

354 Barkham Road
Barkham
Wokingham
RG41 4DE

Bat Emergence Survey

Report ref.: R2890_BES_a

Report Quality Control Information	
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1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was instructed by Matt Claughton to undertake a Bat Emergence Survey at 354 Barkham Road in Barkham, Wokingham. The survey was commissioned to accompany a householder application to be submitted to Wokingham Borough Council seeking consent for extensions and alterations to the existing bungalow.
- 1.1.2** The Bat Emergence Survey follows a Preliminary Roost Assessment for bats (PRA) conducted by John Wenman Ecological Consultancy in March 2025 (Report ref.: R2890_BES_a). Due to the nature and scale of the potential roost sites, the bungalow is considered to have the potential to support opportunistic/transitional use by individual small crevice-dwelling bats and as such, has been classified as low suitability. In line with a minor justified deviation from the standard approach in the good practice guidelines (Collins 2023), one dusk emergence survey visit was undertaken on the 30th April 2025 and preceded by a thorough endoscopic inspection.
- 1.1.3** No bats were recorded emerging from the property during the emergence survey, which was completed during April when any transitional/occasional use would be expected to be detected. The property may also be used as an occasional day roost during the recognised summer bat activity period (i.e. May to August) and although the survey time deviates from the good practice guidelines recommendation for such summer use presence/absence surveys by just a single day, the survey was undertaken in conditions suitable for bat activity (and unseasonably warm for the time of year), i.e. dry and calm with an air temperature significantly above 10°C at sunset, and recorded activity from four different species. Furthermore, no evidence of roosting bats was found during a thorough inspection with an industrial endoscopic camera which preceded the emergence survey. Therefore, these survey findings together are considered to provide sufficient confidence that roosting bats are currently absent from the low suitability potential roost sites identified externally on the property.
- 1.1.4** The survey data demonstrates that the householder application is highly unlikely to result in the damage or destruction of a bat roost and lead to the disturbance and/or harm of bats. As such, a European Protected Species (EPS) mitigation licence would not be required for the planning works to go ahead lawfully.
- 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 Claughton to undertake a Bat Emergence Survey at 354 Barkham Road in Barkham, Wokingham. The survey was commissioned to accompany a householder application to be submitted to Wokingham Borough Council seeking consent for extensions and alterations to the existing bungalow.

2.1.2 The Bat Emergence Survey follows a Preliminary Roost Assessment for bats (PRA) conducted by John Wenman Ecological Consultancy in March 2025 (Report ref.: R2890_BES_a). The PRA report states the following:

'Externally, the roof of the bungalow had a few potential roost sites which were considered to provide conditions suitable only for opportunistic/transitional use by small crevice-dwelling bat species, such as the locally recorded common pipistrelle and soprano pipistrelle. These potential roost sites were confined to crumbling ridge and hip mortar and narrow gaps associated with timber barge boards on the half-hipped gables and front gable.'

2.1.3 *Due to the nature and scale of the potential roost sites, the bungalow is considered to have the potential to support opportunistic/transitional use by individual small crevice-dwelling bats and as such, has been classified as low suitability.'*

2.1.4 The PRA report recommends the following:

'One dusk emergence survey visit should be undertaken in April (in suitable weather conditions) to determine the presence or likely absence of a bat roost; minor deviation from the standard approach in the good practice guidelines (Collins 2023) has been recommended because the May to August survey window is not deemed optimal in this case, as the potential roost sites are considered more likely to be used in an occasional/transitional capacity. Additional survey visits between May and August (i.e. optimal survey season) and spaced a minimum of three weeks apart may be required if bat presence is confirmed.'

2.2 Site Location and Context

2.2.1 The property is a bungalow located on the southern side of Barkham Road in Barkham, Wokingham (central OS grid reference: SU 7882 6734).

- 2.2.2** The bungalow is set amongst other suburban properties situated along Barkham Road and has deciduous woodland at the bottom of its garden. Countryside extends to the south of the property and is characterised by agricultural fields and pasture with hedgerows/treelines, occasional woodland parcels and the Barkham Brook (approx. 740m southwest).

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 Background Data Search

- 4.1.1** The Berks & South Bucks Bat Group were commissioned to undertake a search of their records within a 2 kilometre radius of the property.

4.2 Emergence Survey

- 4.2.1** In line with the minor deviation from the standard approach in the good practice guidelines (Collins 2023), one dusk emergence survey visit was undertaken on the 30th April by experience bat surveyors Conor Watson ACIEEM (CL18: 2024-11877-CL18-BAT) and Meghan Porter (CL17: 2023-11300-CL17-BAT). The two surveyors covered all aspects of the property during the survey – refer to emergence survey plan in **Section 5** below.

- 4.2.2** The equipment used during the survey included full-spectrum sampling bat detectors (Batlogger M & M2) and infrared/thermal imaging night vision aids (Nightfox Whisker binoculars & Sionyx Pro with infrared floodlights/torches). A still shot of the darkest point of the survey has been included for all night vision aids in **Appendix 1**.

- 4.2.3** 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 VLC media player.

4.3 Endoscopic Inspection

- 4.3.1** The bat emergence survey was preceded by a thorough inspection with an industrial endoscopic camera of the narrow gaps associated with timber barge boards on the half-hipped gables and front gable by Conor Watson ACIEEM (CL18: 2024-11877-CL18-BAT). The only other potential roost sites – crumbling ridge and hip mortar – were not accessible for endoscopic inspection.

4.4 Survey Limitations and Report Validity

- 4.4.1** There were no significant constraints to the bat emergence survey, except that the survey time deviates from the good practice guidelines recommendation for presence/absence surveys, i.e. May to August (Collins 2023). However, the survey falls outside the recommended presence/absence survey window by just a single day (albeit in a period of unseasonably hot weather with dry and calm conditions with an air

temperature significantly above 10°C at sunset on the survey day) and this deviation is justified as it covers the recommended survey time for transitional/occasional roosts, i.e. April, and also considering the warm conditions, would be expected to detect day roost use also (Collins 2023).

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

5 SURVEY RESULTS

5.1 Overview

- 5.1.1** The results from the Berks & South Bucks Bat Group data search are detailed below. The bat emergence survey findings are described, summarised in **Tables 1 & 2** and illustrated in **Figure 1** below; the raw detector data is supplied in **Appendix 2**. The endoscopic inspection findings are described with **Photographs 1 & 2** below.

5.2 Background Data Search

- 5.2.1** The data search revealed that at least eight species have been recorded locally within the last 10 years: serotine (*Eptesicus serotinus*), Daubenton's bat (*Myotis daubentonii*), Natterer's bat (*Myotis nattereri*), noctule (*Nyctalus noctula*), Nathusius' pipistrelle (*Pipistrellus nathusii*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared (*Plecotus auritus*).
- 5.2.2** The nearest roost record is approximately 0.1 kilometres northeast, at another residential property on Barkham Road, where a common pipistrelle (*P. pipistrellus*) returned to roost behind hanging tiles on a dormer window in August 2016. The next nearest record is approximately 0.1 kilometres northwest, at a residential property on Thorn Close, where circa 50 droppings – resembling those typically deposited by a long-eared bat (*Plecotus* sp.) – were found in the loft space in April 2018.

5.3 Emergence Survey

30th April 2025

- 5.3.1** No bats were recorded emerging from the property.

Table 1. Weather conditions and survey timings

Weather	Wind (BF0-12)	Cloud cover (oktas)	Rain	Temperature (°C)	
	1	0/8	None	Start	Finish
Start	20:09	Sunset	20:24	Finish	21:54

Table 2a. Surveyor recordings at location 1

Species	Recordings*	Emergences†	Time of first call (minutes after sunset)
Common pipistrelle	146	0	20:32 (8)
Noctule	12	0	20:54 (30)

Table 2b. Surveyor recordings at location 2

Species	Recordings*	Emergences†	Time of first call (minutes after sunset)
Common pipistrelle	242	0	20:32 (8)

Soprano pipistrelle	10	0	20:40 (16)
Noctule	23	0	20:49 (25)
Serotine	2	0	21:39 (75)

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

†confirmed by direct observation and/or night vision aid.

5.3.2 The first bat was a common pipistrelle (*P. pipistrellus*) detected by both surveyors at 20:32 and directly observed from location 2 commuting north to south at tree canopy level; the bat was considered likely to have emerged from roost nearby. Common pipistrelle (*P. pipistrellus*) activity was quite regular until after 21:00, as individual bats were observed foraging at the tree canopy level along Barkham Road before commuting southwards; a maternity colony was considered likely to be located in the surrounding area. There was intermittent foraging activity around the bungalow as well.

5.3.3 There was some consistent noctule (*N. noctula*) activity where individual bats were observed commuting and/or foraging high above the bungalow. Furthermore, the surveyor at location 2 detected the occasional soprano pipistrelle (*P. pygmaeus*) throughout the survey and a couple of distant serotine (*E. serotinus*) passes towards the end.

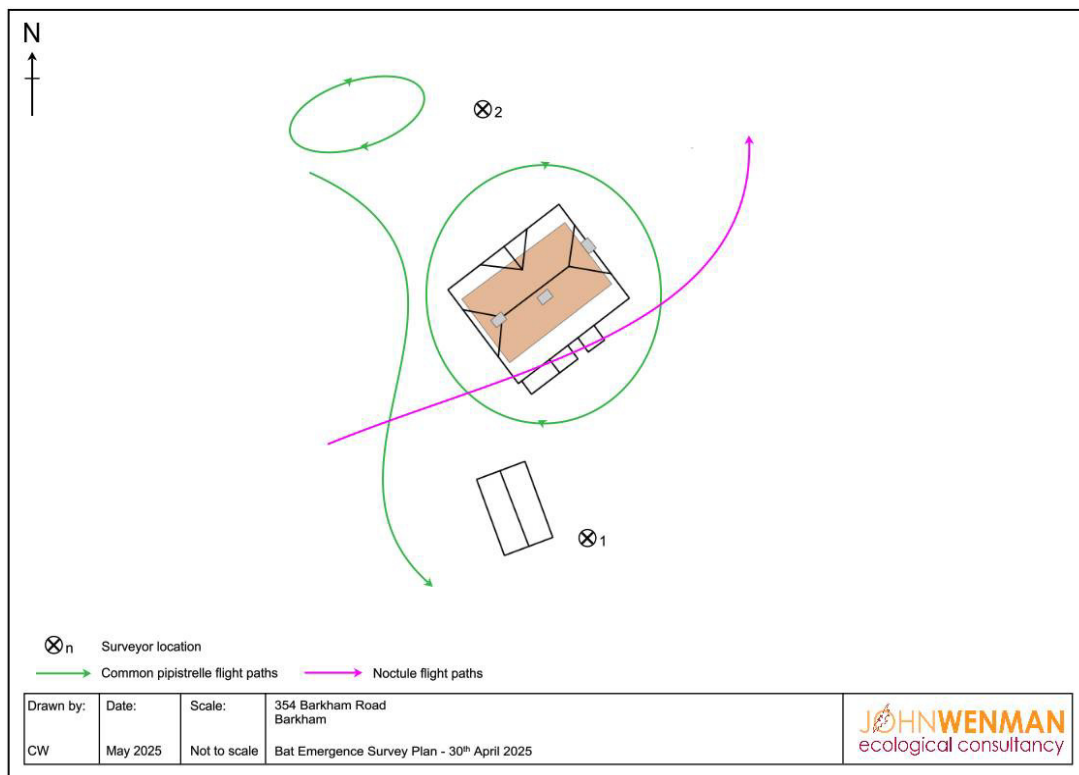


Figure 1. Bat Emergence Survey Plan on 30th April 2025.

5.4 Endoscopic Inspection

- 5.4.1 A thorough inspection with an industrial endoscopic camera found no evidence of roosting bats inside the narrow gaps associated with timber barge boards on the half-hipped gables and front gable (**Photographs 1 & 2**).



Photograph 1. Endoscope behind barge board.



Photograph 2. Endoscope behind barge board.

6 DISCUSSION

6.1 Assessment of Bat Presence/Absence

6.1.1 No bats were recorded emerging from the property during the emergence survey on the 30th April 2025. Although the survey time deviates from the good practice guidelines recommendation for presence/absence surveys by just a single day, this deviation is justified as it covers the recommended survey time for transitional/occasional roosts, i.e. April (Collins 2023). Furthermore, the survey was undertaken in unseasonably hot weather for the time of year, conditions considered suitable for bat activity, i.e. dry and calm with an air temperature significantly above 10°C at sunset, and recorded activity from four different species.

6.1.2 No evidence of roosting bats was found during a thorough inspection with an industrial endoscopic camera which preceded the emergence survey. These survey findings are considered to provide sufficient confidence that roosting bats are currently absent from the low suitability potential roost sites identified externally on the property.

6.2 Conclusion

6.2.1 The survey data demonstrates that the householder application, which involves extensions and alterations to the existing bungalow, is highly unlikely to result in the damage or destruction of a bat roost and lead to the disturbance and/or harm of bats. As such, a European Protected Species (EPS) mitigation licence would not be required for the planning works to go ahead lawfully.

6.2.2 In the unlikely event that bats are encountered during construction, the works must stop immediately, and a suitably licensed ecologist should be called to site to attend to the bat and provide advice on how to proceed; works should not continue until further written advice has been received. At this stage, an EPS mitigation licence may be required to permit the works to recommence lawfully.

7 REFERENCES

CIEEM (2019b). *Advice Note on the Lifespan of Ecological Reports and Surveys*. CIEEM, Winchester.

Collins, J (ed.) (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*. The 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.

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

Reason, P.F. and Wray, S. (2023). *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats*. CIEEM, Ampfield.

APPENDIX 1 – DARKEST POINT OF SURVEY FOR NIGHT VISION AIDS

30th April 2025



Nightfox Whisker at Surveyor Location 1.



Sionyx Pro at Surveyor Location 2.

APPENDIX 2 – BAT EMERGENCE SURVEY RAW DATA TABLES

30th April 2025

Surveyor location 1 – Batlogger M2

Time	Species	Calls [#]
20:32:24	<i>Pipistrellus pipistrellus</i>	4
20:41:51	<i>Pipistrellus pipistrellus</i>	10
20:42:26	<i>Pipistrellus pipistrellus</i>	3
20:44:59	<i>Pipistrellus pipistrellus</i>	5
20:46:13	<i>Pipistrellus pipistrellus</i>	28
20:46:25	<i>Pipistrellus pipistrellus</i>	10
20:46:32	<i>Pipistrellus pipistrellus</i>	1
20:46:53	<i>Pipistrellus pipistrellus</i>	2
20:46:58	<i>Pipistrellus pipistrellus</i>	2
20:47:18	<i>Pipistrellus pipistrellus</i>	18
20:47:29	<i>Pipistrellus pipistrellus</i>	44
20:47:44	<i>Pipistrellus pipistrellus</i>	33
20:47:58	<i>Pipistrellus pipistrellus</i>	40
20:48:13	<i>Pipistrellus pipistrellus</i>	56
20:48:28	<i>Pipistrellus pipistrellus</i>	18
20:48:36	<i>Pipistrellus pipistrellus</i>	13
20:48:40	<i>Pipistrellus pipistrellus</i>	36
20:48:54	<i>Pipistrellus pipistrellus</i>	44
20:49:10	<i>Pipistrellus pipistrellus</i>	5
20:49:14	<i>Pipistrellus pipistrellus</i>	37
20:49:26	<i>Pipistrellus pipistrellus</i>	14
20:49:36	<i>Pipistrellus pipistrellus</i>	6
20:49:44	<i>Pipistrellus pipistrellus</i>	1
20:50:16	<i>Pipistrellus pipistrellus</i>	2
20:51:19	<i>Pipistrellus pipistrellus</i>	26
20:51:35	<i>Pipistrellus pipistrellus</i>	9
20:51:49	<i>Pipistrellus pipistrellus</i>	15
20:53:18	<i>Pipistrellus pipistrellus</i>	6
20:53:41	<i>Pipistrellus pipistrellus</i>	5
20:53:46	<i>Pipistrellus pipistrellus</i>	20
20:54:17	<i>Nyctalus noctula</i>	6
20:54:24	<i>Pipistrellus pipistrellus</i>	10
20:54:52	<i>Pipistrellus pipistrellus</i>	4
20:55:08	<i>Nyctalus noctula</i>	20
20:56:29	<i>Nyctalus noctula</i>	14
20:57:18	<i>Pipistrellus pipistrellus</i>	8
20:57:21	<i>Pipistrellus pipistrellus</i>	5
20:58:18	<i>Nyctalus noctula</i>	16
20:58:27	<i>Pipistrellus pipistrellus</i>	4
20:58:42	<i>Pipistrellus pipistrellus</i>	10
20:58:49	<i>Pipistrellus pipistrellus</i>	18

20:59:06	<i>Pipistrellus pipistrellus</i>	5
20:59:09	<i>Pipistrellus pipistrellus</i>	9
20:59:13	<i>Pipistrellus pipistrellus</i>	14
20:59:23	<i>Pipistrellus pipistrellus</i>	1
20:59:54	<i>Nyctalus noctula</i>	7
21:00:52	<i>Pipistrellus pipistrellus</i>	7
21:00:57	<i>Nyctalus noctula</i>	18
21:01:45	<i>Pipistrellus pipistrellus</i>	17
21:02:03	<i>Pipistrellus pipistrellus</i>	4
21:02:52	<i>Pipistrellus pipistrellus</i>	16
21:02:55	<i>Pipistrellus pipistrellus</i>	12
21:03:39	<i>Nyctalus noctula</i>	24
21:04:56	<i>Pipistrellus pipistrellus</i>	14
21:08:38	<i>Pipistrellus pipistrellus</i>	18
21:09:08	<i>Pipistrellus pipistrellus</i>	1
21:09:17	<i>Pipistrellus pipistrellus</i>	7
21:09:29	<i>Pipistrellus pipistrellus</i>	13
21:09:34	<i>Pipistrellus pipistrellus</i>	11
21:09:41	<i>Pipistrellus pipistrellus</i>	5
21:10:29	<i>Pipistrellus pipistrellus</i>	6
21:10:36	<i>Pipistrellus pipistrellus</i>	16
21:10:40	<i>Pipistrellus pipistrellus</i>	5
21:11:26	<i>Pipistrellus pipistrellus</i>	5
21:11:31	<i>Pipistrellus pipistrellus</i>	4
21:11:46	<i>Pipistrellus pipistrellus</i>	18
21:11:59	<i>Pipistrellus pipistrellus</i>	17
21:12:14	<i>Pipistrellus pipistrellus</i>	5
21:12:20	<i>Pipistrellus pipistrellus</i>	12
21:12:26	<i>Pipistrellus pipistrellus</i>	4
21:12:43	<i>Pipistrellus pipistrellus</i>	4
21:12:48	<i>Pipistrellus pipistrellus</i>	6
21:12:53	<i>Pipistrellus pipistrellus</i>	2
21:12:58	<i>Pipistrellus pipistrellus</i>	2
21:13:01	<i>Pipistrellus pipistrellus</i>	3
21:13:09	<i>Pipistrellus pipistrellus</i>	7
21:13:21	<i>Pipistrellus pipistrellus</i>	2
21:13:26	<i>Pipistrellus pipistrellus</i>	14
21:13:34	<i>Pipistrellus pipistrellus</i>	2
21:13:50	<i>Pipistrellus pipistrellus</i>	1
21:13:54	<i>Pipistrellus pipistrellus</i>	10
21:14:01	<i>Pipistrellus pipistrellus</i>	9
21:14:07	<i>Pipistrellus pipistrellus</i>	3

21:14:10	<i>Pipistrellus pipistrellus</i>	6
21:14:13	<i>Pipistrellus pipistrellus</i>	12
21:14:20	<i>Pipistrellus pipistrellus</i>	5
21:14:23	<i>Pipistrellus pipistrellus</i>	5
21:14:26	<i>Pipistrellus pipistrellus</i>	3
21:14:30	<i>Pipistrellus pipistrellus</i>	5
21:15:13	<i>Pipistrellus pipistrellus</i>	0
21:15:16	<i>Pipistrellus pipistrellus</i>	3
21:15:37	<i>Pipistrellus pipistrellus</i>	5
21:15:48	<i>Pipistrellus pipistrellus</i>	12
21:16:07	<i>Pipistrellus pipistrellus</i>	13
21:16:28	<i>Pipistrellus pipistrellus</i>	4
21:16:35	<i>Pipistrellus pipistrellus</i>	8
21:16:47	<i>Pipistrellus pipistrellus</i>	8
21:16:58	<i>Pipistrellus pipistrellus</i>	7
21:18:00	<i>Pipistrellus pipistrellus</i>	4
21:19:01	<i>Pipistrellus pipistrellus</i>	5
21:19:33	<i>Pipistrellus pipistrellus</i>	12
21:19:53	<i>Pipistrellus pipistrellus</i>	3
21:20:11	<i>Pipistrellus pipistrellus</i>	4
21:20:16	<i>Pipistrellus pipistrellus</i>	1
21:20:26	<i>Pipistrellus pipistrellus</i>	15
21:20:34	<i>Pipistrellus pipistrellus</i>	6
21:20:45	<i>Pipistrellus pipistrellus</i>	6
21:20:50	<i>Pipistrellus pipistrellus</i>	2
21:20:53	<i>Pipistrellus pipistrellus</i>	7
21:21:03	<i>Pipistrellus pipistrellus</i>	9
21:21:11	<i>Pipistrellus pipistrellus</i>	6
21:21:14	<i>Pipistrellus pipistrellus</i>	7
21:21:16	<i>Pipistrellus pipistrellus</i>	6
21:21:35	<i>Nyctalus noctula</i>	5
21:21:56	<i>Pipistrellus pipistrellus</i>	3
21:22:24	<i>Pipistrellus pipistrellus</i>	2
21:22:46	<i>Pipistrellus pipistrellus</i>	8
21:22:49	<i>Pipistrellus pipistrellus</i>	9
21:24:34	<i>Pipistrellus pipistrellus</i>	15
21:24:39	<i>Pipistrellus pipistrellus</i>	8
21:27:06	<i>Pipistrellus pipistrellus</i>	7

21:27:13	<i>Pipistrellus pipistrellus</i>	10
21:28:30	<i>Pipistrellus pipistrellus</i>	3
21:28:50	<i>Pipistrellus pipistrellus</i>	6
21:28:54	<i>Pipistrellus pipistrellus</i>	3
21:29:06	<i>Pipistrellus pipistrellus</i>	9
21:29:18	<i>Pipistrellus pipistrellus</i>	4
21:29:29	<i>Pipistrellus pipistrellus</i>	5
21:29:36	<i>Pipistrellus pipistrellus</i>	5
21:30:09	<i>Pipistrellus pipistrellus</i>	11
21:30:18	<i>Pipistrellus pipistrellus</i>	3
21:30:32	<i>Pipistrellus pipistrellus</i>	10
21:30:36	<i>Pipistrellus pipistrellus</i>	8
21:30:49	<i>Pipistrellus pipistrellus</i>	10
21:30:54	<i>Pipistrellus pipistrellus</i>	2
21:31:16	<i>Pipistrellus pipistrellus</i>	2
21:32:19	<i>Nyctalus noctula</i>	12
21:33:12	<i>Pipistrellus pipistrellus</i>	3
21:33:44	<i>Pipistrellus pipistrellus</i>	5
21:33:50	<i>Pipistrellus pipistrellus</i>	1
21:33:55	<i>Pipistrellus pipistrellus</i>	6
21:34:11	<i>Pipistrellus pipistrellus</i>	11
21:34:30	<i>Pipistrellus pipistrellus</i>	10
21:34:39	<i>Pipistrellus pipistrellus</i>	10
21:36:28	<i>Pipistrellus pipistrellus</i>	4
21:41:00	<i>Pipistrellus pipistrellus</i>	9
21:41:15	<i>Pipistrellus pipistrellus</i>	12
21:45:15	<i>Pipistrellus pipistrellus</i>	9
21:45:34	<i>Pipistrellus pipistrellus</i>	10
21:46:21	<i>Nyctalus noctula</i>	7
21:48:36	<i>Pipistrellus pipistrellus</i>	4
21:49:55	<i>Pipistrellus pipistrellus</i>	4
21:50:15	<i>Nyctalus noctula</i>	8
21:50:18	<i>Nyctalus noctula</i>	2
21:52:07	<i>Pipistrellus pipistrellus</i>	11
21:52:21	<i>Pipistrellus pipistrellus</i>	3
21:52:28	<i>Pipistrellus pipistrellus</i>	16
21:52:38	<i>Pipistrellus pipistrellus</i>	12

Surveyor location 2 – Batlogger M

Time	Species	Calls [#]
20:32:26	<i>Pipistrellus pipistrellus</i>	32
20:39:52	<i>Pipistrellus pipistrellus</i>	19
20:39:58	<i>Pipistrellus pipistrellus</i>	17
20:40:20	<i>Pipistrellus pygmaeus</i>	19
20:40:45	<i>Pipistrellus pipistrellus</i>	6
20:41:28	<i>Pipistrellus pipistrellus</i>	15

20:41:52	<i>Pipistrellus pipistrellus</i>	2
20:41:54	<i>Pipistrellus pipistrellus</i>	2
20:42:27	<i>Pipistrellus pipistrellus</i>	21
20:43:36	<i>Pipistrellus pipistrellus</i>	9
20:44:48	<i>Pipistrellus pipistrellus</i>	2
20:44:55	<i>Pipistrellus pipistrellus</i>	8
20:45:35	<i>Pipistrellus pipistrellus</i>	12

20:46:12	<i>Pipistrellus pipistrellus</i>	1
20:46:18	<i>Pipistrellus pipistrellus</i>	17
20:47:18	<i>Pipistrellus pipistrellus</i>	4
20:47:21	<i>Pipistrellus pipistrellus</i>	7
20:47:25	<i>Pipistrellus pipistrellus</i>	16
20:47:42	<i>Pipistrellus pipistrellus</i>	7
20:47:59	<i>Pipistrellus pipistrellus</i>	3
20:48:34	<i>Pipistrellus pipistrellus</i>	5
20:48:53	<i>Pipistrellus pipistrellus</i>	6
20:48:55	<i>Pipistrellus pipistrellus</i>	18
20:49:05	<i>Pipistrellus pipistrellus</i>	6
20:49:12	<i>Pipistrellus pipistrellus</i>	11
20:49:24	<i>Pipistrellus pipistrellus</i>	10
20:49:24	<i>Nyctalus noctula</i>	1
20:49:36	<i>Pipistrellus pipistrellus</i>	23
20:51:05	<i>Pipistrellus pipistrellus</i>	2
20:51:16	<i>Pipistrellus pipistrellus</i>	13
20:51:23	<i>Pipistrellus pipistrellus</i>	41
20:51:32	<i>Pipistrellus pipistrellus</i>	2
20:51:32	<i>Pipistrellus pygmaeus</i>	2
20:51:40	<i>Pipistrellus pipistrellus</i>	11
20:51:44	<i>Pipistrellus pipistrellus</i>	13
20:51:56	<i>Pipistrellus pipistrellus</i>	7
20:52:22	<i>Pipistrellus pipistrellus</i>	5
20:52:43	<i>Pipistrellus pipistrellus</i>	20
20:53:21	<i>Pipistrellus pipistrellus</i>	12
20:53:41	<i>Pipistrellus pipistrellus</i>	14
20:53:53	<i>Pipistrellus pipistrellus</i>	10
20:54:16	<i>Nyctalus noctula</i>	4
20:54:26	<i>Pipistrellus pipistrellus</i>	19
20:54:53	<i>Pipistrellus pipistrellus</i>	21
20:55:06	<i>Nyctalus noctula</i>	17
20:56:15	<i>Pipistrellus pipistrellus</i>	7
20:56:25	<i>Nyctalus noctula</i>	28
20:57:22	<i>Pipistrellus pipistrellus</i>	33
20:57:49	<i>Pipistrellus pipistrellus</i>	8
20:58:16	<i>Nyctalus noctula</i>	17
20:58:28	<i>Pipistrellus pipistrellus</i>	3
20:58:31	<i>Pipistrellus pipistrellus</i>	4
20:58:31	<i>Pipistrellus pipistrellus</i>	1
20:58:34	<i>Pipistrellus pipistrellus</i>	9
20:58:37	<i>Pipistrellus pipistrellus</i>	11
20:58:53	<i>Pipistrellus pipistrellus</i>	31
20:59:10	<i>Pipistrellus pipistrellus</i>	19
20:59:16	<i>Pipistrellus pipistrellus</i>	40
20:59:50	<i>Nyctalus noctula</i>	20
21:00:06	<i>Pipistrellus pipistrellus</i>	6

21:00:08	<i>Pipistrellus pygmaeus</i>	1
21:00:47	<i>Pipistrellus pygmaeus</i>	5
21:00:53	<i>Nyctalus noctula</i>	22
21:00:53	<i>Pipistrellus pipistrellus</i>	18
21:01:05	<i>Pipistrellus pipistrellus</i>	13
21:01:05	<i>Pipistrellus pygmaeus</i>	4
21:01:43	<i>Pipistrellus pipistrellus</i>	5
21:01:46	<i>Pipistrellus pipistrellus</i>	1
21:01:51	<i>Pipistrellus pipistrellus</i>	1
21:01:54	<i>Pipistrellus pipistrellus</i>	40
21:02:07	<i>Pipistrellus pipistrellus</i>	4
21:02:09	<i>Pipistrellus pipistrellus</i>	37
21:02:48	<i>Pipistrellus pipistrellus</i>	10
21:02:59	<i>Pipistrellus pipistrellus</i>	16
21:03:06	<i>Pipistrellus pipistrellus</i>	28
21:03:40	<i>Nyctalus noctula</i>	19
21:04:02	<i>Nyctalus noctula</i>	1
21:04:10	<i>Pipistrellus pipistrellus</i>	7
21:04:24	<i>Pipistrellus pipistrellus</i>	9
21:04:51	<i>Pipistrellus pipistrellus</i>	29
21:04:59	<i>Pipistrellus pipistrellus</i>	5
21:05:01	<i>Pipistrellus pipistrellus</i>	1
21:06:07	<i>Pipistrellus pipistrellus</i>	7
21:06:21	<i>Nyctalus noctula</i>	9
21:08:05	<i>Pipistrellus pipistrellus</i>	25
21:08:14	<i>Pipistrellus pipistrellus</i>	7
21:08:14	<i>Nyctalus noctula</i>	1
21:08:19	<i>Pipistrellus pipistrellus</i>	8
21:08:19	<i>Nyctalus noctula</i>	1
21:08:51	<i>Pipistrellus pipistrellus</i>	1
21:08:51	<i>Pipistrellus pygmaeus</i>	1
21:09:02	<i>Pipistrellus pipistrellus</i>	14
21:09:10	<i>Pipistrellus pipistrellus</i>	24
21:09:19	<i>Pipistrellus pipistrellus</i>	7
21:09:22	<i>Pipistrellus pipistrellus</i>	14
21:09:27	<i>Pipistrellus pipistrellus</i>	9
21:09:37	<i>Pipistrellus pipistrellus</i>	12
21:10:34	<i>Pipistrellus pipistrellus</i>	2
21:10:34	<i>Pipistrellus pipistrellus</i>	2
21:10:45	<i>Pipistrellus pipistrellus</i>	11
21:11:26	<i>Pipistrellus pipistrellus</i>	4
21:11:28	<i>Pipistrellus pipistrellus</i>	6
21:11:32	<i>Pipistrellus pipistrellus</i>	7
21:11:35	<i>Pipistrellus pipistrellus</i>	12
21:11:39	<i>Pipistrellus pipistrellus</i>	27
21:11:48	<i>Pipistrellus pipistrellus</i>	101
21:12:12	<i>Pipistrellus pipistrellus</i>	6

21:12:16	<i>Pipistrellus pipistrellus</i>	5
21:12:18	<i>Pipistrellus pipistrellus</i>	10
21:12:23	<i>Pipistrellus pipistrellus</i>	10
21:12:29	<i>Pipistrellus pipistrellus</i>	45
21:12:45	<i>Pipistrellus pipistrellus</i>	14
21:12:49	<i>Pipistrellus pipistrellus</i>	22
21:12:55	<i>Pipistrellus pipistrellus</i>	10
21:12:59	<i>Pipistrellus pipistrellus</i>	10
21:13:03	<i>Pipistrellus pipistrellus</i>	2
21:13:05	<i>Pipistrellus pipistrellus</i>	6
21:13:08	<i>Pipistrellus pipistrellus</i>	10
21:13:12	<i>Pipistrellus pipistrellus</i>	17
21:13:19	<i>Pipistrellus pipistrellus</i>	7
21:13:23	<i>Pipistrellus pipistrellus</i>	19
21:13:23	<i>Nyctalus noctula</i>	13
21:13:33	<i>Pipistrellus pipistrellus</i>	60
21:13:33	<i>Nyctalus noctula</i>	10
21:13:51	<i>Pipistrellus pipistrellus</i>	12
21:13:57	<i>Pipistrellus pipistrellus</i>	12
21:14:00	<i>Pipistrellus pipistrellus</i>	9
21:14:04	<i>Pipistrellus pipistrellus</i>	14
21:14:08	<i>Pipistrellus pipistrellus</i>	4
21:14:11	<i>Pipistrellus pipistrellus</i>	11
21:14:16	<i>Pipistrellus pipistrellus</i>	10
21:14:20	<i>Pipistrellus pipistrellus</i>	18
21:14:24	<i>Pipistrellus pipistrellus</i>	11
21:14:24	<i>Pipistrellus pygmaeus</i>	1
21:14:28	<i>Pipistrellus pipistrellus</i>	70
21:14:53	<i>Pipistrellus pipistrellus</i>	24
21:15:01	<i>Pipistrellus pipistrellus</i>	10
21:15:05	<i>Pipistrellus pipistrellus</i>	6
21:15:08	<i>Pipistrellus pipistrellus</i>	4
21:15:14	<i>Pipistrellus pipistrellus</i>	18
21:15:17	<i>Pipistrellus pipistrellus</i>	19
21:15:24	<i>Pipistrellus pipistrellus</i>	24
21:15:31	<i>Pipistrellus pipistrellus</i>	13
21:15:36	<i>Pipistrellus pipistrellus</i>	4
21:15:38	<i>Pipistrellus pipistrellus</i>	43
21:15:51	<i>Pipistrellus pipistrellus</i>	59
21:16:12	<i>Pipistrellus pipistrellus</i>	69
21:16:31	<i>Pipistrellus pipistrellus</i>	38
21:16:42	<i>Pipistrellus pipistrellus</i>	21
21:16:48	<i>Pipistrellus pipistrellus</i>	6
21:16:50	<i>Pipistrellus pipistrellus</i>	11
21:16:54	<i>Pipistrellus pipistrellus</i>	13
21:16:59	<i>Pipistrellus pipistrellus</i>	13
21:17:04	<i>Pipistrellus pipistrellus</i>	51

21:17:19	<i>Pipistrellus pipistrellus</i>	14
21:17:23	<i>Pipistrellus pipistrellus</i>	12
21:17:29	<i>Pipistrellus pipistrellus</i>	10
21:17:32	<i>Pipistrellus pipistrellus</i>	84
21:17:56	<i>Pipistrellus pipistrellus</i>	21
21:18:02	<i>Pipistrellus pipistrellus</i>	51
21:18:14	<i>Pipistrellus pipistrellus</i>	43
21:18:44	<i>Pipistrellus pipistrellus</i>	7
21:18:47	<i>Pipistrellus pipistrellus</i>	23
21:18:59	<i>Pipistrellus pipistrellus</i>	10
21:19:03	<i>Pipistrellus pipistrellus</i>	6
21:19:05	<i>Pipistrellus pipistrellus</i>	24
21:19:11	<i>Pipistrellus pipistrellus</i>	33
21:19:21	<i>Pipistrellus pipistrellus</i>	90
21:19:43	<i>Pipistrellus pipistrellus</i>	35
21:19:56	<i>Pipistrellus pipistrellus</i>	21
21:20:03	<i>Pipistrellus pipistrellus</i>	23
21:20:11	<i>Pipistrellus pipistrellus</i>	3
21:20:14	<i>Pipistrellus pipistrellus</i>	9
21:20:18	<i>Pipistrellus pipistrellus</i>	11
21:20:22	<i>Pipistrellus pipistrellus</i>	10
21:20:26	<i>Pipistrellus pipistrellus</i>	8
21:20:26	<i>Nyctalus noctula</i>	6
21:20:30	<i>Pipistrellus pipistrellus</i>	11
21:20:35	<i>Pipistrellus pipistrellus</i>	15
21:20:40	<i>Pipistrellus pipistrellus</i>	17
21:20:45	<i>Pipistrellus pipistrellus</i>	10
21:20:49	<i>Pipistrellus pipistrellus</i>	6
21:20:52	<i>Pipistrellus pipistrellus</i>	10
21:20:56	<i>Pipistrellus pipistrellus</i>	50
21:21:18	<i>Pipistrellus pipistrellus</i>	17
21:21:25	<i>Pipistrellus pipistrellus</i>	24
21:21:33	<i>Pipistrellus pipistrellus</i>	108
21:21:33	<i>Nyctalus noctula</i>	12
21:21:56	<i>Pipistrellus pipistrellus</i>	14
21:22:01	<i>Pipistrellus pipistrellus</i>	40
21:22:12	<i>Pipistrellus pipistrellus</i>	43
21:22:27	<i>Pipistrellus pipistrellus</i>	14
21:22:33	<i>Pipistrellus pipistrellus</i>	41
21:22:43	<i>Pipistrellus pipistrellus</i>	13
21:22:48	<i>Pipistrellus pipistrellus</i>	39
21:22:59	<i>Pipistrellus pipistrellus</i>	4
21:24:15	<i>Pipistrellus pipistrellus</i>	12
21:24:15	<i>Nyctalus noctula</i>	5
21:24:30	<i>Pipistrellus pipistrellus</i>	16
21:24:41	<i>Pipistrellus pipistrellus</i>	22
21:26:10	<i>Pipistrellus pipistrellus</i>	8

21:26:13	<i>Pipistrellus pipistrellus</i>	4
21:26:57	<i>Pipistrellus pipistrellus</i>	10
21:27:05	<i>Pipistrellus pipistrellus</i>	9
21:27:11	<i>Pipistrellus pipistrellus</i>	6
21:28:30	<i>Pipistrellus pipistrellus</i>	4
21:28:32	<i>Pipistrellus pipistrellus</i>	29
21:28:40	<i>Pipistrellus pipistrellus</i>	30
21:28:48	<i>Pipistrellus pipistrellus</i>	15
21:28:52	<i>Pipistrellus pipistrellus</i>	12
21:28:56	<i>Pipistrellus pipistrellus</i>	19
21:29:01	<i>Pipistrellus pipistrellus</i>	3
21:29:01	<i>Pipistrellus pipistrellus</i>	3
21:29:08	<i>Pipistrellus pipistrellus</i>	12
21:29:14	<i>Pipistrellus pipistrellus</i>	3
21:29:14	<i>Pipistrellus pygmaeus</i>	1
21:29:17	<i>Pipistrellus pipistrellus</i>	16
21:29:25	<i>Pipistrellus pipistrellus</i>	13
21:29:31	<i>Pipistrellus pipistrellus</i>	25
21:29:38	<i>Pipistrellus pipistrellus</i>	54
21:29:53	<i>Pipistrellus pipistrellus</i>	7
21:29:55	<i>Pipistrellus pipistrellus</i>	14
21:30:01	<i>Pipistrellus pipistrellus</i>	26
21:30:12	<i>Pipistrellus pipistrellus</i>	23
21:30:18	<i>Pipistrellus pipistrellus</i>	4
21:30:21	<i>Pipistrellus pipistrellus</i>	14
21:30:26	<i>Pipistrellus pipistrellus</i>	29
21:30:34	<i>Pipistrellus pipistrellus</i>	14
21:30:39	<i>Pipistrellus pipistrellus</i>	58
21:30:52	<i>Pipistrellus pipistrellus</i>	12
21:30:55	<i>Pipistrellus pipistrellus</i>	17
21:31:03	<i>Pipistrellus pipistrellus</i>	40
21:31:18	<i>Pipistrellus pipistrellus</i>	36
21:31:29	<i>Pipistrellus pipistrellus</i>	8
21:32:09	<i>Pipistrellus pipistrellus</i>	15
21:32:17	<i>Nyctalus noctula</i>	6
21:32:36	<i>Nyctalus noctula</i>	24
21:33:08	<i>Pipistrellus pipistrellus</i>	12
21:33:17	<i>Pipistrellus pygmaeus</i>	10
21:33:22	<i>Pipistrellus pipistrellus</i>	25

21:33:32	<i>Pipistrellus pygmaeus</i>	9
21:33:38	<i>Pipistrellus pipistrellus</i>	29
21:33:47	<i>Pipistrellus pipistrellus</i>	10
21:33:52	<i>Pipistrellus pipistrellus</i>	16
21:33:57	<i>Pipistrellus pipistrellus</i>	21
21:34:08	<i>Pipistrellus pipistrellus</i>	5
21:34:14	<i>Pipistrellus pipistrellus</i>	50
21:34:33	<i>Pipistrellus pipistrellus</i>	23
21:34:39	<i>Pipistrellus pipistrellus</i>	2
21:36:17	<i>Pipistrellus pipistrellus</i>	4
21:36:25	<i>Pipistrellus pipistrellus</i>	14
21:39:08	<i>Eptesicus serotinus</i>	6
21:41:02	<i>Pipistrellus pipistrellus</i>	22
21:41:09	<i>Pipistrellus pipistrellus</i>	25
21:42:19	<i>Pipistrellus pipistrellus</i>	36
21:45:07	<i>Pipistrellus pipistrellus</i>	17
21:45:20	<i>Eptesicus serotinus</i>	1
21:45:29	<i>Pipistrellus pipistrellus</i>	17
21:46:16	<i>Nyctalus noctula</i>	27
21:48:37	<i>Pipistrellus pipistrellus</i>	10
21:49:26	<i>Pipistrellus pipistrellus</i>	21
21:49:58	<i>Pipistrellus pipistrellus</i>	11
21:50:10	<i>Nyctalus noctula</i>	12
21:50:10	<i>Pipistrellus pipistrellus</i>	4
21:50:39	<i>Pipistrellus pipistrellus</i>	14
21:51:01	<i>Pipistrellus pipistrellus</i>	12
21:51:09	<i>Pipistrellus pipistrellus</i>	6
21:51:12	<i>Pipistrellus pipistrellus</i>	1
21:52:07	<i>Pipistrellus pipistrellus</i>	2
21:52:10	<i>Pipistrellus pipistrellus</i>	16
21:52:17	<i>Pipistrellus pipistrellus</i>	7
21:52:23	<i>Pipistrellus pipistrellus</i>	2
21:52:33	<i>Pipistrellus pipistrellus</i>	10
21:52:43	<i>Pipistrellus pipistrellus</i>	3
21:52:47	<i>Pipistrellus pipistrellus</i>	16
21:54:18	<i>Nyctalus noctula</i>	3
21:54:23	<i>Nyctalus noctula</i>	7