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June 2026

Environmental Appraisal Report

Woolfords Wind Farm - Tip Height Increase

Annex 6-1-1: Bat Activity Surveys

Woolfords Wind Energy Ltd

wind2

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1. Introduction

1.1 Terms of reference

In May 2025, Planning Permission was granted under the Town and Country Planning Act, Scotland (1997)(TPCA) for the erection of three turbines with a maximum tip height of 180m and associated infrastructure on land near Woolfords, West Calder (Reference P/22/0031).

Woolfords Wind Energy Ltd is now seeking to increase the maximum tip height from 180m to 200m. On 17 June 2025, South Lanarkshire Council (SLC), as the relevant Local Planning Authority (LPA), confirmed that this would require a new planning application rather than an application under Section 42 of the TCPA to vary the conditions of the Planning Permission.

1.2 Site Location and Description

The Proposed Development is located approximately 4 km northeast of Forth in South Lanarkshire, NGR NS 99594 57188. The Site consists of agricultural land that slopes down towards Woolfords Cottages and an unnamed road to the south. Conifer plantations form boundaries to the Site on the east and west.

1.3 Objectives

This report seeks to confirm activity levels of bat species flying in the vicinity of proposed turbines comparing this between two years of survey: 2021 and 2024. This report sets out the following:

- Legislative context;
- Field survey methodology;
- Field survey results; and
- Summary

2. Methodology

2.1 Legislation

All bat species in Scotland are protected by the Conservation Regulations 1994 (as amended) in Scotland and are commonly referred to as European Protected Species (EPS). The Regulations transpose into Scottish law the European Community's Habitats Directive (92/43/EEC).

It is an offence to deliberately or recklessly:

- Capture, injure or kill a bat;
- Harass an individual or group of bats;
- Disturb a bat while it is occupying a structure or place used for shelter or protection;
- Disturb a bat while it is rearing or otherwise caring for its young;
- Obstruct access to a breeding site or resting place, or otherwise deny the animal use of the breeding site or resting place;
- Disturb a bat in a manner that is, or in circumstances which are, likely to significantly affect the local distribution or abundance of the species to which it belongs;
- Disturb a bat in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young; and
- Disturb a bat while it is migrating or hibernating.

It is also an offence of strict liability to:

- Damage or destroy a breeding site or resting place of a bat even if they are not in use at the time (i.e., a summer roost during the winter period).

2.2 Impacts of windfarms on bats

Of the 18 UK bat species, 10 occur in Scotland: common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Nathusius' pipistrelle *Pipistrellus nathusii*, Natterer's bat *Myotis nattereri*, Daubenton's bat *Myotis daubentonii*, noctule *Nyctalus noctula*, brown long-eared bats *Plecotus auritus*, Leisler's bat *Nyctalus leisleri* and whiskered/Brandt's *Myotis mystacinus*/ *Myotis. brandtii* bats. However, the occurrence of these species is variable throughout Scotland.

In addition to the above Daubenton's, Nathusius's pipistrelle, common pipistrelle, soprano pipistrelle and brown long-eared bat are included within the Scottish Biodiversity List.

NatureScot guidance for bats and onshore wind turbines (NatureScot, 2021) provides guidance on the risk levels from wind farm developments associated with Scottish bat species, based on physical and behavioural characteristics and from evidence of casualty rates in UK and the rest of Europe.

Table 1, reproduced from the NatureScot guidance, shows the levels of risk derived for key species. Table 2, also reproduced from NatureScot guidance, takes relative population sizes into account, and presents the levels of risk at population level.

Table 1: Bat Species Likely to be at Risk from Wind Turbines

Low Risk	Medium Risk	High Risk
Brown long-eared	None	Common pipistrelle
Daubenton's		Soprano pipistrelle
Natterer's		Nathusius' pipistrelle
Whiskered		Noctule
Brandt's		Leisler's

Table 2: Bat Populations Likely to be Threatened Due to Impacts from Wind Turbines

Low Risk	Medium Risk	High Risk
Brown long-eared	Common pipistrelle	Nathusius' pipistrelle
Daubenton's	Soprano pipistrelle	Noctule
Natterer's	Whiskered	Leisler's
	Brandt's	

Five species are identified to be of high risk from wind turbine mortality: common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Leisler's bat and noctule. This is due to factors such as habitat preference, echolocation characteristics, wing shape, flight speed, flight behaviour and use of landscape, hunting techniques and migration strategies.

Common and soprano pipistrelle bats and Myotis species do cross open spaces, however, they are relatively less likely to fly at a height that will bring them into contact with a turbine blade. Conversely in a previous Natural England TIN051 guidance, both common and soprano pipistrelles were assessed as being medium risk species at the individual level. Based on the evidence from the National Bats & Wind Turbines study and Eurobats data, they have been re-assessed as high risk, even though some of the above factors associated with high risk species do not apply (NatureScot, 2021). Noctule and Leisler's bats however, and Nathusius' pipistrelle to a lesser extent, do fly at

height and often cross open spaces, making them 'high risk' species at both the individual and population levels.

Risk of species being struck does not always translate into population level effects. Those species with smaller populations are more likely to encounter population levels effects; as such, those species which show a high risk of collision and with smaller populations (noctule, Leisler's bat and Nathusius' pipistrelle) are considered most sensitive to negative effects from wind farm developments.

Common and soprano pipistrelle, with typically much more robust populations, are considered less likely to have population level effects (Table 2).

2.3 Desktop Study

A desk study was undertaken to gain further understanding of the Site, to gather information on the presence of statutory nature conservation sites within 10 km of the Site, and any existing records of bats within 10 km of the Site.

Various data sources were utilised including the website of the statutory agency, NatureScot via the 'Site Link Portal' (NatureScot, 2025), publicly available datasets available for commercial use held on the National Biodiversity Network (NBN) Atlas website (National Biodiversity Network, 2025), and aerial photography used in aid in assessment of habitat features.

2.4 Automatic Detector Survey

Full spectrum bat detectors (Wildlife Acoustics Song Meter Mini Bats) were used in 2021 and 2024.

The detectors were set up to record activity from 30 minutes before sunset to 30 minutes after sunrise for a period of at least 10 nights (Collins, 2016) once per season. In 2021 detectors were deployed over three seasons (spring, summer and autumn) while in 2024 detectors were only deployed for two seasons (summer and autumn). Seasons were defined as spring (April-May), summer (June-mid-August) and autumn (mid-August-October); as outlined within NatureScot guidance (NatureScot, 2021).

2021

Static bat detectors were deployed at three locations over three visits in May, June/July and September during periods of optimal weather conditions. Table 3 shows the details of each of the three visits. Table 4 shows the locations of the detectors.

Table 3: Bat Static Deployment Details 2021

Visit Number	Date of deployment	Number of nights deployed	Automatic start and finish times	Total hours recording
1	07/05/2021 – 17/05/2021	10	20:32 – 05:19	84.5
2	17/06/2021 – 01/07/2021	14	21:59 – 05:06	98.4
3	15/09/2021 – 27/09/2021	12	18:28 – 07:11	147.1

Table 4: Static Detector Locations 2021

Static Number	
1	NS 98967 57965
2	NS 98746 57690

3	NS 98825 57076

2024

2.4.1 Further surveys were carried out in 2024.

NatureScot guidance recommends that surveys should be repeated if the application is going to be delayed beyond the start of a third survey period (NatureScot, 2025).

Table 5: Bat Static Deployment Details 2024

Visit Number	Date of deployment	Number of nights deployed	Automatice start and finish times	Total hours recording
2	25/07/2024 – 08/08/2024	14	20:34 – 06:05	127
3	19/08/2024 – 29/08/2024	10	19:43 – 06:46	106.7
	05/09/2024 – 16/09/2024	11	18:57 – 07:21	131.8

Table 6: Static Detector Locations 2024

Static Number	
1	NS 99066 57831
2	NS 98822 57323
3	NS 98761 56781

Figure 6-3 shows the static locations for both years.

2.5 Sonogram Analysis

Analysis of full spectrum WAV files was undertaken firstly by Kaleidoscope Pro using the Auto ID feature. Subsequently, quality control of all sonogram files classified as “noise” and “no ID” by Kaleidoscope during the conversion process were then subject to manual checking of sonograms, and where bat calls were present, manual identification was undertaken.

Species identification broadly followed that presented in ‘British Bat Calls: A Guide to Species Identification’ (Russ, 2012), considering the geographical location of the Site, habitats present, and ecologists’ own expertise and Site knowledge.

Absolute measures of bat activity are not possible to reliably calculate for automated field studies as during an individual recording session, it is not possible to differentiate between one individual bat passing the detector ten times or ten different bats passing the detector on a single occasion. As a result, relative measures are used and must be taken into consideration when interpreting results.

As per NatureScot guidance (NatureScot, 2021), a measure of relative bat activity can be obtained using the secure online tool ‘Ecobat’ to compare data collected from the Site with bat survey information collected from similar areas at the same of the year and in comparable weather conditions.

Ecobat generates a percentile rank for each night of activity and provides a numerical way of interpreting the levels of bat activity recorded at a site across regions in Britain by producing a Bat Activity Index (BAI). It is currently the most objective method of assessing bat activity (Lintott, et al.,

2017) (NatureScot, 2021). It should be noted that there is no function within Ecobat to know what volume of data is being used for geographic comparisons and as the system is in its infancy and therefore interpreting comparative measures requires caution.

2.6 Risk Assessment

As per NatureScot guidance (2021), a risk assessment is conducted for each of the species observed within the Site. The initial stage involves assessing the Site risk by considering the habitat suitability and development related features (NatureScot, 2021).

Habitat suitability considers the number of potential roosts and their quality, the foraging habitat and the connectivity with the wider landscape through prominent linear features such as, streams and hedgerows.

Development related features include the presence and number of wind energy developments within the surrounding area, and the number and size of turbines. Once these parameters are classified a Site risk value is calculated, between 1-5, which will be used to determine the species risk.

The second stage uses the Site risk value and the relative bat activity level to derive an overall risk assessment for each species. Relative bat activity for each species is produced by Ecobat and based upon the median and maximum levels of activity at each detector location and during each season within the wider spatial and temporal landscape, comparing Site activity with data from the same region within one month.

The median and maximum percentiles of activity are ranked on a scale of 0-100% and assigned a classification from low – high which is multiplied by the Site risk to produce an overall risk value; values are described as low (0-5), medium (6-12) or high (13-25) activity.

It is important to have an understanding of both ‘typical’ and unusually high levels of bat activity within the Site so that potentially important peaks are not overlooked (NatureScot, 2021).

2.7 Limitations

2021

No failures of equipment were observed across the six locations no limitations were noted during this survey period.

2024

Further surveys were carried out in 2024 as following NatureScot guidance, the 2021 data was due to be timing out.

The reason for the omission of spring period during the 2024 bat static surveys was because access was not available at that point in time. However, given the existing dataset, consented planning status, minimal changes to the design, and as no calls were recorded in Spring 2021, the absence of a Spring 2024 visit does not skew the interpretation of results. This is in the context of a low activity location and when considered across all bat species/species groups (as per section 3.2.1 and Tables 8 and 9).

During the autumn deployment the static detector at static location 1 failed due to faulty equipment. As a result, another deployment was undertaken at the location later on in the autumn season.

3. Results

3.1 Desk Study

3.1.1 Designated Sites

The desk study showed that there were no environmentally designated sites with bats as qualifying species within 10 km of the Site.

3.1.2 Species records

The results of the search for bat species within 10 km of the Site within the last 10 years on the NBN Atlas website are shown below in Table 7. Distances are approximate, and each species may be associated with multiple records within the data as provided by the local record centre.

Table 7: NBN Atlas records of bats from the last 10 years within 10 km of the Site (National Biodiversity Network, 2026)

Species	
Common pipistrelle *Pipistrellus pipistrellus*	471 records in the last 10 years, closest record 4.5 km to the north of Site
Daubenton's bat *Myotis daubentonii*	14 records in the last 10 years, closest record 5 km to north of Site.
Myotis bat species *Myotis spp.*	2 records in the last 10 years, closest record 5 km to the north of Site.
Natterer's bat *Myotis nattereri*	1 record in the last 10 years, closest record 4 km to the north east of Site.
Pipistrelle bat *Pipistrellus spp.*	207 records in the last 10 years, closest record 5 km to north east of Site.
Soprano pipistrelle *Pipistrellus pygmaeus*	2,312 records in the last 10 years, closest record 4.5 km to the north east of Site.

3.2 Bat Activity Surveys

3.2.1 Overall Activity

Over the two different years of surveys, 702 bat passes were recorded across six different detectors (three in 2021 and three in 2024). From the calls the following species were recorded: common pipistrelle, Daubenton's bat, *Myotis spp.*, Natterer's bat, Pipistrelle bat, and Soprano pipistrelle. No passes were detected during the first, Spring visit, in 2021.

As stated in *Limitations section 2.7* no calls were recorded in Spring 2021 the lack of a spring visit is not considered to significantly skew the interpretation of results on what is a low activity location across all species/species groups.

Table 8 shows the number of passes recorded in 2021 and Table 9 shows the number of passes in 2024. Table 10 shows the comparison of bat passes recorded between 2021 and 2024.

Common pipistrelle was the most commonly recorded bat over the two survey years, with 307 passes recorded accounting for 43.7% of all passes recorded. Soprano pipistrelle was the second

most commonly recorded species with 298 passes recorded according for 42.5% of all passes recorded. There were smaller numbers of *Nyctalus sp.* and *Myotis sp.* With 74 and 23 passes respectively, accounting for 10.5% and 3.3% of all passes recorded.

2021 was the busiest of the two years with 510 bat passes being recorded compared to 192 bat passes in 2024. Activity was similar for *Myotis sp.* and *Nyctalus sp.* between the two years. *Myotis sp.* recorded 10 bat passes in 2021 compared to 13 passes in 2024. *Nyctalus sp.* recorded 33 bat passes in 2021 compared to 41 bat passes in 2024. For both pipistrelle species 2021 showed a much higher level of activity than in 2024. For Common pipistrelle, there were 210 bat passes recorded compared to 97 bat passes in 2024. For Soprano pipistrelle, there were 257 bat passes in 2021 compared to 41 bat passes in 2024.

Table 8: Summary of bat passes per season across 2021

Species	No. of passes			Totals	Percentage of Totals
	Spring	Summer	Autumn		
Myotis sp.	0	6	4	10	2
Nyctalus sp.	0	32	1	33	6.5
Common pipistrelle	0	194	16	210	41.2
Soprano pipistrelle	0	227	30	257	50.4
Total	**0**	**459**	**51**	**510**	
Percentage of total	0	90	10		100

Table 9: Summary of bat passes per season across 2024

Species	No. of passes		Totals	Percentage of Totals
	Summer	Autumn		
Myotis sp.	12	1	13	6.8
Nyctalus sp.	35	6	41	21.4
Common pipistrelle	70	27	97	50.5
Soprano pipistrelle	23	18	41	21.4
Total	**140**	**52**	**192**	
Percentage of total	72.9	27.1		100

Table 10: Comparison of bat passes across 2021 and 2024

Species	Bat Passes 2021	Percentage 2021 (%)	Bat Passes 2024	Percentage 2024 (%)	Bat Passes Total	Percentage (%) across 2021 & 2024
Myotis sp.	10	2	13	6.8	23	3.3
Nyctalus sp.	33	6.5	41	21.4	74	10.5
Common pipistrelle	210	41.2	97	50.5	307	43.7
Soprano pipistrelle	257	50.4	41	21.4	298	42.5
Total	510	100	192	100	702	100

In 2021 the summer visit recorded the most bats with 459 bat passes recorded compared to 0 bat passes in the spring and 51 bat passes in the autumn. All species recorded the most bat passes in the summer.

In 2024 the summer visit recorded the most bats with 140 bat passes compared to 52 bat passes in the autumn visit.

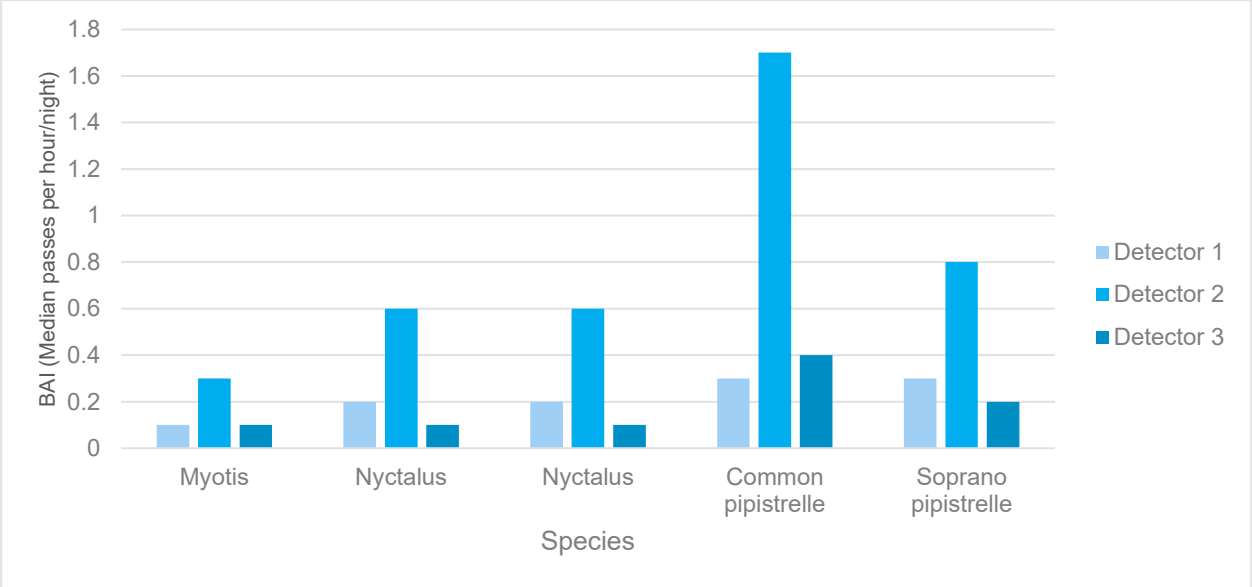
3.2.2 Bat Activity Index

The BAI of each species was calculated per detector locations using the median number of passes per hour per night (median nightly pass rate), as per guidance (NatureScot, 2021). This informs the level of activity across the Site, displayed in Chart 1 and Chart 2; the colours of the bars reflect the location of the detector.

As a precautionary measure, only species presence has been taken into account, and therefore 'Zero Data' has been excluded where species were not detected at a given location. The results therefore overestimate species activity within the Site.

2021

Chart 1: Bat Activity Index for the Site in 2021



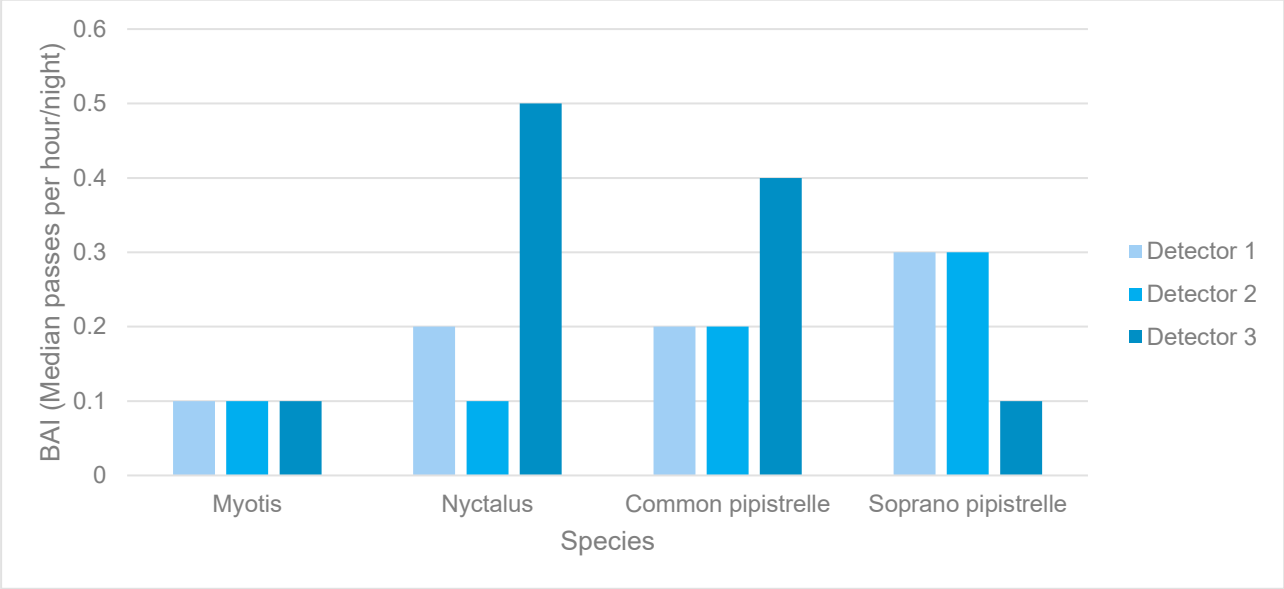
Common pipistrelle had the highest BAI of 1.7 at Detector 2, followed by 0.4 at Detector 3 and 0.3 at Detector 1. Soprano pipistrelle had the next highest BAI of 0.8 at Detector 2, followed by 0.3 at Detector 1 and then 0.2 at Detector 3.

Nyctalus sp. had a BAI of 0.6 at Detector 2, followed by 0.1 at Detector 1 and then 0.1 at Detector 3. *Myotis sp.* had a BAI of 0.3 at Detector 2, and 0.1 at both Detector 1 and 3.

All species recorded their highest BAI at Detector 2.

2024

Chart 2: Bat Activity Index for the Site in 2024.



Nyctalus sp. had the highest BAI of 0.5 at Detector 3, followed by 0.2 at Detector 1 and then 0.1 at Detector 3.

Common pipistrelle had the next highest BAI with 0.4 at Detector 3 and the 0.2 at both Detectors 1 and 2. Soprano pipistrelle had a BAI of 0.3 at both Detectors 1 and 2, followed by 0.1 at Detector 3.

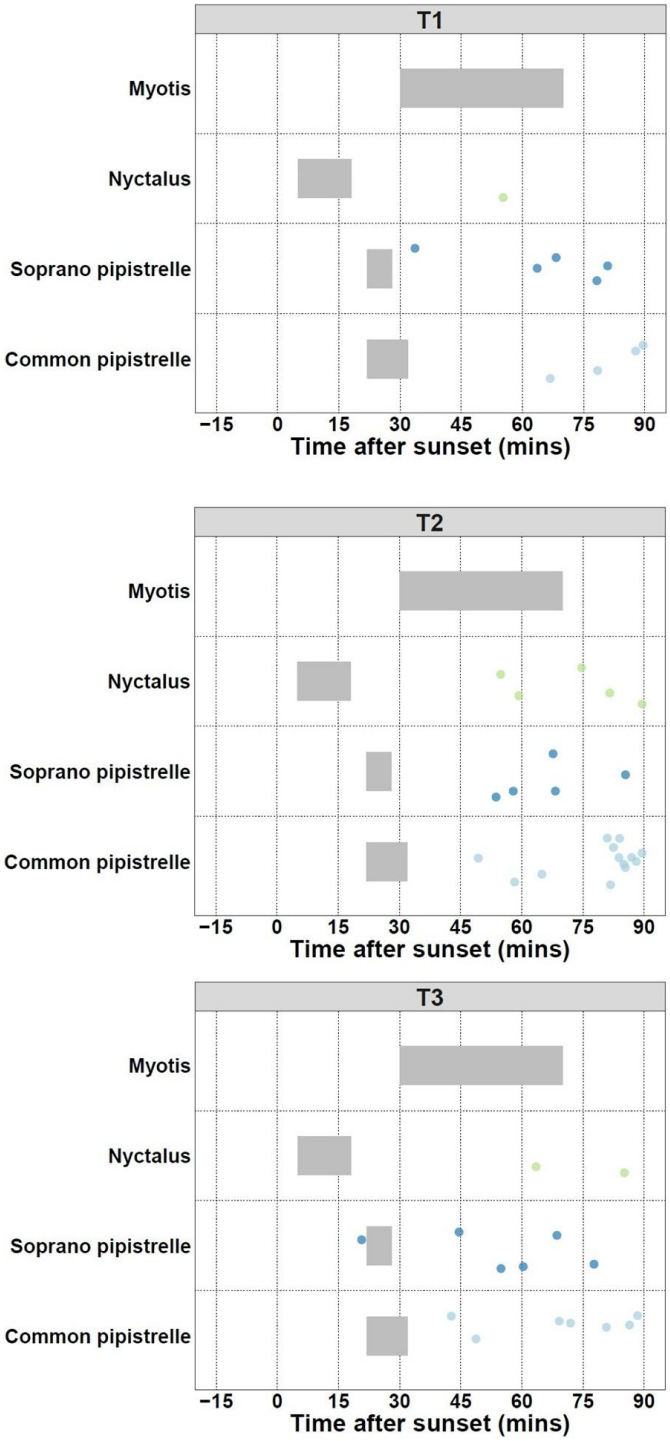
Myotis sp. had a BAI of 0.1 at all three bat detectors.

3.2.3 Proximity to roosts

Activity levels can vary significantly throughout the activity season which may indicate a number of potential features being close by, such as maternity roosts, swarming sites and hibernation roosts. Chart 3 and Chart 4 show the bat passes recorded for each species in relation to their emergence time, between 15 minutes before and 90 minutes after sunset, with bat passes that overlap the species specific emergence time or earlier potentially indicating that there is a bat roost nearby.

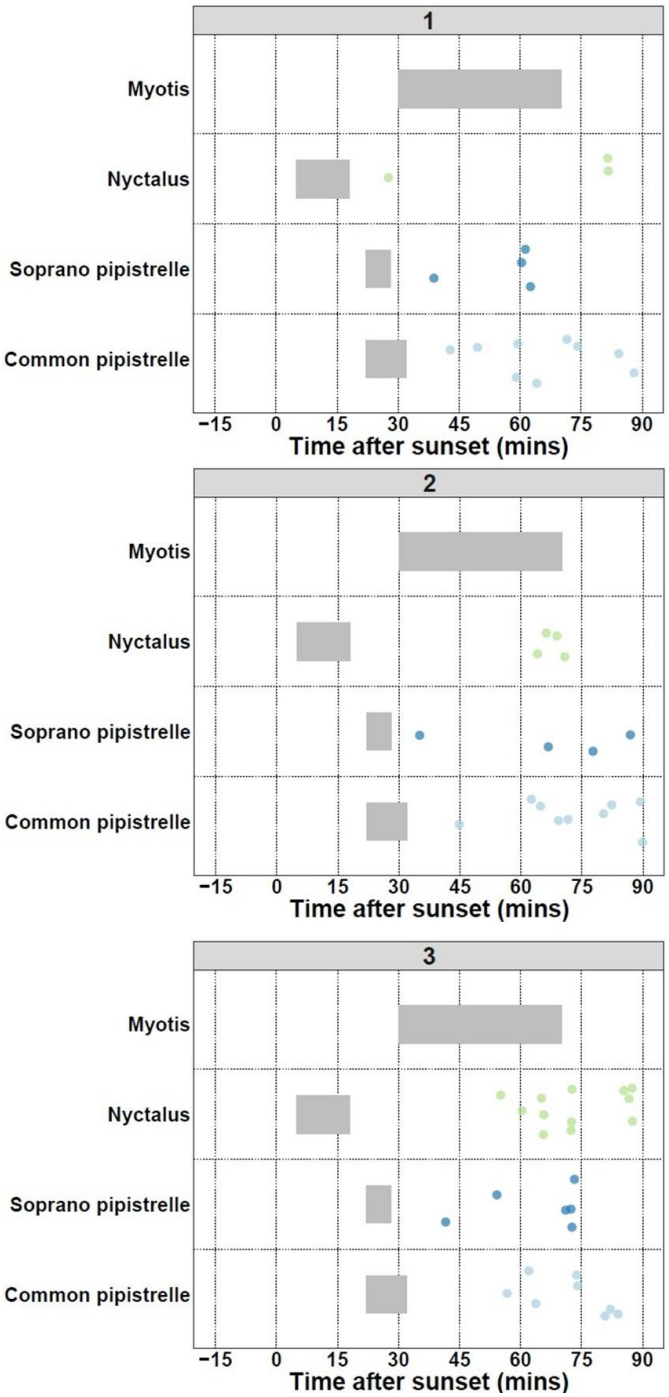
In 2021 there was a single record of soprano pipistrelle just before the emergence time range but as it is a single record across all the surveys and there is no cluster of activity, it is not considered to represent a roost in the vicinity. No other species of bat recorded bat passes before and during their species specific emergence time. As the single passes were also not recorded during the bat maternity period (15th June – 30th July) it also suggests that there are no maternity roosts nearby. No potential roost features were recorded in updated protected species conducted in 2024, and there is a lack of landscape features crossing the Site which bats might favour to commute by.

Chart 3: Time of bat passes from 15 minutes before to 90 minutes after sunset in 2021. Dots represent passes and grey bars indicate species specific emergence time ranges.



In 2024 there were no bat passes for any species occurring before or during the species specific emergence times, indicating that there is unlikely to be a roost nearby. This also means that there were no bat passes during the (15th June – 30th July) suggesting that it is likely that there are no maternity roosts nearby.

Chart 4: Time of bat passes from 15 minutes before to 90 minutes after sunset in 2024. Dots represent passes and grey bars indicate species specific emergence time ranges.



3.2.4 Relative Spatial and Temporal Activity Levels

In order to understand the distribution of activity across the Site, the nightly activity is ranked by Ecobat within the context of the geographic location and temporal coverage, as presented in Tables 11 and 12.

This approach excludes ‘zero activity’ nights to better represent nights of high activity, including absence would skew the data towards low activity. The analysis compares activity levels within the

Site to a central database within 30 days of the survey date and within 100 km^2 of the detector location.

2021

In 2021 all four species were recorded at low levels of activity across all three detectors across the Site, with only soprano pipistrelle being recorded at a low/moderate level of activity for a single night at detector 2. No species were recorded at any detector at moderate levels of activity or above at any of the detectors.

Table 11: Number of Nights of Relative Spatial and Temporal Activity Level 2021

Species	Detector	Nights of Exceptional activity	Nights of high activity	Nights of moderate/high activity	Nights of moderate activity	Nights of low/moderate activity	Nights of low activity
Myotis sp.	1	0	0	0	0	0	2
	2	0	0	0	0	0	3
	3	0	0	0	0	0	2
Nyctalus sp.	1	0	0	0	0	0	5
	2	0	0	0	0	0	7
	3	0	0	0	0	0	5
Common pipistrelle	1	0	0	0	0	0	7
	2	0	0	0	0	0	15
	3	0	0	0	0	0	12
Soprano pipistrelle	1	0	0	0	0	0	10
	2	0	0	0	0	1	14
	3	0	0	0	0	0	10

2024

In 2024 all four species were recorded at low levels of activity across all three of the detectors on Site. No species were recorded at any detector at low/moderate levels of activity or above at any of the detectors.

Table 12: Number of Nights of Relative Spatial and Temporal Activity Level 2024

Species	Detector	Nights of Exceptional activity	Nights of high activity	Nights of moderate/high activity	Nights of moderate activity	Nights of low/moderate activity	Nights of low activity
Myotis sp.	1	0	0	0	0	0	1
	2	0	0	0	0	0	4
	3	0	0	0	0	0	5
Nyctalus sp.	1	0	0	0	0	0	4
	2	0	0	0	0	0	7
	3	0	0	0	0	0	10
Common pipistrelle	1	0	0	0	0	0	11
	2	0	0	0	0	0	13
	3	0	0	0	0	0	11
Soprano pipistrelle	1	0	0	0	0	0	7
	2	0	0	0	0	0	3
	3	0	0	0	0	0	9

3.2.5 Risk Assessment

The Proposed Development is considered to be low risk to bat populations because the development was assessed to being small project size and the habitat as being of moderate suitability for bats.

Risk is calculated with both median percentiles (to give a realistic overview or risk throughout the Site and seasons), and maximum percentiles to account for nights of exceptional activity that would not get represented when looking at the average level of activity.

2021

When looking at the risk to bat populations using median percentiles, all four species show the same level of risk. Table 13 shows the risk assessment calculated using the median percentiles. Despite being the most commonly recorded bat species on Site, both common pipistrelle and soprano pipistrelle show low levels of risk across all three detector locations and across all three seasons. *Myotis sp.* and *Nyctalus sp.* also show low levels of risk across all three detectors and all three seasons.

Table 13: 2021 risk assessment using median percentiles

Species	Overall	Detector			Season		
		1	2	3	Spring	Summer	Autumn
Myotis sp.	2	2	2	2	0	2	2
Nyctalus sp.	2	2	2	2	0	2	2
Common pipistrelle	1	0	2	2	0	2	0
Soprano pipistrelle	2	2	2	2	0	2	0

Table 14 shows the risk assessment calculated using the maximum percentiles. When looking at maximum percentiles at each detector and for each season, then there is no change in levels of risk from those calculated using the median percentiles. All four species show low levels of risk across all detectors and all seasons.

Table 14: 2021 risk assessment using maximum percentiles

Species	Overall	Detector			Season		
					Spring	Summer	Autumn
Myotis sp.	2	2	2	2	0	2	2
Nyctalus sp.	2	2	2	2	0	2	2
Common pipistrelle	2	2	2	2	0	2	2
Soprano pipistrelle	4	2	4	2	0	4	2

2024

When looking at the risk to bat populations using median percentiles, all four species show the same level of risk. Table 15 shows the risk assessment calculated using the median percentiles. As with in 2021 all four species show the same low level risk across all detectors and seasons.

Table 15: 2024 risk assessment using median percentiles

Species	Overall	Detector			Season	
		1	2	3	Summer	Autumn
Myotis sp.	2	2	2	2	2	2
Nyctalus sp.	2	2	2	2	2	2
Common pipistrelle	1	0	0	2	2	0
Soprano pipistrelle	1	0	2	0	0	2

Table 16 shows the risk assessment calculated using the maximum percentiles. As with in 2021, when looking at maximum percentiles at each detector and for each season, then there is no change in levels of risk from those calculated using the median percentiles. All four species show low levels of risk across all detectors and all seasons.

Table 16: 2024 risk assessment using maximum percentiles

Species	Overall	Detector			Season	
		1	2	3	Summer	Autumn
Myotis sp.	2	2	2	2	2	2
Nyctalus sp.	2	2	2	2	2	2
Common pipistrelle	2	2	2	2	2	2
Soprano pipistrelle	2	2	2	2	2	2

3.3 Summary

The static bat surveys showed that the Site is predominantly used by common and soprano pipistrelles, as well as smaller numbers of *Nyctalus sp.* and *Myotis sp.* as shown in Table 10. Overall bat activity was low on Site with 510 passes being recorded in 2021 and 192 passes in 2024. In both years the most bat calls were recorded in the summer period.

Bat activity was generally low across the Site. The median and maximum relative activity scores for all species across all locations and survey period were assessed as low as shown in Tables 13, 14, 15 and 16.

There was no clustering of activity during the typical emergence times for each species indicating that there is unlikely to be a roost nearby as shown in Charts 3 and 4. There was also no clustering of activity during the bat maternity period indicating that it is unlikely that there is a bat maternity roost nearby.

Further discussion and assessment is presented in Technical Appendix 6-1: Ecology and Ornithology Assessment.

4. References

Collins, J., 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidlines, 3rd Edition..* London: Bat Conservation Trust.

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