Bat Survey Report

St Asaph Solar Farm

Anesco Limited

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Basis of Report

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Acronyms and Abbreviations

BCT	Bat Conservation Trust
CIEEM	Chartered Institute of Ecology and Environmental Management
CoBAA	Certificate of Bat Acoustic Analysis
Cofnod	Local environmental record centre for North Wales
EcIA	Ecological Impact Assessment
GLTA	Ground Level Tree Assessment
ha	Hectare
hz	Hertz
km	Kilometres
NBW	Night-time Bat Walkover
NE	Natural England
NERC	Natural Environment and Rural Communities
NGR	National Grid Reference
PRF	Potential Roost Feature
SLR	SLR Consulting Limited
SocEnv	Chartered Environmentalist
SSSI	Site of Special Scientific Interest

1.0 Introduction

SLR Consulting Limited (SLR) was commissioned by Anesco Limited to undertake bat surveys of a proposed solar farm at St Asaph, Denbighshire, broadly centred on National Grid Reference (NGR) SJ 02443 72771, hereafter referred to as the 'Site'.

This report presents the findings of the bat surveys undertaken at the Site.

1.1 Background

SLR Consulting Limited were previously instructed to provide ecological support in relation to the proposed solar farm at St Asaph in December 2021. Since that date, extensive ecological surveys have been undertaken which have fed into the Site design and final layout, which is assessed in this report.

1.2 Site Description

The Site is situated in Denbighshire, approximately 1km to the south-west of St Asaph, and approximately 8km south of Rhyl. The location of the Site is shown in **Drawing C0002452_01** (Appendix A) and the Site layout is shown in **Drawing C0002452_02** (Appendix B). The Site consists of the main Solar Site and the Cable Route, connecting to the St Asaph Substation.

The Solar Site is approximately 35.42ha in extent and is divided into two areas approximately 250m apart. The Western Parcel consists of four fields approximately centred on NGR SJ 02123 72727 and the Eastern Parcel comprises three fields approximately centred on NGR SJ 02644 72614. It should be noted, the final Site layout (Drawing C0002452_01 Revision Z, issued April 2026) excludes any proposed development within the northern-most field within western parcel; this field will form part of a temporary mitigation strategy for another project. The fields within the Solar Site support modified grassland, of a short to medium sward length used for cattle and sheep grazing. The boundaries of the fields consist of flailed hedgerows, some containing mature trees, and of semi-natural, lowland mixed deciduous woodland.

The Cable Route is limited to highways that connect the Solar Site to St Asaph Substation. This includes the track to Tyn Y Coed, Glascoed Road, and Cwttir Lane.

The wider landscape is generally farmland used for grazing or arable crops, there are also several woodlands, some of which are ancient.

1.3 Study Area

The baseline bat surveys were carried out within the Solar Site boundary shown in **Appendix C – Figure 1**. The desk study was extended to search for records of bats within a 2km radius of the Solar Site boundary and extended again to a 10km radius of the Solar Site boundary for Sites of Special Scientific Interest (SSSI) and Special Areas of Conservation (SACs) which list bats as a qualifying feature.

1.4 Purpose of this Report

The principal aim of the surveys was to provide baseline information with respect to bat activity on Site, with the following specific objectives:

- Assess the bat roosting potential of features likely to be affected by the proposed development;
- Assess the bat species assemblage within the Solar Site and evaluate its importance; and

- Identify areas of particular significance for bats, e.g., important foraging areas or commuting routes.

1.5 Relevant Legislation

All native species of bat are protected under the Conservation of Habitats and Species Regulations 2017 (as amended), which defines European protected species, and the Wildlife and Countryside Act 1981 (as amended). These pieces of legislation combine to give substantial protection to bats and their resting places (roosts), making it an offence to:

- Deliberately kill, injure, or take a bat;
- Deliberately disturb a bat or bats in such a way as to be likely to impair their ability to survive, breed, or rear or nurture their young; to hibernate or migrate; or to affect significantly the local distribution or abundance of that species;
- Damage or destroy the breeding or resting place of a bat;
- Intentionally or recklessly obstruct access to a place that bats use for shelter or protection; and
- Intentionally or recklessly disturb a bat whilst it is occupying a place which it uses for shelter or protection.

Barbastelle *Barbastella barbastellus*, Bechstein's *Myotis bechsteinii*, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum*, lesser horseshoe bat *Rhinolophus hipposideros*, noctule *Nyctalus noctula*, serotine *Cnephaeus serotinus*, Leisler's bat *Nyctalus leisleri*, common pipistrelle *Pipistrellus pipistrellus*, Nathusius' pipistrelle *Pipistrellus nathusii* and soprano pipistrelle *Pipistrellus pygmaeus* are also listed as priority species under Section 7 the Environment (Wales) Act 2016 (amended 2026). Due to international and national policy bats are a material consideration in the planning process.

1.6 Evidence of Technical Competence and Experience

1.6.1 Survey Team

The survey work was led by Emma Clarke, BSc, Senior Ecologist at SLR and Qualifying member of the Chartered institute of Ecology and Environmental Management (CIEEM), holding Natural England (NE) Bat Level 2 Class Licence (2023-10986-CL18-BAT) and holding a NPTC Level 2 Award Tree Climbing and Rescue (units 206, 306) with seven years' experience as a professional Ecologist.

She was assisted by Amy Gill, BSc, Qualifying member of CIEEM, Senior Ecologist at SLR with approximately six years' experience as a professional ecologist; Toby Bell, MSc, Qualifying member of CIEEM, Project Ecologist at SLR with two years' experience as a professional ecologist, Megan Gallant, BSc, Qualifying member of CIEEM, Project Ecologist at SLR with two years' experience as a professional ecologist, and Melissa Chapman, BSc, Qualifying member of CIEEM, Assistant Ecologist at SLR, all are experienced in completing bat activity survey work.

1.6.2 Bat Sound Analysis

The bat sound data analysis was undertaken by Toby Bell who is a trained interpreter of bat survey data, using the software programme Kaleidoscope Pro and has completed the Batability 'Certificate of Bat Acoustic Analysis'. Quality assurance checks and additional support was provided by Emma Clarke, holding a Batability 'Certificate of Bat Acoustic Analysis' at Grade A.

1.6.3 Reporting

The report was prepared by Toby Bell, MSc, Qualifying member of CIEEM, Project Ecologist at SLR with two years' experience as a professional ecologist.

The report has been subject to quality assurance review by Emma Clarke and final review by SLR Consulting Principal Ecologist, Mr Gary Oliver. Gary is a Full Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) and is a Chartered Environmentalist (CEnv), with over 29 years' relevant experience within ecological consultancy and holding a NE Bat Level 2 Class Licence.

2.0 Methods

2.1 Desk Study

The local environmental record centre for North Wales (Cofnod) was commissioned to provide records of bats within a 2km search radius of the Solar Site boundary.

The search was extended to 10km for designated sites which list bats as a qualifying feature. The data was obtained on 12th February 2025.

2.2 Habitat Assessment

A habitat survey was undertaken on 13th and 14th February 2025, during which broad habitat types were recorded.

Habitats within the Solar Site and their suitability for bats were categorised in accordance with the habitat survey results and information set out in Table 2-1, following Bat Conservation Trust (BCT) (2023) guidelines [1].

Table 2-1 Habitat Suitability for Bats

Suitability	Potential Flight Paths and Foraging Habitats
None	No habitat features on site are likely to be used by any commuting or foraging bats at any time of year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines or generate/shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site are likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	Habitat that could be used by small numbers of bats as flight-paths such as gappy hedgerows or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland and water.
High	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broad-leaved woodland, tree lined watercourses and grazed parkland. Site is close to and connected to known roosts.

2.3 Roost Assessment

There are no buildings, or other structures present on the Solar Site that may be used by roosting bats.

[1] Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists. Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.

At the time of proposed surveys, no impacts on trees were predicted as part of the proposals, therefore Ground Level Tree Assessment (GLTA) or further roost surveys for bats have not been undertaken.

2.4 Bat Activity Surveys

2.4.1 Night-time Bat Walkover (Manual) Surveys

Three Night-time Bat Walkover (NBW) surveys were undertaken during the bat active season (April – October inclusive), with one survey taking place in the spring (April/May), another during the summer (June/July/August), with the final survey taking place in the autumn (September/October).

The Solar Site was split into two walkover routes, which were covered simultaneously on each survey by two separate surveyors; these pass through or lie adjacent to the full range of habitats present within the Solar Site.

The NBW commenced at sunset, the starting points and direction of travel was varied to ensure that different areas were sampled at different stages of the evening.

The surveyors were stationed in position and recorded bat activity for 30 minutes, with a focus on searching for commuting bats during the early evening, then the surveyors proceeded to walk on a pre-determined route until two hours after sunset. A map showing the routes can be found in **Appendix C – Figure 1**.

On each visit, the NBW routes were walked in weather conducive for bat activity (above 10°C at sunset with little or no rain and no strong winds). The surveyors were equipped with full-spectrum bat detectors (Elekon Batlogger M2).

During each NBW, the surveyors recorded:

- Location and time that bats were encountered;
- Species of bats; and
- Their behaviour e.g. commuting/foraging/direction of travel etc. where evident.

Table 2-2 presents the dates and weather conditions for each of the surveys.

Table 2-2 NBW survey dates and weather data

Survey Visit	Date	Start Time/End Time	Sunset Time	Temperature Start/End (°C)	Cloud Cover (Oktas) Start/End	Wind (Beaufort Scale) Start/End	Rain
1	07/05/25	20:47-23:29	20:53	11-6	2-5	1-1	0-0
2	16/07/25	21:32-23:32	21:32	15-15	2-3	1-1	0-0
3	08/10/25	18:46-20:46	18:30	12-12	4-6	1-1	0-0

2.4.2 Static Detector (Automated) Surveys

Full spectrum bat detectors were used at six locations (Static Detector Locations 1-6) to sample different habitats across the Site. The detectors were deployed monthly between April and October 2025 (inclusive). Each detector was set to record from half an hour prior to, and half an hour after, local sunset/sunrise time for a minimum of six consecutive nights

during each month of the survey period, to ensure collection of the five nights minimum recommended in the BCT good practice guidance[1].

The bat Static Detector Locations are shown on **Appendix C – Figure 1** with details provided below in Table 2-3.

Table 2-3 Automated/Static Detector Locations

Location Reference	Grid Reference	Location Description
Static 1	SJ 02087 72894	Positioned adjacent to a small pond located in the centre of a field in the Western Parcel of the Solar Site.
Static 2	SJ 01936 72674	Positioned along a hedgerow and fence line in the Western Parcel of the Solar Site.
Static 3	SJ 02176 72685	Positioned along a hedgerow and fenceline located within the centre of the Western Parcel of the Solar Site.
Static 4	SJ 02857 73038	The most northerly located detector, situated along a hedgerow adjacent to the access track.
Static 5	SJ 02630 72493	Located along a hedgerow and fence line east of the small woodland adjacent to the Eastern Parcel of the Solar Site.
Static 6	SJ 02364 72368	The most southerly located detector, situated along a line of trees in the Eastern Parcel of the Solar Site.

2.4.3 Bat Data Analysis

This report refers to 'registrations' or bat 'passes' that is a single sound file captured by an automated detector. It is important to note that registrations do not necessarily relate to the numbers of bats that may be present; multiple registrations can result from one bat passing a detector several times in quick succession, or several bats passing at once.

All data was processed through Kaleidoscope Pro software and the Bats of Europe 5.7.0 auto-id classifier, set to the United Kingdom.

For common pipistrelle, soprano pipistrelle and 'white noise', 5% each of the auto-id results were checked and manually corrected if appropriate; this process enabled verification of the error rate of the software.

For all other species, i.e., serotine, Leisler's, noctule, barbastelle, Nathusius' pipistrelle, brown long-eared bat, *Myotis* species *Myotis* spp., lesser horseshoe bat, greater horseshoe bat and 'NoID' auto-ids were checked through manually, and corrected if appropriate.

John Russ (2021)[2] was used as the main reference text for the above process, in addition to Ulrich Marckmann and Burkard Pfeiffer[3], and Neil Middleton, Andrew Froud and Keith French (2014)[4].

[2] Russ, J. (2021): Bat Calls of Britain and Europe: A guide to species identification, Pelagic Publishing, ISBN 978-1-78427-225-8

[3] Marckmann, U. and Pfeiffer, B. (2020) Determination of bat call recordings and criteria for the evaluation of acoustic species evidence Part 1 - Genera *Nyctalus*, *Eptesicus*, *Vespertilio*, Pipistrellus (nyctaloid and pipistrelloid species), barbastelle, long-eared bats and horseshoe bats in Bavaria, Bavarian State Office for the Environment. Translated by David Lee at https://batability.co.uk/wp-content/uploads/2020/08/Analysis-of-Batcalls-1.pdf

[4] Middleton, N., Froud, A. and French, K (2014) Social Calls of the Bats of Britain and Ireland. Pelagic Publishing

It should be noted that:

- There are often overlaps between the call frequencies and characteristics of species within a genus, therefore, where calls cannot be accurately classified to species level, these have been classified to genus level only;
- *Nyctalus* and *Cnephaeus* calls can easily be misclassified; particularly those recorded when the bats are in 'closed' or a cluttered environment. Due to the similarity of the calls, it is not always possible to accurately differentiate between the three species and in such cases, they have been labelled as "big bat" in the analysis;
- Due to the difficulties of separating *Myotis* species from sonograms alone, Myotis calls have not been manually identified beyond genus level;
- Ambiguous or rare species were subject to a double check by an experienced bat specialist at SLR; and
- Where multiple bat species have been picked up on a file, all species have been identified (where possible).

All data recorded by the detectors was subject to analysis to determine if uncommon species were present. However, for ease of data evaluation between locations, 6 nights per location per month were subject to scrutiny. Table 2-4 shows the nights used in data evaluation in this report, shaded cells indicate when detectors failed to record for six consecutive nights (refer to the limitations described in Section 2.5 for further details).

Table 2-4 Static Detector Survey: Dates Used in Analysis

Location	Apr	May	Jun	Jul	Aug	Sept	Oct	Total Nights Analysed
Static 1	9th-14th (6 nights)	7th-12th (6 nights)	11th (1 night)	9th-14th (6 nights)	11th-16th (6 nights)	8th-13th (6 nights)	9th-14th (6 nights)	37
Static 2	9th-14th (6 nights)	7th-12th (6 nights)	11th-16th (6 nights)	9th-14th (6 nights)	11th-16th (6 nights)	8th-13th (6 nights)	9th-14th (6 nights)	42
Static 3	9th-14th (6 nights)	7th-12th (6 nights)	11th-16th (6 nights)	9th-14th (6 nights)	11th-16th (6 nights)	8th-13th (6 nights)	9th-14th (6 nights)	42
Static 4	9th-14th (6 nights)	7th-12th (6 nights)	11th-16th (6 nights)	9th-14th (6 nights)	11th-16th (6 nights)	8th-13th (6 nights)	9th-14th (6 nights)	42
Static 5	9th-14th (6 nights)	7th-12th (6 nights)	11th-16th (6 nights)	9th-14th (6 nights)	11th-16th (6 nights)	8th-13th (6 nights)	9th-14th (6 nights)	42
Static 6	9th-14th (6 nights)	Failed to Record	11th-16th (6 nights)	16th-21st (6 nights)	11th-16th (6 nights)	8th-13th (6 nights)	9th-14th (6 nights)	36

As the number of nights recorded differs across Detector Locations, average number of passes per night has been used when presenting data in the results section of this report, allowing comparable comment on spatial and temporal trends. Both mean and median values are provided to show whether the data is 'skewed', (i.e. not normally distributed).

2.4.4 Weather Screening

The activity survey data has not been screened for suitable weather, rather the sample only includes nights where bat activity was recorded. This approach is considered to negate the requirement for weather screening as the presence of foraging bats has been taken as evidence of suitable weather conditions.

Moreover, the deployment dates for detectors include more than the minimum of 5 consecutive nights, to account for any unsuitable weather conditions.

2.5 Limitations

The following subsections detail the survey constraints encountered. None are considered to significantly affect the conclusions of this report; the data gathered are sufficient to meet the aims set out at Section 1.4.

2.5.1 Desk Study

Desk study data is unlikely to be exhaustive, especially in respect of species, and is intended mainly to set a context for the study. It is therefore possible that bat species not identified during the data search do in fact occur within the vicinity of the Site. Interpretation of maps and aerial photography has been conducted in good faith, using recent imagery, but it has not been possible to verify the accuracy of any statements relating to land use and habitat context outside of the field study area.

2.5.2 Field Surveys

An ecological study provides only a ‘snapshot’ of the conditions prevailing at the time of survey. Lack of evidence of any one protected species in particular does not necessarily prelude them from being present on Site at a later date. Bats are highly mobile and can move between roosts in response to changes in environment factors; the activity level may therefore fluctuate between years.

2.5.3 Bat Activity Surveys

The October NBW survey started 10 minutes after sunset. Although guidance suggests beginning the survey at sunset, the first 30 minutes to 1 hour is spent stationary, observing the direction bats travel into the Site from and gathering information on potential roost locations within or close to the Site. No roosts within the Solar Site are predicted to be impacted by the scheme. Moreover, only a small portion of the full survey time was not completed, and the survey was deemed sufficient to gather information on important foraging areas or commuting routes for bats as per the aims set out in Section 1.4.

On two occasions software/electrical faults resulted in detectors failing to boot up correctly during the Static Detector survey, specifically:

- Static Detector 6 – during the May deployment no data was recorded; and
- Static Detector 1 – during the June deployment only one night of data was recorded.

A degree of equipment failure is often encountered when undertaking lengthy and complex surveys. The data obtained is considered to be extensive enough to provide robust baseline data for the period April to October, such that the species assemblage and important areas of foraging and commuting have been identified at the Solar Site.

2.5.4 Data Analysis

As noted in Section 2.4.3, a 5% manual check was made against the auto-id outputs for common pipistrelle, soprano pipistrelle and white noise to determine the error rate of the software in this instance. Table 2-5 shows the result of the check.

Table 2-5 Results of 5% auto-id of Noise, Common and Soprano Pipistrelle

Auto ID	% incorrectly classified by auto-id	Note
Common pipistrelle	1.3	Misidentified calls were *Myotis* species and soprano pipistrelle.
Soprano pipistrelle	0.4	Misidentified calls were *Myotis* species and common pipistrelle.
Noise	10.2	Misidentified calls were common and soprano pipistrelle and pipistrelle species, brown long-eared bat, *Myotis* species, big bat and *Nyctalus* species.

It should be noted that Kaleidoscope Pro filters only give an estimate of the bat activity in a dataset. Faint or poor-quality bat sonograms can be missed if they are rejected by the noise filter, in this case approximately 10% of calls have been missed, this however, was found across the data set and is therefore considered unlikely to affect the results presented in this report significantly. The results for common and soprano pipistrelle show that the auto-id function is highly accurate in identifying these calls correctly.

2.5.5 Summary

In summary, no significant survey limitations were encountered during the bat survey; the level of survey was sufficient to meet the aims of this report.

3.0 Results

3.1 Desk Study

3.1.1 Designated Sites

Details of statutory sites within 10km designated for their bat interest are provided in Table 3-1.

Table 3-1 Statutory Designated Site Descriptions

Proximity to Site	Site and Designation	Description
c.865m southwest of the Solar Site	Coedydd ac Ogofau Elwy a Meirchion (83.01) SSSI	*"The site is of special interest for its semi-natural broadleaved woodland, its rare flowering plant assemblage, its scarce bryophyte assemblage and the geological and palaeontological interest of Galltfaenan, Cefn and Pontnewydd Caves…* *Natterer's (Myotis nattereri), brown long-eared, common pipistrelle and lesser horseshoe bats are recorded in the caves."*[5]
c.5.7km east of the Solar Site	Ffynnon Beuno and Cae Gwyn Caves SSSI	"*The site comprises two small caves which shelter a winter roost (hibernaculum) of lesser horseshoe bat. This is the third largest winter roost for this species in Clwyd, with annual counts exceeding 50 bats. Two other species of bat have also used these caves, Natterer's bat and brown long-eared bat*."[6]
c.7.5km northeast of the Solar Site	Graig Fawr SSSI	*Graig Fawr is of special interest for its range of limestone (calcicolous) grassland communities as well as its populations of vascular plants and lepidoptera…* *There is a hibernaculum supporting a small number of lesser horseshoe bats."*[7]
c.9km northwest of the Solar Site	Coed y Gopa SSSI	*"This site is notified for its species interest, a winter roost of lesser horseshoe bat. The many natural cave and underground mine workings provide ample opportunities for bat roosting areas.* *The site shelters Clwyd's second largest hibernaculum of lesser horseshoe bat. Annual counts are well in excess of 50 bats with a maximum of 130 recorded in December 1993. Two other species of bat are also present in small numbers, Natterer's bat and Daubenton's bat (Myotis daubentonii)."*[8]

[5] SSSI NOTIFICATION/RENOTIFICATION CITATIONS - FORMAT

[6] NJOFFYNNONETC. [PERM]

[7] CYNGOR CEFN GWLAD CYMRU

[8] CYNGOR CEFN GWLAD CYMRU

3.1.2 Species

Cofnod returned 122 records of bats within 2km of the Solar Site, specifically:

- 32 records of pipistrelle bat species *Pipistrellus sp.* between 1983 and 2021 with the nearest being 777m from the Solar Site;
- 20 records of lesser horseshoe bat, between 1996 and 2024 with the nearest being 348m from the Solar Site;
- 14 records of soprano pipistrelle between 1998 and 2023, with the nearest being 348m from the Solar Site;
- 13 records of common pipistrelle bat, between 1995 and 2023, with the nearest being 348 m from the Solar Site;
- 11 records of Natterer's bat species, between 1957 and 2011 with the nearest being 420m from the Solar Site;
- Nine records of noctule bat, between 1998 and 2023, with the nearest being 348m from the Solar Site;
- Nine records of whiskered/ Brandt's bat *Myotis mystacinus/ brandtii* between 1958 and 2019 with the nearest being 348m from the Solar Site;
- 10 records of brown-long eared bats, between 1968 and 2018, with the nearest being 777m from the Solar Site;
- Eight records of *Myotis* bat species, between 1999 and 2018 with the nearest being 1,107m from the Solar Site;
- Four records of Daubenton's bat, between 1990 and 2020, with the nearest being 1,498m from the Solar Site; and
- Two records of greater horseshoe bat, in 2018, with the nearest being 1,736m from the Solar Site.

Of these records, 72 relate to bat roosts. These are detailed in **Appendix D** and summarised below:

- Unidentified Bat - 13 records ranging from 900m to 1,926m away from Solar Site. Of these the most recent record is from 2018 and is 1,926m away;
- Brown long-eared bat - 7 records ranging from 777m to 1,926m away from the Solar Site. Of these the most recent record is from 2018 and is 1,926m away;
- Common pipistrelle - 2 records ranging from 1,471m to 1,736m away from the Solar Site. Of these the most recent record is from 2012 and is 1,471m away;
- Daubenton's bat - 3 records ranging from 1,660m to 1,801m away from the Solar Site. Of these the most recent record is from 1990 and is 1,660m away;
- Greater horseshoe bat - 2 records ranging from 1,736m to 1,801m away from the Solar Site. Of these the most recent record is from 2018 and is 1,736m away;
- Lesser horseshoe bat - 9 records ranging from 1,154m to 1,936m away from the Solar Site. Of these the most recent record is from 2011 and is 1,471m away;
- *Myotis* species - 4 records ranging from 1,430m to 1,736m away from the Solar Site. Of these the most recent record is from 2010 and is 1,660m away;
- Natterer's bat - 8 records ranging from 420m to 1,936m away from the Solar Site. Of these the most recent record is from 2011 and is 1,471m away;
- Noctule - 1 record from 2009 and is 625m away from Solar Site;

- Pipistrelle Species - 13 records ranging from 777m to 1,862m away from the Solar Site. Of these the most recent record is from 2018 and is 1,736m away;
- Serotine - 1 record from 2008 and is 1,736m away from Solar Site;
- Soprano pipistrelle - 4 records ranging from 1,471m to 1,932m away from the Solar Site. Of these the most recent record is from 2020 and is 1,932m away; and
- Whiskered/ Brandt's Bat - 5 records ranging from 1,660m to 1,801m away from the Solar Site. Of these the most recent record is from 2002 and is 1,665m distance from the Solar Site boundary.

3.2 Habitat Assessment

The habitat types present within the Solar Site are illustrated in the Technical Appendix G – Habitat Report[9] within the EcIA. In summary, fields across the Solar Site consist of modified grassland, of a short to medium sward length, used for cattle and sheep grazing. The boundaries of the fields consist of flailed hedgerows, some containing mature trees, and of semi-natural, lowland mixed deciduous woodland. Small streams and ditches are also present. The wider landscape is generally farmland used for grazing or arable crops, there are also several woodlands, some of which are ancient.

The Solar Site is well connected to the wider landscape, which could be used by bats for foraging. As a result, in accordance with published guidance[1], the Site is assessed as having high suitability for foraging and commuting bats.

3.3 Roost Assessment

There are no buildings, or other structures present on the Solar Site that may be used by roosting bats.

Trees within boundary habitats within the Solar Site may contain Potential Roosting Features (PRF) for bats. However, at the time of proposed surveys no impacts on trees were predicted as part of the proposals, and no lighting of trees shall take place, therefore GLTA or further roost surveys for bats have not been undertaken.

3.4 Bat Activity Surveys

3.4.1 Night-time Bat Walkover (Manual) Surveys

Dates, timing and weather conditions during the NBW surveys is provided in Table 2-2, and NBW routes are shown in **Appendix C – Figure 1**.

The data recorded on the Batlogger M2 detectors was subject to analysis, and the results are summarised in the table below. Table 3-2 shows the combined results of total bat passes for each species per month, for both routes undertaken.

[9] SLR (2025) 406.065274.00001 Habitat Report – St Asaph Solar Farm

Table 3-2 Combined Bat Registrations Per Species During NBW Routes

NBW	*Myotis* sp.	Noctule	Common pipistrelle	Soprano pipistrelle	Brown long-eared bat	Lesser horseshoe bat
Spring (May)	25	2	137	106	1	3
Summer (July)	25	0	90	100	0	1
Autumn (October)	2	0	28	113	1	29

Due to the differences in detectability between species (for example, noctule is a louder bat with a far-carrying call, whereas brown long-eared bats are quiet) it is important not to compare the number of passes between species in the above table.

Fewer passes of common pipistrelle and *Myotis* species were recorded during the autumn compared to the spring and summer, and higher numbers of lesser horseshoe bat passes were recorded during the autumn survey.

No roosts were detected or suspected during the NBW, all behaviours were foraging and commuting related, usually recorded along edge habitats, specifically hedgerows or woodland edge.

3.4.2 Static Detector (Automated) Surveys

Bat Static Detector Locations are shown on **Appendix C – Figure 1**. Based on data gathered during the field surveys, at least eight bat species have been recorded within the survey area as listed below:

- Common pipistrelle;
- Soprano pipistrelle;
- Nathusius' pipistrelle;
- Noctule;
- Serotine;
- Brown long-eared bat;
- Lesser horseshoe bat; and
- *Myotis* species - Due to difficulties in separating *Myotis* species by call parameters alone, they are dealt with as a genus in this report. However, it is worth noting that the data search returned the following species as occurring within 2km of the Solar Site:
    - Whiskered/ Brandt's bat;
    - Daubenton's bat; and
    - Natterer's bat.

There are a small number of 'big bat' calls (35 within the dataset), these are most likely related to noctule activity, however Leisler's and serotine cannot be fully ruled out on sound data alone.

Due to overlaps in call parameters, especially when '*Nyctalus* species' are in 'edge habitat' or clutter, there are 121 calls in the data set which were only identified to genus level, these calls most likely belong to noctule, but Leisler's cannot be fully ruled out.

Similarly, there are 111 'Pipistrelle species' calls as it is not always possible to accurately differentiate between the species, these belong to common, soprano or most likely to a lesser degree, Nathusius' pipistrelle bats.

Figure 3-1 provides an overview of bat activity as a whole (i.e. all species combined) at each Static Detector Location provided as average passes per night (mean and median values).

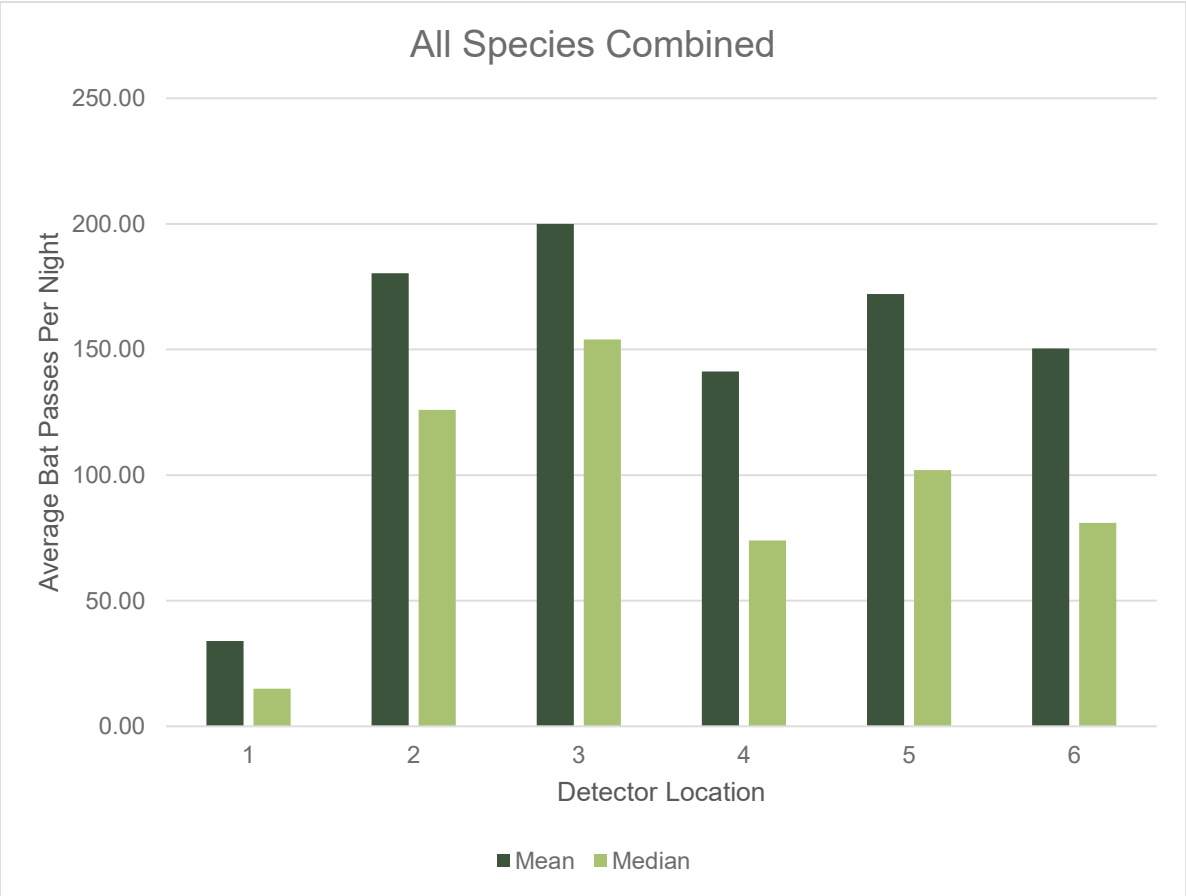


Figure 3-1 All Species Combined Activity by Location

Figure 3-2 provides an overview of bat activity at the Solar Site as a whole during each deployment month, provided as average passes per night (mean and median values).

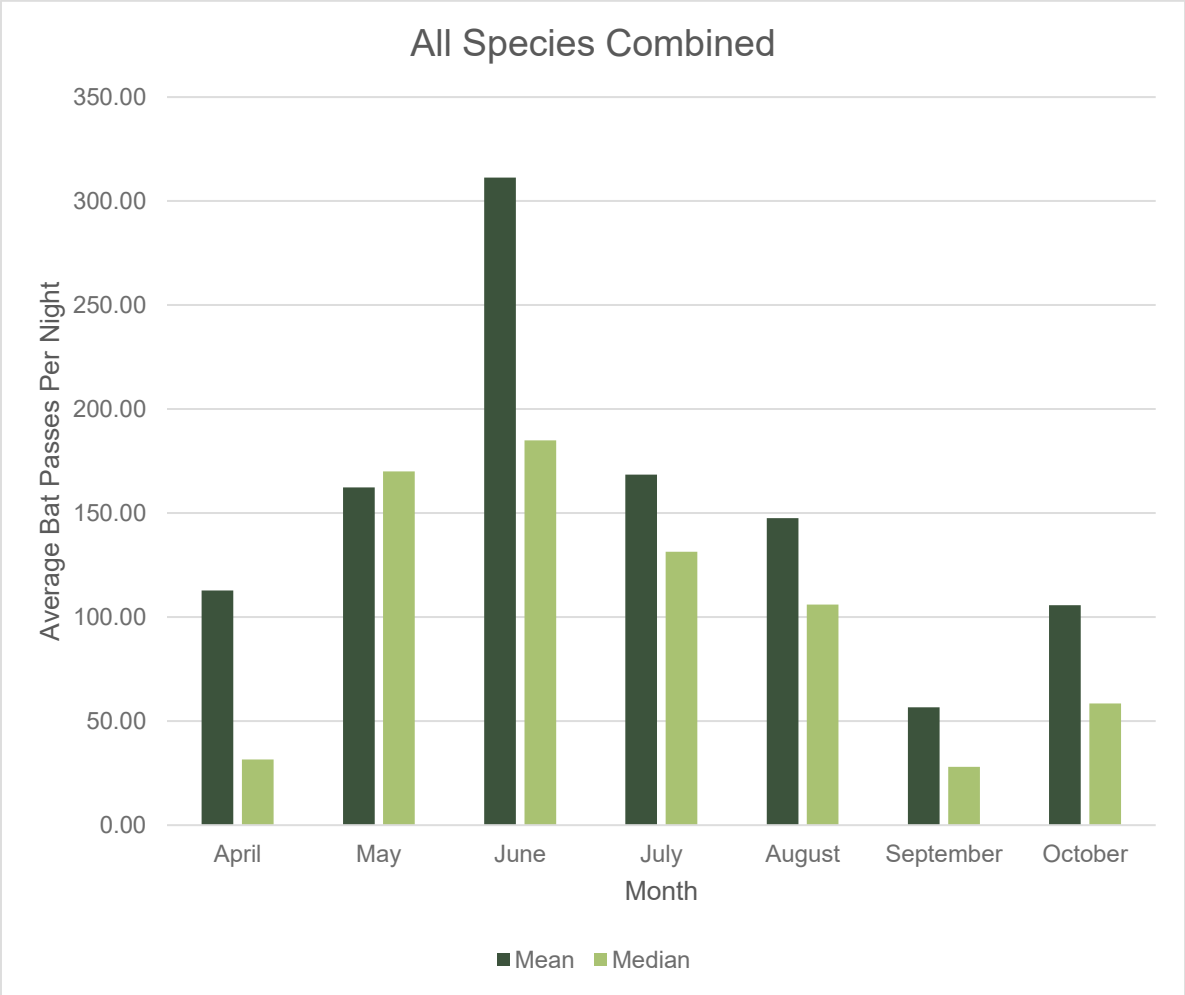


Figure 3-2 All Species Combined Activity by Month

Figure 3-1 shows bat activity is widespread throughout the Solar Site. Detector Location 3 has the highest average bat passes per night and Detector Location 1 has the lowest average bat passes per night (see **Appendix C – Figure 1** for locations).

Figure 3-2 shows bat activity was widespread throughout each month. June had the highest average bat passes per night and September had the lowest. A higher level of activity was recorded during the middle of the bat activity survey (i.e., May, June, July and August deployments) when compared to April and September - October.

Trends in Figure 3-1 and Figure 3-2 are primarily a result of common and soprano pipistrelle bat activity, but also include other bat species.

The lower median values at all Detector Locations shows that the data is ‘skewed’ and higher than average levels of activity occurred on a small number of nights; where medians are closer to the mean value, activity is at a more constant level throughout.

3.4.2.1 Common pipistrelle

Table 3-3 presents the average (mean value) of bat passes recorded at each Detector Location per deployment for common pipistrelle.

Table 3-3 Common Pipistrelle Average (mean) Passes: by Location and Month

Detector Location	Month						
	April	May	June	July	August	September	October
1	0.33	2.00	0.00	4.83	0.67	0.17	0.17
2	14.83	60.67	273.67	173.50	25.67	13.00	0.83
3	41.17	87.50	233.83	111.67	26.83	27.00	12.33
4	18.67	86.50	117.17	54.17	4.50	0.33	42.83
5	32.17	14.83	121.00	28.33	74.50	7.00	7.67
6	50.83	No Data	28.67	77.00	20.33	14.33	14.17

Common pipistrelle was recorded at all Detector Locations during the recording period. Figure 3-3 shows common pipistrelle activity at each Detector Location provided as average passes per night (mean and median values).

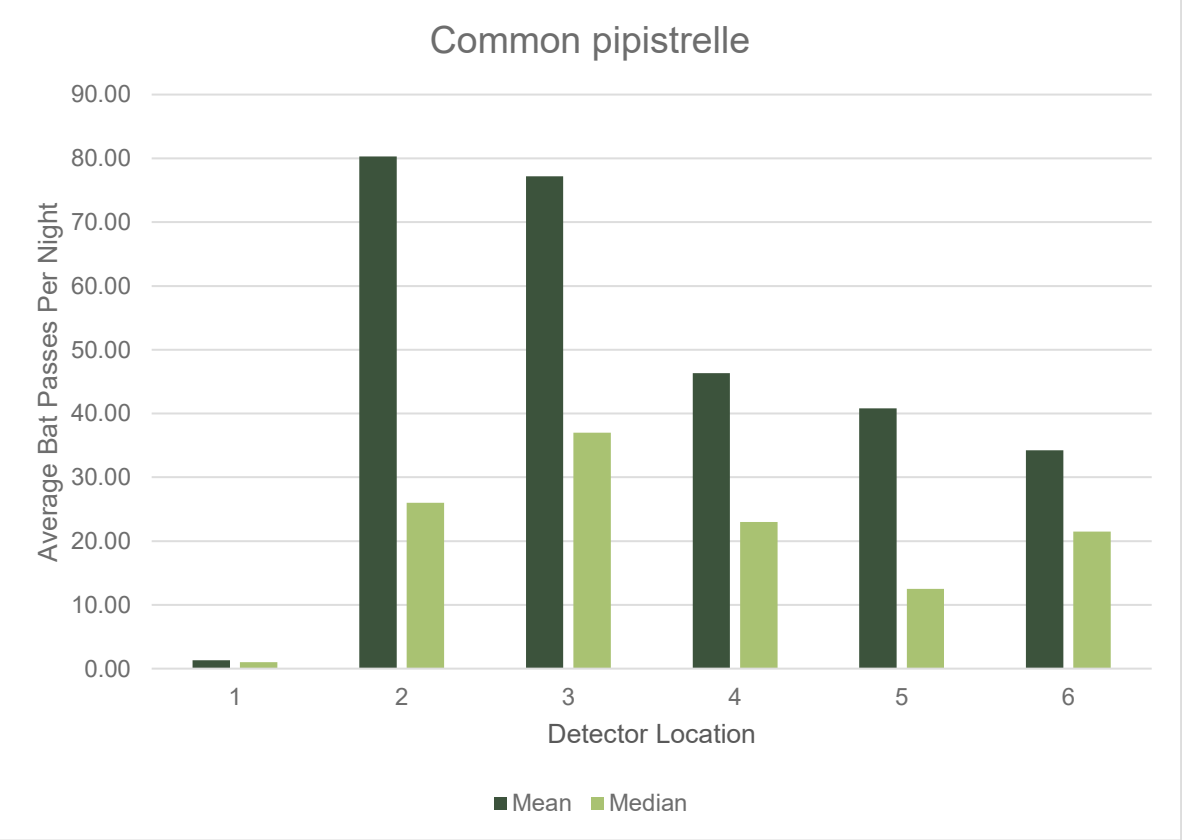


Figure 3-3 Common Pipistrelle Activity by Location

Figure 3-4 shows common pipistrelle activity during each monthly deployment provided as average passes per month (mean and median values).

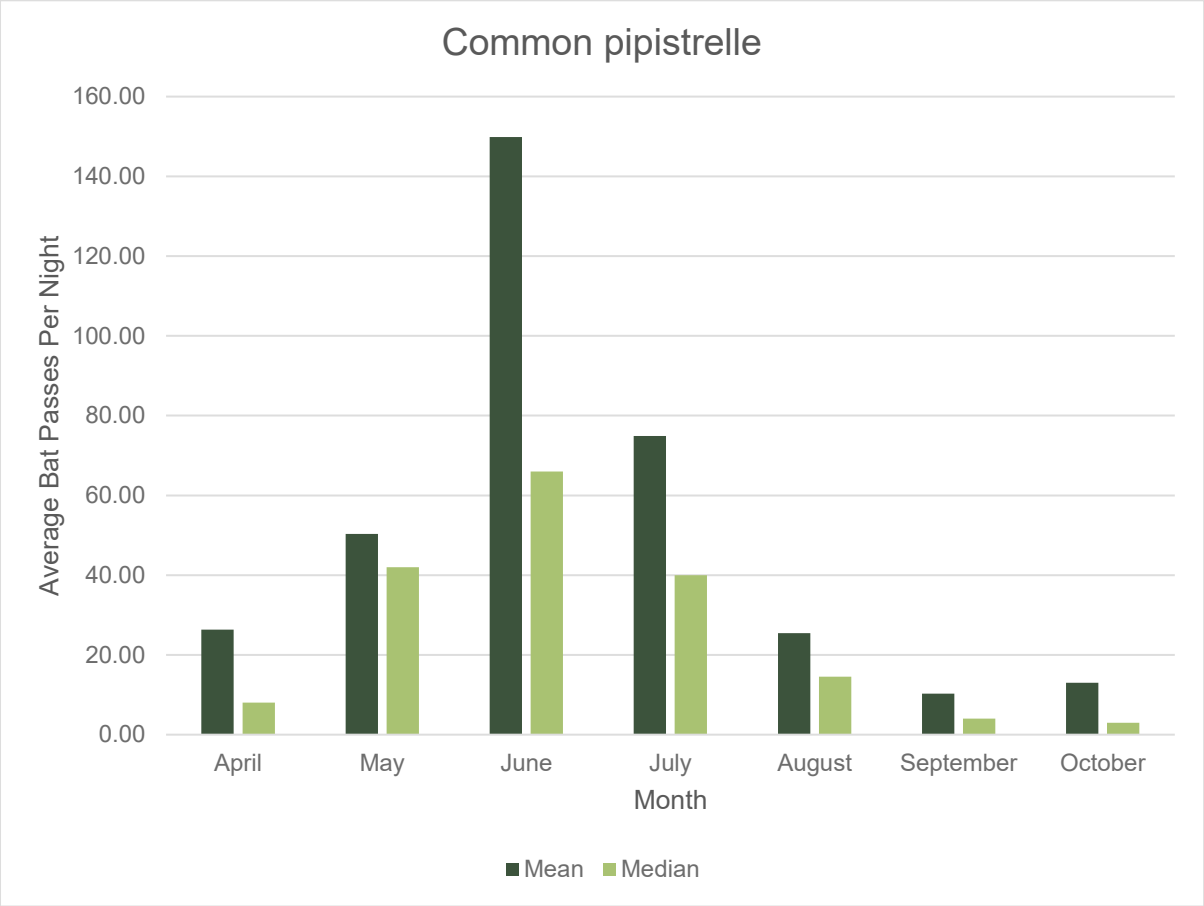


Figure 3-4 Common Pipistrelle Activity by Month

Figure 3-3 shows that common pipistrelle bat passes were recorded at all locations. Locations 2 and 3 had the highest average (mean) number of common pipistrelle passes. At both of these Detector Locations, the median is considerably lower than the mean, this shows there were peaks of activity on fewer number of nights. Detector Location 1 recorded the lowest average number of passes across the recording period.

Figure 3-4 shows common pipistrelle bat passes were recorded during all months. June recorded the highest average number of passes with 150 average mean passes, while average passes decreased to 10 and 13 in September and October respectively.

3.4.2.2 Soprano pipistrelle

Table 3-4 presents the average (mean value) of bat passes recorded at each Detector Location per deployment for soprano pipistrelle.

Table 3-4 Soprano Pipistrelle Average (mean) Passes: by Location and Month

Detector Location	Month						
	April	May	June	July	August	September	October
1	3.83	9.00	15.00	30.50	92.33	3.00	7.33
2	14.17	91.17	73.83	134.17	70.83	47.33	9.00
3	60.50	49.50	162.67	37.83	197.83	26.67	70.67
4	103.00	67.17	123.33	28.00	26.83	5.83	135.83

Detector Location	Month						
	April	May	June	July	August	September	October
5	88.50	80.50	287.00	111.17	111.83	11.50	93.00
6	167.67	No Data	23.17	75.50	51.50	100.83	141.17

Soprano pipistrelle was recorded at all Detector Locations during the recording period. Figure 3-5 shows soprano pipistrelle activity at each Detector Location provided as average passes per night (mean and median values).

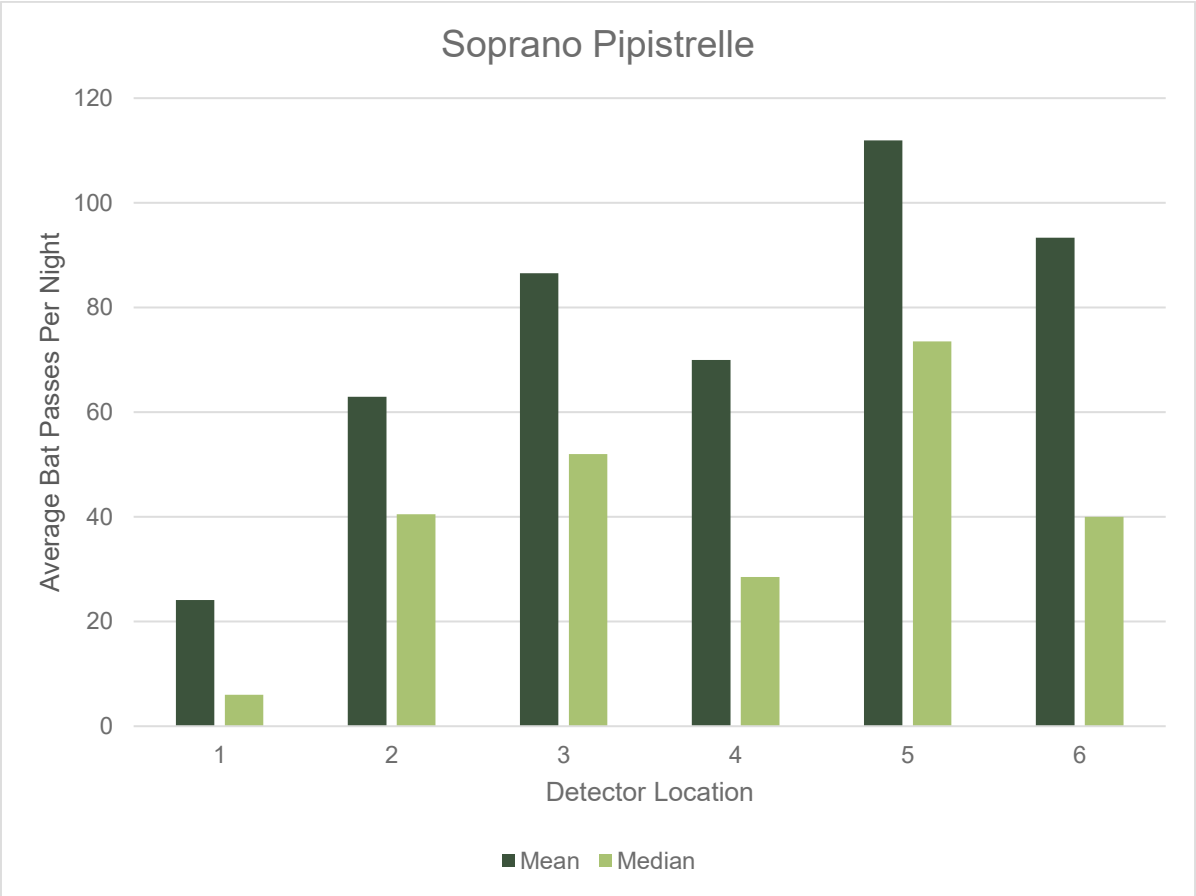


Figure 3-5 Soprano Pipistrelle Activity by Location

Figure 3-6 shows soprano pipistrelle activity during each monthly deployment provided as average passes per night (mean and median values).

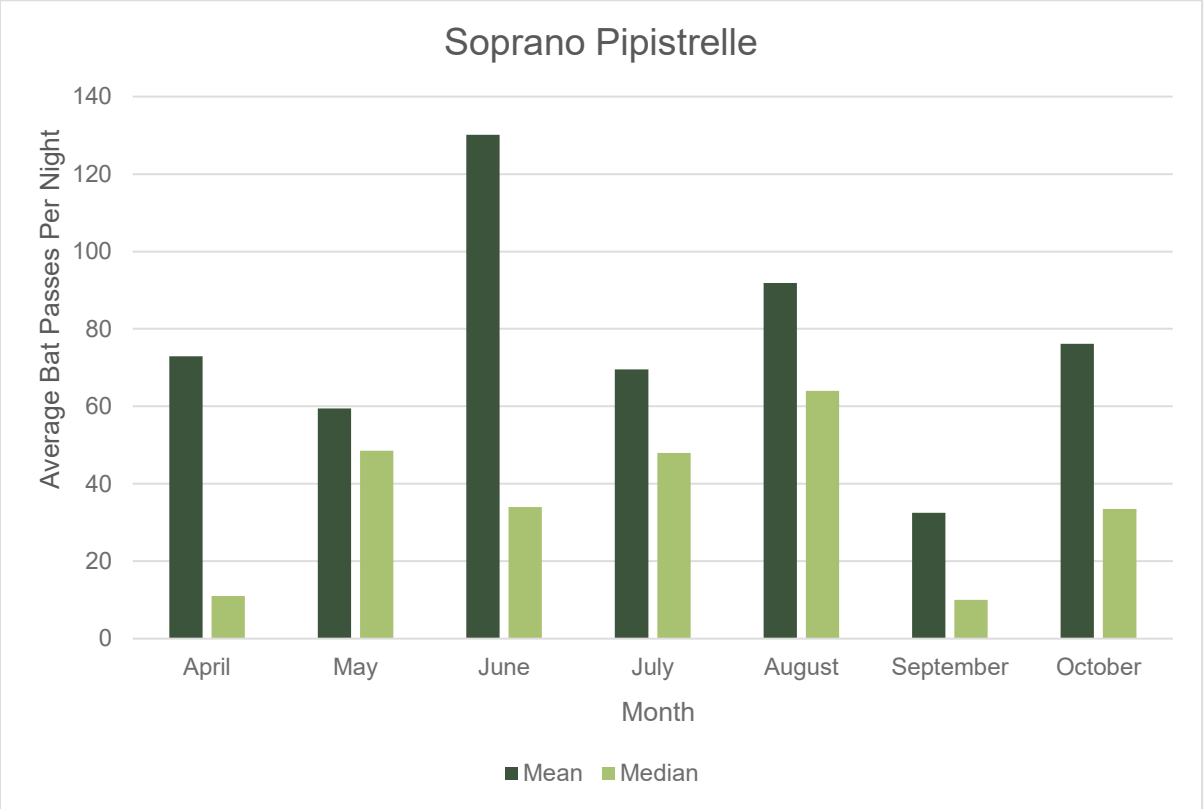


Figure 3-6 Soprano Pipistrelle Activity by Month

Figure 3-5 and Figure 3-6 show that soprano pipistrelle activity is widespread across the Solar Site, with Detector Location 5 having the highest average passes and June having the highest average passes. September and Detector Location 1 have the lowest number of average passes.

3.4.2.3 Nathusius' pipistrelle

Nathusius' pipistrelle was recorded once throughout the recording period; this was at Detector Location 5 on the 11th of April. Due to the low level of recordings, no further analysis for this species has been conducted.

There may be further Nathusius' pipistrelle calls included in the passes identified as 'pipistrelle species', however it is not possible to be certain from the sound data alone.

3.4.2.4 Noctule

Table 3-5 presents the average (mean value) of bat passes recorded at each Detector Location per deployment for noctule.

Table 3-5 Noctule Average (mean) Passes: by Location and Month

Detector Location	Month						
	April	May	June	July	August	September	October
1	0.67	1.67	7.00	4.17	7.17	5.17	1.33
2	0.17	1.83	4.33	3.17	5.83	2.33	0.67
3	0.83	5.17	3.50	4.17	11.50	5.83	1.00

Detector Location	Month						
	April	May	June	July	August	September	October
4	1.17	4.00	2.00	3.00	7.67	0.33	0.17
5	0.33	4.33	1.17	4.17	10.83	0.33	0.00
6	1.17	No Data	1.83	3.83	5.83	0.33	0.33

Noctule was recorded at all Detector Locations during the recording period. Figure 3-7 shows noctule activity at each Detector Location provided as average passes per night (mean and median values).

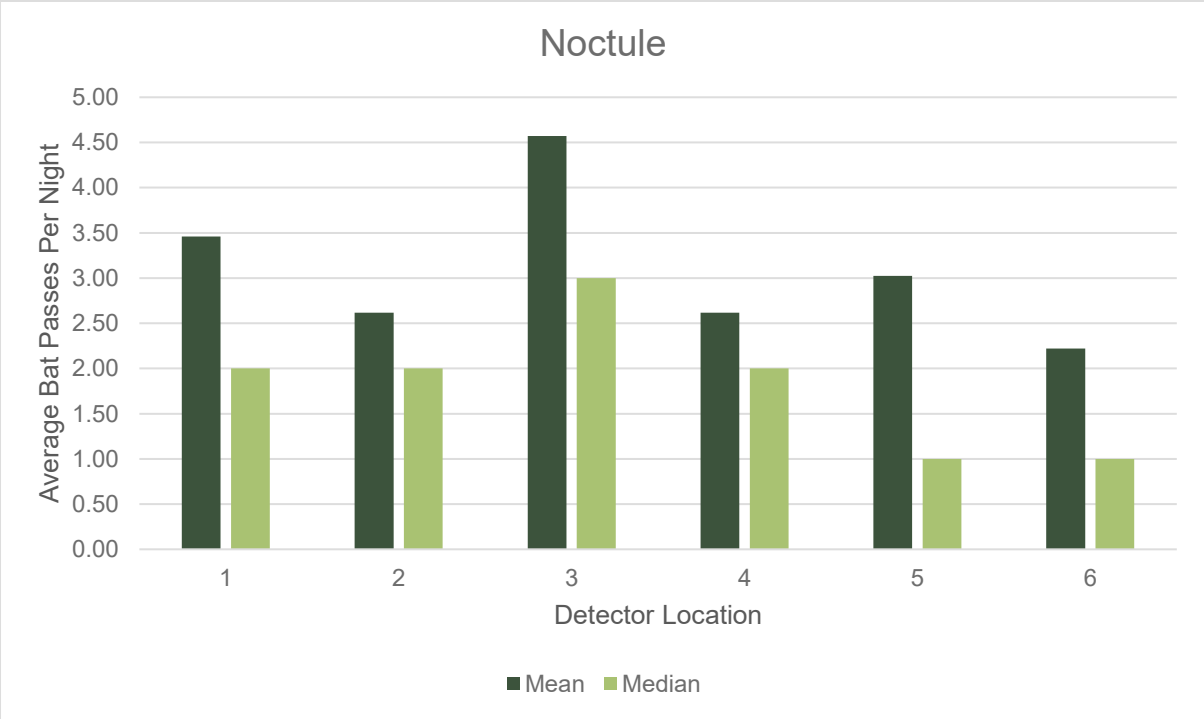


Figure 3-7 Noctule Activity by Location

Figure 3-8 shows noctule activity during each monthly deployment provided as average passes per day (mean and median values).

Noctule activity was widespread across the Solar Site, with average (mean) passes at a similar level (between 2 and 5 average passes per night) at all detector locations, activity levels were slightly higher at Detector Location 3, but only marginally. There are peaks of activity at Locations 3 and 5 during the August deployment. August recorded the highest level of noctule activity, October and April recorded the lowest level of activity.

There may be further noctule calls included in the passes identified as '*Nyctalus* species', however it is not possible to be sure from the sound data alone.

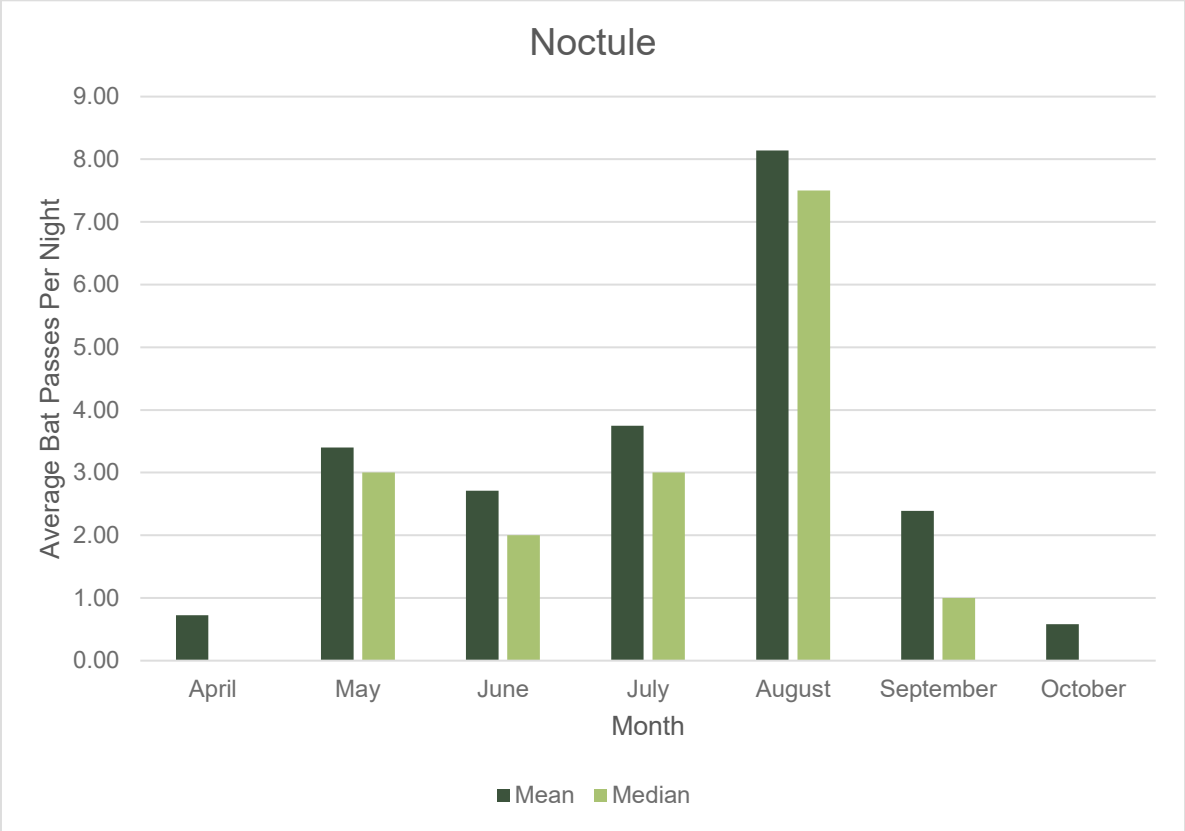


Figure 3-8 Noctule Activity by Month

3.4.2.5 Serotine

Serotine passes were recorded twice in the dataset; these were at Detector Location 3 on the 15th of August and at Location 5 on the 11th of July. Due to the low level of recordings, no further analysis for this species has been conducted.

There may be further serotine calls included in the passes identified as 'Big bat', however it is not possible to be sure from the sound data alone.

3.4.2.6 Brown long-eared bat

Table 3-6 presents the average (mean value) of bat passes recorded at each Detector Location per deployment for brown long-eared bat.

Table 3-6 Brown Long-eared Bat Average (mean) Passes: by Location and Month

Detector Location	Month						
	April	May	June	July	August	September	October
1	0.33	3.00	1.00	0.17	4.00	0.67	0.83
2	0.17	43.17	1.67	2.50	11.17	0.50	0.00
3	0.67	14.50	11.17	1.50	6.17	1.17	5.00
4	0.50	11.67	2.00	1.17	1.67	0.67	7.00
5	0.50	3.17	0.83	0.67	5.67	1.33	3.67
6	0.67	No Data	2.33	0.33	7.00	2.00	2.50

Brown long-eared bats were recorded at all Detector Locations during the recording period. Figure 3-9 shows brown long-eared bat activity at each Detector Location provided as average passes per night (mean and median values).

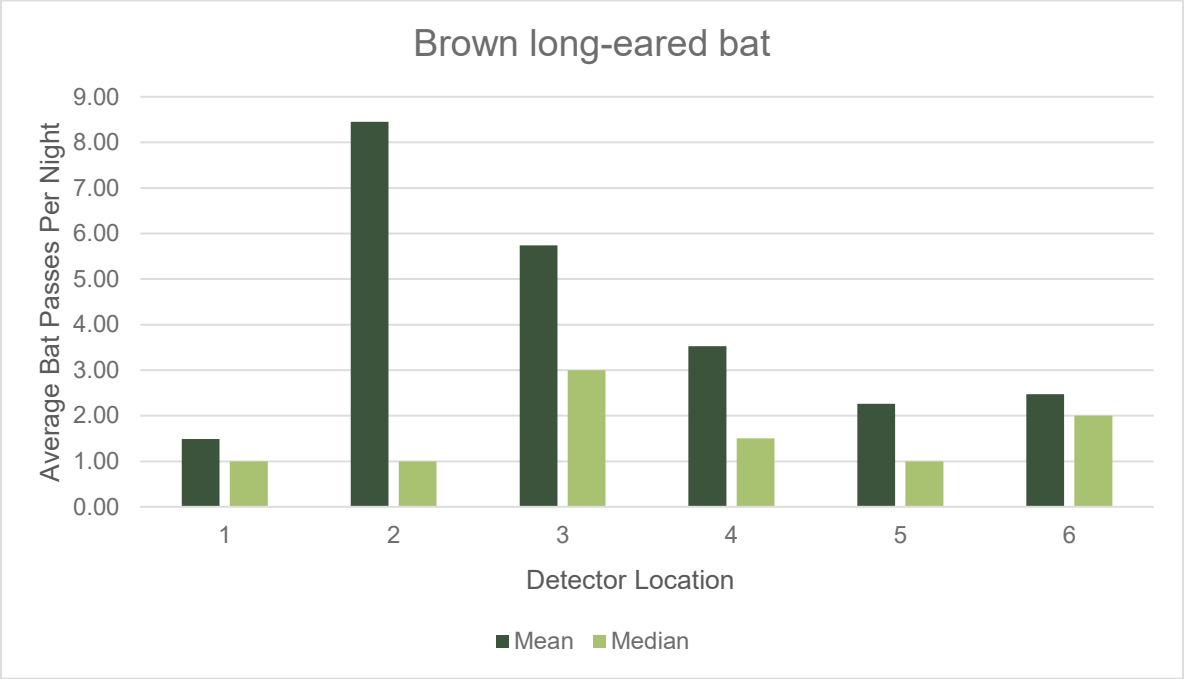


Figure 3-9 Brown Long-eared Bat Activity by Location

Figure 3-10 shows brown long-eared bat activity during each monthly deployment provided as average passes per day (mean and median values).

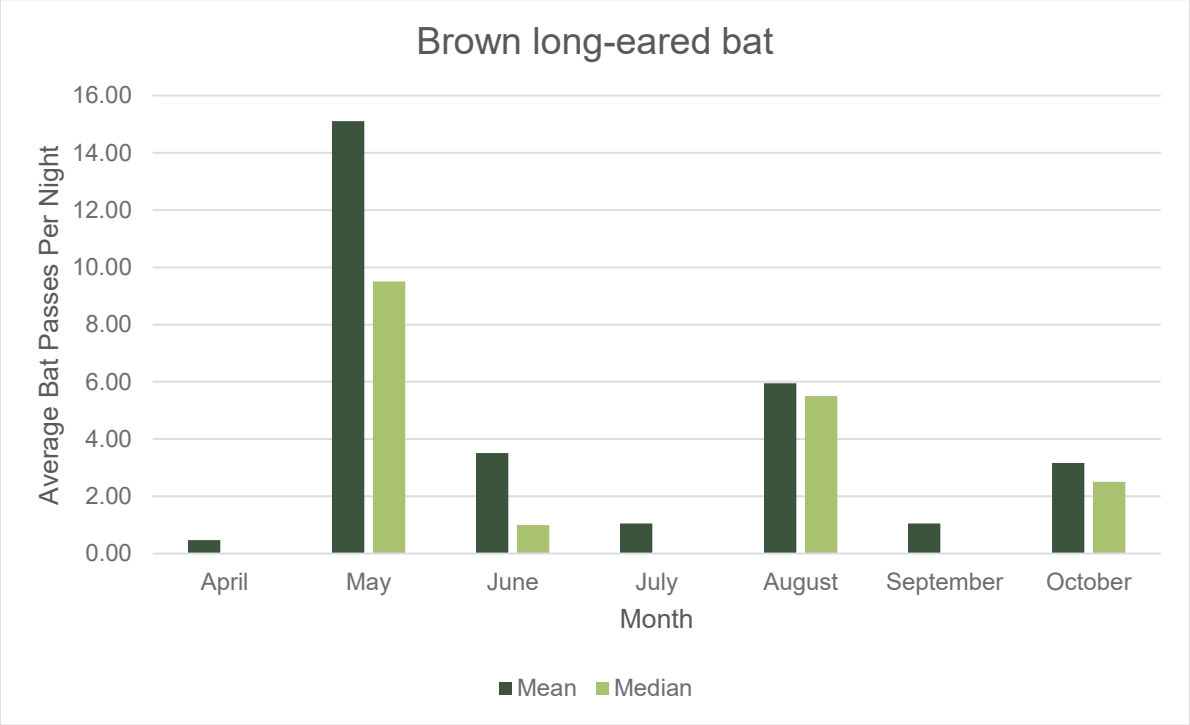


Figure 3-10 Brown Long-eared Bat Activity by Month

Brown long-eared bat is common and widespread in the UK; however, the characteristics of the call are such that it tends to be under-recorded.

Figure 3-9 and Figure 3-10 show brown long-eared bat activity at all locations, with Detector Location 2 having the highest average activity and Detector Location 1 having the lowest average activity. The highest number of passes was during May and the lowest number of passes in April, July and September. April, July and September all have a median value of 0, which means that for over half of the recording nights no brown long-eared bat passes were recorded.

3.4.2.7 Lesser horseshoe bat

Table 3-7 presents the average (mean value) of bat passes recorded at each Detector Location per deployment for lesser horseshoe bat.

Table 3-7 Lesser Horseshoe Bat Average (mean) Passes: by Location and Month

Detector Location	Month						
	April	May	June	July	August	September	October
1	0.17	0.00	0.00	0.00	0.50	0.00	0.33
2	2.33	3.00	6.00	1.67	0.33	1.17	0.33
3	16.83	5.17	15.83	1.83	2.83	5.00	14.33
4	2.00	4.00	2.33	0.17	0.67	1.00	7.50
5	7.33	4.33	12.50	2.00	0.83	5.33	7.50
6	26.17	No Data	5.00	1.33	2.33	12.33	9.50

Lesser horseshoe bats were recorded at all Detector Locations during the recording period. Figure 3-11 shows lesser horseshoe bat activity at each Detector Location provided as average passes per night (mean and median values).

Figure 3-11 and Figure 3-12 show lesser horseshoe bat was recorded at all locations. Detector Location 6 had the highest number of average passes with a mean average of 9 passes per night, however Detector Location 1 was the lowest with an average of 0.17 passes per night.

Figure 3-12 shows that lesser horseshoe bat activity varied throughout the survey period with April, June and October having the highest mean average passes over the recording period and July and August having the lowest average passes. The median values show that activity was more spread out across the June recording period, whereas in April there were peaks of activity on fewer nights, for example at Detectors Location 6 (Table 3-7).

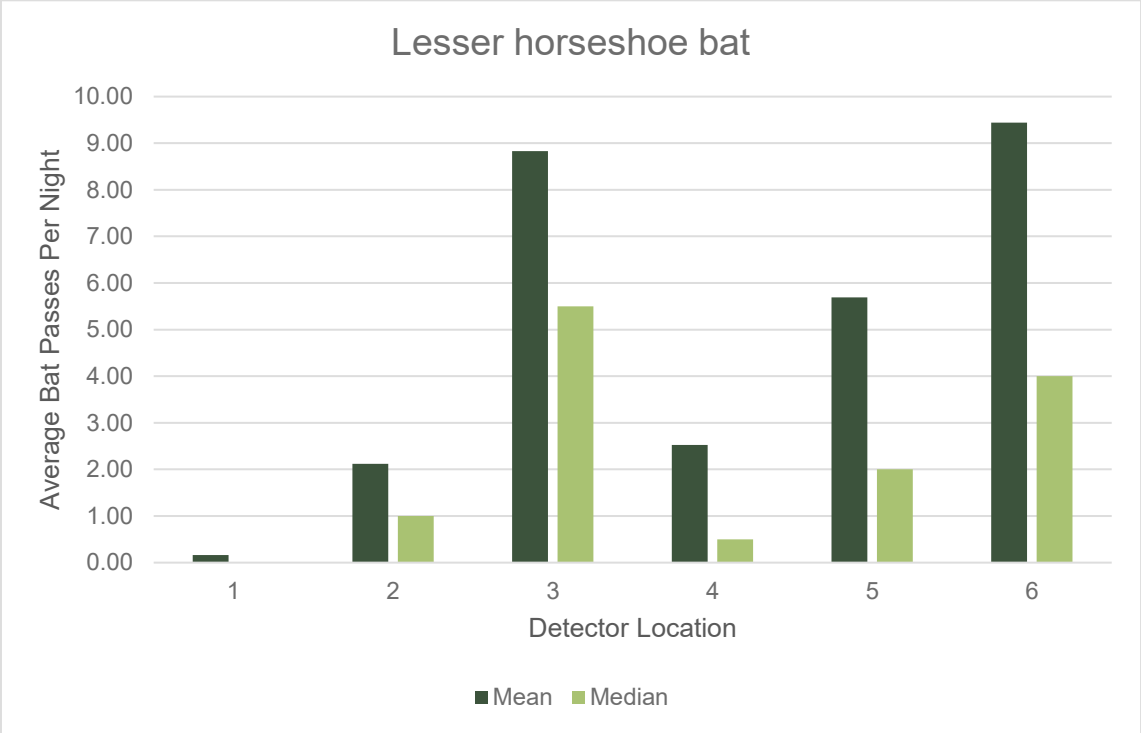


Figure 3-11 Lesser Horseshoe Bat Activity by Location

Figure 3-12 shows lesser horseshoe bat activity during each monthly deployment provided as average passes per day (mean and median values).

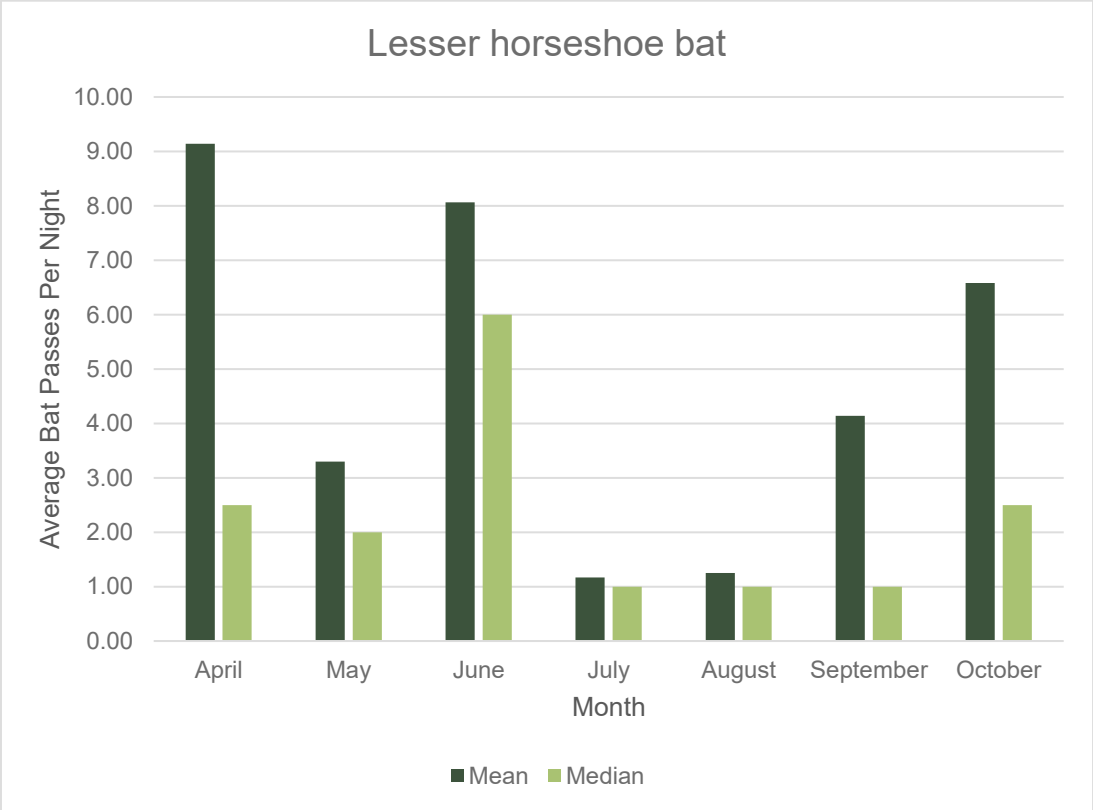


Figure 3-12 Lesser Horseshoe Bat Activity by Month

3.4.2.8 *Myotis* species

Table 3-8 presents the average (mean value) of bat passes recorded at each Detector Location per deployment for *Myotis* species.

Table 3-8 *Myotis* Species Average (mean) Passes: by Location and Month

Detector Location	Month						
	April	May	June	July	August	September	October
1	0.67	1.83	0.00	1.00	2.83	0.33	4.33
2	2.67	31.00	29.17	66.00	27.33	2.17	1.67
3	5.50	48.50	16.83	9.00	14.67	5.17	5.83
4	1.00	61.17	11.83	13.33	5.83	1.33	10.50
5	1.00	7.00	14.83	3.33	6.50	13.17	2.83
6	5.33	No Data	8.17	8.50	8.50	6.50	9.83

Myotis species were recorded at all Detector Locations during the recording period. Figure 3-13 shows *Myotis* species bat activity at each Detector Location provided as average passes per night (mean and median values).

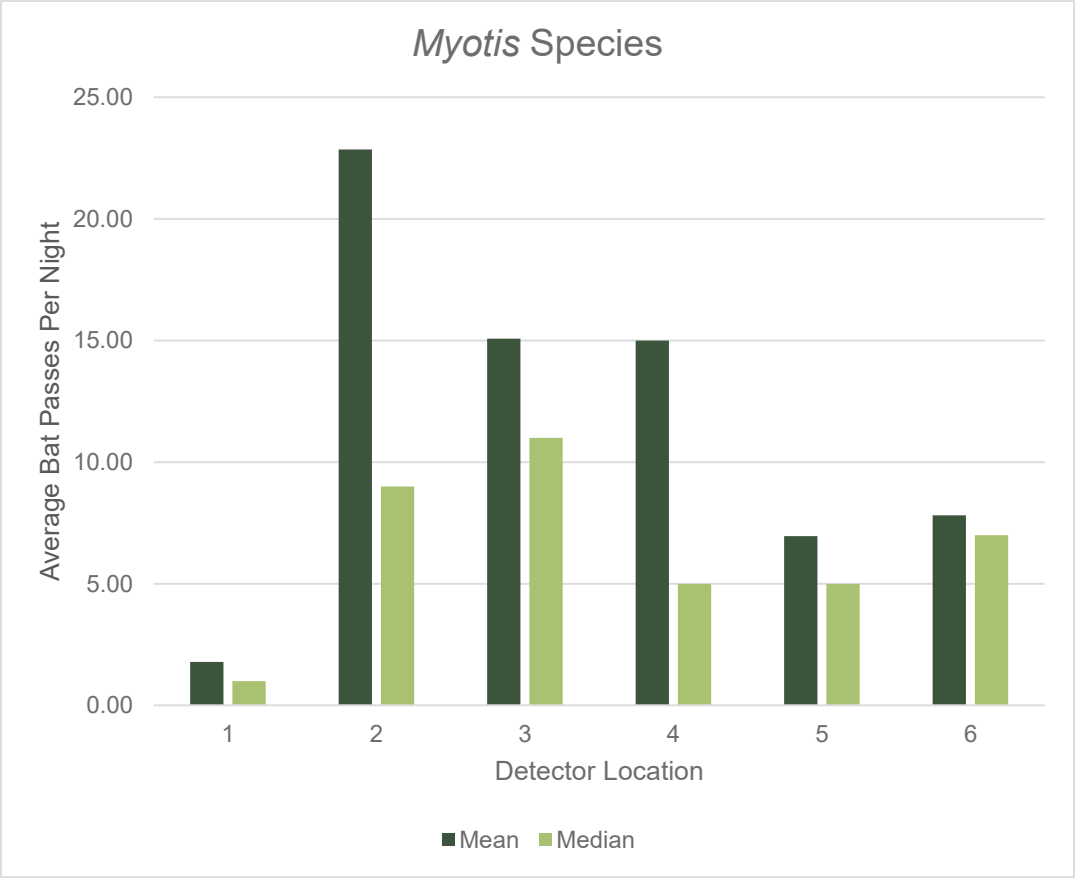


Figure 3-13 *Myotis* Species Activity by Location

Figure 3-14 shows *Myotis* species activity during each monthly deployment provided as average passes per day (mean and median values).

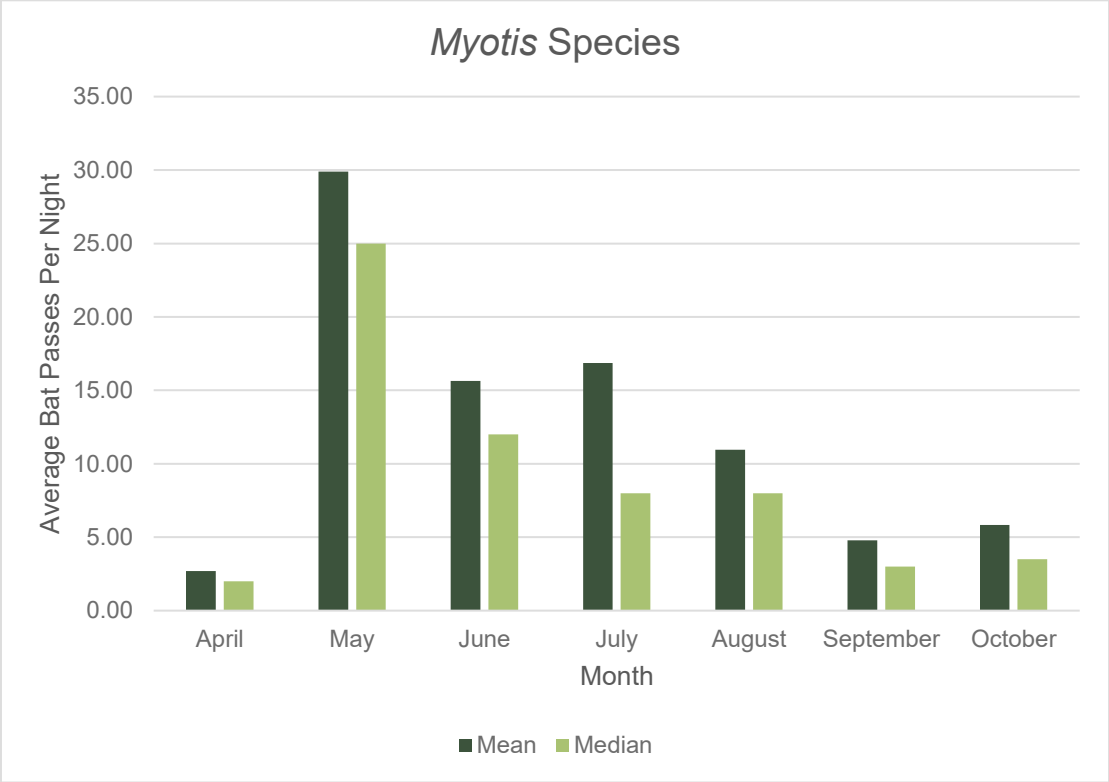


Figure 3-14 *Myotis* Species Activity by Month

Figure 3-13 and Figure 3-14 show that *Myotis* bat passes were recorded at all locations, showing a moderate level of activity throughout the year. Detector Location 2 had the highest average (mean) number of bat passes, with an average of 23 passes per night, while Detector Location 1 recorded the lowest. Figure 3-14 show shows May had the highest activity levels and April had the lowest.

4.0 Discussion and Evaluation

4.1 Roosting

The desk study data confirms the presence of brown long-eared bat, common pipistrelle, Daubenton's bat, greater horseshoe bat, lesser horseshoe bat, *Myotis* species, Natterer's bat, noctule, serotine, soprano pipistrelle, and whiskered/ Brandt's bats roosting within 2km of the Solar Site.

Natterer's bat, brown long-eared bat, common pipistrelle and lesser horseshoe bats have been recorded in the caves at Coedydd ac Ogofau Elwy a Meirchion SSSI c.865m southwest of the Solar Site.

Clwyd's second largest hibernaculum of lesser horseshoe bat, and small numbers of Natterer's bat and brown long-eared bat, have been recorded in the caves at Ffynnon Beuno and Cae Gwyn Caves SSSI c.5.7km east of the Solar Site.

Lesser horseshoe bat hibernacula have been recorded at Graig Fawr SSSI c.7.5km northeast of the Solar Site.

Clwyd's second largest hibernaculum of lesser horseshoe bat, and small numbers of Natterer's and Daubenton's bat have been recorded at Coed y Gopa SSSI c.9km northwest of the Solar Site.

Many of the above species are known to roost in trees, principally outside of the hibernation window, with the exception of noctule which tends to roost within trees year-round, and it is possible that trees within boundary hedgerows and in woodland within the Solar Site support such roosts.

However, no trees will be directly affected by development proposals, and furthermore none of the trees will be lit during either installation or operation, and as such any roosts, if present, will not be impacted.

4.2 Bat Activity

Based on data gathered during the field and desk surveys, at least eight bat species have been recorded foraging and commuting within the study area, as listed in Section 3.4.2. Generally, the amount of bat activity was widespread across the Solar Site, though notably less activity occurred at Detector Location 1, for all species aside from noctule, where the second highest average number of passes was recorded. This is not a surprising result as all other Detectors Locations were situated along boundary habitats, such as woodland edge or hedgerow, whereas Detector Location 1 was in a more open setting within a field and adjacent to a small pond. Noctule are more likely to utilise open habitats for commuting and foraging than many other species.

The latest proposed Site layout (issued February 2026) excludes the northern-most field in the western parcel, where Detector Location 1 was positioned, from any construction or alteration in relation to this proposal.

4.2.1 Common pipistrelle

Common pipistrelle has a Core Sustenance Zone (CSZ)[10] of 2km[1]. This species uses a wide range of habitats such as woodlands, hedgerows and grassland. The Solar Site is within the CSZ of known roosts returned by the data search.

[10] "the area around a communal bat roost which habitat availability and quality will have a significant influence on the resilience and conservation status of the colony using the roost" Collins, J (ed.) (2016) Bat Surveys for

Based upon the most recent CIEEM bat mitigation guidance[11] common pipistrelle species are assessed as having a rarity category of “widespread all geographies”.

Common pipistrelle was recorded at all Detector Locations across the Solar Site and in all months. Activity at Detector Location 1 located by a small pond in the centre of the modified grassland was lower than all other Detector Locations. Common pipistrelle likely use boundary hedgerow, lines of trees, and woodland for commuting and foraging. The modified grassland making up the majority of the Solar Site is likely to be less important.

Considering all of the above, the value of the Solar Site for common pipistrelle foraging and commuting routes is assessed as being of local level importance.

4.2.2 Soprano pipistrelle

Soprano pipistrelle has a CSZ of 3km[1]. This species uses a wide range of habitats and will tend to select riparian habitats over other habitat types available. The Solar Site is within the CSZ of known roosts returned by the data search.

Based upon the most recent CIEEM bat mitigation guidance[11], soprano pipistrelle species are assessed as having a rarity category of “widespread all geographies”.

Soprano pipistrelle was recorded at all automated bat Detector Locations across the Solar Site and in all months. Similar to common pipistrelle, soprano pipistrelle activity at Detector Location 1 located by a small pond in the centre of the modified grassland was lower than all other Detector Locations. The boundary hedgerow, lines of trees, and adjacent woodland are considered highly suitable for this species group.

Considering all of the above, the value of the Solar Site for soprano pipistrelle foraging and commuting routes is assessed as being of local level importance.

4.2.3 Nathusius’ pipistrelle

This species foraging is associated with riparian habitats, broadleaved and mixed woodlands, as well as parkland and has a CSZ of 3km[1]. The Solar Site is not within the CSZ of known roosts returned by the data search.

Based upon the most recent CIEEM bat mitigation guidance[11], Nathusius’ pipistrelle species are assessed as having a rarity category of “rarest Annex 2 species and very rare”.

A single pass was recorded of this species at Detector Location 5 during April. This species has a call that is readily detected, and the low number of records is considered to reflect an absence of bats at the other locations, and during other survey periods. It is considered most likely that Nathusius’ pipistrelle occasionally pass through the Solar Site, however the lack of regular evidence, or of peaks of higher activity, suggests the area is not a well-used resource by the local population at the time of survey.

Considering all of the above, the value of the Solar Site for Nathusius’ pipistrelle foraging and commuting routes is assessed as being of local level importance.

Professional Ecologists: Good Practice Guidelines (3rd Edition). The Bat Conservation Trust. London

[11] Reason, P.F. and Wray, S. (2025). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Version 1.2. Chartered Institute of Ecology and Environmental Management, Ampfield.

4.2.4 Noctule

Noctule bats are found in a range of habitats, foraging in the open over trees and with a strong attraction to water. They have a CSZ of 4km[1]. The Solar Site is within the CSZ of known roosts returned by the data search.

Based upon the most recent CIEEM bat mitigation guidance[11], noctule species are assessed as having a rarity category of “widespread in many geographies, but not as abundant in all”.

Noctule passes recorded during the activity survey show a consistent low-level activity across all Detector Locations. The numbers were elevated in August. The open habitat with ponds and nearby woodland adjacent to Solar Site is considered highly suitable for use by this species.

Considering all of the above, the value of the Solar Site for noctule foraging and commuting routes is assessed as being of local level importance.

4.2.5 Serotine

Serotine bats are found in a range of habitats including pasture, woodland edge and commutes along hedgerows and tree lines. It has a CSZ of 4km[1]. The Solar Site is within the CSZ of known roosts returned by the data search.

Based upon the most recent CIEEM bat mitigation guidance[11], serotine species are assessed as having a rarity category of “rarest Annex 2 species and very rare”.

Two passes were recorded of this species, one at Detector Location 5 during July and one at Detector Location 3 during August. The lack of regular evidence, or of peaks of higher activity suggests the area is not a well-used resource by the local population at the time of survey.

Considering all of the above, the value of the Solar Site for serotine foraging and commuting routes is assessed as being of local level importance.

4.2.6 Brown long-eared bat

This species foraging is strongly associated with tree cover it prefers woodland with a cluttered understorey but will also use mature hedgerows, particularly those with trees. It has a CSZ of 3km[1]. The Solar Site is within the CSZ of known roosts returned by the data search.

Based upon the most recent CIEEM bat mitigation guidance[11], brown long-eared bat species are assessed as having a rarity category of “widespread all geographies”.

Brown long-eared bat was recorded at all Detector Locations across the Solar Site and in all months, with higher number of passes at Location 2. However, due to the difficulties in detecting this species, it is difficult to draw firm conclusions about the specific locations which may be of most value. This species is most likely to forage within the woodlands adjacent to the Solar Site, rather than open habitat in the central area of the Solar Site.

Considering all of the above, the value of the Solar Site for brown long-eared bat foraging and commuting routes is assessed as being of local level importance.

4.2.7 Lesser horseshoe bat

Lesser horseshoe bats forage in broadleaved woodland, which is connected to other landscape features, and to roosts, by commuting routes like hedges, woodland edge and riparian trees with a CSZ of 2km[1]. The Solar Site is within the CSZ of known hibernation roosts. The data search also suggests that there are summer roosts, i.e. records related to buildings or roof voids, within the CSZ of the Solar Site.

Based upon the most recent CIEEM bat mitigation guidance[11], lesser horseshoe bat species are assessed as having a rarity category of “rarer or restricted distribution”.

Lesser horseshoe bat was recorded at all Detector Locations across the Solar Site and in all months with higher number of passes at Detector Locations 3 and 6 and lowest number of passes at Detector Location 1. This is not surprising as Detector Location 1 is in open habitat and lesser horseshoe bat commuting and foraging is highly associated with woodland and boundary habitat such as hedgerow. Higher levels of activity were recorded in April, June, and October. The higher number of passes during April and October and the higher number of passes during the October night-time bat walkover may relate to bats travelling to/ from known roost locations that occur nearby, or to previously unrecorded site(s) for hibernation. Similarly, the increase in activity at Detector Locations 3 and 5 may be associated with movement from summer roosts.

Considering all of the above, the value of the Solar Site for lesser horseshoe bats foraging and commuting routes is assessed as being of county level importance.

4.2.8 *Myotis* species

Natterer’s bats use semi-natural woodland, tree lined river corridors and ponds and have a CSZ of 4km[1]. Daubenton’s bat primarily forages over water but is known to forage in woodland also. Daubenton’s have a CSZ of 2km[1]. Brandt’s bat use woodland and areas close to water and have a CSZ of 1km[1]. Whiskered bat prefers grazed pasture and wetlands, mixed or broadleaved woodland and hedgerows. Whiskered bat have a CSZ of 1km[1].

The Solar Site is within the CSZ of known Natterer’s bat, and ‘*Myotis* species’ roosts returned by the data search.

Based upon the most recent CIEEM bat mitigation guidance[11], *Myotis* species are assessed as having a rarity category of “widespread in many geographies, but not as abundant in all”.

Myotis species registrations were recorded at all Detector Locations across the Solar Site. The least activity was recorded at Detector Location 1, which is in open habitat. Activity was highest in May. *Myotis* bats are likely to utilise the wooded streams and ponds within the Solar Site as well as adjacent broadleaved woodlands to forage within, and the boundary hedgerows for commuting purposes. The modified grassland habitats are likely of less importance to the species’.

Considering all of the above, the value of the Solar Site for *Myotis* species foraging and commuting routes is assessed as being of local level importance.

Appendix A Drawing C0002452_01 Site Location

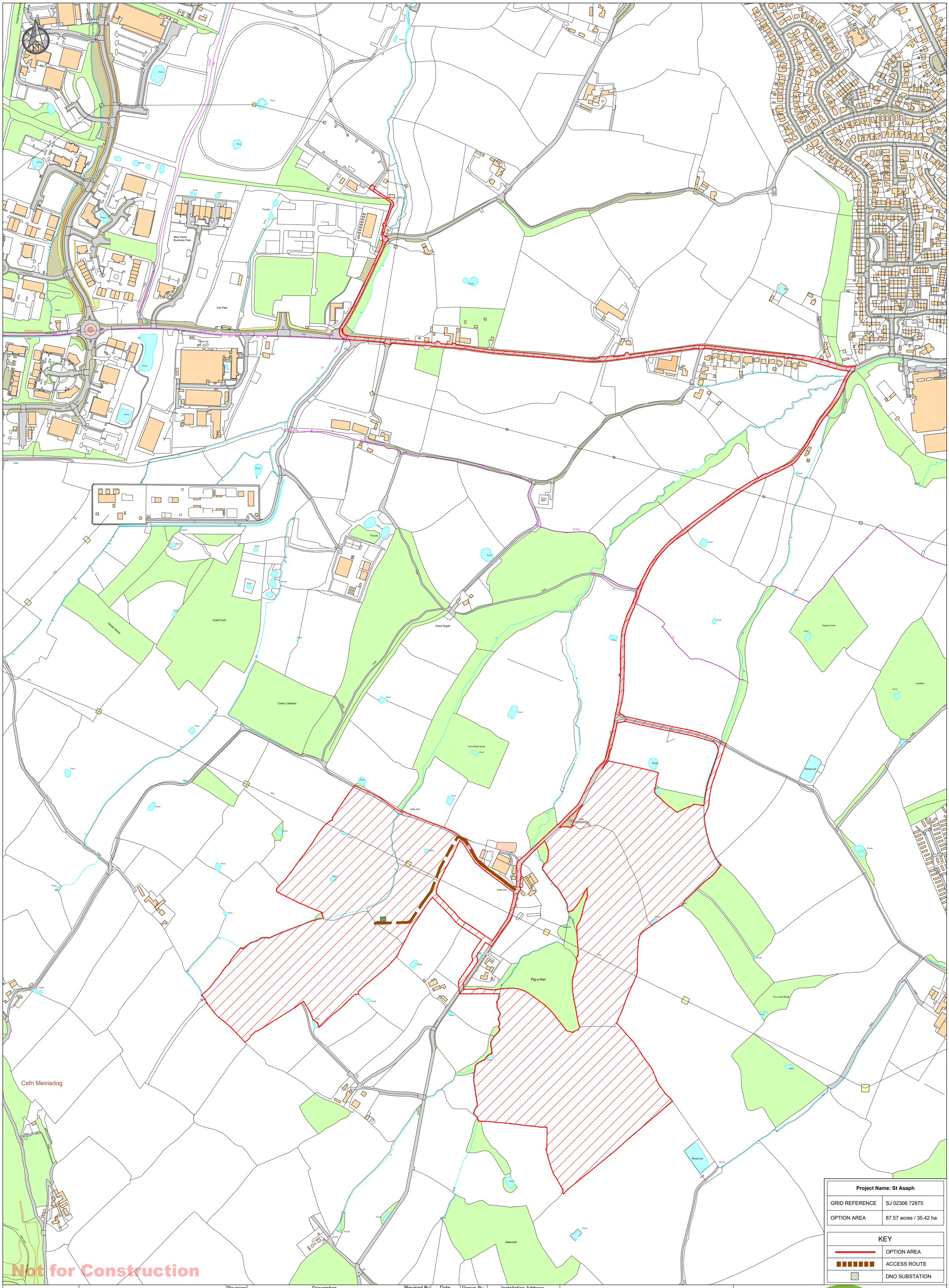
Bat Survey Report

St Asaph Solar Farm

Anesco Limited

SLR Project No.: 406.065274.00001

24 April 2026



Project Name: St Asaph	
GRID REFERENCE	SJ 02306 72875
OPTION AREA	87.57 acres / 35.42 ha

KEY	
	OPTION AREA
	ACCESS ROUTE
	DNO SUBSTATION

Installer Details

Anesco Ltd.
The Green,
Easter Park,
Benyon Road,
Reading,
RG7 2PQ
Tel: 0845 894 4444

Comments

0 50 100 150 200

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Revision	Description	Revised By	Date	Drawn By
A	Issued for comment	MS	20/10/2020	RD
B	Land reduced from the North and extended to the South	MS	05/03/2021	
C	Area of Land has been altered and the DNO substation moved	MS	04/05/2021	
D	Area of Land has been altered and the DNO substation moved	MS	12/05/2021	
E	Site area amended	JH	22/11/2023	Scale
F	Red Line Boundary amended & access track added in the North	JH	12/12/2023	1:5000@ A2
G	Red Line Boundary amended	MS	10/06/2024	
H	Red Line Boundary amended	MS	13/11/2024	
J	Red Line Boundary amended	RD	26/03/2025	Sheet Size A2

Installation Address

Cefnmeiriadog,
St Asaph,
Denbighshire,
Wales,

LL17 0HF

Project: St Asaph

Title: Location Plan

Drawing No.: C0002452_01

Rev.: J

Anesco™ AMAZING ENERGY

Appendix B Drawing C0002452_02 Site Layout

Bat Survey Report

St Asaph Solar Farm

Anesco Limited

SLR Project No.: 406.065274.00001

24 April 2026

PROJECT NAME: ST ASAPH

GRID REFERENCE: SJ 02300 72873

LEGEND

	SITE BOUNDARY (87.7932Acres / 35.5286 ha)
	SECURITY FENCE
KV KV	OVERHEAD ELECTRICAL CABLES (24m/14m OVERALL EASEMENT)
	DNO ACCESS ROUTE
	HV CABLE ROUTE - TRENCH
	LV CABLE ROUTE - TRAY
	PRIVATE HV CABLE ROUTE - TRENCH
BT BT	BT OVERHEAD CABLE
WM WM	UNDERGROUND WATER TRUNK MAIN
	UTILITY EASEMENT
	HARDSTANDING AREA
	PROPOSED CULVERT CROSSING
	PROPOSED HEDGE REMOVAL FOR TRACK WIDENING
	FENCE PLACEMENT & HEDGE REGROWTH AREA
	PV ARRAY
	INVERTER
	MV STATION
	DNO SUBSTATION
	CUSTOMER SUBSTATION

Not for Construction

Installer Details

Anesco Ltd.
The Green,
Easter Park,
Benyon Road,
Reading,
RG7 2PQ
Tel: 0845 894 4444

Comments

Acceses track at site entrance amended according to the drawing "211001-08, 09, and TK12 [Sent File]." Please refer tho this one for more details.

0 10 20 40 60 80 100

Revision	Description	Revised By	Date	Drawn By
J	Red Line Boundary amended to include Private HV	JH	03/08/2022	JH
K&L&M	Site redesign using new modules and new private HV cable	JH	06/07/2023	
N&P	Red Line Boundary amended & access track added in the North& dno	JH&LD	12/11/2023	
Q&R&S	Redesign due to array relocation & Access altered	MS	20/09/2024	
T&U&V&W	Topo & searches,Hedgerows& inverters addedPannel locations, tracks & fences amended	RD	07/04/2025	Scale
X	North west field removed	JH	20/01/2026	1:4000
Y	Access track amended	RD	17/03/2026	
Z	Arrays amended, TIC updated	RD	15/04/2026	
				Sheet Size A2

Installation Address

Cefnmeiriadog,
St Asaph,
Denbighshire,
Wales, LL17 0HF

Project: St Asaph

Title: Site layout - Planning

Drawing No.: C0002452_02

Rev.: Z

Anesco™ AMAZING ENERGY

Appendix C Figure 1 - Static Bat Detector Locations and Night-time Bat Walkover Route

Bat Survey Report

St Asaph Solar Farm

Anesco Limited

SLR Project No.: 406.065274.00001

24 April 2026

301700 302050 302400 302750

373100

372750

N

Static 1

Static 2

Static 3

Static 4

Static 5

Static 6

0 100 200

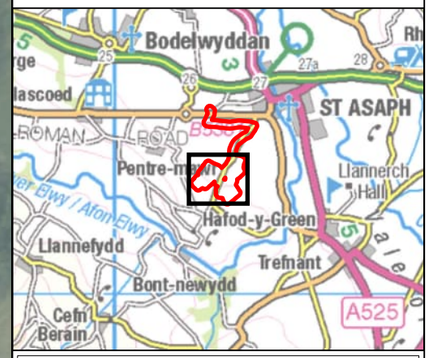
Metres

LEGEND

Site Boundary

Bat Static Detector Location

Night-time Bat Walkover Route



Anesco

SLR

ST ASAPH

2025 BAT REPORT

BAT STATIC DETECTOR LOCATIONS AND NIGHT-TIME BAT WALKOVER ROUTES

FIGURE 1

Scale 1:4,000 @ A3

Date DECEMBER 2025

406.065274.00001.0008.0 Bat Static Detector Locations And Night-Time Bat Walkover Routes

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RGB Aerial Photography (2023) - © Bluesky International

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Appendix D Cofnod Bat Roost Records

Bat Survey Report

St Asaph Solar Farm

Anesco Limited

SLR Project No.: 406.065274.00001

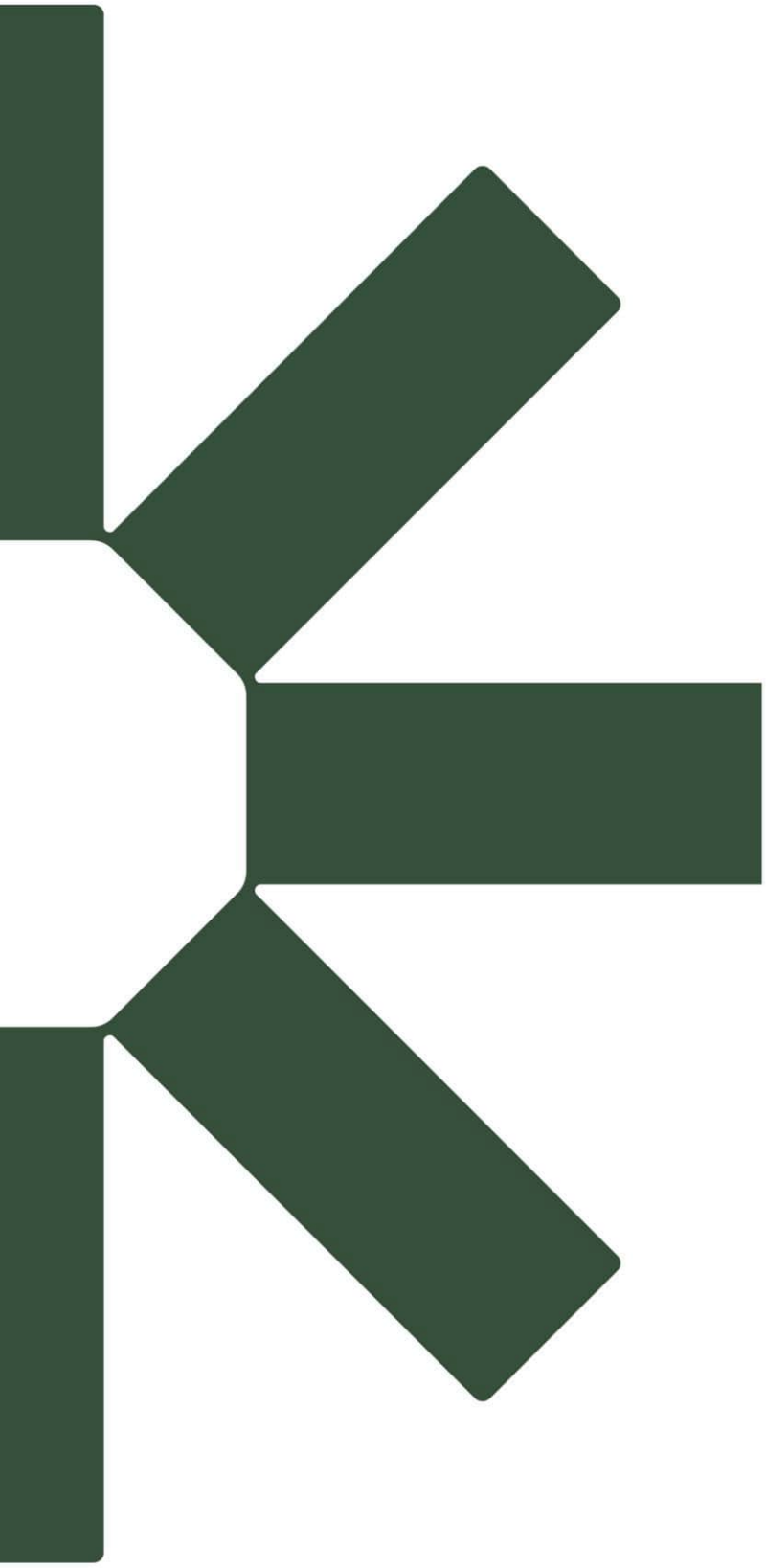
24 April 2026

Table 4-1 Cofnod Bat Roost Records

English Name	Distance	Year
Bat	900	1996
Bat	1019	1997
Bat	1085	1999
Bat	1223	1986
Bat	1251	1984
Bat	1347	1981
Bat	1396	1989
Bat	1485	1999
Bat	1736	2001
Bat	1787	1980
Bat	1875	1989
Bat	1888	1989
Bat	1926	2018
Brown Long-eared Bat	777	1985
Brown Long-eared Bat	900	1984
Brown Long-eared Bat	1471	2012
Brown Long-eared Bat	1660	1990
Brown Long-eared Bat	1665	1999
Brown Long-eared Bat	1736	1987
Brown Long-eared Bat	1926	2018
Common Pipistrelle	1471	2012
Common Pipistrelle	1736	2007
Daubenton's Bat	1660	1990
Daubenton's Bat	1736	1990
Daubenton's Bat	1801	1990
Greater Horseshoe Bat	1736	2018
Greater Horseshoe Bat	1801	2018
Lesser Horseshoe Bat	1154	1993
Lesser Horseshoe Bat	1223	1993
Lesser Horseshoe Bat	1444	1997
Lesser Horseshoe Bat	1471	2011
Lesser Horseshoe Bat	1584	1999

English Name	Distance	Year
Lesser Horseshoe Bat	1660	1987
Lesser Horseshoe Bat	1665	1986
Lesser Horseshoe Bat	1736	1986
Lesser Horseshoe Bat	1936	2011
Myotis Bat species	1430	1999
Myotis Bat species	1660	2010
Myotis Bat species	1665	2002
Myotis Bat species	1736	1990
Natterer's Bat	420	1982
Natterer's Bat	1471	2011
Natterer's Bat	1584	2006
Natterer's Bat	1660	1987
Natterer's Bat	1665	2000
Natterer's Bat	1736	1989
Natterer's Bat	1801	1993
Natterer's Bat	1936	2011
Noctule	625	2009
Pipistrelle	1660	1996
Pipistrelle	1736	2009
Pipistrelle Bat species	777	1987
Pipistrelle Bat species	787	1984
Pipistrelle Bat species	900	1996
Pipistrelle Bat species	1019	1997
Pipistrelle Bat species	1150	1984
Pipistrelle Bat species	1312	1995
Pipistrelle Bat species	1455	1987
Pipistrelle Bat species	1665	1992
Pipistrelle Bat species	1678	1993
Pipistrelle Bat species	1736	2018
Pipistrelle Bat species	1862	1983
Serotine	1736	2008
Soprano Pipistrelle	1471	2012
Soprano Pipistrelle	1736	2010

English Name	Distance	Year
Soprano Pipistrelle	1926	2018
Soprano Pipistrelle	1932	2020
Whiskered Bat	1665	2002
Whiskered Bat	1801	1993
Whiskered/Brandt's Bat	1660	1999
Whiskered/Brandt's Bat	1665	2000
Whiskered/Brandt's Bat	1736	1996



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