

99 Hyde End Lane
Ryeish Green
Wokingham
Berkshire
RG7 1ES

Bat Emergence Survey

R2581_BES_a

Report Quality Control Information	
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October 2024



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1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was instructed by Joanne Callaway to undertake a bat emergence survey for the house at 99 Hyde End Lane in Ryeish Green to accompany a householder planning application to be submitted to Wokingham Borough Council seeking consent for a loft conversion and extension.
- 1.1.2** The bat emergence survey was commissioned following a Preliminary Roost Assessment (PRA) completed by John Wenman Ecological Consultancy LLP. on the 6th March. Several hundred medium-sized droppings, resembling those typically deposited by long-eared bat species, inside the roof void indicated the presence of a day roost used by small numbers of non-breeding brown long-eared bats; however, the presence of a small maternity colony could not be discounted. Suitable / potential access points as well as further external features suitable for use by crevice-dwelling bats comprised gaps under overlapping plain tiles, most notably under uneven tiles along the gable verges, at the gable ends with gaps behind the timber soffits, and an open hole within the soffit at the end of the existing extension. Considering the high-quality surroundings, number of droppings and potential features identified, the property was assigned high suitability for bats.
- 1.1.3** Emergence surveys were conducted for the house on the 30th July, 20th August and 11th September 2024. Two common pipistrelle bats were observed emerging from the house with the point of egress being a gap behind the soffit on the front elevation of the property. Updated internal inspections of the void in July and September showed no changes in the number of medium-sized droppings observed internally and no bats within the void. These findings combined with the preliminary inspection are consistent with the house being used currently as a day roost for individual or non-breeding female common pipistrelle (*Pipistrellus pipistrellus*) bats and historically as a roost by small numbers of long-eared bats (likely *P. auritus*). The survey data shows that it is highly unlikely that the house supports a maternity roost. The current proposals will result in the permanent loss of a common pipistrelle day roost – i.e. a roost of low conservation significance but will not affect a current long eared bat roost; however, bats were active and nearby and they could roost in the future and

a precautionary approach to the building work should be adopted and roosting opportunities created.

- 1.1.4** A European Protected Species (EPS) Mitigation Licence will be required to allow the work to proceed lawfully, and the survey findings establish that the site would qualify for the Bat Mitigation Class Licence (Low Impact) (BMCL) WML-CL21 registration. Under the terms of a full EPS mitigation licence or BMCL, mitigation for the impacts of the work will be required to avoid harming bats and the mitigation strategy is set out in **Section 7**.

2 INTRODUCTION

2.1 Project Background

2.1.1 John Wenman Ecological Consultancy LLP was instructed by Joanne Callaway to undertake a bat emergence survey for the house at 99 Hyde End Lane in Ryeish Green to accompany a householder planning application to be submitted to Wokingham Borough Council seeking consent for a loft conversion and extension.

2.1.2 The bat emergence survey was commissioned following a Preliminary Roost Assessment (PRA) completed by John Wenman Ecological Consultancy LLP. on the 6th March 2024 (Report reference: R2681_PRA_a). Several hundred medium-sized droppings, resembling those typically deposited by long-eared bat species, were found inside the roof void most likely indicating the presence of a day roost used by small numbers of non-breeding brown long-eared bats; however, the presence of a small brown long-eared bat (*P. auritus*) maternity roost could not be ruled out.

2.1.3 Suitable / potential bat access points were likely via gaps under overlapping plain tiles, most notably under uneven tiles along the gable verges, at the gable ends with gaps behind the timber soffits, and an open hole within the soffit at the end of the existing extension. Furthermore, the potential crevice roost sites are likely to have sufficient space, shelter, protection, conditions and surrounding habitat to support a small maternity colony of crevice-dwelling bats, such as the locally recorded common pipistrelle (*P. pipistrellus*) and soprano pipistrelle (*P. pygmaeus*). Considering the high-quality surroundings, number of droppings and potential features identified, the property was assigned high suitability for bats.

2.1.4 In accordance with best practice guidance (Collins 2023), three evening emergence surveys were conducted for the house on the 30th July, 20th August and 11th September 2024.

2.2 Site Location and Context

2.2.1 The property is a semi-detached house located on the eastern side of Hyde End Lane in Ryeish Green, Wokingham (central OS grid reference: SU 7247 6743).

2.2.2 Ryeish Green is a small hamlet set in countryside between Three Mile Cross, Shinfield and Spencers Wood. The surrounding countryside is characterised by pastoral

farmland, including deciduous woodland and good quality semi-improved grassland to the west of the property.

2.3 Report Objectives

- 2.3.1** The aim of the bat emergence survey, supported by updated loft inspections, 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 Loft Inspections

- 4.1.1** Repeat loft inspections were carried out by Conor Watson ACIEEM (registered under Natural England Class Licence (CL18 2024-11877-CL18-BAT) and Jake Morgan (accredited agent under Class Licence CL18 2016-23859-CLS-CLS. The inspections looked for any change in the number and distribution of droppings recorded during the preliminary bat roost assessment completed in March 2024 and for the presence of bats within the loft.

4.2 Emergence Surveys

- 4.2.1** Dusk emergence surveys were undertaken for the house on the 30th July, 20th August and 11th September 2024 by experienced bat surveyors with at least three years' experience of detector surveys: Conor Watson ACIEEM (CL18 2024-11877-CL18-BAT), Jake Morgan (a qualifying member of CIEEM) and Sam Wenman – an assistant ecologist.
- 4.2.2** The equipment used during surveys included full-spectrum sampling bat detectors (Batlogger M/M2 and Echo Meter Touch 2 Pro) and infrared night vision aids (Nightfox Whisker binoculars and Sionyx Aurora Pro cameras with infrared torch). A still shot of the darkest points of the surveys has been included for all night vision aids in **Appendix 1**.
- 4.2.3** The surveyors for the house were located on the front driveway (Survey Location 1) and within the rear garden (Survey Location 2) – refer to emergence survey plan in **Appendix 2**.
- 4.2.4** Each emergence survey started 15 minutes before sunset and continued for 1 hour and 30 minutes after sunset. The bat call recordings were processed and analysed using the BatExplorer and Kaleidoscope Lite computer software packages and the night vision video footage was reviewed in VLC Media Player.
- ### **4.3 Desk Study**
- 4.3.1** The Berkshire and South Buckinghamshire 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.

4.4 Survey Constraints

- 4.4.1** There were no significant constraints to the bat emergence surveys, which were 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).
- 4.4.2** Full access was available to the loft during the updated inspections and therefore this had no significant constraints.
- 4.4.3** 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 1-6** below and illustrated in the survey plan in **Appendix 2**; the raw detector data is supplied in **Appendix 3**.

5.2 Emergence Surveys

30th July 2024

- 5.2.1 Individual common pipistrelle bats (*Pipistrellus pipistrellus*) were observed by the surveyor at Survey Location 1 emerging from a gap behind the soffit on the front elevation of the property at 21:40 and 21:41 (46 and 47 minutes after sunset respectively).

Table 1. Weather conditions and survey timings

	Wind (BF0-12)	Cloud cover (%)	Rain	Temp start (°C)	Temp end (°C)
Weather	0	15	Dry	28	24
Start time	20:39	Sunset time	20:54	Finish time	22:24

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

Species	Recordings*	Emergences	Time of first call after sunset
<i>Pipistrellus pipistrellus</i>	40	2 – 21:40, 21:41	20:45 (9 mins before sunset)
<i>Nyctalus noctula</i>	165	0	20:59 (5 mins)

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

Species	Recordings*	Emergences	Time of first call after sunset
<i>Pipistrellus pipistrellus</i>	33	0	21:11 (17 mins)
<i>Nyctalus noctula</i>	298	0	21:01 (7 mins)

- 5.2.2 The first bat recorded during the survey was a common pipistrelle (*Pipistrellus pipistrellus*) that was heard and seen by the surveyor at Survey Location 1 passing along the southern elevation of the house and then to the south at 20:59 (5 minutes before sunset). In addition, a noctule (*Nyctalus noctula*) was heard and seen passing high overhead from east to west at 21:01 (7 minutes after sunset). These recordings fall within the typical emergence period for these species, indicating that both are very likely to be roosting nearby (Collins 2023).
- 5.2.3 The amount of bat activity was high and primarily comprised noctule (*N. noctula*) foraging passes high over-head as well as common pipistrelle (*P. pipistrellus*) foraging passes along the southern elevation of the house, over the existing extension, within the rear garden and within the neighbouring

gardens. The number of *N. noctula* observed passing from southeast to northwest indicates that a nearby roost is present for this species.

20th August 2024

- 5.2.4** No bats were seen or recorded on camera emerging from the house throughout the survey.

Table 3. Weather conditions and survey timings

	Wind (BF0-12)	Cloud cover (%)	Rain	Temp start (°C)	Temp end (°C)
Weather	1	0	Dry	18	16
Start time	19:59	Sunset time	20:14	Finish time	21:44

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

Species	Recordings*	Emergences	Time of first call after sunset
<i>Pipistrellus pipistrellus</i>	62	0	20:01 (13 mins before sunset)
<i>Nyctalus noctula</i>	1	0	21:20 (66 mins)
<i>Pipistrellus pygmaeus</i>	6	0	20:49 (35 mins)
<i>Plecotus</i> sp.	1	0	21:37 (83 mins)
<i>Eptesicus serotinus</i>	1	0	21:08 (54 mins)

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

Species	Recordings*	Emergences	Time of first call after sunset
<i>Pipistrellus pipistrellus</i>	60	0	20:37 (23 mins)
<i>Nyctalus noctula</i>	2	0	21:20 (66 mins)
<i>Pipistrellus pygmaeus</i>	2	0	21:03 (49 mins)
<i>Plecotus</i> sp.	10	0	20:56 (42 mins)

- 5.2.5** The first bat recorded during the survey was a common pipistrelle (*Pipistrellus pipistrellus*) that was heard by the surveyor at Survey Location 1 at 20:01 (13 minutes before sunset). This falls within the lower quartile of the typical emergence period for this species, indicating that it is very likely the individual emerged nearby. In addition, soprano pipistrelle (*Pipistrellus pygmaeus*) and long-eared (*Plecotus* sp.) bats were heard and seen foraging along the front driveway and within the rear garden at 20:49 (35 minutes after sunset) and 20:56 (42 minutes after sunset) respectively. This falls within the typical emergence period for these species. Noctule (*Nyctalus noctula*) and serotine (*Eptesicus serotinus*) bats were recorded outside of their typical emergence period.

- 5.2.6** The amount of bat activity was moderate and primarily comprised *P. pipistrellus* foraging passes along all elevations of the house, over the nearby treeline to the southwest of Hyde End land, within the rear garden and within neighbouring gardens.

11th September 2024

- 5.2.7 No bats were seen or recorded on camera emerging from the house throughout the survey.

Table 5. Weather conditions and survey timings

	Wind (BF0-12)	Cloud cover (%)	Rain	Temp start (°C)	Temp end (°C)
Weather	1	75	Dry	12	10
Start time	19:11	Sunset time	19:26	Finish time	20:56

Table 6a. Surveyor recordings at Survey Location 1 (SW)

Species	Recordings*	Emergences	Time of first call after sunset
<i>Eptesicus serotinus</i>	1	0	20:43 (77 mins)

Table 6b. Surveyor recordings at Survey Location 2 (JM)

Species	Recordings*	Emergences	Time of first call after sunset
<i>Pipistrellus pipistrellus</i>	5	0	19:51 (25 mins)
<i>Plecotus</i> sp.	1	0	20:47 (82 mins)

- 5.2.8 The first bat recorded during the survey was a common pipistrelle (*Pipistrellus pipistrellus*) that was heard but not seen by the surveyor at Survey Location 2 at 19:51 (25 minutes after sunset) which falls within the typical emergence period for this species, indicating that it likely emerged nearby. This was followed by a serotine (*Eptesicus serotinus*) recorded outside of its typical emergence period at 20:43 (77 minutes after sunset) and a brown long-eared (*Plecotus* sp.) late within its typical emergence period at 20:47 (82 minutes after sunset).
- 5.2.9 The amount of bat activity was low with all recordings by both surveyors unseen.
- 5.3 **Habitat Features Suitable for Bats**
- 5.3.1 The habitats on-site comprise typical residential habitats including closely-mown grassland, hard standing, planted shrub beds, scattered trees and ornamental hedgerows. The surrounding pastoral farmland with deciduous woodland and good quality semi-improved grassland to the west of the property resembles continuous habitat providing high-quality flight paths and foraging opportunities for any bats roosting in the property.
- 5.4 **Desk Study Findings**
- 5.4.1 The data search revealed that at least five species have been recorded locally within the last 10 years: brown long-eared (*Plecotus auritus*), common pipistrelle (*Pipistrellus pipistrellus*), myotis (*Myotis* sp.) noctule

(*Nyctalus noctula*) and soprano pipistrelle (*Pipistrellus pygmaeus*). The nearest roost record is 0.6 kilometres away at Marlows Farm, Croft Road in Shinfield, where small numbers of pipistrelle (*Pipistrellus* sp.) droppings were identified during an ecologist planning survey in March 2015. A common pipistrelle (*P. pipistrellus*) maternity roost was recorded at another property on Croft Road called Sunways where 40 bats were observed emerging from the roo..

- 5.4.1** Ten bat mitigation licences have been granted within the last 15 years within a 2-kilometre radius of the property, covering three species: common pipistrelle (*Pipistrellus pipistrellus*), brown long-eared (*Plecotus auritus*) and soprano pipistrelle (*Pipistrellus pygmaeus*). Licenses covering the damage and destruction of breeding sites are situated approximately 460 metres southeast and 1750 metres north.

6 DISCUSSION AND RECOMMENDATIONS

6.1 Assessment of Bat Roost Status

- 6.1.1** Throughout the emergence surveys a total of two common pipistrelle (*Pipistrellus pipistrellus*) bats were observed emerging from the property on one occasion, with the emergence location being a gap behind the soffit on the front elevation of the property. These findings indicate that the house acts as a day roost for individual or non-breeding female common pipistrelle (*Pipistrellus pipistrellus*) bats.
- 6.1.2** Common pipistrelle (*P. pipistrellus*) is a crevice-dwelling species that is one of the most abundant and widespread bat species in Great Britain. This species occurs in almost any habitat type and is well adapted to the built environments; it is one of the species most regularly reported roosting in houses and churches (Mathews *et al.* 2018). Day roosts used by this species hold site level conservation importance only and the loss of such roosts is not usually significant beyond the scale of the site (Reason & Wray 2023).
- 6.1.3** Long-eared bats (*Plecotus* sp.) (likely brown long eared (*Plecotus auritus*)) were recorded within their typical emergence periods during the August survey and late on the September survey indicating they were roosting nearby; however, these species were not observed or recorded emerging from the house. In addition, updated internal inspections carried out on the 30th July and 11th September confirmed no changes in the number of droppings observed within the roof void of the house or any evidence of bats within the void. As such, these findings combined with the preliminary inspection are consistent with the house being an historic roost for long-eared bats (likely *P. auritus*).
- 6.1.4** Brown long-eared bat (*P. auritus*) is a widespread species in Great Britain, commonly associated with broadleaved and mixed woodland habitats. This species will roost in trees, bat boxes and buildings but maternity roosts are predominantly located in barns, churches and houses with large internal flight spaces (Mathews *et al.* 2018). The grey long-eared bat (*P. austriacus*) is very similar in morphology and flight pattern to the brown long-eared bat (*P. auritus*) but very few colonies are known in Great Britain; this species is found almost exclusively in lowland regions of southern England, near to the coast (Mathews *et al.* 2018). Day roosts used brown long-eared bats are of

site level conservation importance only and the loss of such roosts is not usually significant beyond the scale of the site (Reason & Wray 2023).

- 6.1.5** The house lacks the stable temperature and humidity to act as a classic hibernation site for bats, but the crevice roosting features could support small numbers of bats during winter i.e. as non-classic hibernation sites (Reason & Wray 2024).

6.2 Impact Assessment and Recommendations

- 6.2.1** The survey data shows that the proposed extension will result in the permanent loss of an occasionally used common pipistrelle (*P. pipistrellus*) day roost. Furthermore, in the absence of mitigation the works could lead to the disturbance and/or injury of bats present within the house at the time.
- 6.2.2** The evidence suggests that the loft conversion will not result in the loss of a current long eared bat roost, but long eared bats are active in the surrounding area and could therefore make use of the house again in the future and therefore precautions should be adopted during the building work and some new provision for bats provided within
- 6.2.3** A European Protected Species (EPS) Mitigation Licence will be required to allow the work to proceed lawfully, and the survey findings establish that the house would qualify for registration under the “low impact” Bat Mitigation Class Licence (BMCL) WML-CL21. Under the terms of a full EPS mitigation licence or BMCL, mitigation for the impacts of the work will be required in order to avoid harming bats and the mitigations proposals detailing the strategy to be adopted are set out in **Section 7** below.

7 MITIGATION AND COMPENSATION PROPOSALS

- 7.1.1** Following the grant of planning consent, before the licensable work begins i.e. the loft conversion and extension, a European Protected Species Mitigation Licence (EPSML) or confirmation of the registration of the site under the Bat Mitigation Class Licence (BMCL) (Low Impact) WML-CL21 will be obtained.
- 7.1.2** All licensable works to the house i.e. removal of roof coverings will be undertaken outside of the winter hibernation season (mid-November to February) to minimise the risk of disturbing torpid bats. A woodcrete bat box will be fixed to a suitable mature tree on site before the work starts and will be in place for a minimum of five years (boxes can only be removed after the five years if no evidence of use has been found at this stage).
- 7.1.3** Removal of coverings will be carried out by a soft strip, i.e. hand removal of features suitable for roosting bats such as the roof tiles. Before the soft strip begins, the licensed ecologist or 'Registered Consultant' if working under the BMCL, will give a toolbox talk to the contractors on site detailing bats are present, the legislation protecting bats, the location of the roosting site in the buildings, good working practices, the measures that are required to protect bats during the work and what to do if bats are found. A copy of the licence will be available for inspection on site during all licensable works.
- 7.1.4** The work will be preceded by an inspection of the roof void by a licensed ecologist. If bats are present, the impacts of the project would be reassessed, and if necessary, a licence modification obtained. Under licence, the bat(s) would be captured by hand by the ecologist where safe to do so, and if fit, transferred to the bat box. The roof coverings and soffits will be carefully removed by gloved hands under the supervision of a licensed ecologist, or Registered Consultant if working under the BMCL. If bat(s) are discovered during the work, the licensed ecologist or Registered Consultant would capture the bat(s) and transfer it/them directly to a bat box erected in advance of the works
- 7.1.5** In the long-term, the extended dwelling should incorporate features that provide access points/roosting sites for common pipistrelle and long eared bats. For example, this could be achieved by incorporating integrated bat boxes (such as an Ibstock enclosed bat box or Habibat 001 bat box, or a

suitable functional equivalent) or by creating bat access points to retained roof/loft space (see **Appendix 4**).

8 REFERENCES

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Reason, P.F. and Wray, S. (2023). *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



Nightfox Whisker at Survey Location 1 (30/07/24)



Sionyx Aurora Pro at Survey Location 2 (30/07/24).



Sionyx Aurora pro at Survey Location 1 (20/08/24).



Sionyx Aurora pro at Survey Location 2 (20/08/24).

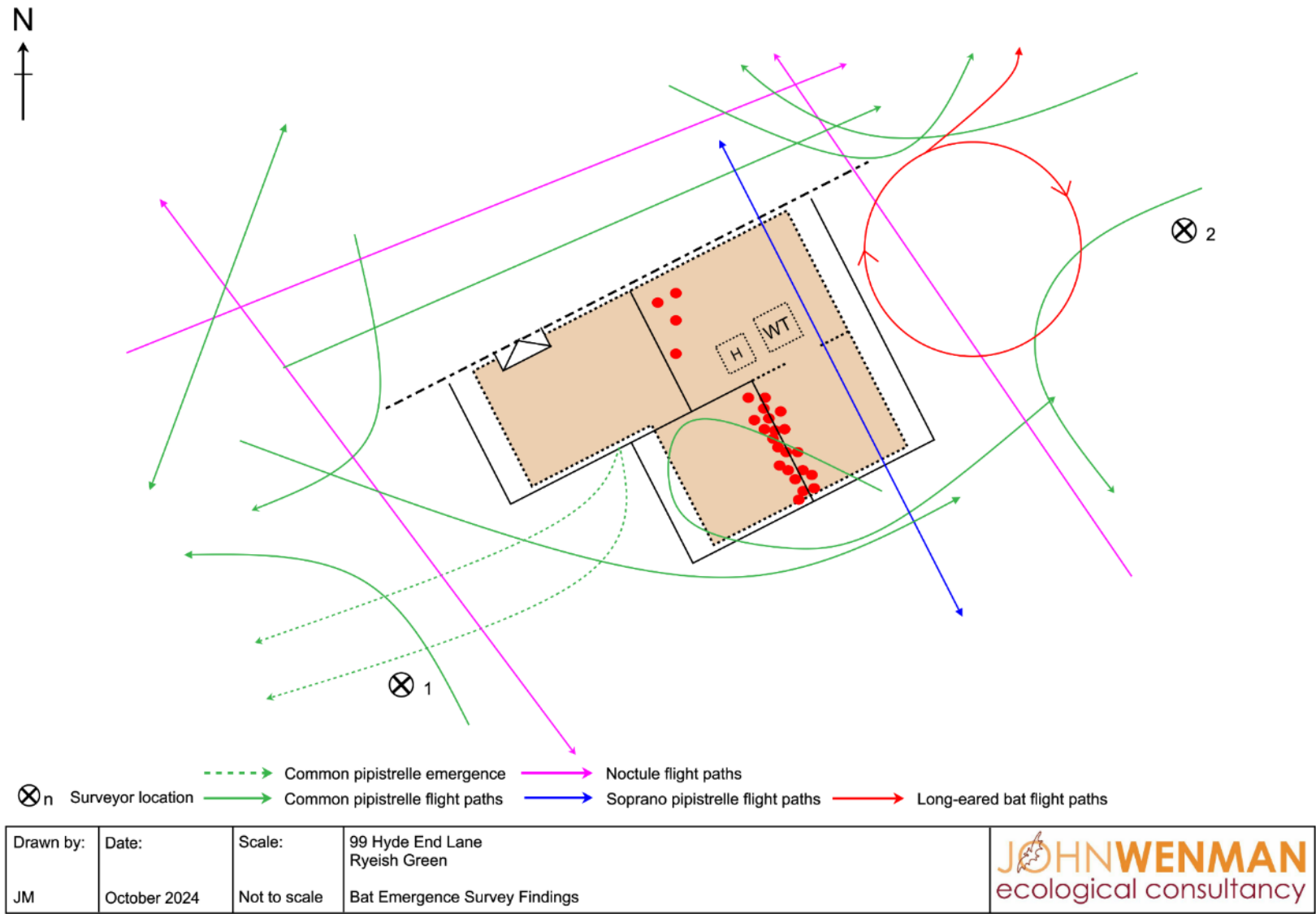


Sionyx Aurora pro at Survey Location 1 (11/09/24).



Sionyx Aurora pro at Survey Location 2 (11/09/24).

APPENDIX 2 – BAT EMERGENCE SURVEY FINDINGS



APPENDIX 3 – BAT EMERGENCE SURVEY RAW DATA TABLES

30th June 2024 – CW at Location 1 (Batlogger M2)

Time	Species	Number of Calls [#]
20:34	<i>Pipistrellus pipistrellus</i>	1
20:45	<i>Pipistrellus pipistrellus</i>	0*
20:59	<i>Pipistrellus pipistrellus</i>	6
20:59	<i>Nyctalus noctula</i>	4
21:00	<i>Pipistrellus pipistrellus</i>	9
21:01	<i>Pipistrellus pipistrellus</i>	16
21:06	<i>Nyctalus noctula</i>	4
21:07	<i>Nyctalus noctula</i>	4
21:07	<i>Nyctalus noctula</i>	6
21:07	<i>Nyctalus noctula</i>	5
21:07	<i>Nyctalus noctula</i>	6
21:07	<i>Nyctalus noctula</i>	7
21:08	<i>Pipistrellus pipistrellus</i>	0*
21:08	<i>Nyctalus noctula</i>	7
21:08	<i>Nyctalus noctula</i>	6
21:08	<i>Nyctalus noctula</i>	17
21:09	<i>Pipistrellus pipistrellus</i>	0*
21:09	<i>Nyctalus noctula</i>	7
21:09	<i>Nyctalus noctula</i>	10
21:10	<i>Nyctalus noctula</i>	4
21:10	<i>Nyctalus noctula</i>	10
21:10	<i>Nyctalus noctula</i>	15
21:10	<i>Nyctalus noctula</i>	6
21:10	<i>Nyctalus noctula</i>	12
21:10	<i>Nyctalus noctula</i>	2
21:10	<i>Nyctalus noctula</i>	7
21:11	<i>Nyctalus noctula</i>	27
21:11	<i>Nyctalus noctula</i>	9
21:11	<i>Nyctalus noctula</i>	4
21:12	<i>Nyctalus noctula</i>	2
21:12	<i>Nyctalus noctula</i>	3
21:12	<i>Nyctalus noctula</i>	7
21:13	<i>Nyctalus noctula</i>	2
21:13	<i>Nyctalus noctula</i>	7
21:13	<i>Nyctalus noctula</i>	3
21:13	<i>Nyctalus noctula</i>	12
21:14	<i>Nyctalus noctula</i>	7
21:14	<i>Nyctalus noctula</i>	8
21:15	<i>Nyctalus noctula</i>	9
21:15	<i>Nyctalus noctula</i>	36
21:15	<i>Nyctalus noctula</i>	18

21:15	<i>Nyctalus noctula</i>	10
21:15	<i>Nyctalus noctula</i>	12
21:15	<i>Nyctalus noctula</i>	15
21:15	<i>Nyctalus noctula</i>	6
21:15	<i>Nyctalus noctula</i>	13
21:15	<i>Nyctalus noctula</i>	6
21:16	<i>Nyctalus noctula</i>	5
21:16	<i>Nyctalus noctula</i>	3
21:16	<i>Nyctalus noctula</i>	4
21:17	<i>Nyctalus noctula</i>	5
21:17	<i>Nyctalus noctula</i>	1
21:19	<i>Nyctalus noctula</i>	2
21:19	<i>Nyctalus noctula</i>	2
21:19	<i>Nyctalus noctula</i>	1
21:19	<i>Nyctalus noctula</i>	11
21:20	<i>Nyctalus noctula</i>	1
21:20	<i>Nyctalus noctula</i>	8
21:20	<i>Nyctalus noctula</i>	7
21:20	<i>Nyctalus noctula</i>	39
21:21	<i>Nyctalus noctula</i>	15
21:21	<i>Nyctalus noctula</i>	10
21:21	<i>Nyctalus noctula</i>	11
21:22	<i>Nyctalus noctula</i>	3
21:22	<i>Nyctalus noctula</i>	3
21:22	<i>Nyctalus noctula</i>	7
21:22	<i>Nyctalus noctula</i>	11
21:23	<i>Nyctalus noctula</i>	8
21:23	<i>Nyctalus noctula</i>	14
21:23	<i>Nyctalus noctula</i>	36
21:23	<i>Nyctalus noctula</i>	21
21:25	<i>Nyctalus noctula</i>	2
21:25	<i>Nyctalus noctula</i>	11
21:25	<i>Nyctalus noctula</i>	9
21:25	<i>Nyctalus noctula</i>	4
21:26	<i>Nyctalus noctula</i>	7
21:27	<i>Nyctalus noctula</i>	3
21:27	<i>Nyctalus noctula</i>	3
21:28	<i>Nyctalus noctula</i>	5
21:29	<i>Nyctalus noctula</i>	1
21:29	<i>Pipistrellus pipistrellus</i>	4
21:29	<i>Nyctalus noctula</i>	3
21:29	<i>Pipistrellus pipistrellus</i>	8
21:29	<i>Nyctalus noctula</i>	1
21:29	<i>Pipistrellus pipistrellus</i>	20
21:30	<i>Pipistrellus pipistrellus</i>	1

21:31	<i>Nyctalus noctula</i>	0*
21:31	<i>Pipistrellus pipistrellus</i>	1
21:31	<i>Nyctalus noctula</i>	19
21:31	<i>Nyctalus noctula</i>	5
21:31	<i>Nyctalus noctula</i>	10
21:31	<i>Nyctalus noctula</i>	8
21:32	<i>Nyctalus noctula</i>	2
21:32	<i>Nyctalus noctula</i>	2
21:32	<i>Nyctalus noctula</i>	1
21:33	<i>Pipistrellus pipistrellus</i>	8
21:33	<i>Nyctalus noctula</i>	7
21:34	<i>Nyctalus noctula</i>	15
21:36	<i>Pipistrellus pipistrellus</i>	0*
21:37	<i>Nyctalus noctula</i>	2
21:38	<i>Pipistrellus pipistrellus</i>	0*
21:38	<i>Nyctalus noctula</i>	1
21:38	<i>Nyctalus noctula</i>	4
21:39	<i>Pipistrellus pipistrellus</i>	1
21:40	<i>Pipistrellus pipistrellus</i>	8
21:40	<i>Pipistrellus pipistrellus</i>	13
21:41	<i>Pipistrellus pipistrellus</i>	19
21:41	<i>Pipistrellus pipistrellus</i>	7
21:41	<i>Pipistrellus pipistrellus</i>	11
21:41	<i>Nyctalus noctula</i>	6
21:41	<i>Pipistrellus pipistrellus</i>	1
21:41	<i>Pipistrellus pipistrellus</i>	19
21:42	<i>Pipistrellus pipistrellus</i>	9
21:42	<i>Pipistrellus pipistrellus</i>	8
21:42	<i>Pipistrellus pipistrellus</i>	20
21:42	<i>Pipistrellus pipistrellus</i>	12
21:42	<i>Nyctalus noctula</i>	12
21:43	<i>Pipistrellus pipistrellus</i>	3
21:43	<i>Nyctalus noctula</i>	11
21:43	<i>Nyctalus noctula</i>	6
21:45	<i>Nyctalus noctula</i>	5
21:45	<i>Nyctalus noctula</i>	6
21:45	<i>Nyctalus noctula</i>	10
21:45	<i>Nyctalus noctula</i>	17
21:45	<i>Nyctalus noctula</i>	10
21:46	<i>Nyctalus noctula</i>	3
21:46	<i>Nyctalus noctula</i>	6
21:46	<i>Nyctalus noctula</i>	8
21:47	<i>Nyctalus noctula</i>	2
21:47	<i>Nyctalus noctula</i>	3
21:47	<i>Nyctalus noctula</i>	5

21:47	<i>Pipistrellus pipistrellus</i>	2
21:48	<i>Nyctalus noctula</i>	3
21:48	<i>Nyctalus noctula</i>	0*
21:48	<i>Nyctalus noctula</i>	4
21:48	<i>Nyctalus noctula</i>	11
21:48	<i>Nyctalus noctula</i>	27
21:49	<i>Nyctalus noctula</i>	20
21:49	<i>Nyctalus noctula</i>	4
21:49	<i>Nyctalus noctula</i>	7
21:49	<i>Nyctalus noctula</i>	12
21:49	<i>Nyctalus noctula</i>	8
21:50	<i>Nyctalus noctula</i>	6
21:51	<i>Nyctalus noctula</i>	1
21:51	<i>Nyctalus noctula</i>	7
21:53	<i>Nyctalus noctula</i>	6
21:53	<i>Nyctalus noctula</i>	7
21:53	<i>Nyctalus noctula</i>	24
21:53	<i>Nyctalus noctula</i>	1
21:53	<i>Nyctalus noctula</i>	3
21:54	<i>Nyctalus noctula</i>	9
21:54	<i>Nyctalus noctula</i>	7
21:54	<i>Nyctalus noctula</i>	19
21:54	<i>Nyctalus noctula</i>	9
21:55	<i>Nyctalus noctula</i>	1
21:56	<i>Nyctalus noctula</i>	19
21:57	<i>Nyctalus noctula</i>	2
21:57	<i>Nyctalus noctula</i>	17
21:58	<i>Nyctalus noctula</i>	4
21:58	<i>Nyctalus noctula</i>	9
21:58	<i>Nyctalus noctula</i>	4
21:58	<i>Nyctalus noctula</i>	3
21:58	<i>Nyctalus noctula</i>	3
21:58	<i>Nyctalus noctula</i>	2
21:59	<i>Nyctalus noctula</i>	14
21:59	<i>Nyctalus noctula</i>	3
22:00	<i>Nyctalus noctula</i>	1
22:01	<i>Nyctalus noctula</i>	6
22:02	<i>Nyctalus noctula</i>	2
22:02	<i>Nyctalus noctula</i>	3
22:03	<i>Nyctalus noctula</i>	22
22:03	<i>Pipistrellus pipistrellus</i>	6
22:04	<i>Nyctalus noctula</i>	5
22:04	<i>Nyctalus noctula</i>	5
22:06	<i>Pipistrellus pipistrellus</i>	5
22:08	<i>Nyctalus noctula</i>	2

22:08	<i>Nyctalus noctula</i>	3
22:08	<i>Nyctalus noctula</i>	1
22:08	<i>Nyctalus noctula</i>	4
22:09	<i>Nyctalus noctula</i>	10
22:09	<i>Nyctalus noctula</i>	22
22:09	<i>Nyctalus noctula</i>	4
22:10	<i>Pipistrellus pipistrellus</i>	12
22:10	<i>Nyctalus noctula</i>	6
22:11	<i>Nyctalus noctula</i>	2
22:11	<i>Nyctalus noctula</i>	10
22:11	<i>Nyctalus noctula</i>	4
22:12	<i>Pipistrellus pipistrellus</i>	21
22:12	<i>Nyctalus noctula</i>	8
22:12	<i>Nyctalus noctula</i>	16
22:13	<i>Nyctalus noctula</i>	10
22:13	<i>Nyctalus noctula</i>	2
22:16	<i>Nyctalus noctula</i>	4
22:18	<i>Nyctalus noctula</i>	11
22:18	<i>Nyctalus noctula</i>	4
22:18	<i>Nyctalus noctula</i>	5
22:20	<i>Pipistrellus pipistrellus</i>	4
22:20	<i>Pipistrellus pipistrellus</i>	15
22:20	<i>Nyctalus noctula</i>	4
22:20	<i>Pipistrellus pipistrellus</i>	7
22:20	<i>Nyctalus noctula</i>	4
22:21	<i>Pipistrellus pipistrellus</i>	8
22:21	<i>Pipistrellus pipistrellus</i>	14
22:22	<i>Pipistrellus pipistrellus</i>	1
22:22	<i>Pipistrellus pipistrellus</i>	1

NB. The number of calls are calculated by the BatExplorer 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.

30th June 2024 – JM at Location 2 (Batlogger M)

Time	Species	Number of Calls [#]
21:01	<i>Nyctalus noctula</i>	6
21:01	<i>Nyctalus noctula</i>	23
21:06	<i>Nyctalus noctula</i>	10
21:06	<i>Nyctalus noctula</i>	2
21:06	<i>Nyctalus noctula</i>	1
21:07	<i>Nyctalus noctula</i>	3
21:07	<i>Nyctalus noctula</i>	40
21:07	<i>Nyctalus noctula</i>	19
21:08	<i>Nyctalus noctula</i>	6
21:08	<i>Nyctalus noctula</i>	4
21:08	<i>Nyctalus noctula</i>	23

21:09	<i>Nyctalus noctula</i>	3
21:09	<i>Nyctalus noctula</i>	19
21:09	<i>Nyctalus noctula</i>	11
21:09	<i>Nyctalus noctula</i>	23
21:10	<i>Nyctalus noctula</i>	3
21:10	<i>Nyctalus noctula</i>	51
21:10	<i>Nyctalus noctula</i>	39
21:10	<i>Nyctalus noctula</i>	26
21:11	<i>Nyctalus noctula</i>	12
21:11	<i>Nyctalus noctula</i>	1
21:11	<i>Pipistrellus pipistrellus</i>	1
21:11	<i>Nyctalus noctula</i>	2
21:11	<i>Nyctalus noctula</i>	37
21:12	<i>Nyctalus noctula</i>	3
21:12	<i>Nyctalus noctula</i>	4
21:12	<i>Nyctalus noctula</i>	23
21:12	<i>Nyctalus noctula</i>	4
21:13	<i>Nyctalus noctula</i>	2
21:13	<i>Nyctalus noctula</i>	3
21:13	<i>Nyctalus noctula</i>	3
21:13	<i>Nyctalus noctula</i>	9
21:13	<i>Nyctalus noctula</i>	2
21:13	<i>Nyctalus noctula</i>	3
21:13	<i>Nyctalus noctula</i>	3
21:13	<i>Nyctalus noctula</i>	16
21:13	<i>Nyctalus noctula</i>	3
21:13	<i>Nyctalus noctula</i>	6
21:13	<i>Nyctalus noctula</i>	2
21:13	<i>Nyctalus noctula</i>	50
21:14	<i>Nyctalus noctula</i>	2
21:14	<i>Nyctalus noctula</i>	1
21:14	<i>Nyctalus noctula</i>	1
21:14	<i>Nyctalus noctula</i>	22
21:14	<i>Nyctalus noctula</i>	67
21:15	<i>Nyctalus noctula</i>	68
21:15	<i>Nyctalus noctula</i>	32
21:15	<i>Nyctalus noctula</i>	6
21:16	<i>Nyctalus noctula</i>	6
21:16	<i>Nyctalus noctula</i>	21
21:16	<i>Nyctalus noctula</i>	19
21:16	<i>Nyctalus noctula</i>	1
21:16	<i>Nyctalus noctula</i>	1
21:16	<i>Nyctalus noctula</i>	3
21:16	<i>Nyctalus noctula</i>	9

21:16	<i>Nyctalus noctula</i>	15
21:17	<i>Nyctalus noctula</i>	2
21:17	<i>Nyctalus noctula</i>	3
21:17	<i>Nyctalus noctula</i>	12
21:17	<i>Nyctalus noctula</i>	4
21:17	<i>Nyctalus noctula</i>	2
21:17	<i>Nyctalus noctula</i>	3
21:17	<i>Nyctalus noctula</i>	6
21:18	<i>Nyctalus noctula</i>	2
21:19	<i>Nyctalus noctula</i>	14
21:19	<i>Pipistrellus pipistrellus</i>	7
21:19	<i>Nyctalus noctula</i>	2
21:19	<i>Nyctalus noctula</i>	14
21:19	<i>Nyctalus noctula</i>	3
21:19	<i>Nyctalus noctula</i>	16
21:19	<i>Nyctalus noctula</i>	3
21:20	<i>Nyctalus noctula</i>	4
21:20	<i>Nyctalus noctula</i>	2
21:20	<i>Nyctalus noctula</i>	3
21:20	<i>Nyctalus noctula</i>	4
21:20	<i>Nyctalus noctula</i>	8
21:20	<i>Nyctalus noctula</i>	47
21:20	<i>Nyctalus noctula</i>	67
21:21	<i>Nyctalus noctula</i>	11
21:21	<i>Nyctalus noctula</i>	4
21:21	<i>Nyctalus noctula</i>	17
21:21	<i>Nyctalus noctula</i>	4
21:22	<i>Nyctalus noctula</i>	4
21:22	<i>Nyctalus noctula</i>	2
21:22	<i>Nyctalus noctula</i>	11
21:22	<i>Nyctalus noctula</i>	8
21:22	<i>Nyctalus noctula</i>	1
21:22	<i>Nyctalus noctula</i>	4
21:22	<i>Pipistrellus pipistrellus</i>	41
21:22	<i>Nyctalus noctula</i>	12
21:23	<i>Nyctalus noctula</i>	69
21:23	<i>Nyctalus noctula</i>	1
21:23	<i>Nyctalus noctula</i>	2
21:25	<i>Nyctalus noctula</i>	1
21:25	<i>Nyctalus noctula</i>	19
21:26	<i>Nyctalus noctula</i>	6
21:26	<i>Nyctalus noctula</i>	8
21:28	<i>Pipistrellus pipistrellus</i>	1
21:28	<i>Pipistrellus pipistrellus</i>	7
21:29	<i>Pipistrellus pipistrellus</i>	12

21:29	<i>Pipistrellus pipistrellus</i>	28
21:29	<i>Pipistrellus pipistrellus</i>	25
21:29	<i>Nyctalus noctula</i>	8
21:29	<i>Pipistrellus pipistrellus</i>	24
21:29	<i>Pipistrellus pipistrellus</i>	10
21:29	<i>Pipistrellus pipistrellus</i>	56
21:29	<i>Nyctalus noctula</i>	30
21:30	<i>Pipistrellus pipistrellus</i>	22
21:31	<i>Pipistrellus pipistrellus</i>	5
21:31	<i>Pipistrellus pipistrellus</i>	2
21:31	<i>Nyctalus noctula</i>	2
21:31	<i>Nyctalus noctula</i>	80
21:31	<i>Pipistrellus pipistrellus</i>	17
21:32	<i>Pipistrellus pipistrellus</i>	11
21:32	<i>Nyctalus noctula</i>	3
21:32	<i>Nyctalus noctula</i>	18
21:32	<i>Pipistrellus pipistrellus</i>	4
21:32	<i>Pipistrellus pipistrellus</i>	36
21:32	<i>Nyctalus noctula</i>	17
21:32	<i>Nyctalus noctula</i>	28
21:33	<i>Nyctalus noctula</i>	39
21:33	<i>Nyctalus noctula</i>	15
21:33	<i>Nyctalus noctula</i>	36
21:33	<i>Nyctalus noctula</i>	26
21:33	<i>Nyctalus noctula</i>	41
21:34	<i>Nyctalus noctula</i>	4
21:34	<i>Nyctalus noctula</i>	15
21:34	<i>Nyctalus noctula</i>	4
21:34	<i>Nyctalus noctula</i>	11
21:34	<i>Nyctalus noctula</i>	1
21:34	<i>Nyctalus noctula</i>	18
21:35	<i>Nyctalus noctula</i>	41
21:35	<i>Pipistrellus pipistrellus</i>	9
21:35	<i>Pipistrellus pipistrellus</i>	82
21:35	<i>Pipistrellus pipistrellus</i>	13
21:36	<i>Nyctalus noctula</i>	2
21:36	<i>Nyctalus noctula</i>	6
21:36	<i>Pipistrellus pipistrellus</i>	40
21:37	<i>Nyctalus noctula</i>	6
21:37	<i>Pipistrellus pipistrellus</i>	17
21:38	<i>Nyctalus noctula</i>	7
21:38	<i>Nyctalus noctula</i>	1
21:38	<i>Nyctalus noctula</i>	1
21:38	<i>Nyctalus noctula</i>	16
21:38	<i>Nyctalus noctula</i>	5

21:38	<i>Nyctalus noctula</i>	3
21:38	<i>Nyctalus noctula</i>	17
21:39	<i>Pipistrellus pipistrellus</i>	35
21:39	<i>Nyctalus noctula</i>	13
21:39	<i>Nyctalus noctula</i>	8
21:40	<i>Nyctalus noctula</i>	16
21:40	<i>Nyctalus noctula</i>	32
21:40	<i>Nyctalus noctula</i>	2
21:40	<i>Pipistrellus pipistrellus</i>	22
21:40	<i>Nyctalus noctula</i>	8
21:40	<i>Nyctalus noctula</i>	47
21:41	<i>Nyctalus noctula</i>	11
21:41	<i>Nyctalus noctula</i>	34
21:41	<i>Nyctalus noctula</i>	17
21:41	<i>Nyctalus noctula</i>	7
21:41	<i>Pipistrellus pipistrellus</i>	4
21:41	<i>Nyctalus noctula</i>	11
21:42	<i>Nyctalus noctula</i>	9
21:42	<i>Nyctalus noctula</i>	7
21:42	<i>Pipistrellus pipistrellus</i>	11
21:42	<i>Nyctalus noctula</i>	2
21:42	<i>Nyctalus noctula</i>	30
21:42	<i>Nyctalus noctula</i>	16
21:42	<i>Nyctalus noctula</i>	17
21:43	<i>Nyctalus noctula</i>	10
21:43	<i>Nyctalus noctula</i>	23
21:43	<i>Nyctalus noctula</i>	10
21:43	<i>Nyctalus noctula</i>	49
21:43	<i>Nyctalus noctula</i>	15
21:43	<i>Nyctalus noctula</i>	1
21:43	<i>Nyctalus noctula</i>	22
21:43	<i>Nyctalus noctula</i>	4
21:44	<i>Nyctalus noctula</i>	10
21:44	<i>Pipistrellus pipistrellus</i>	19
21:44	<i>Nyctalus noctula</i>	10
21:44	<i>Nyctalus noctula</i>	1
21:44	<i>Nyctalus noctula</i>	24
21:44	<i>Nyctalus noctula</i>	12
21:44	<i>Nyctalus noctula</i>	25
21:44	<i>Nyctalus noctula</i>	5
21:44	<i>Nyctalus noctula</i>	1
21:44	<i>Nyctalus noctula</i>	3
21:45	<i>Nyctalus noctula</i>	2
21:45	<i>Nyctalus noctula</i>	11
21:45	<i>Nyctalus noctula</i>	1

21:45	<i>Nyctalus noctula</i>	10
21:45	<i>Nyctalus noctula</i>	38
21:45	<i>Nyctalus noctula</i>	87
21:46	<i>Nyctalus noctula</i>	39
21:46	<i>Nyctalus noctula</i>	33
21:46	<i>Nyctalus noctula</i>	33
21:46	<i>Nyctalus noctula</i>	59
21:47	<i>Nyctalus noctula</i>	68
21:47	<i>Nyctalus noctula</i>	32
21:47	<i>Pipistrellus pipistrellus</i>	47
21:47	<i>Nyctalus noctula</i>	5
21:47	<i>Nyctalus noctula</i>	13
21:47	<i>Nyctalus noctula</i>	47
21:48	<i>Nyctalus noctula</i>	10
21:48	<i>Nyctalus noctula</i>	14
21:48	<i>Nyctalus noctula</i>	116
21:48	<i>Nyctalus noctula</i>	22
21:48	<i>Nyctalus noctula</i>	45
21:49	<i>Nyctalus noctula</i>	50
21:49	<i>Nyctalus noctula</i>	29
21:49	<i>Nyctalus noctula</i>	2
21:50	<i>Nyctalus noctula</i>	1
21:51	<i>Nyctalus noctula</i>	16
21:51	<i>Nyctalus noctula</i>	30
21:51	<i>Nyctalus noctula</i>	0*
21:51	<i>Nyctalus noctula</i>	45
21:51	<i>Nyctalus noctula</i>	82
21:52	<i>Nyctalus noctula</i>	2
21:52	<i>Nyctalus noctula</i>	19
21:52	<i>Nyctalus noctula</i>	10
21:52	<i>Nyctalus noctula</i>	5
21:52	<i>Nyctalus noctula</i>	4
21:52	<i>Nyctalus noctula</i>	34
21:52	<i>Nyctalus noctula</i>	14
21:52	<i>Nyctalus noctula</i>	4
21:52	<i>Nyctalus noctula</i>	15
21:53	<i>Nyctalus noctula</i>	15
21:53	<i>Nyctalus noctula</i>	14
21:53	<i>Nyctalus noctula</i>	33
21:53	<i>Nyctalus noctula</i>	78
21:53	<i>Nyctalus noctula</i>	86
21:54	<i>Nyctalus noctula</i>	34
21:54	<i>Nyctalus noctula</i>	13
21:54	<i>Nyctalus noctula</i>	3
21:54	<i>Nyctalus noctula</i>	20

21:54	<i>Nyctalus noctula</i>	13
21:54	<i>Nyctalus noctula</i>	19
21:54	<i>Nyctalus noctula</i>	16
21:54	<i>Nyctalus noctula</i>	32
21:55	<i>Nyctalus noctula</i>	7
21:55	<i>Nyctalus noctula</i>	16
21:55	<i>Nyctalus noctula</i>	1
21:55	<i>Nyctalus noctula</i>	6
21:55	<i>Nyctalus noctula</i>	20
21:55	<i>Nyctalus noctula</i>	20
21:56	<i>Nyctalus noctula</i>	0*
21:56	<i>Nyctalus noctula</i>	26
21:56	<i>Nyctalus noctula</i>	40
21:56	<i>Nyctalus noctula</i>	1
21:56	<i>Nyctalus noctula</i>	11
21:56	<i>Nyctalus noctula</i>	22
21:57	<i>Nyctalus noctula</i>	4
21:57	<i>Nyctalus noctula</i>	12
21:57	<i>Nyctalus noctula</i>	4
21:57	<i>Nyctalus noctula</i>	28
21:58	<i>Nyctalus noctula</i>	10
21:58	<i>Nyctalus noctula</i>	2
21:58	<i>Nyctalus noctula</i>	3
21:58	<i>Nyctalus noctula</i>	5
21:58	<i>Nyctalus noctula</i>	2
21:58	<i>Nyctalus noctula</i>	12
21:58	<i>Nyctalus noctula</i>	22
21:58	<i>Nyctalus noctula</i>	1
21:58	<i>Nyctalus noctula</i>	7
21:58	<i>Nyctalus noctula</i>	7
21:59	<i>Nyctalus noctula</i>	6
21:59	<i>Nyctalus noctula</i>	1
21:59	<i>Nyctalus noctula</i>	47
21:59	<i>Nyctalus noctula</i>	29
22:00	<i>Nyctalus noctula</i>	24
22:00	<i>Nyctalus noctula</i>	3
22:00	<i>Nyctalus noctula</i>	9
22:00	<i>Nyctalus noctula</i>	7
22:00	<i>Nyctalus noctula</i>	5
22:00	<i>Nyctalus noctula</i>	5
22:00	<i>Nyctalus noctula</i>	4
22:01	<i>Nyctalus noctula</i>	17
22:01	<i>Nyctalus noctula</i>	4
22:02	<i>Nyctalus noctula</i>	4
22:02	<i>Nyctalus noctula</i>	38

22:02	<i>Nyctalus noctula</i>	21
22:02	<i>Pipistrellus pipistrellus</i>	14
22:03	<i>Nyctalus noctula</i>	26
22:03	<i>Nyctalus noctula</i>	22
22:03	<i>Nyctalus noctula</i>	1
22:04	<i>Nyctalus noctula</i>	3
22:04	<i>Nyctalus noctula</i>	27
22:05	<i>Nyctalus noctula</i>	28
22:05	<i>Nyctalus noctula</i>	6
22:06	<i>Nyctalus noctula</i>	25
22:06	<i>Nyctalus noctula</i>	7
22:06	<i>Nyctalus noctula</i>	2
22:06	<i>Nyctalus noctula</i>	42
22:07	<i>Nyctalus noctula</i>	12
22:07	<i>Nyctalus noctula</i>	3
22:07	<i>Nyctalus noctula</i>	12
22:07	<i>Nyctalus noctula</i>	3
22:08	<i>Nyctalus noctula</i>	52
22:08	<i>Nyctalus noctula</i>	17
22:08	<i>Nyctalus noctula</i>	10
22:09	<i>Nyctalus noctula</i>	14
22:09	<i>Nyctalus noctula</i>	22
22:09	<i>Nyctalus noctula</i>	5
22:09	<i>Nyctalus noctula</i>	51
22:10	<i>Nyctalus noctula</i>	5
22:10	<i>Nyctalus noctula</i>	8
22:10	<i>Nyctalus noctula</i>	13
22:10	<i>Nyctalus noctula</i>	3
22:10	<i>Nyctalus noctula</i>	3
22:10	<i>Nyctalus noctula</i>	12
22:10	<i>Nyctalus noctula</i>	13
22:10	<i>Nyctalus noctula</i>	26
22:10	<i>Pipistrellus pipistrellus</i>	11
22:10	<i>Nyctalus noctula</i>	12
22:10	<i>Pipistrellus pipistrellus</i>	7
22:11	<i>Nyctalus noctula</i>	7
22:11	<i>Nyctalus noctula</i>	78
22:11	<i>Nyctalus noctula</i>	22
22:11	<i>Nyctalus noctula</i>	5
22:11	<i>Nyctalus noctula</i>	6
22:11	<i>Nyctalus noctula</i>	1
22:11	<i>Nyctalus noctula</i>	17
22:11	<i>Nyctalus noctula</i>	18
22:12	<i>Nyctalus noctula</i>	5
22:12	<i>Pipistrellus pipistrellus</i>	21

22:12	<i>Nyctalus noctula</i>	1
22:12	<i>Nyctalus noctula</i>	3
22:12	<i>Nyctalus noctula</i>	1
22:12	<i>Nyctalus noctula</i>	4
22:12	<i>Nyctalus noctula</i>	39

NB. The number of calls are calculated by the BatExplorer 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.

20th August 2024 – SW at Location 1 (Batlogger M)

Time	Species	Number of Calls [#]
19:53	<i>Pipistrellus pipistrellus</i>	0*
20:01	<i>Pipistrellus pipistrellus</i>	2
20:02	<i>Pipistrellus pipistrellus</i>	0*
20:03	<i>Pipistrellus pipistrellus</i>	0*
20:10	<i>Pipistrellus pipistrellus</i>	0*
20:12	<i>Pipistrellus pipistrellus</i>	3
20:25	<i>Pipistrellus pipistrellus</i>	1
20:26	<i>Pipistrellus pipistrellus</i>	0*
20:48	<i>Pipistrellus pipistrellus</i>	4
20:49	<i>Pipistrellus pipistrellus</i>	6
20:49	<i>Pipistrellus pygmaeus</i>	6
20:51	<i>Pipistrellus pipistrellus</i>	0*
20:52	<i>Pipistrellus pipistrellus</i>	11
20:53	<i>Pipistrellus pipistrellus</i>	4
20:54	<i>Pipistrellus pipistrellus</i>	32
20:57	<i>Pipistrellus pipistrellus</i>	4
20:58	<i>Pipistrellus pipistrellus</i>	4
20:58	<i>Pipistrellus pipistrellus</i>	1
21:03	<i>Pipistrellus pipistrellus</i>	3
21:03	<i>Pipistrellus pipistrellus</i>	25
21:04	<i>Pipistrellus pipistrellus</i>	2
21:04	<i>Pipistrellus pipistrellus</i>	13
21:05	<i>Pipistrellus pipistrellus</i>	9
21:08	<i>Eptesicus serotinus</i>	1
21:09	<i>Pipistrellus pygmaeus</i>	2
21:09	<i>Pipistrellus pygmaeus</i>	4
21:10	<i>Pipistrellus pipistrellus</i>	16
21:11	<i>Pipistrellus pipistrellus</i>	1
21:11	<i>Pipistrellus pipistrellus</i>	12
21:12	<i>Pipistrellus pipistrellus</i>	4
21:13	<i>Pipistrellus pipistrellus</i>	1
21:15	<i>Pipistrellus pipistrellus</i>	1
21:19	<i>Pipistrellus pygmaeus</i>	15
21:20	<i>Pipistrellus pipistrellus</i>	12
21:20	<i>Nyctalus noctula</i>	1

21:21	<i>Pipistrellus pipistrellus</i>	8
21:21	<i>Pipistrellus pipistrellus</i>	17
21:21	<i>Pipistrellus pipistrellus</i>	12
21:23	<i>Pipistrellus pipistrellus</i>	19
21:24	<i>Pipistrellus pipistrellus</i>	17
21:24	<i>Pipistrellus pipistrellus</i>	3
21:24	<i>Pipistrellus pygmaeus</i>	6
21:25	<i>Pipistrellus pipistrellus</i>	7
21:25	<i>Pipistrellus pipistrellus</i>	20
21:26	<i>Pipistrellus pipistrellus</i>	0*
21:26	<i>Pipistrellus pipistrellus</i>	15
21:26	<i>Pipistrellus pipistrellus</i>	0*
21:28	<i>Pipistrellus pipistrellus</i>	5
21:29	<i>Pipistrellus pipistrellus</i>	20
21:30	<i>Pipistrellus pipistrellus</i>	8
21:30	<i>Pipistrellus pipistrellus</i>	12
21:30	<i>Pipistrellus pipistrellus</i>	8
21:31	<i>Pipistrellus pipistrellus</i>	9
21:31	<i>Pipistrellus pipistrellus</i>	14
21:31	<i>Pipistrellus pipistrellus</i>	5
21:32	<i>Pipistrellus pygmaeus</i>	5
21:34	<i>Pipistrellus pipistrellus</i>	17
21:34	<i>Pipistrellus pipistrellus</i>	5
21:34	<i>Pipistrellus pipistrellus</i>	23
21:36	<i>Pipistrellus pipistrellus</i>	35
21:36	<i>Pipistrellus pipistrellus</i>	1
21:37	<i>Plecotus auritus</i>	2
21:39	<i>Pipistrellus pipistrellus</i>	0*
21:39	<i>Pipistrellus pipistrellus</i>	12
21:40	<i>Pipistrellus pipistrellus</i>	15
21:40	<i>Pipistrellus pipistrellus</i>	2
21:40	<i>Pipistrellus pipistrellus</i>	12
21:41	<i>Pipistrellus pipistrellus</i>	15
21:41	<i>Pipistrellus pipistrellus</i>	9
21:41	<i>Pipistrellus pipistrellus</i>	2
21:42	<i>Pipistrellus pipistrellus</i>	2

NB. The number of calls are calculated by the BatExplorer 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.

20th August 2024 – JM at Location 2 (Batlogger M)

Time	Species	Number of Calls [#]
20:37	<i>Pipistrellus pipistrellus</i>	1
20:38	<i>Pipistrellus pipistrellus</i>	3
20:38	<i>Pipistrellus pipistrellus</i>	9
20:40	<i>Pipistrellus pipistrellus</i>	13

20:43	<i>Pipistrellus pipistrellus</i>	1
20:44	<i>Pipistrellus pipistrellus</i>	2
20:44	<i>Pipistrellus pipistrellus</i>	0*
20:46	<i>Pipistrellus pipistrellus</i>	1
20:46	<i>Pipistrellus pipistrellus</i>	18
20:46	<i>Pipistrellus pipistrellus</i>	70
20:46	<i>Pipistrellus pipistrellus</i>	126
20:47	<i>Pipistrellus pipistrellus</i>	21
20:47	<i>Pipistrellus pipistrellus</i>	1
20:48	<i>Pipistrellus pipistrellus</i>	23
20:50	<i>Pipistrellus pipistrellus</i>	57
20:50	<i>Pipistrellus pipistrellus</i>	79
20:50	<i>Pipistrellus pipistrellus</i>	1
20:50	<i>Pipistrellus pipistrellus</i>	1
20:50	<i>Pipistrellus pipistrellus</i>	124
20:51	<i>Pipistrellus pipistrellus</i>	51
20:51	<i>Pipistrellus pipistrellus</i>	3
20:51	<i>Pipistrellus pipistrellus</i>	17
20:51	<i>Pipistrellus pipistrellus</i>	20
20:51	<i>Pipistrellus pipistrellus</i>	124
20:52	<i>Pipistrellus pipistrellus</i>	120
20:52	<i>Pipistrellus pipistrellus</i>	0*
20:52	<i>Pipistrellus pipistrellus</i>	1
20:53	<i>Pipistrellus pipistrellus</i>	139
20:53	<i>Pipistrellus pipistrellus</i>	106
20:53	<i>Pipistrellus pipistrellus</i>	75
20:54	<i>Pipistrellus pipistrellus</i>	1
20:54	<i>Pipistrellus pipistrellus</i>	3
20:54	<i>Pipistrellus pipistrellus</i>	124
20:55	<i>Pipistrellus pipistrellus</i>	91
20:56	<i>Pipistrellus pipistrellus</i>	5
20:56	<i>Plecotus auritus</i>	1
20:57	<i>Pipistrellus pipistrellus</i>	5
20:57	<i>Pipistrellus pipistrellus</i>	109
20:57	<i>Pipistrellus pipistrellus</i>	1
20:58	<i>Pipistrellus pipistrellus</i>	6
20:58	<i>Pipistrellus pipistrellus</i>	4
20:59	<i>Pipistrellus pipistrellus</i>	6
21:00	<i>Pipistrellus pipistrellus</i>	4
21:01	<i>Pipistrellus pipistrellus</i>	1
21:01	<i>Pipistrellus pipistrellus</i>	53
21:01	<i>Pipistrellus pipistrellus</i>	46
21:03	<i>Pipistrellus pygmaeus</i>	2
21:04	<i>Plecotus auritus</i>	1
21:04	<i>Plecotus auritus</i>	2

21:04	<i>Plecotus auritus</i>	16
21:05	<i>Pipistrellus pipistrellus</i>	6
21:05	<i>Plecotus auritus</i>	2
21:05	<i>Plecotus auritus</i>	3
21:05	<i>Plecotus auritus</i>	1
21:05	<i>Plecotus auritus</i>	3
21:05	<i>Plecotus auritus</i>	6
21:05	<i>Pipistrellus pipistrellus</i>	32
21:05	<i>Pipistrellus pipistrellus</i>	10
21:08	<i>Pipistrellus pipistrellus</i>	41
21:08	<i>Pipistrellus pipistrellus</i>	1
21:11	<i>Pipistrellus pipistrellus</i>	1
21:11	<i>Pipistrellus pipistrellus</i>	23
21:19	<i>Pipistrellus pipistrellus</i>	19
21:20	<i>Nyctalus noctula</i>	1
21:21	<i>Pipistrellus pipistrellus</i>	3
21:21	<i>Pipistrellus pipistrellus</i>	16
21:21	<i>Pipistrellus pipistrellus</i>	2
21:25	<i>Pipistrellus pipistrellus</i>	5
21:26	<i>Nyctalus noctula</i>	6
21:27	<i>Pipistrellus pygmaeus</i>	5
21:31	<i>Pipistrellus pipistrellus</i>	19
21:32	<i>Pipistrellus pipistrellus</i>	49
21:32	<i>Plecotus auritus</i>	0*
21:34	<i>Pipistrellus pipistrellus</i>	20

NB. The number of calls are calculated by the BatExplorer 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.

11th September 2024 – SW at Location 1 (EMT3)

Time	Species	Number of Recordings [#]
No Data Available		

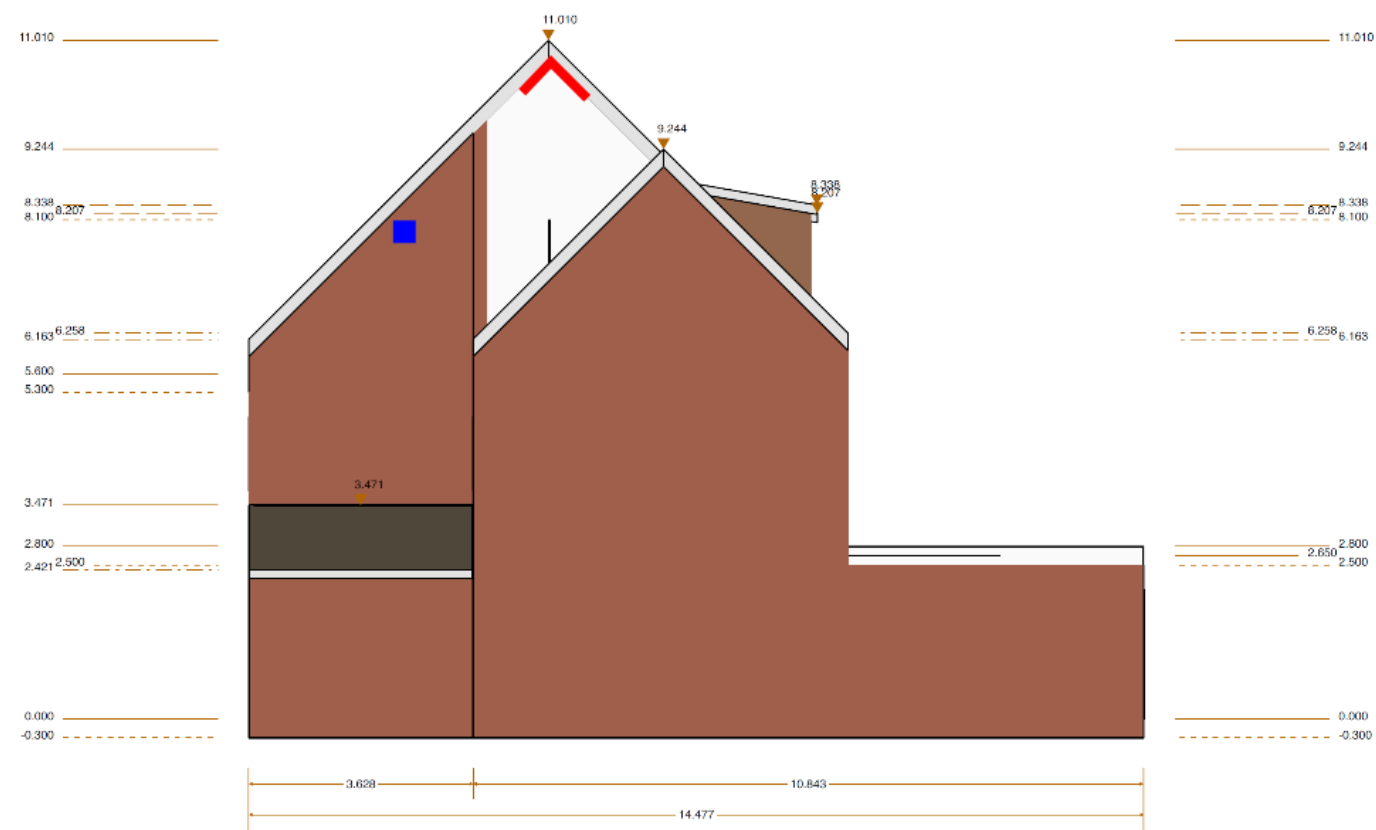
11th September 2024 – JM at Location 2 (Batlogger M)

Time	Species	Number of Calls[#]
19:51	<i>Pipistrellus pipistrellus</i>	2
19:52	<i>Pipistrellus pipistrellus</i>	3
19:53	<i>Pipistrellus pipistrellus</i>	3
19:53	<i>Pipistrellus pipistrellus</i>	2
20:02	<i>Pipistrellus pipistrellus</i>	0*
20:47	<i>Plecotus auritus</i>	48

NB. The number of calls are calculated by the BatExplorer 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 – PROPOSED BAT ROOST PROVISION



Integrated or Wall Mounted Woodcrete Bat Box Under soffit loft access at rear edge measuring 15mm deep

Drawn by:	Date:	Scale:	99 Hyde End Lane Ryeish Green	
JM/JW	October 2024	Not to scale	Bat Roost Provision	