The natural choice for good advice

# Bat surveys

# Dubbers Turbines

November 2025

A report by
Oscar Bates BSc (Hons)

Western Ecology Ltd, 1 Geffery Close, Landrake, Saltash, Cornwall PL12 5HA Telephone: 0800 622 6828
email: office@westernecology.co.uk

## Report details

| | |
|---|---|
| Site address: | Land at Dubbers, St Austell, Cornwall |
| Grid reference: | SW 975 562 |
| Report date: | 4th November 2025 |
| Report author: | Oscar Bates BSc (Hons) |
| Report reviewer: | Colin Hicks BSc (Hons), MCIEEM |
| | |
| Report reference: | WOR-5785 |

## Declaration of compliance

### BS 42020:2013

This study has been undertaken in accordance with British Standard 42020:2013 Biodiversity, Code of practice for planning and development.

### Code of Professional Conduct

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Table of contents

# 1. Introduction

Western Ecology were commissioned to complete bat surveys in relation to the following proposal: '*The proposed development comprises the construction and operation of two Vestas 117 (4.3MW) turbines with blade tip heights of 135m and a hub height of 76.5m. Associated infrastructure includes a temporary construction compound, new access tracks and hardstanding areas.'* on Land at Dubbers, St Austell, Cornwall.

## 1.1. Site location

The site lies within the southern periphery of the Lower Longstones area of the operational clay works associated with the Little Johns Pit, located approximately 1.25km to the east of the village of Nanpean, and approximately 5km to the north-west of St Austell in mid-Cornwall.

## 1.2. Survey aims

The aim of the survey is to characterise the assemblage of bats using the site allowing an assessment of the potential impacts of the proposals for this site. Where impacts are considered significant[1], mitigation proposed follows the mitigation hierarchy detailed in paragraph: 018 Reference ID: 8-018-20140306 of National Planning Practice Guidance.

[1] For the purposes of this report, a practical approach has been taken to define the term 'significant'. If an effect is sufficiently important to be given weight in the planning process, or to warrant the imposition of a planning condition, it is likely to be 'significant' in the context of the level under consideration (BSI, 2013).

# 2. Survey methodology

## 2.1. Bat activity transects

Two 2-hour bat activity transect surveys were completed on foot by a suitably experienced ecologist walking a pre-planned route through this site, with attention being paid to bat activity along boundary features (Map 1). The survey began around sunset. At locations along the route the surveyor paused to record bat activity in that area making a note of any bat species encountered, number of passes and any other pertinent information. Details of the surveys are provided in Table 1.

Table 1. Bat activity transect details

| Date | Surveyor | Start time | Finish time | Sunset time | Weather conditions |
|---|---|---|---|---|---|
| 11th June 2025 | Martin Rule | 21:30 | 23:30 | 21:30 | 15ºC temperature. Moderate SE, 50% CC and dry. |
| 28th October 2025 | Martin Rule | 17:00 | 19:00 | 17:02 | 11ºC temperature. Moderate W, 100% CC and scattered light showers. |

Bat activity was monitored using an Echo Meter Touch Pro connected to an Apple or Android device running the Echometer touch app. with GPS logging enabled.

## 2.2. Remote monitoring

Four Wildlife Acoustics remote bat monitors were deployed for seven periods from April to October 2025 (Table 2). Information of remote monitoring locations is as follows and is detailed in Map 1:

- Remote 1 - placed on a scrubby edge away from the turbine
- Remote 2 - adjacent to the north turbine site
- Remote 3 - adjacent to the south turbine site
- Remote 4 - placed away from the turbine adjacent to a scrubby bank

Table 2. Remote monitoring details

| Location | Period of deployment | Number of recording hours |
|---|---|---|
| 1 | 16th to 21st April 2025 | 51.03 |
| 1 | 22nd to 28th May 2025 | 49.70 |
| 1 | 11th to 15th June 2025 | 31.47 |

| | | |
|---|---|---|
| 1 | 8th to 14th July 2025 | 48.23 |
| 1 | 6th to 10th August 2025 | 37.35 |
| 1 | 23rd September to 1st October 2025 | 110.15 |
| 1 | 15th to 21st October 2025 | 81.38 |
| **Total** | | **409.32** |
| 2 | 16th to 21st April 2025 | 51.03 |
| 2 | 22nd to 28th May 2025 | 49.70 |
| 2 | 11th to 15th June 2025 | 31.47 |
| 2 | 8th to 14th July 2025 | 48.23 |
| 2 | 6th to 10th August 2025 | 37.35 |
| 2 | 23rd September to 1st October 2025 | 110.15 |
| 2 | 15th to 21st October 2025 | 81.38 |
| **Total** | | **409.32** |
| 3 | 16th to 21st April 2025 | 51.03 |
| 3 | 22nd to 28th May 2025 | 49.70 |
| 3 | 11th to 15th June 2025 | 31.47 |
| 3 | 8th to 15th July 2025 | 56.22 |
| 3 | 6th to 10th August 2025 | 37.35 |
| 3 | 23rd September to 25th September 2025 | 24.82 |
| 3 | 15th to 21st October 2025 | 81.38 |
| **Total** | | **331.97** |
| 4 | 16th to 21st April 2025 | 51.03 |
| 4 | 22nd to 28th May 2025 | 49.70 |
| 4 | 11th to 15th June 2025 | 31.47 |
| 4 | 8th to 15th July 2025 | 56.22 |
| 4 | 6th to 10th August 2025 | 37.35 |
| 4 | 15th to 21st October 2025 | 81.38 |
| **Total** | | **307.15** |
| **Grand Total** | | **1457.76** |

After deployment, sonograms were downloaded and analysed using Analook software (version 4.2n) and Kaleidoscope Pro (version 5.6.4) to ascertain which species are using the site.

Results from this analysis were inputted into Ecobat (Mammal Society)[2], which provides information on relative levels of bat activity based upon a database of bat data.

## 2.3. Survey constraints

No data was recorded at remote 4 during September. This is not considered to be a significant constraint as there is at least 40 nights of data available throughout the bat active season at each remote location. No spring transect was completed due to issues with health and safety. This is not considered to be a significant constraint as the two bat activity transects were completed as well as a full season of remote monitoring data.

It is assumed that Long-eared bat activity is Brown Long-eared bats (*Plecotus auritus*) rather than the rarer Grey Long-eared (*Plecotus austriacus*). The site lies outside of the excepted UK distribution for Grey Long-eared bat[3]. Myotis spp. were assessed as a group due to limitations associated with identifying these species from sonograms.

These limitations are accepted and not judged to be a constraint to making a full and robust assessment of bat activity at this small site.

# 3. Results

## 3.1. Bat activity transects

Table 3 in combination with Map 2 and Map 3 describes how each species of bat that was encountered during the activity transect uses the site.

Table 3. Bat passes during activity transect surveys

| | **Common pipistrelle** | **Total** |
|---|---|---|
| **11th June 2025** | 1 | 1 |
| **28th October 2025** | 14 | 14 |

[2] Mammal Society, Ecobat at https://mammal.org.uk/current-research/bat-survey-tools

[3] Bat Conservation Trust; Grey Long-eared bat at https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/grey-long-eared-bat

| | | |
|---|---|---|
| **Total** | 15 | 15 |

Common Pipistrelle (15 passes)

During the transects common pipistrelle were the only recorded species of bat. Calls were most frequent along scrub-lined banks located at the north and south of the survey area (Map 2).


western ECOLOGY

1 Geffery Close
Landrake
Saltash
Cornwall
PL12 5HA

Tel: 0800 622 6828
email: office@westernecology.co.uk

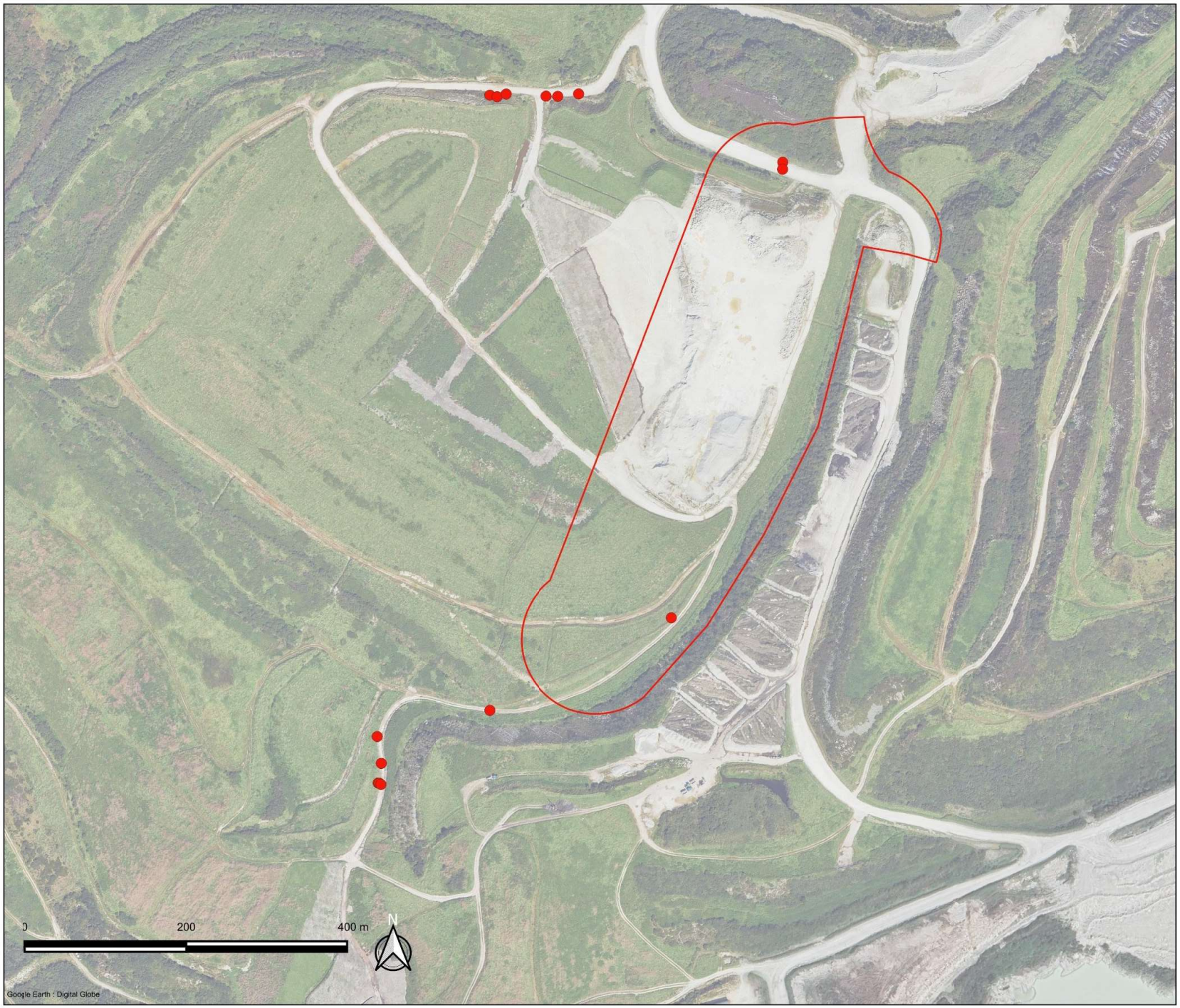
Legend

- Remote monitoring locations
- Transect routes
- Planning boundary

Title: Map 1. Remote monitoring locations and transect routes

Project: Dubbers two turbines

Checked by:
CDH
Version: 01
Date: 04.11.2025




western ECOLOGY

1 Geffery Close
Landrake
Saltash
Cornwall
PL12 5HA

Tel: 0800 622 6828
email: office@westernecology.co.uk

Legend
- Common pipistrelle
- Planning boundary

Title: Map 2. Calls recorded during bat activity transects

Project: Dubbers two turbines

Checked by:
CDH
Version: 01
Date: 04.11.2025

## 3.2. Remote monitoring

Calls per hour at each location have been calculated for each species and provide a measure of relative activity by each species, and in each habitat (Table 3, Chart 1 (Pipistrelle species), and Chart 2 (Less frequently recorded species)).

Table 3. Calls per hour recorded during remote monitoring in each month

| | Barbastelle | Serotine | Myotis spp. | Noctule | Nathusius pipistrelle | Common pipistrelle | Soprano pipistrelle | Brown long-eared | **Average calls per hour** |
|---|---|---|---|---|---|---|---|---|---|
| Location 1 | 0.002 | 0.002 | 0.032 | 0.186 | 0.034 | 7.820 | 0.000 | 0.205 | 8.282 |
| Location 2 | 0.010 | 0.000 | 0.090 | 0.183 | 0.037 | 15.130 | 0.000 | 0.315 | 15.765 |
| Location 3 | 0.003 | 0.003 | 0.036 | 0.859 | 0.060 | 5.814 | 0.012 | 0.226 | 7.013 |
| Location 4 | 0.007 | 0.000 | 0.052 | 0.671 | 0.147 | 15.813 | 0.033 | 0.208 | 16.930 |
| **Average calls per hour** | 0.005 | 0.001 | 0.054 | 0.440 | 0.064 | 11.100 | 0.010 | 0.241 | |

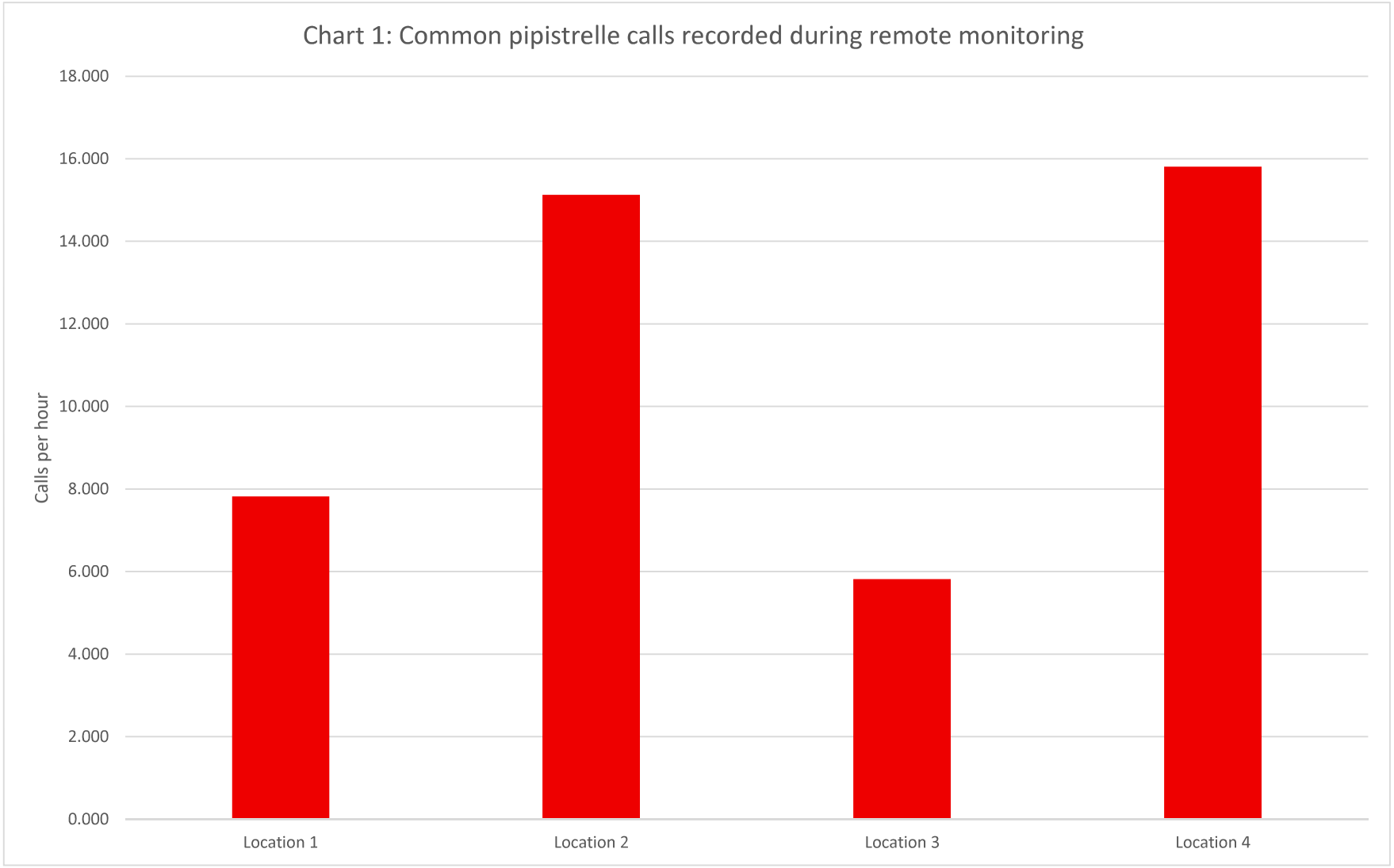


Chart 1: Common pipistrelle calls recorded during remote monitoring
Calls per hour
18.000
16.000
14.000
12.000
10.000
8.000
6.000
4.000
2.000
0.000
Location 1
Location 2
Location 3
Location 4

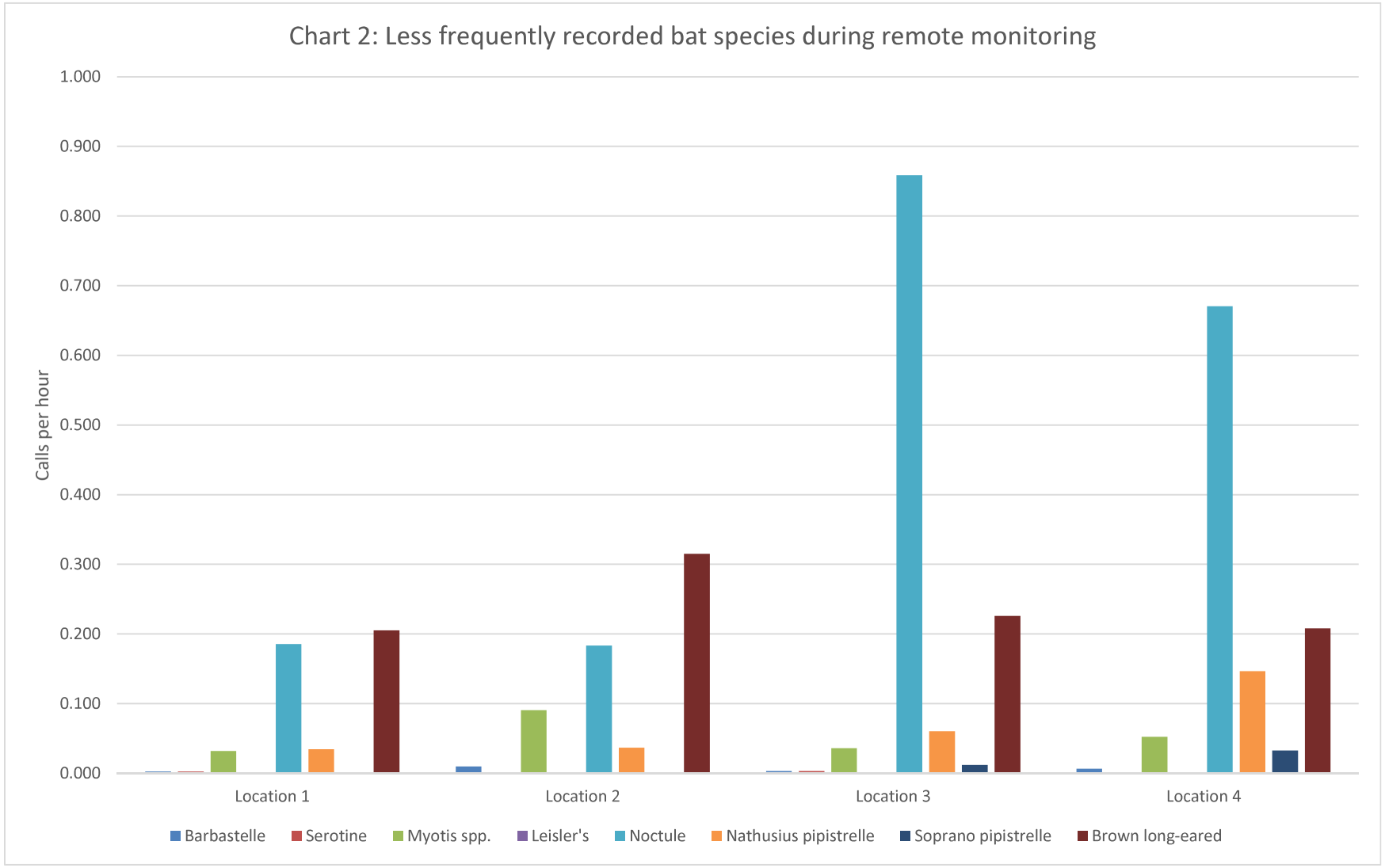


Chart 2: Less frequently recorded bat species during remote monitoring
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
Calls per hour
Location 1
Location 2
Location 3
Location 4
Barbastelle
Serotine
Myotis spp.
Leisler's
Noctule
Nathusius pipistrelle
Soprano pipistrelle
Brown long-eared

## 3.3. Species use of the site and assessment of site importance

Geographical levels of importance have been determined in line with scientific literature[4][5][6] , the Ecobat database[2], and use of professional judgement by an experienced ecologist based on the overall knowledge of bat activity in the area. This assessment has considered the following:

- Levels of bat activity indicating reliance
- Landscape context
- The species using a feature, and their conservation status
- Whether any species present are edge-of-range

Common Pipistrelle

Common Pipistrelle were the most frequently recorded bat with 11.100 calls per hour. This species was also the only recorded species during bat activity transects. Calls were highest at remote locations 2, and 4. These remotes were placed in close proximity to banked areas which bats may be using as linear features for commuting. Calls were least frequent at remote location 3, which is in open habitat. (Map 1, Chart 1).

Common Pipistrelle are the most common bat in the UK and are regularly recorded foraging for extended periods along field boundaries and under streetlights on the urban fringe. The common pipistrelle bat is currently considered to have a stable population status in the UK[7].

Activity levels are typical for the habitats found within the survey area and do not indicate reliance on this site. The site is of **Site** value for this species.

Noctule

Noctule calls were recorded 0.440 times per hour during remote monitoring and were not recorded during bat activity transects. Activity was highest at remote locations 3 and 4. This species may be using the steep scrub-lined bank located at the southeast of the site as a flight route. It should be noted than the high amplitude calls produced by Noctule can be detected from more than 100m away, and remote location 3 is approximately 45m from this banked feature (Chart 2).

Noctule are widespread in the UK with populations considered to be in decline. This decline is attributed to habitat loss, changes in land use, and reductions in insect prey availability.

Activity levels are typical for the habitats found within the survey area and do not indicate reliance on this site. The site is of **Site** value for this species.

Brown long-eared

[4] Walsh, A.L. and Harris, S. (1996) Foraging Habitat Preferences of Vespertilionid Bats in Britain. *Journal of Applied Ecology,* British Ecological Society, 33 (3): 508-518.

[5] Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Version 1.1. Chartered Institute of Ecology and Environmental Management, Ampfield.walsh

[6] Wray S, Wells D, Long E, Mitchell-Jones T. 2010. Valuing Bats in Ecological Impact Assessment, IEEM In-Practice p 23-25

[7] Bat Conservation Trust, 2022. The National Bat Monitoring Programme Annual Report 2021. Bat Conservation Trust, London

Brown Long-eared call frequency averaged 0.241 calls per hour during remote monitoring and were not recorded during the activity transects. Activity was similar across remote monitoring locations. (Chart 2).

The brown long-eared bat is widely distributed throughout the UK its population is currently considered stable.

Activity levels are typical for the habitats found within the survey area and do not indicate reliance on this site. The site is of **Site** value for this species.

Myotis spp.
Myotis spp. calls were recorded 0.054 times per hour and were not recorded during bat activity transects (Chart 2).

The Myotis bat genus in the UK includes several species, with varying distributions and status as follows:

- Natterer's bats are widespread across the UK, but not as common as some other bat species, such as the soprano and common pipistrelle. They are threatened by the loss of roost sites due to barn conversions and older buildings being destroyed.
- Daubenton's bat is widely distributed in Great Britain and Ireland, though is scarce in the northwest of Scotland.
- Whiskered bat is thought to be slightly more common and widespread than Brandt's bat. It is found throughout England and Wales and even in southern Scotland and throughout Ireland.
- Brandt's bat is widely distributed across England. However, it is probably under recorded due to its similarity in physical appearance to whiskered bat and inability to be separated from this species easily through sound analysis, as the species' echolocation calls are very similar.

Activity levels are typical for the habitats found within the survey area and do not indicate reliance on this site. The site is of **Negligible** value for this species.

Soprano Pipistrelle
Soprano Pipistrelle were recorded 0.010 times per hour during remote monitoring and were not recorded during activity transects (Chart 2).

The soprano pipistrelle bat is widely distributed across the UK and is considered to have a stable or increasing population.

Activity levels are very low, and the site is of **Negligible** value for this species.

Barbastelle
Barbastelle were recorded 0.005 times per hour across remote monitoring locations but was not recorded during transect surveys (Chart 2).

The barbastelle bat in the UK is classified as a rare species with a scattered distribution. The population is considered vulnerable due to its specialized habitat requirements and low numbers.

Activity levels are very low, and the site is of **Negligible** value for this species.

Serotine

Serotine call frequency averaged 0.001 calls per hour during remote monitoring and was not recorded during transect surveys (Chart 2).

The serotine bat is primarily distributed in southern England and parts of Wales. The species is considered uncommon, with localized populations. The status of serotine bats in the UK is somewhat uncertain due to limited data, but they are generally stable where they occur.

Activity levels are very low, and the site is of **Negligible** value for this species.

# 5. Legislation and policy guidance

Bat species and their breeding or resting places (roosts) are protected under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2010. They are identified as European Protected Species. Under these laws it is an offence to:

- capture, kill, disturb or injure bats (on purpose or by not taking enough care);
- damage or destroy a breeding or resting place (even accidentally);
- obstruct access to their resting or sheltering places (on purpose or by not taking enough care); or
- possess, sell, control or transport live or dead bats, or parts of them.

Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 requires the Secretary of State to maintain a list of species which are of principal importance for conserving biodiversity in England; widely referred to as Priority Species. Seven species of bat are Priority Species.