

71 Long Lane, Aughton, Ormskirk L39 5AS

## BAT ACTIVITY SURVEYS 2023

November 2023

ERAP (Consultant Ecologists) Ltd Reference: 2023-198

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## Document Control

<b>Survey Type:</b>	<b>Surveyors</b>	<b>Survey Date(s)</b>
Bat activity surveys	Amy Sharples B.Sc. (Hons) M.Sc. ACIEEM	30 <sup>th</sup> August 2023 13 <sup>th</sup> September 2023
<b>Reporting</b>	<b>Personnel</b>	<b>Date</b>
<b>Author</b>	Amy Sharples B.Sc. (Hons) M.Sc. ACIEEM Senior Ecologist	2 <sup>nd</sup> November 2023
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<b>Checked</b>	Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM	6 <sup>th</sup> November 2023
<b>Revised and issued</b>	Amy Sharples B.Sc. (Hons) M.Sc. ACIEEM	6 <sup>th</sup> November 2023
<b>Report issued to</b>	Danny Thompson c/o Pye Design Architects	
<b>Version Number</b>	1	

## SUMMARY

### Introduction and Scope

- i. This report presents the results of bat activity surveys undertaken at 71 Long Lane, Aughton, Ormskirk L39 5AS. The surveys were required to inform a planning application proposing the construction of a two-storey extension and replacement of dormers at the house.
- ii. A daylight licensed bat survey and assessment was undertaken at the site on 11<sup>th</sup> August 2023 by Contract Ecology Ltd. The results of this survey and assessment are presented at *Preliminary Roost Assessment (Bats)* (Contract Ecology Ltd, 2023). In summary, the daylight licensed bat survey and assessment concluded that the house is of 'moderate' suitability for use by roosting bats and at least two bat activity surveys are required to comply with survey guidelines and to further inform the planning application.
- iii. This report presents the results of a data search in relation to bat species and the results of two dusk emergence surveys for bat activity undertaken in August and September 2023. The surveys were supplemented with the use of night vision aids and were carried out by a qualified and experienced ecologist, with assistants, and are in accordance with recognised survey guidelines namely *Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition* (Collins, J. (ed), 2016).

### Results of Survey and Assessment

- iv. No evidence of the current or previous use of the buildings (house and garage) in the site boundary by roosting bats was detected during the daylight survey and assessment (carried out by Contract Ecology in August 2023) or during the bat activity surveys undertaken in August and September 2023.
- v. The house is assessed to be of 'moderate' suitability for use by roosting bats owing to the presence of gaps under slipped and lifting roof slates, lifted hanging tiles and gaps in the mortar at the gable end eaves and dormer windows (the garage will not be affected by the proposals). No bat emergence or re-entry was detected during the dusk emergence surveys. The current / recent presence of roosting bats is reasonably discounted at the site.

### Evaluation and Recommendations

- vi. Appropriate and proportionate survey effort and / or assessment, in accordance with standard survey guidelines has been applied to discount adverse effects of the current proposals on roosting bats. No updated or further surveys are required to inform the assessment or this planning application. If the proposals are significantly changed or there is a significant delay to the commencement of works then updated bat activity surveys may be required.
- vii. The recommendations in **Section 5.0** outline all the mandatory measures and additional actions to be applied to ensure compliance with wildlife legislation, the National Planning Policy Framework and best practice. This includes appropriate and proportionate enhancement measures to maximise the benefits for biodiversity as part of the proposals as outlined in **Section 5.4**.

## 1.0 INTRODUCTION

### 1.1 Background and Rationale

- 1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned by Danny Thompson c/o Pye Design Architects to carry out the relevant scope of bat activity surveys at 71 Long Lane, Aughton, Ormskirk L39 5AS (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the site is SD 40464 07010.
- 1.1.2 The surveys were requested to inform a planning application proposing the construction of a two-storey extension and replacement of dormers at the residential property.
- 1.1.3 A daylight licensed bat survey and assessment of the house and the garage at the site was undertaken on 11<sup>th</sup> August 2023 by Contract Ecology Ltd. The results of this survey and assessment are presented at *Preliminary Roost Assessment (Bats)* (Contract Ecology Ltd, 2023).
- 1.1.4 The daylight licensed bat survey and assessment of the house and garage did not detect any evidence of the current or previous use of the buildings by roosting bats. The house was assessed to be of 'moderate' suitability for use by roosting bats owing to the presence of gaps under slipped and lifting roof slates, lifted hanging tiles and gaps in the mortar at the gable end eaves and dormer windows<sup>1</sup>. To inform the planning application and to comply with *Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition* (Collins, J. (ed), 2016) a minimum of two bat activity survey was required at the site.

### 1.2 Scope of Works

- 1.2.1 The scope of ecological works undertaken in August and September 2023 comprised:
- A desktop study and data search for known ecological information in relation to bat species at the site and the local area;
  - Bat activity (dusk emergence) surveys supplemented with the use of night vision aids (NVAs);
  - The identification of any potential ecological constraints on the proposals and the specification of the scope of mitigation and ecological enhancement required in accordance with wildlife legislation, planning policy guidance and other relevant guidance; and
  - The identification of any further surveys or precautionary actions that may be required to inform the progression of the site through the planning process or prior to the commencement of any construction activities.

## 2.0 METHOD OF SURVEY

### 2.1 Desktop Study and Data Search

- 2.1.1 The following sources of information and ecological records were consulted:
- MAGiC Maps: A web-based interactive map which brings together geographic information on key environmental schemes and designations, including details of statutory nature conservation sites;
  - Lancashire Environment Record Network;
  - The Lancashire Biodiversity Action Plan (BAP); and
  - Preliminary Roost Assessment (Bats)* (Contract Ecology Ltd, 2023).

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<sup>1</sup> The garage will not be affected by the proposals.

## 2.2 Presence / Absence Surveys: Dusk Emergence Surveys

- 2.2.1 The surveys were carried out in accordance with the guidance in Chapter 7 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition* (Collins, J. (ed), 2016).
- 2.2.2 Two dusk emergence surveys, supplemented by NVAs, were conducted at the house in August and September 2023. All surveys were conducted under suitable conditions. The dusk emergence surveys commenced at least 15 minutes before sunset, and continued for at least 1.5 hours after sunset (refer to **Table 2.1**)
- 2.2.3 Surveyors, experienced in conducting bat surveys, were positioned at suitable locations to maximise the coverage of the building to determine any entry or emergence by roosting bats. Any bat emergence or re-entry activity was recorded, with brief notes relating to bat activity at each survey position collated at the end of the survey.
- 2.2.4 Heterodyne detectors were used to determine any bat detected to species or group (*Myotis* species, for example, often cannot be reliably identified to species from their echolocation calls). Recording bat detector units<sup>2</sup> were also used to record and analyse echolocation calls after the survey using Anabat Insight bat call analysis software.
- 2.2.5 Night vision aids (NVA)<sup>3</sup>, supplemented with additional infra-red lighting (comprising Nightfox XB5 torches and infra-red floodlights) were used at the surveyor positions described in **Table 2.1** and shown on **Figure 1**. Photographs showing each survey position from the darkest point of the surveys are appended at **Photos 1** to **4**. Footage was subsequently reviewed using VLC Media Player to determine any emergence / re-entry at the building.
- 2.2.6 In accordance with *Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys* (Bat Conservation Trust, May 2022):
- 'The 4<sup>th</sup> edition of the survey guidelines will therefore transition away from the standard use of dawn surveys, particularly as a method for presence/absence surveys, in favour of dusk surveys supported by NVAs.'*
- 2.2.7 NVAs were used at each survey position for each of the surveys completed. It has therefore been considered that no dawn re-entry survey (as could have been required in accordance with *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* (Collins, J. (ed), 2016)) is necessary to inform the survey results.
- 2.2.8 The dates of the surveys, surveyors, equipment used and weather conditions are presented at **Table 2.1**.

**Table 2.1: Dusk Emergence Survey Dates, Weather Conditions and Surveyors**

Date	30 <sup>th</sup> August 2023	13 <sup>th</sup> September 2023
Sunset time:	20:07	19:33
Start & end time	19:50 until 21:40	19:15 until 21:05
Weather	14°C at 20:10 and dry with a light air (Beaufort scale 1)	16°C at 19:20 and dry with a light air (Beaufort scale 1)
<b>Survey Position</b>	<b>Surveyor, Detector and NVA</b>	<b>Surveyor, Detector and NVA</b>
1	Catie Haworth, Anabat Scout & Nightfox Red	Catie Haworth, Anabat Scout & Nightfox Red
2	Amy Sharples, Batbox III, Anabat Express and Canon XA40	Amy Sharples, Batbox III, Anabat Express and Canon XA10
3	Stuart Laverick, Anabat Scout & Nightfox Red	Marisa Hensey, Anabat Scout & Canon XA60
4	Ian Nelson, Anabat Scout & Nightfox Red	Ian Nelson, Anabat Scout & Canon XA60

<sup>2</sup> i.e. Anabat Express and Anabat Scout

<sup>3</sup> Canon XA10, Canon XA40, Canon XA60 and Nightfox Red infra-red binoculars.

2.2.9 Prior to the dusk emergence surveys the external perimeter of the house was carried out to search for bat droppings.

### 2.3 Survey Limitations

2.3.1 No survey limitations were experienced.

2.3.2 It is recognised that the first dusk emergence survey was carried out on 30<sup>th</sup> August 2023 which is at the end of the recognised recommended timings for the detection of a maternity roost (Table 7.1 of the *Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition* (Collins, J. (ed), 2016)). It is advised that the survey timings are valid and suitable and proportionate to inform a planning application in this instance as no evidence of use of the house by a maternity roost was detected during the daylight survey carried out by Contract Ecology Ltd and the works involve the extension of the house (rather than demolition).

### 2.4 Evaluation Methods

2.4.1 Government advice on wildlife, as set out in the *National Planning Policy Framework* (Ministry of Housing, Communities and Local Government, 2021) and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedules 1, 5, 6 and 8 of the *Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*, is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.

2.4.2 The presence of any Priority Species, as listed under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006* is noted, and habitats are assessed in terms of their suitability and value for these species. The presence of species listed by the Lancashire BAP has been taken into account in the evaluation of the site.

## 3.0 SURVEY RESULTS

### 3.1 Desktop Study and Data Search

#### Previous Licensed Daylight Bat Survey

3.1.1 A daylight licensed bat survey and assessment was undertaken at the site on 11<sup>th</sup> August 2023 by Contract Ecology Ltd. The results of this survey and assessment are presented at *Preliminary Roost Assessment (Bats)* (Contract Ecology Ltd, 2023).

3.1.2 The house is assessed to be of 'moderate' suitability for use by roosting bats owing to the presence of gaps under slipped and lifting roof slates, lifted hanging tiles and gaps in the mortar at the gable end eaves and dormer windows.

#### Bat Species

3.1.3 LERN hold no records of bat species for the site.

3.1.4 Reported records of bat species for a 2 kilometre radius from the centre of the site are summarised at **Table 3.1**.

**Table 3.1: Records of Bat Species Within a 2 Kilometre Radius from the Centre of the Site**

Taxon Group	Species Name and Designations <sup>1</sup> and Notes
Terrestrial mammals	Bats (Chiroptera): EPS, WCAs5 & LBAP. 56 records, dated between 1985 and 2018. The closest record is 125 metres to the south, and from 1995.
	Brown long-eared bat ( <i>Plecotus auritus</i> ): EPS, WCAs5, PS & LBAP. 2 records, dated 1987 and 2002. The closest record is 1120 metres to the north-east, and from 1987.
	Common pipistrelle ( <i>Pipistrellus pipistrellus</i> ): EPS, WCAs5 & LBAP. 103 records, dated between 1985 and 2020. The closest record is 170 metres to the south-west, and from 1994.
	Daubenton's bat ( <i>Myotis daubentonii</i> ): EPS, WCAs5 & LBAP. 1 record from 2012, located 1395 metres to the north-east.
	Noctule bat ( <i>Nyctalus noctula</i> ): EPS, WCAs5, PS & LBAP. 5 records, dated between 1987 and 2018. The closest record is 470 metres to the south, and from 2018.
	Pipistrelle bat species ( <i>Pipistrellus</i> sp.): EPS, WCAs5 & LBAP. 43 records, dated between 1985 and 2013. The closest record is 170 metres to the south-west, and from 1993.
	Whiskered bat ( <i>Myotis mystacinus</i> ): EPS, WCAs5 & LBAP. 1 record from 2002, located 1805 metres to the north-east.
<b><sup>1</sup>Key to Designation Codes:</b>	
EPS = European Protected Species under <i>The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019</i> .	
WCAs5 = Species receives full protection under Schedule 5 of the <i>Wildlife and Countryside Act 1981</i> (as amended).	
PS = Priority Species listed under Section 41 of the NERC Act 2006.	
LBAP = Species listed on the Lancashire Biodiversity Action Plan	

3.1.5 The presence of these bat species within the wider area has been taken into account throughout this report.

## 3.2 Dusk Emergence Presence / Absence Surveys

### 30<sup>th</sup> August 2023

3.2.1 The survey data from the 30<sup>th</sup> August 2023 are appended at **Table 8.1**.

3.2.2 No bat droppings were found around the external elevations of the house.

3.2.3 No bat emergence or re-entry was detected at the house. Subsequent review of the NVA footage did not detect any emergence or re-entry activity.

3.2.4 Common pipistrelle (*Pipistrellus pipistrellus*) bats were recorded during the survey, with the first bat recorded 16 minutes after sunset entering the site and foraging over the garden. One soprano pipistrelle (*Pipistrellus pygmaeus*) call sequence was recorded by each of the surveyors at survey positions 1 and 2 at 1 hour and 16 minutes after sunset.

### 13<sup>th</sup> September 2023

3.2.5 The survey data from the 13<sup>th</sup> September 2023 are appended at **Table 8.2**.

3.2.6 No bat droppings were found around the external elevations of the house. No bat emergence or re-entry was detected at the house. Subsequent review of the NVA footage did not detect any emergence or re-entry activity.

3.2.7 Common pipistrelle was the only bat species recorded during the survey, with the first bat recorded 20 minutes after sunset entering the site and foraging over the garden.

## 4.0 EVALUATION AND ASSESSMENT

### 4.1 Introduction and Description of Proposals

4.1.1 In accordance with *4380-11-Rev A – Proposed Elevations* (Pye Design Architects, 2023) it is proposed to construct a two-storey extension and replace the dormers at the house.



4.1.2 **Section 4.2** provides an evaluation of the conditions at the house and an assessment of any impacts of the proposed development on bat species.

## 4.2 Bats

4.2.1 No evidence of the current or previous use of the house and garage at the site by roosting bats, including a maternity roost, was detected during the daylight survey and assessment carried out in August 2023. The house is assessed to be of 'moderate' suitability for use by roosting bats owing to the presence of gaps under slipped and lifting roof slates, lifted hanging tiles and gaps in the mortar at the gable end eaves and dormer windows.

4.2.2 No bat emergence or bat activity to indicate the presence of a roost was detected at the house during the bat activity surveys in August and September 2023.

4.2.3 The bat species recorded at the site during the surveys are typical of the geographical area and the garden habitats present.

4.2.4 Inappropriate use of artificial illumination could impact upon the ecological value of the garden habitat. The sensitive use of lighting at the site will avoid any significant adverse effect on opportunities for foraging bats (refer to **Section 5.3**). In addition, the proposed works at the site provides opportunities for the creation of habitat suitable for use by roosting bats as part of good design; recommendations are presented at **Section 5.4**.

## 5.0 RECOMMENDATIONS AND ECOLOGICAL ENHANCEMENT

### 5.1 Introduction

5.1.1 These recommendations aim to ensure that the proposals are implemented in accordance with relevant wildlife legislation, Natural England guidance, the principles of the National Planning Policy Framework (NPPF), local planning policy and best practice.

5.1.2 The recommendations are appropriate and proportionate to the scale of the extension proposals and are in accordance with Chapter 15, paragraph 180(d) of the NPPF which states:

*'opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate'.*

### 5.2 Survey Validity

5.2.1 Appropriate and proportionate survey effort and / or assessment, in accordance with standard survey guidelines has been applied to discount adverse effects of the current proposals on roosting bats. No updated or further surveys are required to inform the assessment or this planning application. If the proposals are significantly changed or there is a significant delay to the commencement of works then updated bat activity surveys may be required.

### 5.3 Protection of Existing Features and Wildlife During Construction Phase

#### Protection of Retained Garden Habitats

5.3.1 During the construction phase, temporary protective demarcation fencing will be used to protect any trees and shrubs within the retained garden habitats. Where relevant the fencing will be in accordance with BS5837:2012 *Trees in Relation to Design, Demolition and Construction: Recommendations* (BSI, 2012).

## Dust Suppression, Incidents and Accidents

- 5.3.2 The risk of adverse effects on off-site habitats and wildlife as a result of dust, spills and leaks will be controlled by the application of best practice measures and appropriate environmental controls such as dust suppression, appropriate storage of chemicals and fuel, presence of spill kits and appropriate training of on-site personnel.

## Invasive Plant Species and Biosecurity

- 5.3.3 To minimise the risk of introduction of invasive species to the site all machinery / plant to be brought to the site must be clean. Wheels / tracks of machinery / plant must have been pressure washed before use at the site. No excessive remnant soil or plant material from other sites must be present on the machinery / plant or in the tyre treads as this may increase the risk of spread of non-native and invasive plant species e.g. Japanese Knotweed (*Fallopia japonica*) and Giant Hogweed (*Heracleum mantegazzianum*).

## Discover of a Bat

- 5.3.4 If at any time during the works a bat is discovered or suspected all contractors must withdraw from the area and ERAP (Consultant Ecologists) Ltd (01772 750502) or the Bat Conservation Trust must be contacted for further guidance.

## Protection of Nesting Birds

- 5.3.5 Evidence of use of the house by nesting birds was detected during the daylight survey. All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. It is advised that works that will affect habitats suitable for use by nesting birds are scheduled to commence outside the bird nesting season. Commencement of works in the nesting season must be informed by a pre-works nesting bird survey, carried out by a suitably experienced ecologist. The bird breeding season typically extends between March to August inclusive.
- 5.3.6 If breeding birds are detected the ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. This may involve cordoning off an area of the site until the young birds have fledged.

## 5.4 Long-term Protection and Enhancement of Habitats for Roosting Bats and Nesting Birds

### Lighting

- 5.4.1 Paragraph 185(c) in Chapter 15 (conserving and enhancing the natural environment) of the NPPF states that development should:

*'limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'*

- 5.4.2 Any lighting scheme to be implemented at the developed site must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over any retained trees within the garden habitat and any landscape planting, as lighting overspill may deter use by wildlife such as foraging bats.
- 5.4.3 The lighting scheme will be designed with reference to current guidance, namely:
- a. *Guidance Note 08/23: Bats and Artificial Lighting at Night* (Institution of Lighting Professionals & Bat Conservation Trust, 2023); and
  - b. *Bats and lighting: Overview of current evidence and mitigation guidance* (Stone, 2014).

## Bats

- 5.4.4 It is recommended that the development incorporates the installation of two bat boxes at the house.
- 5.4.5 The bat boxes should be sited at least 4 metres above ground level, ideally facing or close to areas of landscape planting or existing linear features. The access panels should not be positioned over windows or doorways where bat droppings may become a nuisance. Once the development layout has been finalised, an ecologist should advise on appropriate positions for the bat access panels. An example of a suitable bat box available from Greenwood's Ecohabitats ([www.greenwoodsecohabitats.co.uk](http://www.greenwoodsecohabitats.co.uk)) is presented at **Insert 1**:



**Insert 1:** Example of an externally mounted box (Greenwood's Ecohabitats' two crevice bat box)

## House Sparrow

- 5.4.6 To provide additional opportunities for nesting birds, the installation of one house sparrow terrace nest boxes is recommended at the house or garage. The box will not be positioned over windows or doorways where droppings may become a nuisance. RSPB advice states that boxes should ideally be sited facing north to east, to avoid exposure to direct sunlight, which may cause overheating of chicks in the nest.
- 5.4.7 A suitable bird box is available from the NHBS ([www.nhbs.com](http://www.nhbs.com)) or Wild Care ([www.wildcare.co.uk](http://www.wildcare.co.uk)). ERAP (Consultant Ecologists) Ltd will advise on the siting of bird box.
- 5.4.8 An example of a suitable house sparrow bird box is given below at **Insert 2**:



**Insert 2:** Schwegler 1SP House Sparrow Nesting Terrace

## 6.0 CONCLUSION

- 6.1 Appropriate and proportionate survey effort and / or assessment, in accordance with standard survey guidelines has been applied to discount adverse effects of the current proposals on roosting bats. No updated or further surveys are required to inform the assessment or this planning application. If the proposals are significantly changed or there is a significant delay to the commencement of works then updated bat activity surveys may be required.

- 6.2 The recommendations in **Section 5.0** outline all the mandatory measures and additional actions to be applied to ensure compliance with wildlife legislation, the National Planning Policy Framework and best practice. This includes appropriate and proportionate enhancement measures to maximise the benefits for biodiversity as part of the proposals as outlined in **Section 5.4**.

## 7.0 REFERENCES

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## 8.0 APPENDIX: TABLES AND FIGURES

### 8.1 Data from Bat Activity Surveys

**Table 8.1: Activity Survey 1, 30<sup>th</sup> August 2023, Sunset Time 20:07, Start Time 19:50**

#### Survey Position 1: Catie Haworth

Time	Species	Notes
20:27	Common pipistrelle	Heard but not seen – no bat emergence or pass on NVA footage
20:51	Common pipistrelle	In flight over garden
21:12	Common pipistrelle	Heard but not seen - no bat emergence or pass on NVA footage
21:24	Soprano pipistrelle	In flight over site
The Anabat Scout made the following recordings: 13 common pipistrelle call sequences between 20:27 and 21:34; and 1 soprano pipistrelle call sequence at 21:24.		

#### Survey Position 2: Amy Sharples

Time	Species	Notes
20:31	Common pipistrelle	In flight over residential property from east to west
The Anabat Express made the following recordings: 12 common pipistrelle call sequences between 20:27 and 21:33; and 1 soprano pipistrelle call sequence at 21:23.		

#### Survey Position 3: Stuart Laverick

Time	Species	Notes
20:24	Common pipistrelle	In flight over garden
20:29	Common pipistrelle	In flight over residential property from east to west
20:30	Common pipistrelle	In flight over residential property from east to west
20:31	Common pipistrelle	In flight over garden
20:42	Common pipistrelle	In flight over residential property from east to west
The Anabat Scout made the following recordings: 34 common pipistrelle call sequences between 20:23 and 21:34.		

#### Survey Position 4: Ian Nelson

Time	Species	Notes
20:23 to 20:26	Common pipistrelle	Foraging over garden
20:28	Common pipistrelle	In flight over site m
20:30	Common pipistrelle	In flight over site
20:31 to 20:33	Common pipistrelle	Foraging over garden
20:48	Common pipistrelle	In flight over residential property from south to north
20:57	Common pipistrelle	In flight over site
The Anabat Scout made the following recordings: 34 common pipistrelle call sequences between 20:23 and 21:34.		

**Table 8.2: Activity Survey 2, 13<sup>th</sup> September 2023, Sunset Time 19:33, Start Time 19:15**

**Survey Position 1: Catie Haworth**

Time	Species	Notes
19:53	Common pipistrelle	Heard but not seen – no bat emergence or pass on NVA footage
19:58	Common pipistrelle	Heard but not seen – no bat emergence or pass on NVA footage
19:59	Common pipistrelle	Foraging over drive
20:07	Common pipistrelle	Foraging over drive
20:15	Common pipistrelle	Two bats in flight over garage and garden
The Anabat Scout made the following recordings: 21 common pipistrelle call sequences between 19:53 and 21:01.		

**Survey Position 2: Amy Sharples**

Time	Species	Notes
		No emergence or re-entry detected.
The Anabat Express made the following recordings: 26 common pipistrelle call sequences between 19:53 and 21:00.		

**Survey Position 3: Marisa Hensey**

Time	Species	Notes
19:53	Common pipistrelle	Foraging over garden
The Anabat Scout made the following recordings: 63 common pipistrelle call sequences between 19:53 and 21:01.		

**Survey Position 4: Ian Nelson**

Time	Species	Notes
19:53	Common pipistrelle	In flight over site
19:57	Common pipistrelle	In flight over site
19:58 to 20:02	Common pipistrelle	Foraging over garden
20:01	Common pipistrelle	In flight over site from east to west
20:03	Common pipistrelle	In flight over site
20:06	Common pipistrelle	In flight over site
20:07	Common pipistrelle	In flight over site from east to west
20:09	Common pipistrelle	In flight over site from east to west
20:10 to 20:16	Common pipistrelle	Foraging over garden
20:22	Common pipistrelle	In flight over site
The Anabat Scout made the following recordings: 64 common pipistrelle call sequences between 19:53 and 20:22.		

## 8.2 Photographs

**Table 8.3:** Photographs of Views from NVAs



**Photo 1:** View from NVA at survey position 1



**Photo 2:** View from NVA at survey position 2



**Photo 3:** View from NVA at survey position 3



**Photo 4:** View from NVA at survey position 4



**8.3 Figures**

**Figure 1: Plan to Show Survey Positions and NVA Locations**

