus pipistrellus) and soprano pipistrelle (Pipistrellus pygmaeus) bats. The house is assessed to be of moderate potential suitability for bats'*

2.1.3 The PRA report recommends the following:

'A minimum of two dusk emergence survey visits should be undertaken in the period of May to September, with at least two of the surveys between May and August; the survey visits should be spaced at least three weeks apart. If roosting

bats are present, these survey visits enable the roost characterisation necessary to inform an impact assessment and mitigation strategy.'

2.2 Site Location and Context

2.2.1 The detached, two-storey house is located on the eastern side of London Road in Twyford, Berkshire (central OS Grid Reference: SU 79127 76340).

2.2.2 The property is situated within a suburban setting with neighbouring properties and their associated gardens along London Road. Parcels of woodland are situated approximately 380 metres to the southeast and 630 metres to the southwest with a railway line 460 metres to the southeast and the River Loddon 690 metres to the west. The wider area is primarily suburban with agricultural land beyond Twyford to the east and west, and lakes surrounded by mixed priority woodland to the southeast.

2.3 Report Objectives

2.3.1 The aim of the bat emergence survey is to determine the presence or likely absence of roosting bats and to characterise the bat roost(/s) in cases where presence is confirmed. The emergence survey findings inform an impact assessment and mitigation strategy for the development proposals and ascertain whether a European Protected Species (EPS) mitigation licence would be required to allow the works to proceed lawfully.

3 LEGISLATIVE AND POLICY BACKGROUND

3.1 Relevant Legislation

3.1.1 In England and Wales, all bat species found in the wild are fully protected under the Wildlife & Countryside Act 1981 (as amended) (WCA) and Conservation of Habitats and Species Regulations 2017 (as amended); the regulations are commonly referred to as the Habitat Regulations and hereafter referred to as such. The Habitat Regulations refer to European Protected Species (EPS) and all species of bats in the United Kingdom (UK) are EPS. Although the UK left the European Union on the 31st January 2020 and is therefore no longer tied to European legislation, the Habitat Regulations have been retained in their current format.

3.1.2 The legal framework underpinned by the WCA and Habitat Regulations makes these specific actions an offence as follows:

- Deliberately kill, injure, capture or take a wild bat;
- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or to significantly affect local distribution or abundance;
- Damage or destroy a place used by a bat for breeding or resting; and
- Intentionally or recklessly obstruct access to any place used by a bat for shelter or protection.

3.2 Planning Policy

3.2.1 The biodiversity duty imposed through the Environment Act 2021 states that Local Planning Authorities (LPAs) must consider what action they can take to conserve and enhance biodiversity in England. Government planning policy, such as the ODPM Circular 06/2005, requires LPAs to account for the conservation of protected species when considering and determining planning applications.

3.2.2 The ODPM Circular 06/2005 states that 'the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.' This policy means that in instances where there is a reasonable likelihood of bats being present and affected by a

development, surveys must be undertaken to inform a mitigation strategy to be agreed prior to granting planning permission.

3.3 Mitigation Licensing

3.3.1 The government's statutory nature conservation body, Natural England, is responsible for issuing European Protected Species (EPS) mitigation licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. An EPS mitigation licence can be issued if the following three tests derived from Regulation 55 have been satisfied:

- (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.*'
- (9)(a) – there is '*no satisfactory alternative*' to the derogation; and
- (9)(b) – '*the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range*.'

3.3.2 LPAs have a statutory duty under Regulation 7(3)(e) of the Habitat Regulations to consider and determine whether these three tests are likely to be satisfied by planning proposals affecting EPS before granting planning permission. If an EPS mitigation licence is necessary, a licence can be sought once all the necessary planning consents have been granted. Natural England aims to issue a decision on licence applications within 30 working days of submission.

3.3.3 The Bat Mitigation Class Licence (BMCL) scheme allows ecologists to apply to become Registered Consultants to use this licence for low conservation status roosts, i.e. roosts comprising small numbers of seven commonly occurring species. A site registration form must be completed as a condition of the licence and submitted to Natural England at least three weeks before the licensable activities are due to start; Natural England aims to register sites within two weeks of submission.

3.3.4 Baseline survey information supporting EPS mitigation licence applications or BMCL site registrations must be up-to-date and have been completed within the current or most recent optimal season. A suitably experienced

ecologist will be required to undertake a site walkover/check within three months prior to application/registration submission to confirm that conditions have not changed since the most recent survey.

4 SURVEY METHODOLOGY

4.1 Emergence Survey

4.1.1 Two dusk emergence survey visit was undertaken for the detached house on the 16th June and 7th July 2026 by experienced bat surveyors Verity West (2025-86539-SCI-CL18), Jake Morgan (2025-85343-CL17-BAT), Hannah McEwen – a qualifying member of CIEEM - Andy Cruse and Caroline Everett.

4.1.2 The equipment used during surveys included full-spectrum sampling bat detectors (Batlogger M, Batlogger M2 and Wildlife Acoustics Echo Meter Touch 2 Pro bat detector), infrared night vision aids (Nightfox Whisker camera and Sony Handycam) and thermal imaging cameras (Pixfra ARC A613). A still shot of the darkest points/viewpoint of the surveys has been included for all night vision aids in **Appendix 1**.

4.1.3 The surveyors were located on the front driveway at the northern corner, to the east of the main dwelling and to the south in the rear garden, covering all potential roosting features identified - refer to emergence survey plan in **Appendix 2**.

4.1.4 The emergence survey started 15 minutes before sunset and continued for 1 hour and 30 minutes after sunset. Within a five-day period after the survey, the bat call recordings were processed and analysed using the BatExplorer computer software package and the night vision video footage was reviewed in the VLC Media Player.

4.2 Desk Study

4.2.1 The Berks & South Bucks Bat Group (BSBBG) was commissioned to carry out a search of pre-existing records held by them for the site and land within a 2km radius. In addition, the MAGIC website was used to search for previous European Protected Species (EPS) licenses granted within a 2km radius.

4.3 Survey Constraints

4.3.1 There were no significant constraints to the bat emergence survey, which was undertaken during the optimal survey season, i.e. May to August, and in

conditions suitable for bat activity, i.e. dry and calm with air temperatures 10°C or above at sunset (Collins 2023).

4.3.2 This report contains information regarding a mobile species so it will likely be valid for up to 12 months only (CIEEM 2019b).

5 SURVEY FINDINGS

5.1 Overview

5.1.1 The bat emergence survey findings are described below, summarised in the **Tables 1 - 4** below and illustrated in the survey plan in **Appendix 2;** the raw detector data is supplied in **Appendix 3**.

5.2 Desk Study

5.2.1 The BSBBG returned records for at least eight species including common pipistrelle (*P. pipistrellus*), soprano pipistrelle (*P. pygmaeus*), Nathusius' pipistrelle (*Pipistrellus nathusii*), brown long-eared (*Plecotus auritus*), common noctule (*N. noctula*), Daubenton's bat (*Myotis daubentonii*), serotine bat (*Eptesicus serotinus*) and Natterer's bat (*Myotis nattereri*). The closest record include *P. pipistrellus, P. pygmaeus, N. noctula* and *Plecotus sp.* recorded at a property approximately 50 metres to the north-west of the site in August 2018. The most recent record is of *P. pipistrellus and N. noctula* bats recorded during an emergence survey of a residential building approximately 600 metres away on 6th July 2025.

5.2.2 Three bat mitigation licences have been granted within a 2-kilometre radius of the property for three different species including common pipistrelle (*P. pipistrellus*), soprano pipistrelle (*P. pygmaeus*) and brown long-eared bat (*P. auritus*). The nearest licence, approximately 400 metres southeast of the property, covered the destruction of a *P. pipistrellus* and *P. pygmaeus* resting place between 2020 and 2025 (Case ref.: 2020-49294-EPS-MIT).

5.3 Emergence Survey

16th June 2026

5.3.1 No bats were observed or recorded emerging from the house.

Table 1. Weather conditions and survey timings

	Wind (BF0-12)	**Cloud cover (%)**	**Rain**	**Temp start (ºC)**	**Temp end (ºC)**
Weather	1-2	95	Dry	19	16
Start time	21:07	**Sunset time**	21:22	**Finish time**	22:52

Table 2a. Surveyor recordings at Survey Location 1 (VW)

Species	**Recordings***	**Emergences**	**Time of first call after sunset**
Pipistrellus pipistrellus	12	None	22:03 (41 mins)
Pipistrellus pygmaeus	8	None	21:37 (15 mins)
Nyctalus noctula	20	None	21:41 (19 mins)
Myotis sp.	1	None	22:29 (67 mins)

Table 2b. Surveyor recordings at Survey Location 2 (HM)

Species	Recordings*	Emergences	Time of first call after sunset
Pipistrellus pipistrellus	51	None	21:17 (5 mins before sunset)
Pipistrellus pygmaeus	75	None	21:20 (2 mins before sunset)
Nyctalus noctula	19	None	21:41 (19 mins)
Myotis sp.	8	None	21:52 (30 mins)
Plecotus auritus	2	None	22:00 (38 mins)
Eptesicus serotinus	1	None	22:34 (72 mins)

Table 2c. Surveyor recordings at Survey Location 3 (JM)

Species	Recordings*	Emergences	Time of first call after sunset
Pipistrellus pipistrellus	130	None	21:15 (7 mins before sunset)
Pipistrellus pygmaeus	100	None	21:24 (2 mins)
Nyctalus noctula	15	None	21:39 (17 mins)
Plecotus auritus	12	None	21:51 (29 mins)

**recordings are the number of times that the detector was triggered when bat calls were detected.*

5.3.2 The first bat recorded during the survey was a common pipistrelle (*P. pipistrellus*), heard and observed by the surveyor at Location 3 at 21:15 (7 minutes before sunset), commuting in a eastern direction from the south-western side of the rear garden. Soprano pipistrelle (*P. pygmaeus*) bats were frequently recorded by all surveyors; the first was heard by the surveyor at Location 2 at 21:20 (2 minutes before sunset). Noctule (*N. noctula*) bat passes were intermittently heard by all surveyors, with the first noctule (*N. noctula*) bat being recorded by the surveyor at Location 3 at 22:39 (17 minutes after sunset). These timings fall within the typical emergence period for all species, indicating that these species are roosting nearby.

5.3.3 The level of bat activity was high and primarily comprised soprano pipistrelle bats (*P. pygmaeus*), with frequent common pipistrelle (*P. pipistrellus*) and noctule (*N. noctula*) foraging passes across all elevations of the house and within the rear garden.

7th July 2026

5.3.4 No bats were observed or recorded emerging from the house. However, approximately 6-10 soprano pipistrelle (*P. pygmaeus)* bats were seen emerging from the oak tree (*Quercus robur*) within the rear garden, located to the south-west of the house (TN1), between 21:38 and 21:45 (18 minutes after sunset) – refer to **Appendix 2**.

Table 3. Weather conditions and survey timings

	Wind (BF0-12)	Cloud cover (%)	Rain	Temp start (ºC)	Temp end (ºC)
Weather	1-2	10	Dry	28	25
Start time	21:05	**Sunset time**	21:20	**Finish time**	22:50

Table 4a. Surveyor recordings at Survey Location 1 (VW)

Species	Recordings*	Emergences	Time of first call after sunset
Pipistrellus pipistrellus	8	None	21:58 (38 mins)
Pipistrellus pygmaeus	11	None	22:10 (50 mins)

Table 4b. Surveyor recordings at Survey Location 2 (AC)

Species	Recordings*	Emergences	Time of first call after sunset
Pipistrellus pipistrellus	17	None	21:58 (38 mins)
Pipistrellus pygmaeus	63	None	21:30 (10 mins)
Pipistrellus nathusii	1	None	22:37 (77 mins)
Nyctalus noctula	2	None	22:46 (86 mins)
Myotis sp.	1	None	22:20 (60 mins)
Plecotus auritus	1	None	22:32 (72 mins)
Barbastella barbastellus	1	None	21:53 (53 mins)

Table 4c. Surveyor recordings at Survey Location 3 (CE)

Species	Recordings*	Emergences	Time of first call after sunset
Pipistrellus pipistrellus	41	None	21:43 (23 mins)
Pipistrellus pygmaeus	255	None	21:30 (10 mins)
Plecotus auritus	3	None	22:24 (64 mins)

**recordings are the number of times that the detector was triggered when bat calls were detected.*

5.3.5 The first bat recorded during the survey was a soprano pipistrelle (*P. pygmaeus*) that was heard by the surveyors at Location 2 and 3 at 21:30 (10 minutes after sunset), and observed by the surveyor at Location 2 commuting in a north-eastern direction towards the house. Common pipistrelle (*P. pipistrellus*) were frequently recorded by all surveyors; the first was heard by the surveyor at Location 2 at 21:43 (23 minutes after sunset). These timings fall within the typical emergence period for all species, indicating that these species are roosting nearby.

5.3.6 The level of bat activity was high and primarily comprised pipistrelle bat (*Pipistrellus* spp.), with occasional foraging passes from noctule (*N. noctula*), brown long-eared (*Plecotus auritus*) bats foraging passes across all elevations of the house, within the rear garden and along the eastern and western elevations of the property.

6 DISCUSSION AND RECOMMENDATIONS

6.1 Assessment of Bat Roost Status

6.1.1 During the survey, no bats were seen emerging from the detached house. However, common pipistrelle (*P. pipistrellus*), soprano pipistrelle (*P. pygmaeus*) and noctule (*N. noctula*) bats were recorded within the typical emergence time period for these species so presumed to be roosting nearby. Furthermore, approximately 6 – 10 soprano pipistrelle (*P. pygmaeus*) bats were recorded by the surveyor at Location 3, during the emergence survey on the 7th July 2026, emerging from the oak tree (TN1) in the rear garden of the property, to the south-west of the house – refer to **Appendix 2**.

6.1.2 The survey findings, combined with the absence of roosting evidence during the preliminary roost assessment survey findings, provide sufficient confidence that roosting bats are absent from the property. However, there is sufficient evidence that the oak tree (TN1) to the south-west of the detached house, is a confirmed bat roost for at least one species of bat - soprano pipistrelle (*P. pygmaeus*).

6.2 Impact of Proposals and Recommendations

6.2.1 To avoid construction activities resulting in disturbance of the oak tree (*Quercus robur*) (TN1) roost to the south-west of the house, located in the rear garden, protection measures through compliance with a CEMP: Biodiversity is recommended. The document will include measures to protect the tree's health and longevity of the associated roost and avoid direct or indirect disturbance of the roost during the construction phase such as:

- Erection of Heras fencing in advance of construction work with netting to reduce dust reaching the roost site, enclosing Root Protection Areas (RPAs) around the oak tree to the south-west of the house;
- All access of machinery and materials will be via the existing driveway, avoiding soil compaction and damage of root systems of the oak tree and avoiding regular movement of construction workers close to the tree roost that could be disturbing;

- Storing equipment that could cause pollution safely and securely on existing hard standing away from the oak tree;
- Adopting procedures to avoid pollution incidents, e.g. fuel spills or surface runoff; and
- Adopting construction techniques that minimise noise and vibration production and using super silenced plant/machinery where feasible; tasks considered noisy or that cause vibrations will be undertaken inside the property or to the front of the house.

6.2.2 The survey data shows that the development proposals are highly unlikely to result in the damage or destruction of any bat roosts, or to the disturbance of bats occupying roosts in the property and adherence to precautionary measures in a CEMP: Biodiversity will ensure construction activities do not result in disturbance of the tree roost. As such, a European Protected Species Mitigation License will not be required for the planned works to go ahead lawfully.

6.2.3 Bats are highly mobile and therefore it is possible that bats could be present in the future and use the potential roost feature identified. In the unlikely event that bat(s) are discovered during the course of the work, work must stop immediately, and a licensed ecologist must be called to site to provide further advice and attend to the bat(s).

6.2.4 During construction, artificial lighting should be kept to a minimum and if security lighting is required, this should be controlled by passive infrared motion sensors and not be used in the rear garden. In the long-term, external lighting should be avoided wherever possible but if essential, factors such as column height, light source, use of passive infrared motion sensors and light spillage should be considered carefully when designing the lighting. If bright lighting is required, lighting with low or no UV content, e.g. low pressure sodium lights or warm white LED lamps (3000K or below), should be used in place of mercury and metal halides and luminaires or other directional light accessories should be used to ensure that light spillage directly onto the oak tree is avoided (ILP, 2023). Turning off lighting at night will avoid extended periods of time when areas would be lit and this can be tailored to suit human health and safety as well as wildlife needs. These recommendation for a sensitive lighting strategy can also be secured in a CEMP: Biodiversity.

7 REFERENCES

Collins, J. (ed.) (2023). *Bat Surveys for Professional Ecologists – Good Practice Guidelines 4th Edition.* Bat Conservation Trust, London.

Mathews F., Kubasiewicz L.M., Gurnell J., Harrower C.A., McDonald R.A., Shore R.F. (2018). *A Review of the Population and Conservation Status of British Mammals*. A report by the Mammal Society under contract to Natural England, Natural Resources Wales and Scottish Natural Heritage. Natural England, Peterborough. ISBN 978-1-78354-494-3.

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

Reason, P.F. and Wray, S. (2025). *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats.* Chartered Institute of Ecology and Environmental Management, Ampfield.

APPENDIX 1 – DARKEST POINT OF SURVEY FOR NIGHT VISION AIDS

16th June 2026

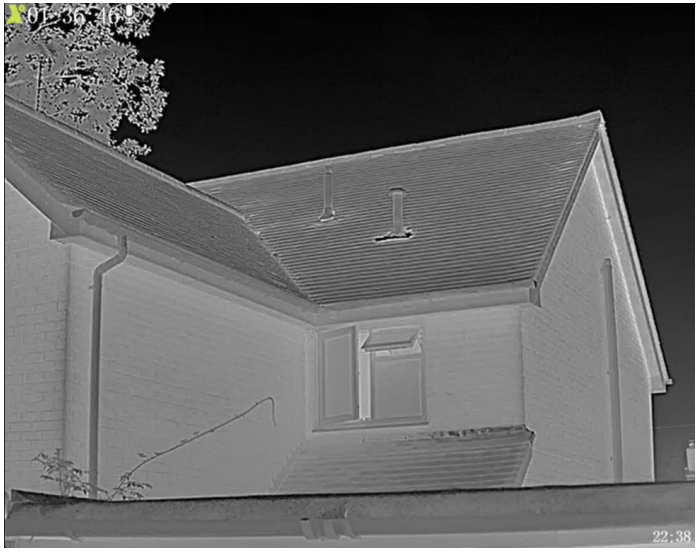
Pixfra A316 at Surveyor Location 1.

Nightfox Whisker at Surveyor Location 2.

Sionyx Aurora Pro at Surveyor Location 3

7th July 2026

Pixfra A316 at Surveyor Location 1.



Pixfra A316 at Surveyor Location 2.

Sony Handycam at Surveyor Location 3

APPENDIX 2 – BAT EMERGENCE SURVEY FINDINGS

Drawn by:	Date	Scale:	62 London Road Twyford	JOHNWENMAN ecological consultancy
LH	July 2026	Not to scale	Bat Emergence Survey Findings	

APPENDIX 3 – BAT EMERGENCE SURVEY RAW DATA TABLES

16th June 2026

Surveyor at Location 1 (Batlogger M2)

Time	Species	Number of recordings [#]
21:37	*Pipistrellus pygmaeus*	8
21:41	*Nyctalus noctula*	5
21:41	*Nyctalus noctula*	1
21:42	*Nyctalus noctula*	3
21:42	*Nyctalus noctula*	9
21:42	*Nyctalus noctula*	3
21:43	*Nyctalus noctula*	2
21:47	*Nyctalus noctula*	9
21:47	*Nyctalus noctula*	8
21:56	*Nyctalus noctula*	3
21:57	*Nyctalus noctula*	4
21:59	*Nyctalus noctula*	2
21:59	*Nyctalus noctula*	9
21:59	*Nyctalus noctula*	6
21:59	*Nyctalus noctula*	8
21:59	*Nyctalus noctula*	4
22:03	*Pipistrellus pipistrellus*	18
22:07	*Pipistrellus pygmaeus*	8
22:12	*Pipistrellus pygmaeus*	3
22:18	*Nyctalus noctula*	9
22:18	*Nyctalus noctula*	5
22:18	*Nyctalus noctula*	4
22:20	*Nyctalus noctula*	5
22:26	*Nyctalus noctula*	18
22:29	*Pipistrellus pipistrellus*	17
22:29	*Myotis sp.*	9
22:30	*Pipistrellus pygmaeus*	15
22:31	*Pipistrellus pipistrellus*	5
22:32	*Pipistrellus pygmaeus*	2
22:33	*Pipistrellus pygmaeus*	2
22:34	*Pipistrellus pipistrellus*	1
22:37	*Pipistrellus pygmaeus*	0*
22:39	*Pipistrellus pipistrellus*	8
22:45	*Pipistrellus pipistrellus*	1
22:45	*Pipistrellus pipistrellus*	24
22:45	*Pipistrellus pipistrellus*	6
22:48	*Pipistrellus pipistrellus*	0*
22:48	*Pipistrellus pipistrellus*	11

22:49	*Pipistrellus pipistrellus*	11
22:51	*Pipistrellus pygmaeus*	30
22:51	*Pipistrellus pipistrellus*	4

Surveyor at Location 2 (Batlogger M2)

Time	Species	Number of calls [#]
21:17	*Pipistrellus pipistrellus*	12
21:20	*Pipistrellus pipistrellus*	2
21:20	*Pipistrellus pygmaeus*	5
21:22	*Pipistrellus pygmaeus*	4
21:22	*Pipistrellus pygmaeus*	1
21:22	*Pipistrellus pipistrellus*	1
21:22	*Pipistrellus pipistrellus*	2
21:23	*Pipistrellus pygmaeus*	6
21:24	*Pipistrellus pygmaeus*	2
21:24	*Pipistrellus pipistrellus*	9
21:24	*Pipistrellus pipistrellus*	9
21:25	*Pipistrellus pygmaeus*	6
21:25	*Pipistrellus pipistrellus*	8
21:26	*Pipistrellus pipistrellus*	11
21:28	*Pipistrellus pipistrellus*	9
21:29	*Pipistrellus pipistrellus*	7
21:29	*Pipistrellus pygmaeus*	8
21:29	*Pipistrellus pipistrellus*	13
21:29	*Pipistrellus pipistrellus*	8
21:30	*Pipistrellus pygmaeus*	7
21:31	*Pipistrellus pygmaeus*	8
21:31	*Pipistrellus pipistrellus*	9
21:31	*Pipistrellus pygmaeus*	8
21:32	*Pipistrellus pygmaeus*	9
21:32	*Pipistrellus pygmaeus*	3
21:32	*Pipistrellus pygmaeus*	3
21:33	*Pipistrellus pygmaeus*	4
21:34	*Pipistrellus pygmaeus*	4
21:35	*Pipistrellus pipistrellus*	5
21:35	*Pipistrellus pygmaeus*	8
21:35	*Pipistrellus pygmaeus*	3
21:36	*Pipistrellus pygmaeus*	3
21:36	*Pipistrellus pygmaeus*	5
21:36	*Pipistrellus pygmaeus*	2
21:36	*Pipistrellus pipistrellus*	4
21:36	*Pipistrellus pygmaeus*	4
21:36	*Pipistrellus pipistrellus*	3
21:37	*Pipistrellus pipistrellus*	2

21:37	*Pipistrellus pipistrellus*	5
21:37	*Pipistrellus pygmaeus*	6
21:37	*Pipistrellus pipistrellus*	4
21:37	*Pipistrellus pygmaeus*	6
21:37	*Pipistrellus pygmaeus*	1
21:38	*Pipistrellus pygmaeus*	3
21:38	*Pipistrellus pygmaeus*	5
21:38	*Pipistrellus pygmaeus*	3
21:39	*Pipistrellus pipistrellus*	3
21:39	*Pipistrellus pygmaeus*	5
21:39	*Pipistrellus pygmaeus*	5
21:39	*Pipistrellus pygmaeus*	5
21:39	*Pipistrellus pipistrellus*	14
21:40	*Pipistrellus pygmaeus*	13
21:40	*Pipistrellus pygmaeus*	11
21:41	*Nyctalus noctula*	1
21:41	*Nyctalus noctula*	5
21:41	*Nyctalus noctula*	6
21:41	*Pipistrellus pipistrellus*	6
21:41	*Nyctalus noctula*	2
21:42	*Nyctalus noctula*	2
21:42	*Nyctalus noctula*	1
21:42	*Nyctalus noctula*	3
21:42	*Pipistrellus pygmaeus*	1
21:42	*Pipistrellus pygmaeus*	8
21:43	*Pipistrellus pygmaeus*	6
21:43	*Pipistrellus pygmaeus*	2
21:44	*Pipistrellus pygmaeus*	2
21:45	*Pipistrellus pygmaeus*	5
21:46	*Pipistrellus pipistrellus*	13
21:47	*Nyctalus noctula*	4
21:47	*Nyctalus noctula*	6
21:47	*Nyctalus noctula*	4
21:48	*Pipistrellus pipistrellus*	4
21:48	*Nyctalus noctula*	2
21:48	*Pipistrellus pipistrellus*	2
21:48	*Pipistrellus pygmaeus*	1
21:48	*Pipistrellus pygmaeus*	5
21:51	*Pipistrellus pygmaeus*	6
21:52	*Myotis spec.*	6
21:52	*Pipistrellus pygmaeus*	6
21:54	*Pipistrellus pygmaeus*	2
21:54	*Myotis spec.*	9
21:56	*Myotis spec.*	12
21:57	*Nyctalus noctula*	3

21:58	*Nyctalus noctula*	2
21:58	*Myotis spec.*	7
21:59	*Nyctalus noctula*	3
21:59	*Nyctalus noctula*	4
21:59	*Nyctalus noctula*	6
22:00	*Plecotus auritus*	9
22:00	*Pipistrellus pygmaeus*	9
22:01	*Pipistrellus pygmaeus*	7
22:03	*Pipistrellus pipistrellus*	8
22:06	*Pipistrellus pygmaeus*	26
22:06	*Pipistrellus pipistrellus*	13
22:11	*Pipistrellus pipistrellus*	10
22:12	*Pipistrellus pygmaeus*	7
22:14	*Pipistrellus pygmaeus*	8
22:15	*Myotis spec.*	19
22:18	*Nyctalus noctula*	12
22:19	*Pipistrellus pygmaeus*	11
22:20	*Pipistrellus pygmaeus*	16
22:21	*Pipistrellus pygmaeus*	2
22:21	*Myotis spec.*	13
22:22	*Pipistrellus pipistrellus*	13
22:24	*Pipistrellus pipistrellus*	23
22:26	*Pipistrellus pipistrellus*	6
22:26	*Nyctalus noctula*	21
22:27	*Nyctalus noctula*	1
22:27	*Pipistrellus pipistrellus*	3
22:28	*Pipistrellus pygmaeus*	11
22:28	*Pipistrellus pygmaeus*	11
22:28	*Pipistrellus pipistrellus*	5
22:28	*Pipistrellus pygmaeus*	12
22:29	*Pipistrellus pipistrellus*	4
22:29	*Pipistrellus pygmaeus*	3
22:30	*Pipistrellus pygmaeus*	6
22:31	*Plecotus auritus*	4
22:31	*Pipistrellus pipistrellus*	6
22:32	*Pipistrellus pygmaeus*	10
22:32	*Pipistrellus pygmaeus*	23
22:32	*Pipistrellus pygmaeus*	2
22:32	*Pipistrellus pygmaeus*	14
22:32	*Pipistrellus pygmaeus*	8
22:32	*Pipistrellus pygmaeus*	15
22:32	*Pipistrellus pygmaeus*	4
22:32	*Pipistrellus pygmaeus*	2
22:32	*Pipistrellus pygmaeus*	9
22:33	*Pipistrellus pygmaeus*	13

22:34	*Eptesicus serotinus*	4
22:34	*Pipistrellus pygmaeus*	21
22:35	*Myotis spec.*	12
22:37	*Pipistrellus pygmaeus*	5
22:37	*Pipistrellus pygmaeus*	23
22:38	*Pipistrellus pygmaeus*	13
22:39	*Pipistrellus pipistrellus*	10
22:39	*Pipistrellus pipistrellus*	18
22:40	*Pipistrellus pipistrellus*	11
22:40	*Pipistrellus pipistrellus*	7
22:40	*Pipistrellus pipistrellus*	9
22:40	*Myotis spec.*	5
22:43	*Pipistrellus pygmaeus*	19
22:45	*Pipistrellus pipistrellus*	39
22:45	*Pipistrellus pipistrellus*	35
22:45	*Pipistrellus pipistrellus*	14
22:47	*Pipistrellus pipistrellus*	29
22:47	*Pipistrellus pipistrellus*	7
22:49	*Pipistrellus pipistrellus*	5
22:49	*Pipistrellus pygmaeus*	21
22:49	*Pipistrellus pygmaeus*	13
22:49	*Pipistrellus pipistrellus*	22
22:50	*Pipistrellus pygmaeus*	2
22:50	*Pipistrellus pipistrellus*	1
22:51	*Pipistrellus pygmaeus*	13
22:51	*Pipistrellus pipistrellus*	41
22:51	*Pipistrellus pipistrellus*	30

Surveyor at Location 3 (Batlogger M2)

Time	**Species**	**Number of calls [#]**
21:01	*Noise*	0
21:15	*Pipistrellus pipistrellus*	13
21:15	*Pipistrellus pipistrellus*	1
21:16	*Pipistrellus pipistrellus*	9
21:16	*Pipistrellus pipistrellus*	8
21:18	*Pipistrellus pipistrellus*	9
21:18	*Pipistrellus pipistrellus*	9
21:20	*Pipistrellus pipistrellus*	11
21:21	*Pipistrellus pipistrellus*	19
21:21	*Pipistrellus pipistrellus*	7
21:21	*Pipistrellus pipistrellus*	17
21:22	*Pipistrellus pipistrellus*	8
21:22	*Pipistrellus pipistrellus*	11
21:23	*Pipistrellus pipistrellus*	4

21:23	*Pipistrellus pipistrellus*	10
21:23	*Pipistrellus pipistrellus*	3
21:24	*Pipistrellus pipistrellus*	13
21:24	*Pipistrellus pipistrellus*	9
21:24	*Pipistrellus pipistrellus*	13
21:24	*Pipistrellus pygmaeus*	12
21:25	*Pipistrellus pygmaeus*	7
21:25	*Pipistrellus pipistrellus*	12
21:25	*Pipistrellus pygmaeus*	5
21:26	*Pipistrellus pipistrellus*	14
21:27	*Pipistrellus pipistrellus*	11
21:27	*Pipistrellus pygmaeus*	5
21:27	*Pipistrellus pygmaeus*	3
21:27	*Pipistrellus pygmaeus*	9
21:28	*Pipistrellus pygmaeus*	1
21:28	*Pipistrellus pipistrellus*	14
21:28	*Pipistrellus pygmaeus*	3
21:28	*Pipistrellus pygmaeus*	8
21:28	*Pipistrellus pygmaeus*	9
21:28	*Pipistrellus pygmaeus*	7
21:28	*Pipistrellus pygmaeus*	2
21:28	*Pipistrellus pipistrellus*	7
21:28	*Pipistrellus pygmaeus*	11
21:28	*Pipistrellus pipistrellus*	10
21:28	*Pipistrellus pygmaeus*	3
21:29	*Pipistrellus pygmaeus*	4
21:29	*Pipistrellus pipistrellus*	4
21:29	*Pipistrellus pygmaeus*	1
21:29	*Pipistrellus pygmaeus*	7
21:29	*Pipistrellus pipistrellus*	12
21:29	*Pipistrellus pygmaeus*	5
21:29	*Pipistrellus pygmaeus*	4
21:29	*Pipistrellus pipistrellus*	10
21:29	*Pipistrellus pipistrellus*	11
21:30	*Pipistrellus pipistrellus*	22
21:30	*Pipistrellus pipistrellus*	9
21:30	*Pipistrellus pipistrellus*	2
21:31	*Pipistrellus pipistrellus*	16
21:31	*Pipistrellus pygmaeus*	8
21:31	*Pipistrellus pipistrellus*	6
21:32	*Pipistrellus pipistrellus*	1
21:32	*Pipistrellus pygmaeus*	13
21:32	*Pipistrellus pygmaeus*	5
21:32	*Pipistrellus pipistrellus*	2
21:33	*Pipistrellus pygmaeus*	12

21:33	*Pipistrellus pipistrellus*	10
21:33	*Pipistrellus pygmaeus*	13
21:34	*Pipistrellus pipistrellus*	8
21:34	*Pipistrellus pipistrellus*	18
21:34	*Pipistrellus pipistrellus*	10
21:34	*Pipistrellus pipistrellus*	21
21:34	*Pipistrellus pipistrellus*	9
21:34	*Pipistrellus pipistrellus*	3
21:35	*Pipistrellus pipistrellus*	6
21:35	*Pipistrellus pipistrellus*	13
21:35	*Pipistrellus pipistrellus*	11
21:35	*Pipistrellus pipistrellus*	7
21:35	*Pipistrellus pipistrellus*	6
21:35	*Pipistrellus pipistrellus*	36
21:35	*Pipistrellus pipistrellus*	5
21:35	*Pipistrellus pipistrellus*	15
21:36	*Pipistrellus pipistrellus*	6
21:36	*Pipistrellus pipistrellus*	13
21:36	*Pipistrellus pipistrellus*	11
21:36	*Pipistrellus pipistrellus*	14
21:36	*Pipistrellus pipistrellus*	16
21:36	*Pipistrellus pipistrellus*	4
21:36	*Pipistrellus pygmaeus*	5
21:36	*Pipistrellus pygmaeus*	3
21:36	*Pipistrellus pygmaeus*	27
21:37	*Pipistrellus pygmaeus*	45
21:37	*Pipistrellus pipistrellus*	6
21:37	*Pipistrellus pipistrellus*	18
21:37	*Pipistrellus pipistrellus*	10
21:37	*Pipistrellus pipistrellus*	14
21:38	*Pipistrellus pygmaeus*	5
21:38	*Pipistrellus pipistrellus*	14
21:38	*Pipistrellus pipistrellus*	31
21:38	*Pipistrellus pipistrellus*	19
21:39	*Pipistrellus pipistrellus*	6
21:39	*Pipistrellus pygmaeus*	7
21:39	*Pipistrellus pipistrellus*	24
21:39	*Noise*	1
21:39	*Pipistrellus pygmaeus*	15
21:39	*Pipistrellus pygmaeus*	1
21:39	*Pipistrellus pygmaeus*	8
21:39	*Nyctalus noctula*	5
21:39	*Nyctalus noctula*	5
21:40	*Pipistrellus pipistrellus*	10
21:40	*Pipistrellus pipistrellus*	32

21:40	*Nyctalus noctula*	7
21:40	*Pipistrellus pygmaeus*	4
21:41	*Pipistrellus pygmaeus*	14
21:41	*Pipistrellus pygmaeus*	10
21:41	*Pipistrellus pipistrellus*	12
21:41	*Pipistrellus pygmaeus*	11
21:41	*Pipistrellus pipistrellus*	8
21:41	*Nyctalus noctula*	5
21:41	*Pipistrellus pygmaeus*	6
21:41	*Nyctalus noctula*	2
21:41	*Pipistrellus pygmaeus*	15
21:42	*Pipistrellus pygmaeus*	3
21:42	*Pipistrellus pygmaeus*	3
21:42	*Pipistrellus pygmaeus*	0*
21:43	*Pipistrellus pygmaeus*	3
21:43	*Pipistrellus pygmaeus*	28
21:43	*Pipistrellus pipistrellus*	15
21:43	*Pipistrellus pipistrellus*	9
21:43	*Pipistrellus pipistrellus*	13
21:43	*Pipistrellus pipistrellus*	7
21:43	*Pipistrellus pipistrellus*	6
21:43	*Pipistrellus pipistrellus*	7
21:44	*Pipistrellus pygmaeus*	11
21:44	*Pipistrellus pipistrellus*	13
21:45	*Pipistrellus pipistrellus*	6
21:46	*Pipistrellus pipistrellus*	11
21:47	*Pipistrellus pipistrellus*	2
21:47	*Pipistrellus pipistrellus*	12
21:47	*Pipistrellus pipistrellus*	26
21:47	*Pipistrellus pipistrellus*	14
21:47	*Pipistrellus pipistrellus*	9
21:47	*Pipistrellus pygmaeus*	11
21:47	*Pipistrellus pipistrellus*	2
21:48	*Pipistrellus pipistrellus*	11
21:48	*Pipistrellus pipistrellus*	7
21:49	*Pipistrellus pygmaeus*	2
21:49	*Pipistrellus pygmaeus*	3
21:49	*Pipistrellus pygmaeus*	6
21:49	*Pipistrellus pipistrellus*	16
21:50	*Pipistrellus pygmaeus*	4
21:50	*Pipistrellus pipistrellus*	12
21:51	*Nyctalus noctula*	3
21:51	*Nyctalus noctula*	2
21:51	*Plecotus auritus*	18
21:51	*Pipistrellus pygmaeus*	15

21:52	*Pipistrellus pygmaeus*	5
21:52	*Pipistrellus pygmaeus*	6
21:52	*Pipistrellus pipistrellus*	8
21:53	*Plecotus auritus*	9
21:53	*Pipistrellus pipistrellus*	9
21:53	*Pipistrellus pygmaeus*	8
21:54	*Pipistrellus pygmaeus*	10
21:54	*Plecotus auritus*	13
21:56	*Pipistrellus pygmaeus*	19
21:56	*Noise*	1
21:58	*Nyctalus noctula*	13
21:58	*Nyctalus noctula*	7
21:58	*Nyctalus noctula*	7
21:58	*Pipistrellus pipistrellus*	12
21:58	*Pipistrellus pipistrellus*	1
21:58	*Plecotus auritus*	1
21:58	*Plecotus auritus*	9
21:59	*Pipistrellus pipistrellus*	16
21:59	*Pipistrellus pipistrellus*	9
22:01	*Pipistrellus pipistrellus*	3
22:04	*Plecotus auritus*	14
22:04	*Pipistrellus pipistrellus*	12
22:04	*Pipistrellus pipistrellus*	6
22:05	*Pipistrellus pipistrellus*	15
22:05	*Pipistrellus pygmaeus*	7
22:05	*Plecotus auritus*	17
22:05	*Pipistrellus pygmaeus*	10
22:06	*Noise*	0
22:06	*Noise*	0
22:07	*Pipistrellus pipistrellus*	6
22:07	*Pipistrellus pygmaeus*	3
22:07	*Pipistrellus pygmaeus*	6
22:07	*Pipistrellus pygmaeus*	2
22:08	*Plecotus auritus*	15
22:09	*Pipistrellus pygmaeus*	1
22:09	*Pipistrellus pygmaeus*	0*
22:10	*Pipistrellus pygmaeus*	3
22:10	*Pipistrellus pygmaeus*	3
22:10	*Pipistrellus pipistrellus*	16
22:10	*Pipistrellus pygmaeus*	11
22:12	*Pipistrellus pygmaeus*	0*
22:13	*Pipistrellus pipistrellus*	10
22:13	*Pipistrellus pygmaeus*	2
22:13	*Plecotus auritus*	21
22:14	*Pipistrellus pygmaeus*	2

22:14	*Pipistrellus pygmaeus*	1
22:14	*Pipistrellus pygmaeus*	1
22:15	*Pipistrellus pygmaeus*	2
22:15	*Pipistrellus pygmaeus*	2
22:16	*Pipistrellus pygmaeus*	7
22:16	*Pipistrellus pygmaeus*	3
22:17	*Nyctalus noctula*	11
22:17	*Pipistrellus pygmaeus*	11
22:18	*Pipistrellus pipistrellus*	14
22:18	*Pipistrellus pygmaeus*	1
22:18	*Pipistrellus pygmaeus*	3
22:19	*Nyctalus noctula*	7
22:19	*Nyctalus noctula*	1
22:19	*Pipistrellus pygmaeus*	8
22:19	*Pipistrellus pygmaeus*	16
22:19	*Pipistrellus pygmaeus*	11
22:19	*Pipistrellus pygmaeus*	23
22:20	*Plecotus auritus*	25
22:20	*Pipistrellus pipistrellus*	15
22:21	*Nyctalus noctula*	4
22:23	*Pipistrellus pipistrellus*	21
22:25	*Pipistrellus pipistrellus*	1
22:25	*Pipistrellus pipistrellus*	3
22:25	*Pipistrellus pipistrellus*	1
22:25	*Nyctalus noctula*	14
22:26	*Pipistrellus pygmaeus*	13
22:27	*Pipistrellus pygmaeus*	9
22:27	*Pipistrellus pipistrellus*	14
22:27	*Pipistrellus pygmaeus*	9
22:27	*Pipistrellus pygmaeus*	26
22:28	*Plecotus auritus*	4
22:28	*Pipistrellus pygmaeus*	2
22:29	*Pipistrellus pygmaeus*	11
22:30	*Pipistrellus pygmaeus*	50
22:31	*Pipistrellus pygmaeus*	7
22:31	*Pipistrellus pygmaeus*	41
22:31	*Pipistrellus pygmaeus*	15
22:31	*Pipistrellus pygmaeus*	10
22:31	*Pipistrellus pygmaeus*	18
22:32	*Plecotus auritus*	15
22:32	*Pipistrellus pygmaeus*	4
22:33	*Pipistrellus pygmaeus*	6
22:33	*Pipistrellus pipistrellus*	30
22:33	*Pipistrellus pygmaeus*	4
22:35	*Noise*	0

22:35	*Noise*	0
22:36	*Pipistrellus pipistrellus*	15
22:36	*Pipistrellus pygmaeus*	2
22:37	*Pipistrellus pipistrellus*	7
22:37	*Pipistrellus pipistrellus*	3
22:38	*Pipistrellus pipistrellus*	22
22:38	*Pipistrellus pipistrellus*	30
22:42	*Pipistrellus pygmaeus*	11
22:42	*Pipistrellus pipistrellus*	18
22:42	*Pipistrellus pipistrellus*	11
22:43	*Pipistrellus pipistrellus*	43
22:44	*Pipistrellus pipistrellus*	10
22:44	*Pipistrellus pipistrellus*	2
22:44	*Pipistrellus pipistrellus*	6
22:44	*Pipistrellus pipistrellus*	15
22:45	*Pipistrellus pipistrellus*	1
22:45	*Pipistrellus pipistrellus*	9
22:46	*Pipistrellus pipistrellus*	8
22:48	*Pipistrellus pipistrellus*	52
22:49	*Pipistrellus pipistrellus*	2
22:49	*Pipistrellus pipistrellus*	0*
22:50	*Pipistrellus pipistrellus*	14
22:50	*Pipistrellus pipistrellus*	19
22:50	*Pipistrellus pygmaeus*	22
22:50	*Pipistrellus pipistrellus*	12

7th July 2026

Surveyor at Location 1 (Batlogger M2)

Time	Species	Number of calls [#]
21:58	*Pipistrellus pygmaeus*	14
22:08	*Pipistrellus pygmaeus*	3
22:08	*Pipistrellus pygmaeus*	4
22:10	*Pipistrellus pipistrellus*	5
22:10	*Pipistrellus pipistrellus*	4
22:11	*Pipistrellus pipistrellus*	10
22:15	*Pipistrellus pipistrellus*	3
22:19	*Pipistrellus pygmaeus*	18
22:21	*Pipistrellus pipistrellus*	5
22:21	*Pipistrellus pipistrellus*	9
22:21	*Pipistrellus pipistrellus*	9
22:27	*Pipistrellus pipistrellus*	24
22:35	*Pipistrellus pygmaeus*	7
22:35	*Pipistrellus pygmaeus*	7
22:35	*Pipistrellus pygmaeus*	3

22:38	*Pipistrellus pipistrellus*	2
22:42	*Pipistrellus pygmaeus*	2
22:49	*Pipistrellus pipistrellus*	6
22:49	*Pipistrellus pipistrellus*	12

Surveyor at Location 2 (Wildlife Acoustics EMT2 Pro)

Time	Species	Number of calls [#]
21:01:50	*Pipistrellus pygmaeus*	1
21:24:09	*Pipistrellus pygmaeus*	1
21:30:16	*Pipistrellus pipistrellus*	1
21:38:08	*Pipistrellus pygmaeus*	1
21:41:14	*Pipistrellus pygmaeus*	1
21:43:22	*Pipistrellus pygmaeus*	1
21:44:10	*Pipistrellus pygmaeus*	1
21:44:22	*Pipistrellus pygmaeus*	1
21:47:08	*Pipistrellus pygmaeus*	1
21:47:46	*Pipistrellus pipistrellus*	1
21:49:58	*Pipistrellus pygmaeus*	1
21:50:56	*Pipistrellus pipistrellus*	1
21:53:24	*Pipistrellus pygmaeus*	1
21:53:45	*Pipistrellus pipistrellus*	1
21:53:49	*Pipistrellus pipistrellus*	1
21:54:00	*Pipistrellus pygmaeus*	1
21:54:53	*Pipistrellus pygmaeus*	1
21:55:57	*Pipistrellus pygmaeus*	1
21:56:09	*Pipistrellus pygmaeus*	1
21:56:18	*Pipistrellus pygmaeus*	1
21:56:28	*Pipistrellus pygmaeus*	1
21:56:38	*Myotis sp.*	1
21:58:37	*Pipistrellus pipistrellus*	1
21:59:07	*Pipistrellus pipistrellus*	1
22:03:21	*Pipistrellus pygmaeus*	1
22:03:29	*Pipistrellus pygmaeus*	1
22:05:23	*Pipistrellus pipistrellus*	1
22:05:48	*Pipistrellus pygmaeus*	1
22:06:50	*Pipistrellus pygmaeus*	1
22:08:07	*Pipistrellus pipistrellus*	1
22:09:12	*Pipistrellus pipistrellus*	1
22:10:31	*Pipistrellus pipistrellus*	1
22:11:25	*Pipistrellus pygmaeus*	1
22:11:39	*Pipistrellus pipistrellus*	1
22:12:10	*Pipistrellus pygmaeus*	1
22:15:25	*Plecotus auritus*	1
22:16:31	*Pipistrellus pygmaeus*	1

22:18:38	*Pipistrellus pygmaeus*	1
22:18:49	*Pipistrellus pygmaeus*	1
22:19:06	*Pipistrellus pygmaeus*	1
22:19:58	*Pipistrellus pygmaeus*	1
22:20:24	*Pipistrellus pygmaeus*	1
22:20:36	*Pipistrellus pygmaeus*	1
22:21:05	*Pipistrellus pygmaeus*	1
22:21:26	*Pipistrellus pygmaeus*	1
22:21:37	*Pipistrellus pygmaeus*	1
22:23:37	*Pipistrellus pygmaeus*	1
22:23:49	*Pipistrellus nathusii*	1
22:24:18	*Pipistrellus pygmaeus*	1
22:25:56	*Pipistrellus pipistrellus*	1
22:26:11	*Pipistrellus pipistrellus*	1
22:26:50	*Pipistrellus pipistrellus*	1
22:27:20	*Pipistrellus pygmaeus*	1
22:27:25	*Pipistrellus pygmaeus*	1
22:27:32	*Pipistrellus pygmaeus*	1
22:27:56	*Pipistrellus pygmaeus*	1
22:28:20	*Pipistrellus pygmaeus*	1
22:28:43	*Pipistrellus pygmaeus*	1
22:29:14	*Pipistrellus pygmaeus*	1
22:31:56	*Pipistrellus pygmaeus*	1
22:32:04	*Pipistrellus pygmaeus*	1
22:32:13	*Pipistrellus pygmaeus*	1
22:32:40	*Nyctalus noctula*	1
22:32:54	*Nyctalus noctula*	1
22:33:00	*Pipistrellus pygmaeus*	1
22:33:29	*Pipistrellus pygmaeus*	1
22:33:38	*Pipistrellus pygmaeus*	1
22:34:21	*Pipistrellus pygmaeus*	1
22:35:05	*Pipistrellus pygmaeus*	1
22:35:22	*Pipistrellus pygmaeus*	1
22:35:32	*Pipistrellus pygmaeus*	1
22:35:58	*Pipistrellus pipistrellus*	1
22:37:02	*Pipistrellus pygmaeus*	1
22:37:18	*Pipistrellus pygmaeus*	1
22:38:08	*Pipistrellus pygmaeus*	1
22:38:18	*Pipistrellus pygmaeus*	1
22:38:28	*Pipistrellus pygmaeus*	1
22:39:00	*Pipistrellus pygmaeus*	1
22:39:26	*Pipistrellus pipistrellus*	1
22:39:44	*Pipistrellus pygmaeus*	1
22:41:42	*Pipistrellus pipistrellus*	1
22:41:53	*Pipistrellus pygmaeus*	1

22:42:00	*Pipistrellus pipistrellus*	1
22:42:44	*Pipistrellus pipistrellus*	1
22:43:07	*Pipistrellus pygmaeus*	1
22:43:18	*Pipistrellus pygmaeus*	1
22:46:41	*Pipistrellus pygmaeus*	1
22:46:51	*Pipistrellus pygmaeus*	1
22:48:11	*Pipistrellus pygmaeus*	1
22:48:35	*Pipistrellus pygmaeus*	1
22:48:54	*Myotis spec.*	1
22:49:35	*Pipistrellus pipistrellus*	1
22:50:11	*Pipistrellus pipistrellus*	1

Surveyor at Location 3 (Batlogger M2)

Time	Species	Number of calls [#]
21:30	*Pipistrellus pygmaeus*	11
21:32	*Pipistrellus pygmaeus*	20
21:32	*Pipistrellus pygmaeus*	9
21:33	*Pipistrellus pygmaeus*	10
21:37	*Pipistrellus pygmaeus*	2
21:38	*Pipistrellus pygmaeus*	23
21:38	*Pipistrellus pygmaeus*	9
21:38	*Pipistrellus pygmaeus*	12
21:38	*Pipistrellus pygmaeus*	12
21:39	*Pipistrellus pygmaeus*	4
21:39	*Pipistrellus pygmaeus*	12
21:39	*Pipistrellus pygmaeus*	10
21:39	*Pipistrellus pygmaeus*	20
21:40	*Pipistrellus pygmaeus*	6
21:40	*Pipistrellus pygmaeus*	6
21:41	*Pipistrellus pygmaeus*	3
21:41	*Pipistrellus pygmaeus*	8
21:41	*Pipistrellus pygmaeus*	9
21:42	*Pipistrellus pygmaeus*	2
21:42	*Pipistrellus pygmaeus*	4
21:42	*Pipistrellus pygmaeus*	8
21:43	*Pipistrellus pipistrellus*	5
21:43	*Pipistrellus pygmaeus*	5
21:43	*Pipistrellus pipistrellus*	7
21:43	*Pipistrellus pipistrellus*	19
21:43	*Pipistrellus pygmaeus*	5
21:43	*Pipistrellus pipistrellus*	12
21:43	*Pipistrellus pygmaeus*	1
21:44	*Pipistrellus pygmaeus*	5
21:44	*Pipistrellus pipistrellus*	13

21:44	*Pipistrellus pygmaeus*	6
21:44	*Pipistrellus pygmaeus*	8
21:44	*Pipistrellus pipistrellus*	9
21:45	*Pipistrellus pygmaeus*	14
21:46	*Pipistrellus pygmaeus*	4
21:46	*Pipistrellus pygmaeus*	7
21:46	*Pipistrellus pygmaeus*	12
21:47	*Pipistrellus pygmaeus*	8
21:47	*Pipistrellus pygmaeus*	2
21:47	*Pipistrellus pygmaeus*	5
21:47	*Pipistrellus pygmaeus*	6
21:47	*Pipistrellus pygmaeus*	7
21:47	*Pipistrellus pygmaeus*	9
21:47	*Pipistrellus pygmaeus*	6
21:48	*Pipistrellus pygmaeus*	6
21:48	*Pipistrellus pygmaeus*	7
21:49	*Pipistrellus pygmaeus*	10
21:49	*Pipistrellus pygmaeus*	16
21:49	*Pipistrellus pygmaeus*	6
21:50	*Pipistrellus pygmaeus*	10
21:50	*Pipistrellus pygmaeus*	4
21:50	*Pipistrellus pipistrellus*	7
21:50	*Pipistrellus pygmaeus*	22
21:51	*Pipistrellus pygmaeus*	4
21:51	*Pipistrellus pygmaeus*	1
21:51	*Pipistrellus pipistrellus*	13
21:52	*Pipistrellus pygmaeus*	1
21:52	*Pipistrellus pipistrellus*	36
21:52	*Pipistrellus pipistrellus*	21
21:53	*Pipistrellus pygmaeus*	5
21:53	*Pipistrellus pipistrellus*	22
21:53	*Pipistrellus pipistrellus*	30
21:53	*Pipistrellus pygmaeus*	4
21:53	*Pipistrellus pygmaeus*	13
21:53	*Pipistrellus pipistrellus*	28
21:53	*Pipistrellus pygmaeus*	7
21:53	*Pipistrellus pipistrellus*	44
21:54	*Pipistrellus pygmaeus*	7
21:54	*Pipistrellus pipistrellus*	18
21:54	*Pipistrellus pipistrellus*	16
21:54	*Pipistrellus pipistrellus*	27
21:54	*Pipistrellus pygmaeus*	12
21:54	*Pipistrellus pygmaeus*	3
21:55	*Pipistrellus pygmaeus*	10
21:55	*Pipistrellus pygmaeus*	26

21:56	*Pipistrellus pygmaeus*	9
21:56	*Pipistrellus pipistrellus*	30
21:56	*Pipistrellus pygmaeus*	13
21:57	*Pipistrellus pipistrellus*	6
21:57	*Pipistrellus pygmaeus*	13
21:57	*Pipistrellus pygmaeus*	44
21:57	*Pipistrellus pygmaeus*	37
21:58	*Pipistrellus pygmaeus*	29
21:58	*Pipistrellus pygmaeus*	2
21:58	*Pipistrellus pygmaeus*	33
21:58	*Pipistrellus pipistrellus*	14
21:58	*Pipistrellus pygmaeus*	10
21:59	*Pipistrellus pygmaeus*	8
21:59	*Pipistrellus pygmaeus*	8
21:59	*Pipistrellus pygmaeus*	9
21:59	*Pipistrellus pygmaeus*	23
22:00	*Pipistrellus pipistrellus*	16
22:00	*Pipistrellus pygmaeus*	19
22:01	*Pipistrellus pygmaeus*	16
22:01	*Pipistrellus pygmaeus*	4
22:01	*Pipistrellus pipistrellus*	14
22:02	*Pipistrellus pygmaeus*	10
22:02	*Pipistrellus pygmaeus*	18
22:03	*Pipistrellus pygmaeus*	9
22:03	*Pipistrellus pipistrellus*	9
22:03	*Pipistrellus pygmaeus*	10
22:03	*Pipistrellus pygmaeus*	12
22:03	*Pipistrellus pygmaeus*	20
22:04	*Pipistrellus pygmaeus*	30
22:04	*Pipistrellus pygmaeus*	8
22:04	*Pipistrellus pygmaeus*	19
22:05	*Pipistrellus pygmaeus*	19
22:05	*Pipistrellus pygmaeus*	27
22:06	*Pipistrellus pygmaeus*	20
22:06	*Pipistrellus pygmaeus*	6
22:06	*Pipistrellus pygmaeus*	10
22:06	*Pipistrellus pygmaeus*	2
22:06	*Pipistrellus pygmaeus*	24
22:07	*Pipistrellus pygmaeus*	6
22:07	*Pipistrellus pygmaeus*	2
22:08	*Pipistrellus pygmaeus*	26
22:08	*Pipistrellus pygmaeus*	11
22:08	*Pipistrellus pygmaeus*	9
22:09	*Pipistrellus pygmaeus*	10
22:09	*Pipistrellus pygmaeus*	9

22:10	*Pipistrellus pipistrellus*	21
22:10	*Pipistrellus pygmaeus*	9
22:11	*Pipistrellus pygmaeus*	6
22:11	*Pipistrellus pygmaeus*	17
22:11	*Pipistrellus pygmaeus*	7
22:11	*Pipistrellus pipistrellus*	17
22:12	*Pipistrellus pygmaeus*	13
22:12	*Pipistrellus pygmaeus*	16
22:12	*Pipistrellus pygmaeus*	28
22:12	*Pipistrellus pygmaeus*	61
22:12	*Pipistrellus pygmaeus*	28
22:13	*Pipistrellus pygmaeus*	3
22:13	*Pipistrellus pygmaeus*	50
22:13	*Pipistrellus pygmaeus*	5
22:13	*Pipistrellus pygmaeus*	35
22:13	*Pipistrellus pygmaeus*	1
22:13	*Pipistrellus pygmaeus*	26
22:13	*Pipistrellus pygmaeus*	28
22:14	*Pipistrellus pygmaeus*	14
22:14	*Pipistrellus pygmaeus*	18
22:14	*Pipistrellus pygmaeus*	13
22:14	*Pipistrellus pygmaeus*	34
22:14	*Pipistrellus pygmaeus*	15
22:15	*Pipistrellus pygmaeus*	9
22:15	*Pipistrellus pipistrellus*	27
22:15	*Pipistrellus pygmaeus*	4
22:15	*Pipistrellus pygmaeus*	12
22:15	*Pipistrellus pipistrellus*	8
22:15	*Pipistrellus pygmaeus*	6
22:15	*Pipistrellus pygmaeus*	2
22:16	*Pipistrellus pygmaeus*	14
22:16	*Pipistrellus pygmaeus*	49
22:16	-	1
22:16	*Pipistrellus pygmaeus*	42
22:17	*Pipistrellus pygmaeus*	19
22:17	*Pipistrellus pygmaeus*	13
22:17	*Pipistrellus pygmaeus*	27
22:17	*Pipistrellus pygmaeus*	17
22:18	*Pipistrellus pygmaeus*	40
22:19	*Pipistrellus pygmaeus*	9
22:19	*Pipistrellus pygmaeus*	16
22:20	*Pipistrellus pygmaeus*	20
22:20	*Pipistrellus pygmaeus*	32
22:20	*Pipistrellus pygmaeus*	1
22:20	*Pipistrellus pygmaeus*	18

22:20	*Pipistrellus pygmaeus*	23
22:20	*Pipistrellus pipistrellus*	17
22:21	*Pipistrellus pipistrellus*	14
22:21	*Pipistrellus pygmaeus*	11
22:21	*Pipistrellus pipistrellus*	27
22:21	*Pipistrellus pipistrellus*	17
22:21	*Pipistrellus pygmaeus*	24
22:22	*Pipistrellus pygmaeus*	28
22:22	*Pipistrellus pipistrellus*	8
22:22	*Pipistrellus pygmaeus*	11
22:22	*Pipistrellus pipistrellus*	25
22:22	*Pipistrellus pygmaeus*	10
22:22	*Pipistrellus pygmaeus*	24
22:22	*Pipistrellus pygmaeus*	10
22:23	*Pipistrellus pygmaeus*	15
22:23	*Pipistrellus pygmaeus*	22
22:23	*Pipistrellus pygmaeus*	5
22:23	*Pipistrellus pygmaeus*	22
22:24	*Pipistrellus pygmaeus*	22
22:24	*Pipistrellus pygmaeus*	16
22:24	*Pipistrellus pygmaeus*	5
22:24	*Plecotus auritus*	3
22:24	-	1
22:25	*Plecotus auritus*	5
22:25	*Pipistrellus pygmaeus*	37
22:25	*Pipistrellus pygmaeus*	3
22:25	*Pipistrellus pygmaeus*	7
22:25	*Pipistrellus pygmaeus*	12
22:25	*Pipistrellus pygmaeus*	16
22:26	*Pipistrellus pygmaeus*	12
22:26	*Pipistrellus pygmaeus*	19
22:26	*Pipistrellus pygmaeus*	4
22:26	*Pipistrellus pygmaeus*	14
22:26	*Pipistrellus pygmaeus*	37
22:26	*Pipistrellus pygmaeus*	11
22:27	*Pipistrellus pygmaeus*	28
22:27	*Pipistrellus pygmaeus*	38
22:27	*Pipistrellus pipistrellus*	16
22:27	*Pipistrellus pygmaeus*	22
22:27	*Pipistrellus pipistrellus*	19
22:28	*Pipistrellus pygmaeus*	8
22:28	*Pipistrellus pygmaeus*	1
22:28	*Pipistrellus pipistrellus*	21
22:28	*Pipistrellus pygmaeus*	45
22:28	*Pipistrellus pygmaeus*	42

22:29	*Pipistrellus pygmaeus*	14
22:29	*Pipistrellus pygmaeus*	30
22:29	*Pipistrellus pygmaeus*	22
22:29	*Pipistrellus pipistrellus*	34
22:30	*Pipistrellus pygmaeus*	1
22:30	*Pipistrellus pygmaeus*	38
22:30	*Pipistrellus pygmaeus*	11
22:30	*Pipistrellus pygmaeus*	11
22:30	*Pipistrellus pygmaeus*	26
22:30	*Pipistrellus pygmaeus*	29
22:31	*Pipistrellus pygmaeus*	7
22:31	*Pipistrellus pygmaeus*	47
22:31	*Pipistrellus pygmaeus*	30
22:31	*Pipistrellus pygmaeus*	31
22:31	*Pipistrellus pygmaeus*	5
22:32	*Plecotus auritus*	9
22:32	*Pipistrellus pygmaeus*	10
22:32	*Pipistrellus pygmaeus*	9
22:32	*Pipistrellus pygmaeus*	13
22:32	*Pipistrellus pipistrellus*	8
22:32	*Pipistrellus pygmaeus*	40
22:32	*Pipistrellus pygmaeus*	90
22:33	*Pipistrellus pipistrellus*	3
22:33	*Pipistrellus pygmaeus*	28
22:33	*Pipistrellus pygmaeus*	4
22:33	*Pipistrellus pygmaeus*	4
22:33	*Pipistrellus pygmaeus*	72
22:33	*Pipistrellus pygmaeus*	35
22:33	*Pipistrellus pygmaeus*	21
22:34	*Pipistrellus pygmaeus*	7
22:34	*Pipistrellus pygmaeus*	4
22:34	*Pipistrellus pygmaeus*	5
22:34	*Pipistrellus pygmaeus*	18
22:34	*Pipistrellus pygmaeus*	46
22:34	*Pipistrellus pygmaeus*	47
22:35	*Pipistrellus pygmaeus*	30
22:35	*Pipistrellus pygmaeus*	5
22:35	*Pipistrellus pygmaeus*	8
22:35	*Pipistrellus pygmaeus*	22
22:35	*Pipistrellus pygmaeus*	24
22:35	*Pipistrellus pygmaeus*	15
22:36	*Pipistrellus pygmaeus*	9
22:36	*Pipistrellus pygmaeus*	17
22:37	*Pipistrellus pygmaeus*	1
22:37	*Pipistrellus pygmaeus*	6

22:37	*Pipistrellus pygmaeus*	26
22:37	*Pipistrellus pygmaeus*	45
22:38	*Pipistrellus pipistrellus*	30
22:38	*Pipistrellus pygmaeus*	19
22:39	*Pipistrellus pygmaeus*	12
22:39	*Pipistrellus pygmaeus*	8
22:39	*Pipistrellus pygmaeus*	51
22:39	*Pipistrellus pygmaeus*	18
22:40	*Pipistrellus pipistrellus*	4
22:41	*Pipistrellus pygmaeus*	29
22:41	*Pipistrellus pygmaeus*	39
22:41	*Pipistrellus pygmaeus*	23
22:42	*Pipistrellus pygmaeus*	25
22:42	*Pipistrellus pygmaeus*	10
22:42	*Pipistrellus pygmaeus*	18
22:42	*Pipistrellus pygmaeus*	28
22:42	*Pipistrellus pygmaeus*	22
22:42	*Pipistrellus pygmaeus*	30
22:42	*Pipistrellus pygmaeus*	21
22:42	*Pipistrellus pygmaeus*	4
22:43	*Pipistrellus pygmaeus*	82
22:43	*Pipistrellus pygmaeus*	43
22:43	*Pipistrellus pygmaeus*	2
22:43	*Pipistrellus pygmaeus*	13
22:43	*Pipistrellus pygmaeus*	3
22:44	*Pipistrellus pygmaeus*	32
22:44	*Pipistrellus pygmaeus*	7
22:44	*Pipistrellus pygmaeus*	17
22:45	*Pipistrellus pygmaeus*	3
22:45	*Pipistrellus pygmaeus*	40
22:45	*Pipistrellus pygmaeus*	69
22:46	*Pipistrellus pygmaeus*	18
22:46	*Pipistrellus pygmaeus*	14
22:47	*Pipistrellus pygmaeus*	13
22:48	*Pipistrellus pygmaeus*	4
22:48	*Pipistrellus pygmaeus*	99
22:48	*Pipistrellus pygmaeus*	13
22:48	*Pipistrellus pygmaeus*	11
22:48	*Pipistrellus pygmaeus*	42
22:49	*Pipistrellus pygmaeus*	16
22:49	*Pipistrellus pygmaeus*	16
22:49	*Pipistrellus pygmaeus*	17
22:49	*Pipistrellus pygmaeus*	34
22:49	*Pipistrellus pygmaeus*	11
22:50	*Pipistrellus pygmaeus*	22

22:50	*Pipistrellus pygmaeus*	30

^NB. The number of calls per recording that are calculated by the BatExplorer and AnalookW Software during analysis of the data.
** 0 calls is when the software has not been able to recognise individual calls (it being distant) and therefore cannot calculate the number of calls within the recording.*

APPENDIX 4 – EXISTING AND PROPOSED DRAWINGS

Existing Front Elevation

Existing Side 1 Elevation

Existing Rear Elevation

Existing Side 2 Elevation

All dimensions are to be checked on site before work commences.
Figured dimensions to be taken in preference to scaled dimensions.
If in doubt please ask.

Site boundary shown as described by the client. Site surroundings based upon the site survey and OS Map.

All to be read in conjunction with all other relevant information produced by Holtham+Newman Architects.

© Copyright reserved 2026.

0m 1m 2m 3m 4m 5m 6m
1:100 Scale Bar

HOLTHAM+NEWMAN
ARCHITECTS
The Design Studio, Lockey Farm,
Sindlesham Road, Arborfield,
Reading, Berkshire RG2 9JH
T: 07971 316497
E: hello@hnarchitects.co.uk

Project:
62 London Road
Twyford
RG10 9EY

Client
Mr and Mrs Thornton

Drawing Title:
Existing Elevations

Scale: 1:100 @A3
Drawn by: LN
Date: Jan 2026
Dwg. No.: 2547 - S200
Rev.: P2

Rev.	Notes	Date	Initial
P2	Issue for planning	22/01/26	LN

Status: Planning

Proposed Front Elevation

Proposed Side 1 Elevation

Proposed Rear Elevation

Proposed Side 2 Elevation

All dimensions are to be checked on site before work commences.
Figured dimensions to be taken in preference to scaled dimensions.
If in doubt please ask.

Site boundary shown as described by the client. Site surroundings based upon the site survey and OS Map.

All to be read in conjunction with all other relevant information produced by Holtham+Newman Architects.

© Copyright reserved 2026.

0m 1m 2m 3m 4m 5m 6m
1:100 Scale Bar

HOLTHAM+NEWMAN
ARCHITECTS

The Design Studio, Lockey Farm,
Sindlesham Road, Arborfield,
Reading, Berkshire RG2 9JH
T: 07971 316497
E: hello@hnarchitects.co.uk

Client
Mr and Mrs Thornton

Drawing Title:
Proposed Elevations

Project:
62 London Road
Twyford
RG10 9EY

Scale: 1:100 @A3	Dwg. No.: 2547 - P200	Rev.: P2	
Drawn by: LN			
Date: Jan 2026			

Rev	Notes	Date	Initial
P2	Updated for Planning	29/01/26	LN
P1	Updated for Comment	22/01/26	LN

Status: Planning