

The Great Grid Upgrade

Sea Link

Sea Link

Volume 6: Environmental Statement

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Nighttime Bat Walkover and Static Detector Survey Report

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Version History

Date	Version	Status	Description / Changes
March 2025	A	Final	For DCO submission
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1. Nighttime Bat Walkover and Static Detector Survey Report

1.1 Introduction

Background

- 1.1.1 The Sea Link Project (hereafter referred to as the 'Proposed Project') is a proposal by National Grid Electricity Transmission plc (hereafter referred to as National Grid) to reinforce the transmission network in the southeast and East Anglia. The Proposed Project is required to accommodate additional power flows generated from renewable and low carbon generation, as well as accommodating additional new interconnection with mainland Europe. This would be achieved by reinforcing the network with a High Voltage Direct Current (HVDC) Link between the proposed Friston substation in the Sizewell area of Suffolk and the existing Richborough to Canterbury 400 kV overhead line close to Richborough in Kent.
- 1.1.2 The purpose of this document is to detail the methodology and results of ecological surveys for bat activity, comprising nighttime bat walkover (NBW) surveys and static automated detector surveys in relation to the Suffolk Onshore Scheme.
- 1.1.3 The baseline findings of this report provide information on any potential ecological constraints associated with bats for incorporation into **Application Document 6.2.2.2 Part 2 Suffolk Chapter 2 Ecology and Biodiversity [APP-060]** for the Suffolk Onshore Scheme.
- 1.1.4 This appendix should be read in conjunction with the following figures:
- **Application Document 6.4.2.2.I. Nighttime Bat Walkover and Static Detector Survey Report.**

Scope

- 1.1.5 This report details the results of surveys undertaken to confirm the value of the land within the Suffolk Onshore Scheme Order Limits for foraging and commuting bats. The findings of nighttime bat walkover surveys and static detector surveys within and adjacent to the Suffolk Onshore Scheme Order Limits have informed the ecological impact assessment and identification of mitigation measures (where required) which are reported in **Application Document 6.2.2.2 Part 2 Suffolk Chapter 2 Ecology and Biodiversity**.

Survey Area

- 1.1.6 The Survey Area included a total of nine transect routes, shown within **Application Document 6.4.2.2.I.1 Suffolk Transect Routes & SM4 Locations**, with Transect 1 in the east of the Suffolk Onshore Scheme Order Limits, north of Aldeburgh and Transect 9 in the west of the Suffolk Onshore Scheme, south-east of Saxmundham.

1.2 Relevant Legislative and Policy Context

- 1.2.1 All UK native bat species and their roosts (whether bats are present or not are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) (HMSO, Conservation of Habitats and Species Regulations 2017 (as amended), 2017) and under the Wildlife and Countryside Act 1981 (as amended) (HMSO, 1981).
- 1.2.2 Under the Conservation of Habitats and Species Regulations 2017 (as amended) it is an offence to:
- Deliberately capture, injure or kill a bat;
 - Deliberately disturb bats; and
 - Damage or destroy a bat breeding or resting place.
- 1.2.3 Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to:
- disturb a bat, either intentionally or recklessly, while occupying a structure or place of shelter/ protection; and
 - intentionally or recklessly obstruct access to any structure which a bat uses for shelter or protection.
- 1.2.4 Given the above legislation the potential presence of bats at a site represents a material consideration in the planning process. Even where planning permission is not required there is still a legal responsibility placed on the developer to ensure that a Natural England European Protected Species licence is obtained to cover any works that have the potential to result in an offence under the above legislation.

Priority Species

- 1.2.5 The Natural Environment and Rural Communities (NERC) Act 2006 (as amended) (HMSO, 2006) list of Species of Principal Importance is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act 2006 (as amended); under Section 40 every public authority (e.g. a local authority or local planning authority) must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.
- 1.2.6 In addition, with regard to those species on the list of Species of Principal Importance listed under Section 41, the Secretary of State must:
- *“(a) take such steps as appear to the Secretary of State to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section, or*
 - *(b) promote the taking by others of such steps.”*
- 1.2.7 The UK Biodiversity Action Plan (UKBAP) (HM Government, 1994) was launched in 1994 and established a framework and criteria for identifying species and habitat types of conservation concern. From this list, action plans for priority habitats and species of conservation concern were published and have subsequently been succeeded by the UK Biodiversity Framework (May 2024) (JNCC on behalf of the Four Countries' Biodiversity Group, 2024). The UK Post 2010 Development Framework (JNCC and DEFRA on behalf of the Four Countries' Biodiversity Group, 2012) is relevant in the context of Section 40 of the NERC Act 2006 (as amended), meaning that Priority Species and Habitats (now known as Species and Habitats of Principal Importance) are material considerations in planning. These habitats and species are identified as those of conservation concern due to their rarity or a declining population trend.

- 1.2.8 Seven of the UK bat species are listed as species of principal importance within Section 41 of the NERC Act 2006 (as amended): namely, the barbastelle bat (*Barbastella barbastellus*), Bechstein's bat (*Myotis bechsteinii*), noctule bat (*Nyctalus noctula*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared bat (*Plecotus auritus*), greater horseshoe bat (*Rhinolophus ferrumequinum*) and lesser horseshoe bat (*Rhinolophus hipposideros*), meaning that they are of material consideration in planning.

Local Biodiversity Action Plan

- 1.2.9 Bat species listed as a priority species in Suffolk (Suffolk Biodiversity Information Service, 2024) are common pipistrelle (*Pipistrellus pipistrellus*), Daubenton's bat (*Myotis daubentonii*), Brandt's bat (*Myotis brandtii*), Natterer's bat (*Myotis nattereri*), Nathusius' pipistrelle (*Pipistrellus nathusii*), whiskered bat (*Myotis mystacinus*), and Leisler's bat (*Nyctalus leisleri*).

1.3 Methodology

- 1.3.1 This section describes the survey methods used to determine the assemblage of bat species present within the survey area, which included:
- a desk study;
 - a series of nighttime walkover surveys; and
 - a series of static (automated) bat detector surveys.

Desk Study

- 1.3.2 A desk study was undertaken in June 2022 and updated in July 2023. This desk study obtained records of bats within the preceding ten years and within a 5 km radius of the Suffolk Onshore Scheme Order Limits and non-statutory nature conservation designations within 2 km of the Suffolk Onshore Scheme Order Limits (including those of relevance to bats from Suffolk Biodiversity Information Service (Sussex Biodiversity Information Service, 2022).
- 1.3.3 A search was also undertaken of freely available resources including Multi-Agency Geographic Information for the Countryside (MAGIC) website (magic.gov.uk) (Department of Environment, Food and Rural Affairs, 2024) for relevant statutory site designations within 10 km of the Suffolk Onshore Scheme Order Limits and bat designated Special Areas of Conservation (SACs) within 30 km of the Suffolk Onshore Scheme Order Limits; and granted bat mitigation licences (EPSMLs) with 5 km.

Field Survey Methodology

Nighttime Bat Walkover (NBW) Surveys

- 1.3.4 The number of transects and automated static bat echolocation detectors (SM4bat FS detectors) used, was determined through consideration of the extent of the Suffolk Onshore Scheme Order Limits and its relative quality, in line with the current Bat Conservation Trust (BCT) guidance (Collins J. , 2023). Making reference to the current guidance (Collins J. , 2023) a single NBW was completed per season (Spring (2024), Summer (2023 or 2024), Autumn (2023 or 2024)) for each transect route.
- 1.3.5 Transect routes were focused on areas where permanent infrastructure will be built along the route, but also included areas of temporary habitat loss. Given the size of the

Suffolk Onshore Scheme Order Limits, in order to adequately include all areas of permanent and temporary habitat loss, nine transect routes were appropriate. These transect routes are hereafter collectively referred to as the ‘Survey Area’.

- 1.3.6 The results of the NBW and SM4bat FS detector surveys were reviewed upon completion of each NBW or recording period, to determine if an increased survey effort was appropriate in line with the current BCT guidance (Collins J. , 2023).
- 1.3.7 Each NBW involved two surveyors walking a pre-defined transect route within the Survey Area which included a series of ‘listening points’ at suitable locations (Shown in **Application Document 6.4.2.2.1.2 Suffolk Nighttime Bat Walkover - August 2023** to **Application Document 6.4.2.2.1.7 Suffolk Nighttime Bat Walkover - September 2024**). Where possible, at least one surveyor held a Natural England WML-CL18 (Bat Survey Level 2) class licence.
- 1.3.8 In line with updated guidance from the BCT (Collins J. , 2023), ‘listening points’ were utilised where deemed appropriate by surveyors during the survey. At each ‘listening point’, surveyors recorded bat activity for three minutes using bat echolocation detectors. Any additional bat activity encountered whilst walking between points was also noted.
- 1.3.9 The survey route was designed to include potential flight paths or foraging areas within the Survey Area, and also mature trees, which offer potential roost sites. The starting point and direction of the transect route was varied during each survey visit in order to ensure all areas of the transect were walked close to dusk. The transect routes are shown in **Application Document 6.4.2.2.1.1 Suffolk Transect Routes & SM4 Locations**, with habitat descriptions in Table 1.1.

Table 1.1 Transect route descriptions

Transect	Transect Location	Habitats Present / Scheme Features
1	East of the Suffolk Onshore Scheme Order Limits, east of South Warren Golf Course	Acid grassland, scrub, woodland, hedgerow, individual trees.
2	East of the Suffolk Onshore Scheme Order Limits, north of South Warren Golf Course	Acid grassland, scrub, woodland edge, hedgerows. Named woodlands adjacent to route: Eight Acre Covert, Round Plantation, Old Broom Covert.
3	East of the Suffolk Onshore Scheme Order Limits, west of South Warren Golf Course	Arable land with neutral semi-improved grassland margins, hedgerows, broadleaved woodland edge. Named woodlands adjacent to route: Miller’s Covert, The Belt, Great Wood.
4	Centre of the Suffolk Onshore Scheme Order Limits, east of the B1069	Arable land, broadleaved woodland edge, hedgerows, scattered scrub. Named woodlands adjacent to route: Jay’s Covert, Park Farm New Covert.

Transect	Transect Location	Habitats Present / Scheme Features
		Named woodlands adjacent to route: Miller's Covert, The Belt, Great Wood.
5	Centre of the Suffolk Onshore Scheme Order Limits, north of the B1069	Arable land, broadleaved woodland edge, hedgerows. Named woodlands adjacent to route: Long Covert, Grove Wood. Old World Wood.
6	Centre of the Suffolk Onshore Scheme Order Limits, north of Friston, west of Grove Road	Arable land, broadleaved woodland edge, hedgerows, running water (stream), individual trees. Named woodlands adjacent to route: Laurel Covert, Grove Wood, Old World Wood.
7	West of the Suffolk Onshore Scheme Order Limits, west of Fristonmoor Lane, south of the B1119	Arable land, broadleaved woodland, woodland edge, coniferous plantation woodland, hedgerows, dry ditches. Named woodlands adjacent to route: Nut Tree Belt.
8	West of the Suffolk Onshore Scheme Order Limits, south of the B1119	Arable land, broadleaved woodland edge, arable grassland field margins, hedgerow. Named woodlands adjacent to route: Nut Tree Belt, Harris's Belt, Bloomfield's Covert.
9	West of the Suffolk Onshore Scheme Order Limits, north and east of the B1121	Arable land, neutral semi-improved grassland, hedgerows, River Frome, broadleaved plantation and semi-natural woodland edges. Named woodlands adjacent to route: Bloomfield's Covert, Ash Belt, Leekhill Plantation.

- 1.3.10 Surveys completed in 2023 were in line with best practice guidance at the time of survey (Collins J. , 2016). Surveys completed in 2024 were in line with current best practice guidance (Collins J. , 2023). The survey methodology has been updated to reflect the current guidance. Therefore, during the 2024 NBWs, surveyors remained static for the first 30 minutes after sunset at a suitable location, with the aim of determining the potential presence of any nearby roosting resources.
- 1.3.11 Surveyors used echolocation detectors (BatloggerM) to help determine which species were present. Bat activity was plotted in the field on GPS enabled devices.
- 1.3.12 In line with current best practice guidance (Collins J. , 2023) the dusk surveys commenced at sunset or up to 15 minutes before and continued until at least two hours after sunset.

- 1.3.13 The time, location, number, species (where possible) and direction of flight were recorded for each bat pass (discrete burst of echolocation heard, or bat activity observed) encountered during the survey.
- 1.3.14 Surveyors recorded the echolocation calls to allow use of analysis software to verify bat calls where required.
- 1.3.15 Survey visits were scheduled to avoid nights with cold, wet or windy conditions. All surveys were undertaken during favourable weather conditions which are summarised in Table 1.2 below.

Table 1.2 NBW weather conditions

Transect	Transect Location	Survey date	Start and end date	Sunset time	Temperature (°C) at start of survey	Weather conditions
Transect 1	East of the Suffolk Onshore Scheme Order Limits, east of South Warren Golf Course	15/08/2023	8:03pm – 10:18pm	10:18pm	18	60-90% cloud cover, still (Beaufort 0), dry.
		03/10/2023	6:12pm – 8:27pm	6:27pm	15	10-30% cloud cover, gentle breeze (Beaufort 3), dry.
		04/06/2024	9:10pm – 11pm	9:10pm	15	100% cloud cover, light breeze (Beaufort 2), recent rain.
Transect 2	East of the Suffolk Onshore Scheme Order Limits, north of South Warren Golf Course	15/08/2023	7:58pm – 10:18pm	8:18pm	19	60-90% clouds, still (Beaufort 0), dry.
		03/10/2023	6:12pm – 8:27pm	6:27pm	15	10-30% cloud cover, gentle breeze (Beaufort 3), dry.
		30/05/2024	8:48pm – 11:03pm	9:03pm	13	100% cloud cover, gentle breeze (Beaufort 3), recent rain.
Transect 3	East of the Suffolk Onshore	16/08/2023	8:01pm – 10:16pm	8:16pm	19	40-50% cloud cover, gentle breeze

Transect	Transect Location	Survey date	Start and end date	Sunset time	Temperature (°C) at start of survey	Weather conditions
	Scheme Order Limits, west of South Warren Golf Course					(Beaufort 2), dry.
		04/10/2023	6:24pm – 8:24pm	6:39pm	16	10-30% cloud cover, light breeze (Beaufort 2), dry.
		04/06/2024	9:09pm – 11:09pm	9:09pm	15	100% cloud cover, fresh breeze (Beaufort 5), drizzle.
Transect 4	Centre of the Suffolk Onshore Scheme Order Limits, east of the B1069	16/08/2023	8:01pm – 10:16pm	8:16pm	19	10-30% cloud cover, light breeze (Beaufort 2), dry.
		04/10/2023	6:24pm – 8:24pm	6:39pm	17	10-30% cloud, light air (Beaufort 1), dry.
		04/06/2024	9:08pm – 11:08pm	9:09pm	13	100% cloud, gentle breeze (Beaufort 3), drizzle.
Transect 5	Centre of the Suffolk Onshore Scheme Order Limits, north of the B1069	05/06/2024	9:10pm – 11:10pm	9:10pm	12	10-30% cloud, light breeze (Beaufort 2), dry.
		05/08/2024	8:37pm – 10:37pm	8:37pm	19	10-30% cloud, light air (Beaufort 1), dry.
		03/09/2024	7:20pm – 9:43pm	7:33pm	22	100% cloud, still, dry.
Transect 6	Centre of the Suffolk Onshore Scheme Order Limits, north of Friston, west	31/08/2023	7:29pm – 9:44pm	7:44pm	17	100% cloud cover, light air (Beaufort 1), dry.
		03/10/2023	6:26pm – 8:26pm	6:26pm	16	40-50% clouds, moderate

Transect	Transect Location	Survey date	Start and end date	Sunset time	Temperature (°C) at start of survey	Weather conditions
	of Grove Road					breeze (Beaufort 4), dry.
		05/06/2024	9:10pm – 11:10pm	9:10pm	11	10-30% cloud, still (Beaufort 0), dry.
Transect 7	West of the Suffolk Onshore Scheme Order Limits, west of Fristonmoor Lane, south of the B1119	30/08/2023	7:31pm – 9:46pm	7:46pm	16	40-50% cloud cover, light air (Beaufort 1), dry.
		02/10/2023	6:28pm – 8:28pm	6:28pm	12	100% clouds, no wind data, raining throughout.
		05/06/2024	9:10pm – 11:10pm	9:10pm	12	10-30% cloud, still (Beaufort 0), dry.
Transect 8	West of the Suffolk Onshore Scheme Order Limits, south of the B1119	17/08/2023	7:59pm – 10:14pm	8:14pm	18	10-30% cloud cover, moderate breeze (Beaufort 4), dry.
		02/10/2023	6:28pm – 8:28pm	6:43pm	17	100% cloud cover, light breeze (Beaufort 2), raining.
		06/06/2024	9:11pm – 11:11pm	9:11pm	15	60-90% cloud, light air (Beaufort 1), dry and mild.
Transect 9	West of the Suffolk Onshore Scheme Order Limits, north and east of the B1121	17/08/2023	7:59pm – 10:14pm	8:14pm	18	10-30% cloud cover, gentle breeze (Beaufort 3), dry.
		02/10/2023	5:53pm – 8:28pm	6:30pm	12	100% cloud cover, light air (Beaufort 1), raining throughout.

Transect	Transect Location	Survey date	Start and end date	Sunset time	Temperature (°C) at start of survey	Weather conditions
		06/06/2024	9:11pm – 11:11pm	9:11pm	15	60-90% cloud, light air (Beaufort 1), dry and mild.

Static automated detector surveys

- 1.3.16 One SM4bat FS detector was placed within each transect route in the Suffolk Onshore Scheme Order Limits once per month in August and September 2023, and May to October 2024 (i.e. nine total detectors deployed per month). The locations of the automated detectors are shown in **Application Document 6.4.2.2.1.1 Suffolk Transect Routes & SM4 Locations** and described in Table 1.3.
- 1.3.17 The SM4bat FS detectors were left on site for a minimum of five consecutive nights for each survey occasion. Data were recorded onto an SD card in full spectrum format, and subsequently converted to zero crossing format for subsequent echolocation call analysis using Analook or Kaleidoscope Pro software.
- 1.3.18 The SM4bat FS detectors were set up to record bat echolocation over the periods shown in Table 1.4.

Table 1.3 SM4bat FS detector locations

Transect	Grid reference	Location within transect
1	TM 45745 58433	Centre of transect route, within a line of trees.
2	TM 44376 58738	North-west corner of transect route, at the edge of Old Broom Covert woodland.
3	TM 43802 59013	South of the transect route, within a hedgerow.
4	TM 42826 59728	Centre of the transect route, within a hedgerow.
5	TM 42293 60829	Centre of the transect route, on the corner of a woodland edge with linking hedgerows.
6	A - TM 41652 61791 B - TM 41513 61382 C - TM 41278 61323	A – north-east of the transect route, within a tree at a field margin. B – centre of the transect route, within a hedgerow at the edge of Laurel Covert woodland. C – centre of the transect route, within a hedgerow.

Transect	Grid reference	Location within transect
7	TM 40677 61849	East of the transect route, in a tree line.
8	TM 40001 62180	East of the transect route, in a broadleaved plantation woodland.
9	TM 38865 62164	Centre of the transect route, along a woodland edge at the River Fromus.

Note the location of the SM4bat FS detector at Transect 6 was altered due to access restrictions and the presence of livestock.

Table 1.4 SM4bat FS detector survey periods

Month/ Year	Transect								
	1	2	3	4	5	6	7	8	9
August 2023 (dusk to dawn)	30/08 – 04/09	30/08 – 04/09	30/08 – 04/09	30/08 – 04/09	N/A	30/08 – 04/09	30/08 – 03/09	31/08 – 05/09	31/08 – 05/09
September 2023 (dusk to dawn)	25/09 – 3/10	25/09 – 3/10	25/09 – 3/10	25/09 – 3/10	N/A	25/09 – 3/10	26/09 – 3/10	26/09 – 3/10	N/A
May 2024 (dusk to dawn)	24/05 – 29/05	24/05 – 29/05	24/05 – 29/05	01/05 – 09/05	02/05 – 04/05	02/05 – 08/05	01/05 – 09/05	01/05 – 08/05	01/05 – 08/05
June 2024 (dusk to dawn)	03/06 – 12/06	05/06 – 13/06	04/06 – 12/06	04/06 – 12/06	06/06 – 13/06	05/06 – 12/06	05/06 – 12/06	06/06 – 13/06	04/06 – 13/06
July 2024 (dusk to dawn)	18/07 – 25/07	17/07 – 24/07	10/07 – 17/07	10/07 – 17/07	10/07 – 17/07	10/07 – 17/07	09/07 – 17/07	09/07 – 17/07	09/07 – 18/07
August 2024 (dusk to dawn)	05/08 – 12/08	05/08 – 12/08	05/08 – 12/08	05/08 – 12/08	05/08 – 12/08	05/08 – 12/08	06/08 – 12/08	06/08 – 12/08	05/08 – 12/08
September 2024 (dusk to dawn)	N/A	03/09 – 10/09	N/A	N/A	03/09 – 10/09	N/A	N/A	N/A	03/09 – 10/09
October 2024	09/10 – 16/10	09/10 – 16/10	09/10 – 16/10	09/10 – 16/10	09/10 – 16/10	08/10 – 16/10	08/10 – 16/10	08/10 – 16/10	08/10 – 16/10

(dusk to dawn)

Limitations

- 1.3.19 It should be noted that ecosystems are dynamic and constantly changing, and therefore species may move, or new species may be recorded in subsequent years. For this reason and in accordance with the current guidance (The Chartered Institute of Ecology and Environmental Management, 2019) the results of the bat surveys are considered to be valid for a period of approximately 24 months and after this timeframe an ecologist should be consulted to determine if updated survey and assessment is required.
- 1.3.20 The detectability of bat echolocation calls varies greatly by species. Calls of lower frequency and louder calls, such as those by noctule and pipistrelle bats, will be detected at a greater distance than calls that are quieter (such as brown long-eared bat calls) or high frequency and therefore attenuate more quickly, and as such are more likely to be under recorded.
- 1.3.21 During first NBW at Transect 6 completed on 31 August 2023, bats that were not echolocating were seen, meaning their species could not be recorded. This is not considered to be a constraint to the conclusions of the report, as sufficient data has been collected across the Survey Area as a whole to determine the bat assemblage and key habitat for use by bats.
- 1.3.22 The SM4bat FS detector location in Transect 6 was altered, with location A used in September 2023, location B used in June and July 2024, and location C used in August 2023, May 2024, August 2024 and October 2024. This was due to access restrictions and the presence of livestock, making areas of the Transect unsafe for surveyors to enter. Locations B and C are located along the same hedge line and the use of these two locations is not considered to be a constraint to the conclusions of this report. Location A was only used during one recording period, and provided additional data from another section of the transect route. Therefore, its use is not considered to be a constraint to the conclusions of this report.
- 1.3.23 Due to equipment failures, in some months the SM4bat FS detectors did not record for five nights in all locations. The SM4bat FS detector located at Transect 1 in September 2023 recorded for a total of 4.5 nights. The SM4bat FS detector located at Transect 2 recorded for 2.5 nights in September 2023, four nights in May 2024, and three nights in October 2024. The SM4bat FS detector located at Transect 3 in August 2024 did not record. The SM4bat FS detector located at Transect 4 in August 2024 recorded for three nights. The SM4bat FS detector located at Transect 5 recorded for two nights in May 2024, and 3.5 nights in August 2024. The SM4bat FS detector located at Transect 7 recorded for four nights in August 2023, two nights in August 2024 and did not record in June 2024. The SM4bat FS detector located at Transect 9 recorded for two nights in August 2023, did not record in August 2024, recorded for three nights in September 24, and recorded for four nights in October 2024.
- 1.3.24 The average number of nights that the SM4bat FS detectors recorded across all locations and all recording periods exceeded five nights; however, individually Transect 2 (4.88), Transect 7 (4.29) and Transect 9 (4.83) had averages of less than five nights across the survey period.

- 1.3.25 Reduced data collection at some transect locations in some months is not considered to be a constraint to the conclusions of this report, as sufficient data has been collected across the Survey Area as a whole, including through NBWs to augment the SM4bat FS detector surveys to determine the key habitat for use by bats, and the bat assemblage utilising the Suffolk Onshore Scheme Order Limits. Moreover, as a precaution all hedgerows being affected by the Proposed Project are being treated as important features for bats.

1.4 Results

Desk Study

Bat records

- 1.4.1 The data search undertaken in 2023 returned 404 records of bats within 5km of the Suffolk Onshore Scheme Order Limits. These records represented ten bat species, comprising, serotine (*Eptesicus serotinus*), Daubenton's bat (*Plecotus auritus*), Natterer's bat (*Myotis daubentonii*), noctule (*Nyctalus noctula*), Nathusius' pipistrelle (*Pipistrellus nathusii*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), barbastelle bat (*Barbastella barbastellus*) and brown long-eared bat (*Plecotus auritus*). The closest of these records was recorded within the Suffolk Onshore Scheme Order Limits in 2023 and was a brown long-eared bat. All other bat species were recorded within 400 m to 600 m of the Suffolk Onshore Scheme Order Limits between 2015 and 2022.

Bat mitigation licenses

- 1.4.2 Thirteen EPSML applications in relation to bats were recorded within 5 km of the Suffolk Onshore Scheme Order Limits. The closest being 270 m south in parcel 137, for brown long-ear bat ending in 2009.

Statutory designations

- 1.4.3 There are no statutory designations for sites in relation to bats within 10km of the Suffolk Onshore Scheme Order Limits. There are two ancient woodlands within 500 m of the Suffolk Onshore Scheme Order Limits that may provide habitat for roosting and foraging. There is also a designated Site of Special Scientific Interest (SSSI) and three non-statutory designated sites (CWS) that contain ancient woodland within 2 km.
- 1.4.4 There are no SACs designated for bats within 30 km of the Suffolk Onshore Scheme Order Limits.

Field Survey

NBW survey results

- 1.4.5 The results of the NBW surveys at the Suffolk Onshore Scheme Order Limits are outlined by transect route below and shown on **Application Document 6.4.2.2.I.2 Suffolk Nighttime Bat Walkover - August 2023 to Application Document 6.4.2.2.I.6 Suffolk Nighttime Bat Walkover - August 2024. Application Document 6.4.2.2.I.7 Bat Walkover – September 2024** which illustrate the spread of all bat registrations recorded during the bat activity transects across the Suffolk Onshore Scheme Order

Limits, together with locations of relatively higher levels of bat activity, or where high-quality bat habitat exists outside of the walked transect routes.

- 1.4.6 A summary of the results of the NBW surveys are presented in Table 1.5 to Table 1.13 below, with full results in **Annex 2.I.1** and example sonograms in **Annex 2.I.2**. Transect points (TP) are shown in **Application Document 6.4.2.2.I.1 Suffolk Transect Routes & SM4 Locations**.

Transect 1

Table 1.5 NBW results summary – Transect 1

Survey Date	Summary of Results
Visit 1: Dusk 15 August 2023	<p>During the dusk activity survey on 15 August 2023, the first bat activity recorded was a commuting noctule bat at 24 minutes after sunset. The majority of activity recorded was of common pipistrelle bats, comprising predominantly brief passes of individual bats and a period of foraging by Transect point (TP) 8 and between TPs 7 and 8 as well as 3 and 4. In total activity comprised:</p> <ul style="list-style-type: none"> • two commuting calls by individual noctule bats; • twelve registrations of common pipistrelle activity of which one was two bats together and the remainder individual bats; • one brief pass by a pipistrelle species (either common or soprano pipistrelle)¹ and one commuting call of a Leisler’s bat and serotine; • eight registrations of soprano pipistrelle activity, three commuting, four brief passes and one foraging; and • three brief passes and one commuting call for individuals of both <i>Myotis</i> species² and brown long-eared bat. <p>Activity recorded was spread across the transect route, concentrated around the tree line in the centre of the transect. See Annex 2.I.1 and Application Document 6.4.2.2.I.2 Suffolk Nighttime Bat Walkover - August 2023 for further details.</p>
Visit 2: Dusk 3 October 2023	<p>During the dusk activity survey on 3 October 2023, the first bat activity recorded was a brief pass from a common pipistrelle at 38 minutes after sunset. The majority of activity was of soprano pipistrelle bats, comprising predominantly</p>

¹ Common pipistrelle and soprano pipistrelle can be difficult to separate when calls recorded are towards the lower end of the soprano pipistrelle frequency and higher end of the common pipistrelle peak frequency. As such, any pipistrelle bat with a peak frequency between 49 kHz and 51kHz has been classified as pipistrelle bat.

² *Myotis* bat calls can be very similar; therefore have been classified as *Myotis* species unless call characteristics or observations of the bat and behaviour have been recorded to enable species level identification.

Survey Date	Summary of Results
Visit 3: Dusk 4 June 2024	<p>foraging and social calls of individual bats by Transect point (TP) 1 and between 1 and 2. In total activity comprised:</p> <ul style="list-style-type: none"> • two brief passes and two foraging calls by individual common pipistrelle bats; • three foraging calls, two brief passes and two social calls by individual soprano pipistrelle bats; • one foraging call, one brief pass and combinations of foraging and social calls and brief passes and social calls by individual pipistrelle species (either common or soprano pipistrelle); and • one brief pass and one foraging pass by individual <i>Myotis</i> species. <p>Activity recorded was spread across the transect route. See Annex 2.I.1 and Application Document 6.4.2.2.I.3 Suffolk Nighttime Bat Walkover - October 2023 for further details.</p>
Visit 3: Dusk 4 June 2024	<p>During the dusk activity survey on 4 June 2024, the first bat activity recorded was a brief pass from a soprano pipistrelle at 1 hours and 20 minutes after sunset. The majority of activity was of soprano pipistrelle and barbastelle, comprising predominantly of brief passes of individual barbastelle at Transect point (TP) 1 and both a brief pass and commuting by soprano pipistrelle at TP 5 and between TP 6 and 7. In total activity comprised:</p> <ul style="list-style-type: none"> • one brief pass and one commuting pass by individual soprano pipistrelle bats; • one foraging call by individual common pipistrelle bats and Nathusius' pipistrelle bats; and • two brief passes by barbastelle bats. <p>Activity recorded was spread across the transect route. See Annex 2.I.1 and Application Document 6.4.2.2.I.5 Suffolk Nighttime Bat Walkover - June 2024 for further details.</p>

Transect 2

Table 1.6 NBW results summary – Transect 2

Survey Date	Summary of Results
Visit 1: Dusk 15 August 2023	<p>During the dusk activity survey on 15 August 2023, the first bat activity recorded was commuting from a noctule at 31 minutes after sunset. The majority of activity was of soprano pipistrelle bats, comprising predominantly brief passes of individual bats by Transect points (TP) 1 and between 1 and 3. In total activity comprised:</p>

Survey Date	Summary of Results
Visit 2: Dusk 3 October 2023	<ul style="list-style-type: none"> ● two commuting individual noctule bats; ● eleven instances of common pipistrelle activity consisting of commuting, brief passes, and foraging activity; ● thirteen instances of soprano pipistrelle activity consisting of commuting, brief passes, foraging, and social calls; ● two bats, one common pipistrelle and one soprano pipistrelle, exhibiting activity of brief passes and social calls; ● a brief pass by two bats, one Leisler’s bat and one soprano pipistrelle; ● one brief pass from a serotine bat; ● two brief passes of individual brown long-eared bat; ● one foraging pass by a <i>Myotis</i> species; and ● one brief pass by a barbastelle. <p>Activity recorded was spread across the transect route, concentrated around the hedgerows and woodland margins with activity predominantly recorded along the woodland edge in the south-west of the transect. See Annex 2.I.1 and Application Document 6.4.2.2.I.2 Suffolk Nighttime Bat Walkover - August 2023 for further details.</p> <p>During the dusk activity survey on 3 October 2023, the first bat activity recorded was a brief pass from a soprano pipistrelle at 32 minutes after sunset. The majority of activity was of soprano pipistrelle bats, comprising predominantly brief passes of individual bats between Transect points (TP) 2 and 3 and 3 and 4. In total activity comprised:</p> <ul style="list-style-type: none"> ● ten brief passes, and five foraging passes (including two bats foraging at the same time) of soprano pipistrelle bats; ● two brief passes and one foraging activity by individual common pipistrelle bats; ● three brief passes by individual barbastelle bats; ● seven brief passes and one foraging activity by individual serotine bats; ● one brief pass by an individual noctule; and ● one brief pass by an individual <i>Myotis</i> species. <p>Activity recorded was concentrated around the woodland edge in the south of the transect. See Annex 2.I.1 and Application Document 6.4.2.2.I.3 Suffolk Nighttime Bat Walkover - October 2023 for further details.</p>
Visit 3: Dusk 30 May 2024	<p>During the dusk activity survey on 30 May 2024, the first bat activity recorded was a brief pass from a common pipistrelle</p>

Survey Date	Summary of Results
	<p>at 32 minutes after sunset. The majority of activity was of common or soprano pipistrelle bats, comprising predominantly foraging of individual bats by multiple Transect points (TP). In total activity comprised:</p> <ul style="list-style-type: none"> • three foraging calls by individual common pipistrelle bats; • three foraging calls by individual soprano pipistrelle bats; • One foraging pass by either a common or soprano pipistrelle; • three brief passes by barbastelle bats; • one commuting pass by an individual Leisler's bat; and • one brief pass by a <i>Myotis</i> species bat. <p>Activity recorded was spread across the transect route, concentrated around the hedgerows and woodland margins. See Annex 2.1.1 and Application Document 6.4.2.2.1.4 Suffolk Nighttime Bat Walkover - May 2024 for further details.</p>

Transect 3

Table 1.7 NBW results summary – Transect 3

Survey Date	Summary of Results
Visit 1: Dusk 16 August 2023	<p>During the dusk activity survey on 16 August 2023, the first bat activity recorded was a brief pass from a soprano pipistrelle at 37 minutes after sunset. The majority of activity was of soprano pipistrelle bats, comprising predominantly commuting calls of individual bats between mainly Transect points (TP) 4 and 5. In total activity comprised:</p> <ul style="list-style-type: none"> • nine commuting, one social call, one foraging activity and four brief passes by individual soprano pipistrelle bats; • five brief passes, eight commuting and one foraging activity by individual common pipistrelle bats; • two commuting and one brief pass by individual pipistrelle species bats (either common or soprano pipistrelle); • two brief passes and one commuting by individual Leisler's bats; • six commuting and one brief pass by individual <i>Myotis</i> species bats;

Survey Date	Summary of Results
Visit 2: Dusk 4 October 2023	<ul style="list-style-type: none"> ● one commuting individual barbastelle; ● one commuting brown long-eared bat; and ● four commuting serotine bats. <p>Activity recorded was concentrated along the hedgerow in the east of the transect, and the woodland edge with associated hedgerow in the north-west corner of the transect. See Annex 2.I.1 and Application Document 6.4.2.2.I.2 Suffolk Nighttime Bat Walkover - August 2023 for further details.</p> <p>During the dusk activity survey on 4 October 2023, the first bat activity recorded was a brief pass from a soprano pipistrelle at 14 minutes after sunset. The majority of activity was of common pipistrelle, comprising predominantly foraging activity between Transect points (TP) 1 and 2. In total activity comprised:</p> <ul style="list-style-type: none"> ● one social call, six instances of foraging activity and five brief passes by individual common pipistrelle bats; ● three brief passes, one social call and five instances of foraging activity by individual soprano pipistrelle bats; ● one commuting pass by an individual pipistrelle species bat (either common or soprano pipistrelle); ● one commuting by an individual Leisler's bat; ● one foraging activity by an individual <i>Myotis</i> species bat; ● two brief passes by individual barbastelle bats; ● one brief pass by a brown long-eared bat; and ● one foraging, one social call and one brief pass by individual Nathusius' pipistrelle bats. <p>Activity recorded was spread across the transect route. See Annex 2.I.1 and Application Document 6.4.2.2.I.3 Suffolk Nighttime Bat Walkover - October 2023 for further details.</p>
Visit 3: Dusk 4 June 2024	<p>During the dusk activity survey on 4 June 2024, the first bat activity recorded was a soprano pipistrelle at 34 minutes after sunset. The majority of activity was of soprano pipistrelle, predominantly comprising foraging activity and brief passes between Transect points (TP) 1 and 2. In total activity comprised:</p> <ul style="list-style-type: none"> ● two foraging activity and three brief passes by individual soprano pipistrelle bats; ● two brief passes, and one instance of foraging activity by individual common pipistrelle bats; ● one brief pass by individual Leisler's bat;

Survey Date	Summary of Results
	<ul style="list-style-type: none"> • one foraging activity by an individual <i>Myotis</i> species; and • one foraging by an individual Nathusius' pipistrelle. <p>Activity recorded was predominantly between TP5 and 7, and TP 1 and 2. See Annex 2.I.1 and Application Document 6.4.2.2.I.5 Suffolk Nighttime Bat Walkover - June 2024 for further details.</p>

Transect 4

Table 1.8 NBW results summary – Transect 4

Survey Date	Summary of Results
Visit 1: Dusk 16 August 2023	<p>During the dusk activity survey on 16 August 2023, the first bat activity recorded was a brief pass by a common pipistrelle at 38 minutes after sunset. The majority of activity recorded was of common pipistrelle bats, comprising predominantly brief passes of individual bats, and a period of foraging activity recorded between Transect Points (TP) 1 and 2. In total activity comprised:</p> <ul style="list-style-type: none"> • fourteen brief passes and five instances of foraging activity by individual common pipistrelle bats; • eight brief passes and three foraging activity by individual soprano pipistrelle bats; • two brief passes by individual <i>Myotis</i> species bats; • six brief passes by individual serotine bats; • a single brief pass by a pipistrelle species bat (either common or soprano pipistrelle); and • a single brief pass by a Leisler's bat <p>Activity recorded was spread across the transect route. See Annex 2.I.1 and Application Document 6.4.2.2.I.2 Suffolk Nighttime Bat Walkover - August 2023 for further details.</p>
Visit 2: Dusk 4 October 2023	<p>During the dusk activity survey on 4 October 2023, the first bat activity recorded was a brief pass by a noctule bat 5 minutes after sunset. The majority of activity recorded was of serotine bats, comprising predominantly brief passes with periods of foraging activity between TP 5 and 7. In total activity comprised:</p> <ul style="list-style-type: none"> • two brief passes and three instances of foraging activity by individual serotine bats; • four brief passes by individual noctule bats;

Survey Date	Summary of Results
Visit 3: Dusk 4 June 2024	<ul style="list-style-type: none"> • three brief passes by individual soprano pipistrelle bats; • four brief passes by individual common pipistrelle bats; and • two brief passes by individual Leisler's bats. <p>Activity recorded was predominantly between TP 4 and 7 in the west of the transect. See Annex 2.I.1 and Application Document 6.4.2.2.I.3 Suffolk Nighttime bat Walkover – October 2023 for further details.</p> <p>During the dusk activity survey on 4 June 2024, the first bat activity recorded was foraging by a common pipistrelle, 50 minutes after sunset. The majority of activity recorded was of common pipistrelle bats, comprising predominantly foraging activity around Transect point (TP) 5. In total activity comprised:</p> <ul style="list-style-type: none"> • one brief pass and seven instances of foraging activity by individual common pipistrelles, with one instance of two common pipistrelles foraging together; and • three foraging activity, one brief pass and one social call by individual soprano pipistrelle bats. <p>Activity recorded was predominantly between TP 4 and 5, between two parcels of woodland in the north and south of the transect. See Annex 2.I.1 and Application Document 6.4.2.2.I.5 Suffolk Nighttime Bat Walkover - June 2024 for further details.</p>

Transect 5

Table 1.9 NBW results summary – Transect 5

Survey Date	Summary of Results
Visit 1: Dusk 5 June 2024	<p>During the dusk activity survey on 5 June 2024, the first bat activity recorded was foraging by a soprano pipistrelle, 36 minutes after sunset. The majority of activity recorded was of common pipistrelle bats, comprising entirely foraging activity, predominantly between Transect points (TP) 5 and 8. In total activity comprised:</p> <ul style="list-style-type: none"> • twenty instances of foraging activity by individual common pipistrelle bats; • eleven instances of foraging activity, and one commuting pass by individual soprano pipistrelle bats;

Survey Date	Summary of Results
Visit 2: Dusk 5 August 2024	<ul style="list-style-type: none"> ● three instances of foraging activity by individual pipistrelle species bats (either common or soprano pipistrelle); ● one commuting pass, and one brief pass by individual barbastelle bats; ● two commuting passes and one foraging activity by individual serotine bats; ● three commuting passes and one foraging activity by individual noctule bats; and ● one commuting pass and one brief pass by individual brown long-eared bat. <p>Activity recorded was spread throughout the transect, but predominantly in the western half. See Annex 2.1.1 and Application Document 6.4.2.2.1.5 Suffolk Nighttime Bat Walkover - June 2024 for further details.</p> <p>During the dusk activity survey on 5 August 2024, the first bat activity recorded was foraging by a noctule, 13 minutes after sunset. The majority of activity recorded was of common pipistrelle bats, comprising predominantly brief passes, spread throughout the transect. In total activity comprised:</p> <ul style="list-style-type: none"> ● twelve brief passes, eight foraging activity and one social call by individual common pipistrelle bats; ● six brief passes and two foraging activity by individual soprano pipistrelle bats; ● five brief passes by individual barbastelle bats; ● six foraging activity, one commuting pass and four brief passes by individual noctule bats; ● one brief pass and one foraging activity by individual serotine bats; ● one brief pass by an individual Leisler’s bat; and ● one brief pass by an individual <i>Myotis</i> species bat. <p>Activity was recorded spread throughout the transect. See Annex 2.1.1 and Application Document 6.4.2.2.1.6 Suffolk Nighttime Bat Walkover - August 2024 for further details.</p>
Visit 3: Dusk 3 September 2024	<p>During the dusk activity survey on 3 September 2024, the first bat activity recorded was foraging by a noctule, 16 minutes after sunset. The majority of activity recorded was of common pipistrelle, comprising predominantly brief passes spread throughout the transect. In total activity comprised:</p> <ul style="list-style-type: none"> ● ten brief passes, one commuting pass and two instances of foraging activity by individual common pipistrelle bats;

Survey Date	Summary of Results
	<ul style="list-style-type: none"> • eight brief passes and one commuting pass by individual soprano pipistrelle bats; • two brief passes by individual barbastelle bats; • one brief pass by an individual serotine bat; • two instances of foraging activity, one commuting pass and one brief pass by individual noctule bats; and • one brief pass by an individual brown long-eared bat. <p>Activity was recorded spread throughout the transect. See Annex 2.I.1 and Application Document 6.4.2.2.I.7 Suffolk Nighttime Bat Walkover - September 2024 for further details.</p>

Transect 6

Table 1.10 NBW results summary – Transect 6

Survey Date	Summary of Results
Visit 1: Dusk 31 August 2023	<p>During the dusk activity survey on 31 August 2023, the first bat activity recorded was a commuting pass by an unidentified bat, that was not echolocating at 18 minutes after sunset. A total of five unidentified bats were recorded during the transect, none of which were echolocating. Three of these were foraging, with two commuting passes also recorded. The majority of activity was at Transect point (TP) 7, with two bats also recorded between TP 2 and 3.</p> <p>See Annex 2.I.1 and Application Document 6.4.2.2.I.2 Suffolk Nighttime Bat Walkover - August 2023 for further details.</p>
Visit 2: Dusk 3 October 2023	<p>During the dusk activity survey on 3 October 2023, the first bat activity recorded was a commuting pass by a noctule, 30 minutes after sunset. The majority of activity recorded was of soprano pipistrelle bats, comprising predominantly foraging activity between Transect points (TP) 3 and 4. In total activity comprised:</p> <ul style="list-style-type: none"> • four foraging activity and two brief passes by individual soprano pipistrelle bats; • one foraging activity and one brief pass by individual common pipistrelle bats; • one brief pass by an individual barbastelle; • one foraging activity by an individual Leisler’s bat; and

Survey Date	Summary of Results
	<ul style="list-style-type: none"> two foraging activity, one commuting pass and one brief pass by individual noctule bats; <p>Activity was predominantly recorded between TPs 3 and 4, and 6 and 7 in the centre of the transect, and along the south-eastern edge alongside a woodland. See Annex 2.I.1 and Application Document 6.4.2.2.I.3 Suffolk Nighttime Bat Walkover - October 2023 for further details.</p>
Visit 3: Dusk 5 June 2024	<p>During the dusk activity survey on 5 June 2024, the first bat activity recorded was a commuting pass by a soprano pipistrelle, 34 minutes after sunset. The majority of activity recorded was of soprano pipistrelle bats, comprising predominantly foraging activity between Transect points (TP) 4 and 5. In total activity comprised:</p> <ul style="list-style-type: none"> two foraging activity and one commuting pass by individual soprano pipistrelle bats; two commuting passes and one brief pass by individual common pipistrelle bats; one foraging activity and one brief pass by individual barbastelle bats; one brief pass by an individual Leisler's bat; one brief pass by an individual brown long-eared bat; and one brief pass by an individual <i>Myotis</i> species bat. <p>Activity was record throughout the transect. See Annex 2.I.1 and Application Document 6.4.2.2.I.5 Suffolk Nighttime Bat Walkover - June 2024 for further details.</p>

Transect 7

Table 1.11 NBW results summary – Transect 7

Survey Date	Summary of Results
Visit 1: Dusk 30 August 2023	No bats were recorded during this survey.
Visit 2: Dusk 2 October 2023	<p>During the dusk activity survey on 2 October 2023, the first bat activity recorded was a brief pass by a noctule bat, 18 minutes after sunset. The majority of activity recorded was of common pipistrelle bats, comprising predominantly brief passes of individual bats. In total activity comprised:</p> <ul style="list-style-type: none"> two brief passes and one foraging activity by individual common pipistrelle bats; two commuting passes by individual soprano pipistrelle bats; and

Survey Date	Summary of Results
	<ul style="list-style-type: none"> a single brief pass by an individual noctule. <p>Activity recorded was spread throughout the transect route. See Annex 2.1.1 and Application Document 6.4.2.2.1.5 Suffolk Nighttime Bat Walkover - October 2023 for further details.</p>
Visit 3: Dusk 5 June 2024	<p>During the dusk activity survey on 5 June 2024, the first bat activity recorded was a brief pass by a common pipistrelle, 22 minutes after sunset. The majority of activity recorded was of common pipistrelle bats, comprising all brief passes of individual bats. In total activity comprised:</p> <ul style="list-style-type: none"> fourteen brief passes by individual common pipistrelle bats; two brief passes by individual soprano pipistrelle bats; and a single brief pass by an individual Leisler's bat. <p>Activity recorded was spread throughout the transect route. See Annex 2.1.1 and Application Document 6.4.2.2.1.5 Suffolk Nighttime Bat Walkover - June 2024 for further details.</p>

Transect 8

Table 1.12 NBW results summary – Transect 8

Survey Date	Summary of Results
Visit 1: Dusk 17 August 2023	<p>During the dusk activity survey on 17 August 2023, the first bat activity recorded was a commuting pass by a noctule bat at 36 minutes after sunset. The majority of activity recorded was of common pipistrelle bats, comprising predominantly foraging activity, predominantly between Transect points (TP) 6 and 8. In total activity comprised:</p> <ul style="list-style-type: none"> six foraging activity, two commuting passes and one brief pass of individual common pipistrelle bats; four foraging activity, one commuting pass and two brief passes of individual soprano pipistrelle bats; one commuting pass of an individual serotine; one foraging activity and one commuting pass by individual noctule bats; and two brief passes by individual pipistrelle species bats (either common or soprano pipistrelle). <p>Activity recorded was spread throughout the transect route, but predominantly between TPs 6, 7 and 8 in the north-west</p>

Survey Date	Summary of Results
Visit 2: Dusk 2 October 2023	<p data-bbox="601 224 1476 327">of the transect. See Annex 2.1.1 and Application Document 6.4.2.2.1.2 Suffolk Nighttime Bat Walkover - August 2023 for further details.</p> <p data-bbox="601 356 1476 573">During the dusk activity survey on 2 October 2023, the first bat activity recorded was foraging activity by a soprano pipistrelle, 8 minutes after sunset. The majority of activity recorded was of common pipistrelle bats, comprising predominantly brief passes throughout the transect route. In total activity comprised:</p> <ul data-bbox="716 589 1476 1025" style="list-style-type: none"> <li data-bbox="716 589 1476 656">● eight brief passes and four foraging activity by individual common pipistrelle bats; <li data-bbox="716 667 1476 734">● four foraging activity, one social call and two brief passes by individual soprano pipistrelle bats; <li data-bbox="716 745 1476 813">● four brief passes and one foraging activity by individual barbastelles; <li data-bbox="716 824 1476 869">● one brief pass by an individual Leisler’s bat; <li data-bbox="716 880 1476 947">● two brief passes and one foraging activity by individual noctule bats; and <li data-bbox="716 958 1476 1025">● two brief passes by individual pipistrelle species bats (either common or soprano pipistrelle). <p data-bbox="601 1037 1476 1176">Activity recorded was spread throughout the transect route. See Annex 2.1.1 and Application Document 6.4.2.2.1.3 Suffolk Nighttime Bat Walkover - October 2023 for further details.</p>
Visit 3: Dusk 6 June 2024	<p data-bbox="601 1209 1476 1426">During the dusk activity survey on 6 June 2023, the first bat activity recorded was a brief pass by an individual common pipistrelle, 23 minutes after sunset. The majority of activity recorded was of common pipistrelle bats, comprising predominantly foraging activity, spread throughout the transect route. In total activity comprised:</p> <ul data-bbox="716 1442 1476 1901" style="list-style-type: none"> <li data-bbox="716 1442 1476 1576">● seven foraging activity and two brief passes by individual common pipistrelle bats, with one additional instance of foraging activity by two common pipistrelles together; <li data-bbox="716 1588 1476 1655">● three foraging activity by individual soprano pipistrelle bats; <li data-bbox="716 1666 1476 1711">● one brief pass by an individual serotine; <li data-bbox="716 1722 1476 1823">● one foraging activity by an individual pipistrelle species bat (either common or soprano pipistrelle); and <li data-bbox="716 1834 1476 1901">● one brief pass by an individual <i>Myotis</i> species bat. <p data-bbox="601 1912 1476 2056">Activity recorded was spread throughout the transect route. See Annex 2.1.1 and Application Document 6.4.2.2.1.5 Suffolk Nighttime Bat Walkover - June 2024 for further details.</p>

Table 1.13 NBW results summary – Transect 9

Survey Date	Summary of Results
Visit 1: Dusk 17 August 2023	<p data-bbox="603 421 1458 636">During the dusk activity survey on 17 August 2023, the first bat activity recorded was foraging activity by a common pipistrelle, 20 minutes after sunset. The majority of activity recorded was of common pipistrelle, comprising predominantly foraging activity predominantly between Transect points (TP) 6 and 8. In total activity comprised:</p> <ul data-bbox="715 649 1458 1084" style="list-style-type: none"> <li data-bbox="715 649 1458 725">● nine foraging activity and nine brief passes by individual common pipistrelle bats; <li data-bbox="715 730 1458 806">● eight foraging activity and five brief passes by individual soprano pipistrelle bats; <li data-bbox="715 810 1458 846">● two brief passes by individual barbastelle bats; <li data-bbox="715 851 1458 927">● two commuting passes and one brief pass by an individual serotine; <li data-bbox="715 931 1458 1008">● three brief passes and one foraging activity by individual noctule bats; and <li data-bbox="715 1012 1458 1088">● one brief pass by an individual pipistrelle species bat (either common or soprano pipistrelle). <p data-bbox="603 1102 1458 1240">Activity recorded was predominantly in the east of the transect route, along the woodland edge. See Annex 2.1.1 and Application Document 6.4.2.2.1.2 Suffolk Nighttime Bat Walkover - August 2023 for further details.</p>
Visit 2: Dusk 2 October 2023	<p data-bbox="603 1272 1458 1554">During the dusk activity survey on 2 October 2023, the first bat activity recorded was a brief pass by a noctule, six minutes after sunset. The majority of activity recorded was of both common pipistrelle and barbastelle, each with three instances of activity recorded. For common pipistrelles this was predominantly foraging activity, and for barbastelle bats this was predominantly brief passes. In total activity comprised:</p> <ul data-bbox="715 1568 1458 1935" style="list-style-type: none"> <li data-bbox="715 1568 1458 1644">● two foraging activity and one brief pass by individual common pipistrelle bats; <li data-bbox="715 1648 1458 1684">● three brief passes by individual barbastelle bats; <li data-bbox="715 1688 1458 1765">● two foraging activity by individual soprano pipistrelle bats; <li data-bbox="715 1769 1458 1805">● one brief pass by an individual noctule; and <li data-bbox="715 1809 1458 1935">● one foraging activity by an individual pipistrelle species bat (either common or soprano pipistrelle). <p data-bbox="603 1948 1458 2047">Activity recorded was predominantly between Transect points (TP) 6 and 7, in the east of the transect route along the woodland edge. See Annex 2.1.1 and Application</p>

Survey Date	Summary of Results
	Document 6.4.2.2.1.2 Suffolk Nighttime Bat Walkover – October 2023 for further details.
Visit 3: Dusk 6 June 2024	<p>During the dusk activity survey on 6 June 2024, the first bat activity recorded was a brief pass by a pipistrelle species (either common or soprano pipistrelle), 22 minutes after sunset. The majority of activity recorded was of soprano pipistrelle, comprising brief passes only. In total activity comprised:</p> <ul style="list-style-type: none"> • ten brief passes of individual soprano pipistrelle bats; • five brief passes and two foraging activity of individual common pipistrelle bats; • two brief passes of individual pipistrelle species bat (either common or soprano pipistrelle); • four brief passes and one foraging activity of individual serotine bats; • one brief pass of an individual noctule; • two brief passes of individual brown long-eared bats; and • one brief pass of an individual <i>Myotis</i> species bat. <p>Activity recorded was predominantly between Transect points (TP) 6 and 7, in the east of the transect route along the woodland edge. See Annex 2.1.1 and Application Document 6.4.2.2.1.5 Suffolk Nighttime Bat Walkover - June 2024 for further details.</p>

Automatic detector survey results

1.4.1 The results of the SM4bat FS detector surveys at the Suffolk Onshore Scheme Order Limits are outlined by transect below. Full survey data can be found in Annex 2.1.3, including the number of bat registrations per hour at each monitored location. Examples of sonograms in **Annex 2.1.4**. The locations of the automated detectors during each survey visit are shown on **Application Document 6.4.2.2.1.1 Suffolk Transect Routes & SM4 Locations**.

Transect 1

Table 1.14 Automatic detector Transect 1 results summary

Survey Date	Summary of Results
August 2023	A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat,

Survey Date	Summary of Results
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serotine, brown long-eared bat and barbastelle. In addition, registrations³ were made of pipistrelle species (common or soprano pipistrelle)⁴, either noctule or Leisler's bat⁵, either noctule, Leisler's bat or serotine⁶, either *Myotis* species or brown long-eared bat⁷, possible barbastelle bat⁸ and *Myotis* species⁹.

The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Soprano pipistrelle was the most frequently recorded with a total of 135 registrations, and a peak of 50 registrations during a single night on 1 September 2023.

In total, one confirmed barbastelle (31 August 2023), and two possible barbastelle bat registrations (one each on 30 August 2023 and 1 September 2023) were recorded during the five nights.

See **Annex 2.1.3** for full details.

September 2023	A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (either common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle ¹⁰), either noctule, Leisler's bat or serotine, possible barbastelle, <i>Myotis</i> species and either <i>Myotis</i> species or brown long-eared bat.
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The detector recorded for 4.5 nights (with the recording period ending during the evening of the fifth night), during which registrations of bat

³ A registration is a single bat species within a file. Registrations can either be from several individual bats, or from the same bat for a sustained period of activity within the range of the detector, as for extended durations (over 15 seconds) a call will be broken down across multiple files.

⁴ Common pipistrelle and soprano pipistrelle can be difficult to separate using a zero crossing file when calls recorded are towards the lower end of the soprano pipistrelle frequency and higher end of the common pipistrelle peak frequency. As such, any pipistrelle bat with a peak frequency between 49 kHz and 51kHz has been classified as pipistrelle bat.

⁵ Leisler's and noctule bats can be difficult to identify accurately when calls are recorded towards to lower end of the Leisler's peak frequency and higher end of the noctule peak frequency, therefore unless the species could be clearly distinguished have been grouped together.

⁶ Leisler's, noctule and serotine bat can be difficult to identify accurately if only part of the call is present towards the lower end of the serotine and Leisler's bat frequency and upper end of noctule peak frequency, therefore unless the species could be clearly distinguished these have been grouped together.

⁷ *Myotis* and brown long-eared bat calls can be very similar, making them difficult to identify accurately when only part of the call is present. Therefore, unless the species could be clearly distinguished these have been grouped together.

⁸ Barbastelle calls can be difficult to identify accurately if only part of the call is present. Therefore, unless the species could be clearly identified 'possible barbastelle' has been used.

⁹ *Myotis* bat calls can be very similar; therefore have been classified as *Myotis* species unless call characteristics or observations of the bat and behaviour have been recorded to enable species level identification.

¹⁰ Common pipistrelle and Nathusius' pipistrelle can be difficult to separate using a zero crossing file when calls recorded are towards the lower end of the common pipistrelle frequency and higher end of the Nathusius' pipistrelle peak frequency. As such, any pipistrelle bat with a peak frequency between 40 kHz and 41kHz has been classified as pipistrelle bat.

Survey Date	Summary of Results
May 2024	<p>echolocation were made on all nights. Common pipistrelle was the most frequently recorded with a total of 1244 registrations over the five nights. Peak registrations of common pipistrelle during a single night were 615 registrations on 28 September 2023.</p> <p>A total of 18 barbastelle registrations and five possible barbastelle registrations were recorded during the five nights. Peak confirmed barbastelle registrations during a single night comprised eight registrations on 25 September 2023. A peak of four possible barbastelle registrations was recorded on 25 September 2023.</p> <p>See Annex 2.1.4 for full details.</p>
June 2024	<p>A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, barbastelle, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, possible barbastelle and either <i>Myotis</i> or brown long-eared bat.</p> <p>The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Common pipistrelle was the most frequently recorded with a total of 79 registrations over the five nights. Peak registrations of common pipistrelle during a single night were 31 registrations on 25 May 2024.</p> <p>A total of two barbastelle registrations and seven possible barbastelle registrations were recorded during the five nights. Both confirmed barbastelle registrations were recorded on 24 May 2024. A peak of five possible barbastelle registrations was recorded on the 25 May 2024.</p> <p>See Annex 2.1.3 for full details.</p>
July 2024	<p>A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Leisler's bat, serotine,</p>

Survey Date	Summary of Results
August 2024	<p data-bbox="384 226 1461 365">brown long-eared bat and barbastelle. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule, Leisler’s bat or serotine, either noctule or Leisler’s bat, possible barbastelle and <i>Myotis</i> species.</p> <p data-bbox="384 409 1461 548">The detector recorded for six nights, during which registrations of bat echolocation were made on all six nights. Common pipistrelle was the most frequently recorded with a total of 179 registrations, and a peak of 59 registrations during a single night on 18 July 2024.</p> <p data-bbox="384 593 1461 768">A total of five confirmed barbastelle registrations and five possible barbastelle registrations were recorded during the six nights. A peak of three confirmed barbastelle registrations was recorded on 21 July 2024, and a peak of three possible barbastelle registrations was recorded on 22 July 2024.</p> <p data-bbox="384 813 828 837">See Annex 2.1.3 for full details.</p>
October 2024	<p data-bbox="384 860 1461 1034">A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius’ pipistrelle, noctule, Leisler’s bat, serotine, brown long-eared bat and barbastelle. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius’ pipistrelle), and <i>Myotis</i> species.</p> <p data-bbox="384 1079 1461 1218">The detector recorded for six nights, during which registrations of bat echolocation were made on all six nights. Common pipistrelle was the most frequently recorded with a total of 207 registrations, and a peak of 68 registrations during a single night on 8 August 2024.</p> <p data-bbox="384 1263 1461 1328">A total of two confirmed barbastelle registrations were recorded during the six nights, with one registration recorded on each 5 and 10 August 2024.</p> <p data-bbox="384 1373 828 1397">See Annex 2.1.3 for full details.</p> <p data-bbox="384 1420 1461 1594">A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius’ pipistrelle, noctule, serotine, Leisler’s bat, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano), pipistrelle species (common or Nathusius’ pipistrelle), and <i>Myotis</i> species.</p> <p data-bbox="384 1639 1461 1814">The detector recorded for six nights, during which registrations of bat echolocation were made on all six nights. Soprano pipistrelle were the most frequently recorded with a total of 209 registrations over the six nights. Peak registrations of soprano pipistrelle during a single night were 73 registrations on 11 October 2024.</p> <p data-bbox="384 1859 1461 1957">A total of three confirmed barbastelle registrations were recorded during the six nights. A peak of two confirmed barbastelle registrations was recorded on 12 October 2024.</p> <p data-bbox="384 2002 828 2033">See Annex 2.1.3 for full details.</p>

Table 1.15 Automatic detector Transect 2 results summary

Survey Date	Summary of Results
August 2023	<p>A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, <i>Myotis</i> species and either <i>Myotis</i> species or brown long-eared bat.</p> <p>The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Soprano pipistrelle was the most frequently recorded with a total of 527 registrations over the five nights. Peak registrations of soprano pipistrelle during a single night were 135 registrations on 1 September 2023.</p> <p>In total thirty-nine confirmed barbastelle registrations were recorded during the five nights. A peak of sixteen confirmed barbastelle registrations was recorded on 2 September 2023.</p> <p>See Annex 2.1.3 for full details.</p>
September 2023	<p>A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), noctule, Leisler's bat or serotine, possible barbastelle, <i>Myotis</i> species and either <i>Myotis</i> species or brown long eared bat.</p> <p>The detector recorded for 2.5 nights (with the recording period ending during the evening of the third night), during which registrations of bat echolocation were made on all nights. Soprano pipistrelle was the most frequently recorded with a total of 342 registrations over the three nights. Peak registrations of soprano pipistrelle during a single night were 154 registrations on 25 September 2023.</p> <p>In total two confirmed barbastelle registrations (27 September 2023) and one possible barbastelle registration (25 September 2023) were recorded over the three nights.</p> <p>See Annex 2.1.3 for full details.</p>
May 2024	<p>A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle,</p>

Survey Date	Summary of Results
June 2024	<p>noctule, Leisler’s bat, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius’ pipistrelle), either noctule or Leisler’s bat, either noctule, Leisler’s bat or serotine, <i>Myotis</i> species, possible barbastelle and either <i>Myotis</i> species or brown long-eared bat.</p> <p>The detector recorded for four nights, during which registrations of bat echolocation were made on all four nights. Common pipistrelle was the most frequently recorded with a total of 515 registrations over the four nights. Peak registrations of common pipistrelle during a single night were 165 registrations on 26 May 2024.</p> <p>In total one hundred and thirty confirmed barbastelle registrations were recorded during the four nights. A peak of eighty confirmed barbastelle registrations was recorded on 24 May 2024.</p> <p>See Annex 2.I.3 for full details.</p>
July 2024	<p>A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, serotine, noctule, Leisler’s bat, barbastelle, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius’ pipistrelle), either noctule or Leisler’s bat, and either noctule, Leisler’s bat or serotine.</p> <p>The detector recorded for seven nights, during which registrations of bat echolocation were made on all seven nights. Common pipistrelle was the most frequently recorded with a total of 491 registrations over the seven nights. Peak registrations of Common pipistrelle during a single night were 243 registrations on 6 June 2024.</p> <p>In total seven confirmed barbastelle registrations were recorded during the seven nights. A peak of four confirmed barbastelle registrations was recorded on 7 June 2024.</p> <p>See Annex 2.I.3 for full details.</p>

Survey Date**Summary of Results**

The detector recorded for six nights during which registrations of bat echolocation were made on all six nights. Soprano pipistrelle was the most frequently recorded with a total of 380 registrations over the six nights. Peak registrations of soprano pipistrelles during a single night were 73 registrations on both 22 and 23 July 2024.

In total thirteen confirmed barbastelle registrations and six possible barbastelle registrations were recorded during the six nights. A peak of five confirmed barbastelle registrations and a peak of three barbastelle registrations were recorded on 23 July 2024.

See **Annex 2.1.3** for full details.

August 2024

A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, *Myotis* species, either *Myotis* species or Leisler's bat and possible barbastelle bat.

The detector recorded for six nights, during which registrations of bat echolocation were made on all six nights. Soprano pipistrelle was the most frequently recorded with a total of 798 registrations over the six nights. Peak registrations of soprano pipistrelle during a single night were 188 registrations on 10 August 2024.

In total twenty confirmed barbastelle registrations were recorded during the six nights. A peak of ten confirmed barbastelle registrations was recorded on 6 August 2024 and on 10 August 2024.

See **Annex 2.1.3** for full details.

September 2024

A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, serotine, Leisler's bat, barbastelle, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, possible barbastelle, *Myotis* species, and either *Myotis* species or brown long-eared bat.

The detector recorded for seven nights, during which registrations of bat echolocation were made on all seven nights. Soprano pipistrelle was the most frequently recorded with a total of 287 registrations over the six nights. Peak

Survey Date	Summary of Results
	<p>registrations of Soprano pipistrelle during a single night were 92 registrations on 4 September 2024.</p> <p>In total two confirmed barbastelle registrations (one each on 4 September and 9 September 2024) and eleven possible barbastelle registrations were recorded during the seven nights. A peak of 4 possible barbastelle registrations were recorded on 4 September 2024.</p> <p>See Annex 2.1.3 for full details.</p>
October 2024	<p>A total of six confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, brown long-eared bat, serotine, and barbastelle. In addition, registrations were made of pipistrelle species (common or soprano), pipistrelle species (common or Nathusius' pipistrelle), either noctule, Leisler's bat or serotine, and <i>Myotis</i> species.</p> <p>The detector recorded for four nights, during which registrations of bat echolocation were made on all four nights. Soprano pipistrelle were the most frequently recorded with a total of 26 registrations over the four nights. Peak registrations of soprano pipistrelle during a single night were 12 registrations on 12 October 2024.</p> <p>In total five confirmed barbastelle registrations were recorded during the four nights. A peak of five registrations was recorded on 15 October 2024.</p> <p>See Annex 2.1.3 for full details.</p>

Transect 3

Table 1.16 Automatic detector Transect 3 results summary

Survey Date	Summary of Results
August 2023	<p>A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, brown long-eared bat and barbastelle. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, possible barbastelle, <i>Myotis</i> species and either <i>Myotis</i> species or brown long-eared bat.</p>

Survey Date	Summary of Results
September 2023	<p>The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Common pipistrelle was the most frequently recorded with a total of 426 registrations, and a peak of 219 registrations during a single night on 1 September 2023.</p> <p>In total three confirmed barbastelle registrations (1 September 2023) and three possible barbastelle registrations were recorded during the five nights. A peak of two possible barbastelle registrations was recorded on 2 September 2023.</p> <p>See Annex 2.I.3 for full details.</p> <p>A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, brown long-eared bat and barbastelle. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, <i>Myotis</i> species, either <i>Myotis</i> species or brown long-eared bat and possible barbastelle.</p>
May 2024	<p>The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Soprano pipistrelle was the most frequently recorded with a total of 1084 registrations, and a peak of 438 registrations during a single night on 28 September 2023.</p> <p>In total sixty fifth confirmed barbastelle registrations and seven possible barbastelle registrations were recorded during the five nights. A peak of thirty five confirmed barbastelle registrations was recorded on 25 September 2023, and a peak of three possible barbastelle registrations was recorded on 25 September 2023.</p> <p>See Annex 2.I.3 for full details.</p> <p>A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Leisler's bat, barbastelle, serotine, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, possible barbastelle, <i>Myotis</i> species, and either <i>Myotis</i> or brown long-eared bat.</p> <p>The detector recorded for five nights, during which registrations of bat echolocation were made on three nights. Soprano pipistrelle was the most frequently recorded with a total of 416 registrations over the three nights. Peak registrations of soprano pipistrelle during a single night were 181 registrations on 27 May 2024.</p>

Survey Date**Summary of Results**

In total of thirteen confirmed barbastelle registrations and six possible barbastelle registrations were recorded during the five nights. A peak of eleven confirmed barbastelle registrations was recorded on 28 May 2024 and a peak of three possible barbastelle registrations was recorded on 26 May 2024.

See **Annex 2.I.3** for full details.

June 2024

A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, serotine, noctule, Leisler's bat, barbastelle, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, and *Myotis* species.

The detector recorded for eight nights, during which registrations of bat echolocation were made on all eight nights. Soprano pipistrelle was the most frequently recorded with a total of 242 registrations over the eight nights. Peak registrations of soprano pipistrelle during a single night were 83 registrations on 6 June 2024.

In total one confirmed barbastelle registration (7 June 2024) was recorded during the eight nights.

See **Annex 2.I.3** for full details.

July 2024

A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, Leisler's bat, serotine, barbastelle, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), pipistrelle bat social call, either noctule or Leisler's bat, either Noctule, Leisler's bat or serotine, possible barbastelle, *Myotis* species and *Myotis* species or long-eared bat.

The detector recorded for seven nights during which registrations of bat echolocation were made on all seven nights. Soprano pipistrelle was the most frequently recorded with a total of 1014 registrations over the seven nights. Peak registrations of soprano pipistrelles during a single night were 352 registrations on 17 July 2024.

In total three confirmed barbastelle registrations (one each on 17 July 2024, 18 July 2024 and 19 July 2024) and twelve possible barbastelle registrations were recorded during the

Survey Date	Summary of Results
	seven nights. A peak of five possible barbastelle registrations was recorded on 18 July 2024. See Annex 2.1.3 for full details.
August 2024	Void. No data recorded.
October 2024	A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, serotine, Leisler's bat, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine and <i>Myotis</i> species. Social calls were also recorded. The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Common pipistrelle was the most frequently recorded with a total of 886 registrations, and a peak of 533 registrations during a single night on 9 October 2024. In total five confirmed barbastelle registrations (11 October 2024) were recorded during the five nights. See Annex 2.1.3 for full details.

Transect 4

Table 1.17 Automatic detector Transect 4 results summary

Survey Date	Summary of Results
August 2023	A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule, Leisler's bat or serotine, possible barbastelle, <i>Myotis</i> species and either <i>Myotis</i> species or brown long-eared bat. The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Common pipistrelle was the most frequently recorded with a total of 1,856 registrations over the five nights. Peak registrations of common pipistrelle during a single night were 892 registrations on 1 September 2023.

Survey Date	Summary of Results
September 2023	<p>In total eleven confirmed barbastelle registrations and eleven possible barbastelle registrations were recorded during the five nights. A peak of 8 confirmed barbastelle registrations and a peak of five possible barbastelle registrations were recorded on 1 September 2024.</p> <p>See Annex 2.I.3 for full details.</p>
May 2024	<p>A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, possible barbastelle, <i>Myotis</i> species and <i>Myotis</i> or brown long-eared bat.</p> <p>The detector recorded for seven nights, during which registrations of bat echolocation were made on all seven nights. Soprano pipistrelle was the most frequently recorded with a total of 83 registrations over the seven nights. Peak registrations of soprano pipistrelle during a single night were 25 registrations on 25 September 2023.</p> <p>In total twenty confirmed barbastelle registrations and six possible barbastelle registrations were recorded during the seven nights. A peak of seven confirmed barbastelle registrations was recorded on 25 September 2024, and a peak of 2 possible barbastelle registrations was recorded on 26 September 2024 and 29 September 2024.</p> <p>See Annex 2.I.3 for full details.</p> <p>A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, barbastelle, serotine, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, possible barbastelle, <i>Myotis</i> species, and either <i>Myotis</i> species or brown long-eared bat.</p> <p>The detector recorded for seven nights, during which registrations of bat echolocation were made on all seven nights. Common pipistrelle was the most frequently recorded with a total of 698 registrations over the seven nights. Peak registrations of common pipistrelle during a single night were 195 registrations on 5 May 2024.</p>

Survey Date	Summary of Results
June 2024	<p data-bbox="603 224 1458 365">In total three confirmed barbastelle registrations (5 May 2024) and ten possible barbastelle registrations were recorded during the seven nights. A peak of three confirmed barbastelle registrations was recorded on 6 May 2024.</p> <p data-bbox="603 405 1043 439">See Annex 2.I.3 for full details.</p> <p data-bbox="603 456 1458 741">A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, serotine, noctule, Leisler's bat, barbastelle, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), <i>Myotis</i> species, either noctule or Leisler's bat, and either noctule, Leisler's bat or serotine.</p> <p data-bbox="603 781 1458 999">The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Common pipistrelle was the most frequently recorded with a total of 174 registrations over the five nights. Peak registrations of common pipistrelle during a single night were 57 registrations on 6 June 2024.</p> <p data-bbox="603 1039 1458 1144">In total twenty-five confirmed barbastelle registrations were recorded during the five nights. A peak of eleven confirmed barbastelle registrations was recorded on 4 June 2024.</p> <p data-bbox="603 1184 1043 1218">See Annex 2.I.3 for full details.</p>
July 2024	<p data-bbox="603 1232 1458 1559">A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, Leisler's bat, barbastelle, serotine, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, <i>Myotis</i> species, either <i>Myotis</i> species or brown long-eared bat and possible barbastelle.</p> <p data-bbox="603 1599 1458 1816">The detector recorded for seven nights, during which registrations of bat echolocation were made on six nights. Common pipistrelle was the most frequently recorded with a total of 674 registrations over the six nights. Peak registrations of common pipistrelle during a single night were 219 registrations on 15 July 2024.</p> <p data-bbox="603 1856 1458 2072">In total eleven confirmed barbastelle registrations and ten possible barbastelle registrations were recorded during the seven nights. A peak of four confirmed barbastelle registrations was recorded on 11 July 2024 and a peak of four possible barbastelle registrations was recorded on 15 July 2024.</p>

Survey Date	Summary of Results
August 2024	<p>See Annex 2.1.3 for full details.</p> <p>A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, barbastelle, serotine, and brown long-eared bat. In addition, registrations were made of either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, and <i>Myotis</i> species.</p> <p>The detector recorded for three nights, during which registrations of bat echolocation were made on all three nights. Soprano pipistrelle was the most frequently recorded with a total of 107 registrations over the three nights. Peak registrations of soprano pipistrelle during a single night were 51 registrations on 6 August 2024.</p> <p>In total ten confirmed barbastelle registrations were recorded during the three nights. A peak of five confirmed barbastelle registrations was recorded on 5 August 2024.</p> <p>See Annex 2.1.3 for full details.</p>
October 2024	<p>A total of four confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, and noctule. In addition, registrations were made of pipistrelle species (common or soprano), either noctule, Leisler's bat or serotine and <i>Myotis</i> species. Social calls were also recorded.</p> <p>The detector recorded for six nights, during which registrations of bat echolocation were made on all six nights. Soprano pipistrelle were the most frequently recorded with a total of 137 registrations over the six nights. Peak registrations of soprano pipistrelle during a single night were 37 registrations on 11 October 2024. See Annex 2.1.3 for full details.</p>

Transect 5

Table 1.18 Automatic detector Transect 5 results summary

Survey Date	Summary of Results
May 2024	<p>A total of four confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, and noctule. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule or Leisler's bat, and either <i>Myotis</i> species or brown long-eared bat.</p>

Survey Date**Summary of Results**

The detector recorded for two nights, during which registrations of bat echolocation were made on both nights. Common pipistrelle was the most frequently recorded with a total of 90 registrations over the five nights. Peak registrations of common pipistrelle during a single night were 68 registrations on the 2 May 2024. See **Annex 2.1.3** for full details.

June 2024

A total of six confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule or Leisler's bat, and either noctule, Leisler's bat or serotine.

The detector recorded for seven nights, during which registrations of bat echolocation were made on one night. Common pipistrelle was the most frequently recorded with a total of 258 registrations, recorded on 6 June 2024. See **Annex 2.1.3** for full details.

July 2024

A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, barbastelle, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, *Myotis* species, and possible barbastelle.

The detector recorded for seven nights, during which registrations of bat echolocation were made on all seven nights. Common pipistrelle was the most frequently recorded with a total of 1053 registrations over the seven nights. Peak registrations of common pipistrelle during a single night were 273 registrations on 15 July 2024.

In total ten confirmed barbastelle registrations were recorded during the three nights. A peak of five confirmed barbastelle registrations was recorded on 5 August 2024.

See **Annex 2.1.3** for full details.

August 2024

A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, Leisler's bat, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano), noctule, Leisler's bat or serotine, and *Myotis* species.

Survey Date	Summary of Results
September 2024	<p>The detector recorded for 3.5 nights (with the recording period ending during the evening of the fourth night), during which registrations of bat echolocation were made on all nights. Common pipistrelle was the most frequently recorded with a total of 671 registrations over the four nights. Peak registrations of common pipistrelle during a single night were 318 registrations on 5 August 2024. In total forty-four confirmed barbastelle registrations were recorded during the 3.5 nights. A peak of twenty-seven confirmed barbastelle registrations were recorded on 7 August 2024.</p> <p>See Annex 2.I.3 for full details.</p> <p>A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, serotine, Leisler's bat and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, possible barbastelle, <i>Myotis</i> species, and <i>Myotis</i> species or brown long-eared bat.</p>
October 2024	<p>The detector recorded for six nights, during which registrations of bat echolocation were made on all six nights. Common pipistrelle were the most frequently recorded with a total of 537 registrations over the six nights. Peak registrations of common pipistrelle during a single night were 156 registrations on 3 September 2024.</p> <p>In total ten confirmed barbastelle registrations and twenty-seven possible barbastelle registrations were recorded during the six nights. A peak of five confirmed barbastelle registrations and a peak of eleven possible barbastelle registrations were recorded on 3 September 2024.</p> <p>See Annex 2.I.3 for full details.</p> <p>A total of six confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, barbastelle, brown long-eared bat, serotine and noctule. In addition, registrations were made of pipistrelle species (common or soprano), either noctule, Leisler's bat or serotine, and <i>Myotis</i> species. Social calls were also recorded.</p> <p>The detector recorded for seven nights, during which registrations of bat echolocation were made on all seven nights. Common pipistrelle were the most frequently recorded with a total of 712 registrations over the seven nights. Peak registrations of common pipistrelle during a single night were 333 registrations on 15 October 2024.</p>

Survey Date	Summary of Results
	<p>In total eight confirmed barbastelle registrations were recorded during the seven nights. A peak of six confirmed barbastelle registrations were recorded on 14 October 2024.</p> <p>See Annex 2.I.3 for full details.</p>

Transect 6

Table 1.19 Automatic detector Transect 6 results summary

Survey Date	Summary of Results
August 2023	<p>A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, possible barbastelle and <i>Myotis</i> species.</p> <p>The detector recorded for four nights, during which registrations of bat echolocation were made on all four nights. Common pipistrelle was the most frequently recorded with a total of 57 registrations over the four nights. Peak registrations of common pipistrelle during a single night were 47 registrations on the 1 September 2023.</p> <p>In total nine confirmed barbastelle registrations (on 3 September 2023) and three possible barbastelle registrations (on 3 September 2023) were recorded during the four nights.</p> <p>See Annex 2.I.3 for full details.</p>
September 2023	<p>A total of six confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, Leisler's bat, serotine and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, possible barbastelle, <i>Myotis</i> species and either <i>Myotis</i> or brown long-eared bat.</p> <p>The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Common pipistrelle was the most frequently recorded with a total of 125 registrations over the five nights. Peak registrations of common pipistrelle during a single night were 67 registrations on 25 September 2023.</p>

Survey Date	Summary of Results
May 2024	<p>In total three possible barbastelle registrations were recorded during the five nights. A peak of two possible barbastelle registrations was recorded on 26 September 2023.</p> <p>See Annex 2.I.3 for full details.</p> <p>A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, and barbastelle. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule, Leisler's bat or serotine, and <i>Myotis</i> species.</p> <p>The detector recorded for seven nights, during which registrations of bat echolocation were made on all five nights. Common pipistrelle was the most frequently recorded with a total of 891 registrations over the seven nights. Peak registrations of common pipistrelle during a single night were 328 registrations on 7 May 2024.</p> <p>In total eight confirmed barbastelle registrations and one possible barbastelle registration (6 May 2024) were recorded during the seven nights. A peak of five confirmed barbastelle registrations was recorded on 1 May 2024.</p> <p>See Annex 2.I.3 for full details.</p>
June 2024	<p>A total of six confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle bat social call, either noctule or Leislars' bat, either noctule, Leislars' bat or serotine, possible barbastelle, <i>Myotis</i> species and either <i>Myotis</i> species or brown long-eared bat.</p> <p>The detector recorded seven nights, during which registrations of bat echolocation were made on all seven nights. Common pipistrelle was the most frequently recorded with a total of 213 registrations over the seven nights. Peak registrations of soprano pipistrelle during a single night were 63 on 5 June 2024.</p> <p>In total seven confirmed barbastelle registrations and twelve possible barbastelle registrations were recorded during the seven nights. A peak of three confirmed barbastelle registrations was recorded on 6 June 2024, and a peak of five possible barbastelle registrations was recorded on 7 June 2024.</p> <p>See Annex 2.I.3 for full details.</p>

Survey Date	Summary of Results
July 2024	<p>A total of five confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, serotine and barbastelle. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, <i>Myotis</i> species, and possible barbastelle bat.</p> <p>The detector recorded for seven nights, during which registrations of bat echolocation were made on all seven nights. Common pipistrelle was the most frequently recorded with a total of 509 registrations over the seven nights. Peak registrations of common pipistrelle during a single night were 149 registrations on 15 July 2024.</p> <p>In total twelve confirmed barbastelle registrations and five possible barbastelle registrations were recorded during the seven nights. A peak of five confirmed barbastelle registrations and a peak of two possible barbastelle registrations was recorded on 11 July 2024.</p> <p>See Annex 2.I.3 for full details.</p>
August 2024	<p>A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, Leisler's bat, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule, Leisler's or serotine, and <i>Myotis</i> species.</p> <p>The detector recorded for seven nights, during which registrations of bat echolocation were made on all seven nights. Common pipistrelle was the most frequently recorded with a total of 603 registrations over the seven nights. Peak registrations of common pipistrelle during a single night were 293 registrations on 5 August 2024.</p> <p>In total fourteen confirmed barbastelle registrations were recorded during the seven nights. A peak of four confirmed barbastelle registrations was recorded on 10 August 2024.</p> <p>See Annex 2.I.3 for full details.</p>
October 2024	<p>A total of two confirmed species were recorded, comprising common pipistrelle and soprano pipistrelle. In addition, registrations were made of pipistrelle species (common or soprano), pipistrelle species (common or Nathusius' pipistrelle), either noctule, Leisler's bat or serotine, and <i>Myotis</i> species.</p> <p>The detector recorded for six nights, during which registrations of bat echolocation were made on all six nights. Soprano pipistrelle were the most frequently recorded with a</p>

Survey Date	Summary of Results
	total of 188 registrations over the six nights. Peak registrations of soprano pipistrelle during a single night were 97 registrations on 8 October 2024. See Annex 2.1.3 for full details.

Transect 7

Table 1.20 Automatic detector Transect 7 results summary

Survey Date	Summary of Results
August 2023	<p>A total of six confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule, Leisler’s bat or serotine, possible barbastelle and <i>Myotis</i> species.</p> <p>The detector recorded for four nights, during which registrations of bat echolocation were made on all four nights. Soprano pipistrelle was the most frequently recorded with a total of 203 registrations over the four nights. Peak registrations of soprano pipistrelle during a single night were 77 registrations on 2 September 2023.</p> <p>In total twenty-three confirmed barbastelle registrations and two possible barbastelle registrations (30 August 2023) were recorded during the four nights. A peak of eleven confirmed barbastelle registrations was recorded 31 August 2023.</p> <p>See Annex 2.1.3 for full details.</p>
September 2023	<p>A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius’ pipistrelle, noctule, Leisler’s bat, serotine barbastelle, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle bat social call either noctule or Leisler’s bat, either noctule, Leisler’s bat or serotine, possible barbastelle, <i>Myotis</i> species and either <i>Myotis</i> or brown long-eared bat.</p> <p>The detector recorded for four nights, during which registrations of bat echolocation were made on all five nights. Common pipistrelle was the most frequently recorded with a total of 2062 registrations over the four nights. Peak registrations of common pipistrelle during a single night were 1609 registrations on 28 September 2023.</p>

Survey Date	Summary of Results
May 2024	<p>In total twenty-seven confirmed barbastelle registrations and seven possible barbastelle registrations were recorded during the four nights. A peak of eight confirmed barbastelle registrations was recorded on 30 September 2023 and 1 October 2023, and a peak of six possible barbastelle registrations was recorded on 28 September 2023.</p> <p>See Annex 2.1.3 for full details.</p> <p>A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, barbastelle, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule, Leisler's bat or serotine, and <i>Myotis</i> species.</p> <p>The detector recorded for seven nights, during which registrations of bat echolocation were made on all seven nights. Common pipistrelle was the most frequently recorded with a total of 625 registrations over the seven nights. Peak registrations of common pipistrelle during a single night were 267 registrations on 2 May 2024.</p> <p>In total 62 confirmed barbastelle registrations were recorded during the seven nights. A peak of twenty-five confirmed barbastelle registrations was recorded on 5 May 2024.</p> <p>See Annex 2.1.3 for full details.</p>
June 2024	Void. No data recorded.
July 2024	<p>A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, barbastelle, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, possible barbastelle and <i>Myotis</i> species.</p> <p>The detector recorded for eight nights, during which registrations of bat echolocation were made on all eight nights. Soprano pipistrelle was the most frequently recorded with a total of 609 registrations over the eight nights. Peak registrations of soprano pipistrelle during a single night were 201 registrations on 12 July 2024.</p> <p>In total eight confirmed barbastelle registrations and nine possible barbastelle registrations were recorded during the eight nights. A peak of five confirmed barbastelle registrations were recorded on 16 July 2024 and a peak of three possible barbastelle registrations were recorded on 13 July 2024 and 14 July 2024.</p>

Survey Date	Summary of Results
August 2024	<p>See Annex 2.I.3 for full details.</p> <p>A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, Leisler’s bat, serotine, barbastelle, and brown long-eared bat. In addition, registrations were made of <i>Myotis</i> species.</p> <p>The detector recorded for two nights, during which registrations of bat echolocation were made on both nights. Serotine was the most frequently recorded with a total of 29 registrations over the two nights and a peak of 25 registrations during a single night on 7 August 2024.</p> <p>In total five confirmed barbastelle registrations were recorded during the two nights. A peak of three confirmed barbastelle registrations were recorded on 6 August 2024.</p> <p>See Annex 2.I.3 for full details.</p>
October 2024	<p>A total of six confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius’ pipistrelle, noctule, serotine and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano), and <i>Myotis</i> species. Social calls were also recorded.</p> <p>The detector recorded for seven nights, during which registrations of bat echolocation were made on all seven nights. Common pipistrelle were the most frequently recorded with a total of 1646 registrations over the seven nights. Peak registrations of common pipistrelle during a single night were 815 registrations on 8 October 2024.</p> <p>See Annex 2.I.3 for full details.</p>

Transect 8

Table 1.21 Automatic detector Transect 8 results summary

Survey Date	Summary of Results
August 2023	<p>A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius’ pipistrelle, noctule, Leisler’s bat, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule or Leisler’s bat, either noctule, Leisler’s bat or serotine, possible barbastelle, and <i>Myotis</i> species.</p>

Survey Date	Summary of Results
September 2023	<p>The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Common pipistrelle was the most frequently recorded with a total of 501 registrations over the five nights. Peak registrations of common pipistrelle during a single night were 226 registrations on 3 September 2023.</p> <p>In total eighteen confirmed barbastelle registrations and three possible barbastelle registrations (on 2 September 2023) were recorded during the five nights. A peak of eight confirmed barbastelle registrations was recorded on 2 September 2023.</p> <p>See Annex 2.1.3 for full details.</p>
May 2024	<p>A total of five confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, Leisler's bat and barbastelle. In addition, registrations were made of pipistrelle (common or soprano pipistrelle), either noctule or Leisler's bat, possible barbastelle, <i>Myotis</i> species and either <i>Myotis</i> or brown long-eared bat.</p> <p>The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Soprano pipistrelle was the most frequently recorded with a total of 35 registrations over the five nights. Peak registrations of soprano pipistrelle during a single night were 12 registrations on 30 September 2023.</p> <p>In total thirteen confirmed barbastelle registrations and fifteen possible barbastelle registrations were recorded during the five nights. A peak of seven confirmed barbastelle registrations was recorded on 26 September 2024 and five possible barbastelle registrations was recorded on 29 September 2024 and 30 September 2024.</p> <p>See Annex 2.1.3 for full details.</p> <p>A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, brown long-eared bat and barbastelle. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule, Leisler's bat or serotine, <i>Myotis</i> species and possible barbastelle.</p> <p>The detector recorded for seven nights, during which registrations of bat echolocation were made on all seven nights. Common pipistrelle was the most frequently recorded with a total of 696 registrations over the seven nights. Peak registrations of common pipistrelle during a single night were 305 registrations on 2 May 2024.</p>

Survey Date**Summary of Results**

In total thirty confirmed barbastelle registrations and nine possible barbastelle registrations were recorded during the seven nights. A peak of twelve confirmed barbastelle registrations and five possible barbastelle registrations was recorded on 2 May 2024.

See Annex 2.1.3 for full details.

June 2024

A total of six confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, Leisler's bat, serotine and barbastelle. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule, Leisler's bat or serotine, *Myotis* species, either *Myotis* species or brown long-eared bat, and possible barbastelle.

The detector recorded for seven nights, during which registrations of bat echolocation were made on all seven nights. Pipistrelle species (common or soprano pipistrelle) was the most frequently recorded with a total of 179 registrations, and a peak of 70 registrations on both 7 and 8 June 2024.

In total four confirmed barbastelle registrations (one each on 6 June 2024, 7 June 2024, 8 June 2024 and 9 June 2024) and twenty-two possible barbastelle registrations were recorded during the seven nights. A peak of six possible barbastelle registrations was recorded on 6 June 2024 and 9 June 2024.

See Annex 2.1.3 for full details.

July 2024

A total of eight confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, serotine, noctule, Leisler's bat, barbastelle, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, *Myotis* species and possible barbastelle.

The detector recorded for eight nights, during which registrations of bat echolocation were made on all eight nights. Common pipistrelle was the most frequently recorded with a total of 353 registrations over the eight nights. Peak registrations of common pipistrelle during a single night were 143 registrations on 15 July 2024.

In total twelve confirmed barbastelle registrations and four possible barbastelle registrations were recorded during the

Survey Date	Summary of Results
August 2024	<p>eight nights. A peak of three confirmed barbastelle registrations was recorded on 13 July 2024 and a peak of two possible barbastelle registrations was recorded on 16 July 2024.</p> <p>See Annex 2.1.3 for full details.</p> <p>A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, Leisler's bat, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, <i>Myotis</i> species, and possible barbastelle.</p> <p>The detector recorded for six nights, during which registrations of bat echolocation were made on all six nights. Soprano pipistrelle was the most frequently recorded with a total of 311 registrations over the six nights. Peak registrations of soprano pipistrelle during a single night were 135 registrations on 7 August 2024.</p> <p>In total twenty confirmed barbastelle registrations and three possible barbastelle registrations (one each on 6 August 2024, 10 August 2024 and 11 August 2024) were recorded during the six nights. A peak of seven confirmed barbastelle registrations was recorded on 7 August 2024.</p> <p>See Annex 2.1.3 for full details.</p>
October 2024	<p>A total of three confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, and Leisler's bat. In addition, registrations were made of pipistrelle species (common or soprano), either noctule, Leisler's bat or serotine and <i>Myotis</i> species. Social calls were also recorded.</p> <p>The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Common pipistrelle were the most frequently recorded with a total of 103 registrations over the five nights. Peak registrations of common pipistrelle during a single night were 75 registrations on 8 October 2024. See Annex 2.1.3 for full details.</p>

Transect 9

Table 1.22 Automatic detector Transect 9 results summary

Survey Date	Summary of Results
August 2023	<p>A total of six confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, serotine, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), noctule, Leisler's bat or serotine, and <i>Myotis</i> species.</p> <p>The detector recorded for two nights, during which registrations of bat echolocation were made on both nights. Soprano pipistrelle was the most frequently recorded with a total of 759 registrations over the two nights. Peak registrations of soprano pipistrelle during a single night were 710 registrations on 1 September 2023. See Annex 2.1.3 for full details.</p>
May 2024	<p>A total of six confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule or Leisler's bat and <i>Myotis</i> species.</p> <p>The detector recorded for four nights, during which registrations of bat echolocation were made on all four nights. Soprano pipistrelle was the most frequently recorded with a total of 500 registrations over the four nights. Peak registrations of soprano pipistrelle during a single night were 192 registrations on 1 May 2024. See Annex 2.1.3 for full details.</p>
June 2024	<p>A total of seven confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, Leislers' bat, serotine, barbastelle and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano), pipistrelle species (common or Nathusius' pipistrelle), pipistrelle social calls, either noctule, Leisler's bat or serotine, either noctule or Leislers' bat, possible barbastelle, <i>Myotis</i> species and <i>Myotis</i> species or brown long-eared bat.</p> <p>The detector recorded for eight nights, during which registrations of bat echolocation were made on all eight nights. Soprano pipistrelle was the most frequently recorded with a total of 1262 registrations over the eight nights. Peak registrations of soprano pipistrelle during a single night were 322 registrations on 7 June 2024.</p>

Survey Date	Summary of Results
July 2024	<p data-bbox="603 226 1469 436">In total nine confirmed barbastelle registrations and seven possible barbastelle registrations were recorded during the eight nights. A peak of three confirmed barbastelle registrations was recorded on 6 June 2024 and 7 June 2024, and a peak of two possible barbastelle registrations was recorded on 6 June 2024 and 8 June 2024.</p> <p data-bbox="603 495 1034 526">See Annex 2.1.3 for full details.</p> <p data-bbox="603 555 1469 801">A total of six confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, barbastelle, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, possible barbastelle, <i>Myotis</i> species, and <i>Myotis</i> or brown long-eared bat.</p> <p data-bbox="603 846 1469 1057">The detector recorded for nine nights, during which registrations of bat echolocation were made on all nine nights. Soprano pipistrelle was the most frequently recorded with a total of 545 registrations over the nine nights. Peak registrations of soprano pipistrelle during a single night were 109 registrations on 10 July 2024.</p> <p data-bbox="603 1102 1469 1312">In total twenty-two confirmed barbastelle registrations and thirty-six possible barbastelle registrations were recorded during the nine nights. A peak of seven confirmed barbastelle registrations was recorded on 11 July 2024 and 13 July 2024, and a peak of fifteen possible barbastelle registrations was recorded on 17 July 2024.</p> <p data-bbox="603 1357 1034 1388">See Annex 2.1.3 for full details.</p>
August 2024	Void. No data recorded.
September 2024	<p data-bbox="603 1469 1469 1715">A total of six confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano), pipistrelle species (common or Nathusius' pipistrelle), either noctule or Leisler's bat, either noctule, Leisler's bat or serotine, and <i>Myotis</i> species.</p> <p data-bbox="603 1760 1469 2011">The detector recorded for four nights, during which registrations of bat echolocation were made on all four nights. Soprano pipistrelle were the most frequently recorded with a total of 397 registrations over the four nights. Peak registrations of soprano pipistrelle during a single night were 229 registrations on 4 September 2024. See Annex 2.1.3 for full details.</p>

Survey Date	Summary of Results
October 2024	<p>A total of four confirmed species were recorded, comprising common pipistrelle, soprano pipistrelle, noctule, and brown long-eared bat. In addition, registrations were made of pipistrelle species (common or soprano) and <i>Myotis</i> species. Social calls were also recorded.</p> <p>The detector recorded for five nights, during which registrations of bat echolocation were made on all five nights. Soprano pipistrelle were the most frequently recorded with a total of 902 registrations over the five nights. Peak registrations of soprano pipistrelle during a single night were 521 registrations on 12 October 2024. See Annex 2.1.3 for full details.</p>

1.5 Synthesis

All Bat Activity Recorded

- 1.5.1 The majority of activity recorded during the transects was of common pipistrelle bats across all parcels, followed by soprano pipistrelle, in line with the relative abundance of these species as well as the relative detectability of their calls. Based on professional judgement, activity levels of all species recorded during the walked transects were considered to generally be low across the Suffolk Onshore Scheme Order Limits and all parcels, but with more activity concentrated along woodland edges particularly at the south of Transect 2, between two woodlands at the south of Transect 2 and the north-east of Transect 1, and at the east of Transect 9, as shown in **Application Document 6.4.2.2.1.7 Suffolk Nighttime Bat Walkover - September 2024**. Activity was also recorded along hedgerows throughout all transect routes, particularly within the west of Transect 3, throughout Transect 4 and the east of Transect 8.
- 1.5.2 In the majority of the locations surveyed using SM4bat FS detectors, common pipistrelle was the most frequently recorded species, however on 28 monitoring occasions soprano pipistrelle was the most frequently recorded species (Transect 1 in August 2023 and October 2024, Transect 2 in August and September 2023, and July to October 2024, Transect 3 in September 2023 and May, June and July 2024, Transect 4 in August and September 2023 and August and October 2024, Transect 6 in October 2024, Transect 7 in August 2023 and July 2024, Transect 8 in September 2023 and August 2024, and Transect 9 in all recording months; August 2023, and May, June, July, September and October 2024), on one monitoring occasion pipistrelle species (either common or soprano pipistrelle) (Transect 8 in June 2024) and on another monitoring occasion serotine was most frequently recorded (Transect 7 in August 2024). The number of registrations per hour for each surveyed location and month are contained within Annex 2.1.3.
- 1.5.3 The highest levels of overall bat activity recorded within the Suffolk Onshore Scheme Order Limits from the SM4bat FS detector surveys were at Transect 2, followed by Transect 7 and Transect 11 (see Plate 1.1).

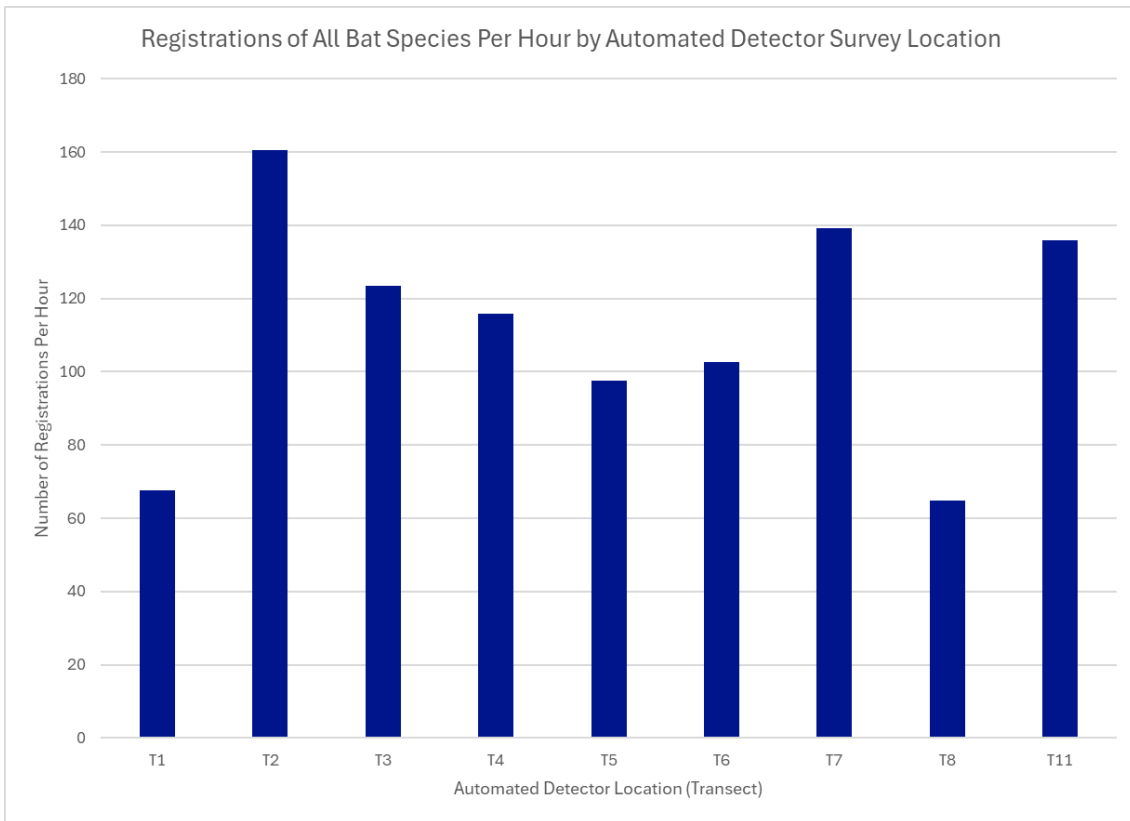


Plate 1.1 Registrations of all species of bats per hour, by automated detector location

Myotis Bat

1.5.4 Activity by *Myotis* bats was recorded on 27 occasions in total during the following walked transect surveys. Calls could not be separated to species level; however, it is considered unlikely that the Habitats Directive Annex II listed Bechstein’s bat is present, as this species has not previously been recorded within Suffolk (Joint Nature Conservation Committee (JNCC), 2019). Activity by *Myotis* bats was as follows:

- Transect 1 with three brief passes and one commuting call on 15 August 2023, and one brief pass and one foraging call on 3 October 2023;
- Transect 2 with one foraging, one brief pass and three commuting passes on 15 August 2023, and one brief pass on 3 October 2023;
- Transect 3 with six commuting and one brief pass on 16 August 2023, one foraging activity on 4 October 2023, and one foraging activity pass on 4 June 2024;
- Transect 4 with two brief passes on 16 August 2023;
- Transect 5 with one brief pass on 5 August 2024, and one brief pass on 5 June 2024;
- Transect 8 with one brief pass on 6 June 2024; and
- Transect 9 with one brief pass on 6 June 2024.

1.5.5 *Myotis* bat registrations were made at all of the SM4bat FS detector locations during each monitoring occasion except for Transect 1 in May 2024, Transect 2 in June 2024 and Transect 5 in May and June 2024.

1.5.6 The highest numbers of *Myotis* registrations in registrations per hour on the SM4bat FS detectors were recorded at Transect 2, followed by Transect 3 (see Plate 1.2).

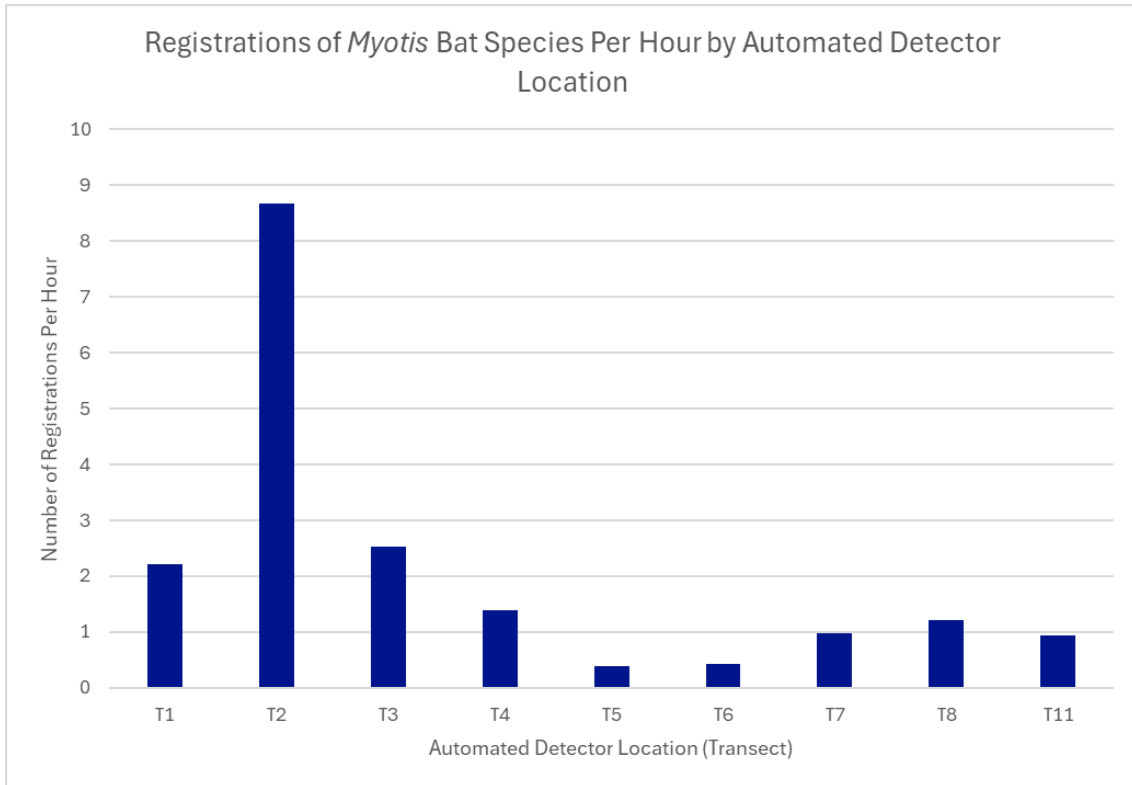


Plate 1.2 Registrations of *Myotis* bats per hour, by automated detector location

Barbastelle Bat

1.5.7 Activity by the Habitats Directive Annex II listed barbastelle bat was recorded on 34 occasions during the walked transect surveys as follows:

- Transect 1 with two brief passes on 6 April 2024;
- Transect 2 with one brief pass on 15 August 2023, and three brief passes on 3 October 2023;
- Transect 3 with one commuting pass on 16 August 2023, and two brief passes on 4 October 2023;
- Transect 5 with one commuting pass, one brief pass on 5 June 2024, five brief passes on 5 August 2024 and two brief passes on 3 September 2024;
- Transect 6 with one brief pass on 3 October 2023, and one foraging activity and one brief pass on 5 June 2024;
- Transect 8 with four brief passes and one foraging activity on 2 October 2023; and
- Transect 9 with two brief passes on 17 August 2023, and three brief passes on 2 October 2023.

1.5.8 Barbastelle bat confirmed or possible registrations were made at all SM4bat FS detector locations (see Plate 1.3), although not during every monitoring occasion. Registrations of barbastelle and possible barbastelle were highest at Transect 2. Monitoring occasions with peak barbastelle activity was Transect 2 in May 2024. The peak in activity at Transect 2 is considered likely to be from sustained activity from a small

number of bats, rather than a large number of bats (peak count of 80 confirmed registrations during a single night on 24 May 2024, with the next highest peak count 23 confirmed registrations on 26 May 2024).

1.5.9 Transect 2 is located in the east of the Suffolk Onshore Scheme Order Limits, and comprises acid grassland, scrub, woodland edge and hedgerows. Mixed, semi-natural woodland is present to the south of the transect route. The SM4bat FS detector at Transect 2 was located at the north-western corner of Old Broom Covert woodland at approximate grid reference TM 44376 58738. At this location and to the east and west, the Suffolk Onshore Scheme is limited to an underground cable, although some removal of plantation woodland will be required to enable cable construction; however, that plantation woodland would be felled in due course in any event due to forestry management.

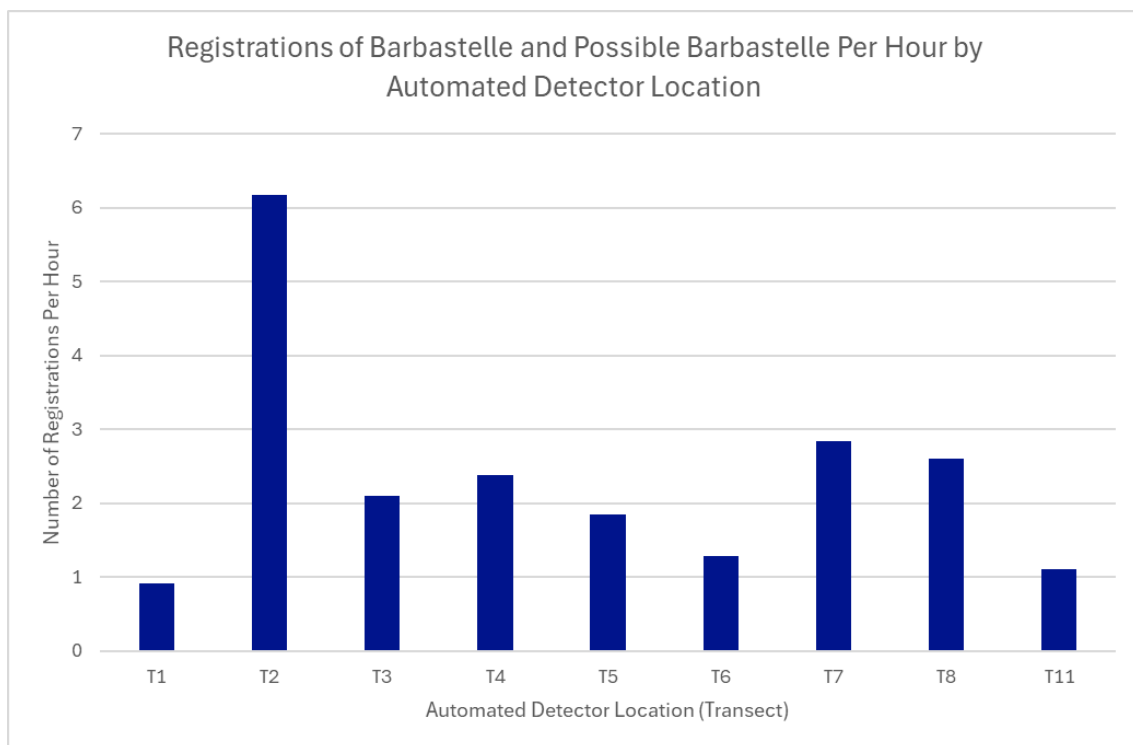


Plate 1.3 Registrations of barbastelle bats per hour, by automated detector location

1.5.10 Barbastelle bats are present throughout Suffolk (Joint Nature Conservation Committee, 2018). Data from Sussex Biodiversity Information Service does not show known roosts of barbastelle bat within or immediately adjacent to the Suffolk Onshore Scheme Order Limits, with the closest known roosts from 2017 – 2021 present to the west of the Suffolk Onshore Scheme Order Limits, and the closest known roost pre-2017 to the north of the Suffolk Onshore Scheme Order Limits (Suffolk Biodiversity Information Service, n.d.).

1.5.11 During a bat emergence survey completed of Tree 285 on 29 July 2024 (located at national grid reference TM3936362391, see **Application Document 6.3.2.2 Appendix 2.2.H Bat Tree Report** for further details), six barbastelle calls were recorded between 46 minutes and 1 hour 24 minutes after sunset. Research has determined the average emergence time for barbastelle bats in the UK is 24 minutes after sunset, with a range of 12 to 36 minutes after sunset (Andrews & Pearson, 2022).

1.5.12



1.5.13

During NBWs, a barbastelle bat was recorded along the western edge of Bloomfield's Covert woodland, with records moving south along the woodland edge at one hour 17 minutes, one hour 19 minutes, and one hour 20 minutes after sunset on 2 October 2023. It is considered likely that this was a single bat travelling south. A barbastelle bat was recorded to the south of the woodland at 53 minutes after sunset during the NBW on 17 August 2023, a second barbastelle bat was also recorded along the hedgerow that extends north of the woodland at one hour 13 minutes after sunset on the same night. Therefore, it is considered unlikely that the bats recorded during the NBW emerged from roosts within Bloomfield's Covert woodland.

1.5.14

There will be no works to Bloomfield's Covert woodland; however, the proposed Saxmundham Converter Station will be situated approximately 50 m to the east, with an access route creating an approximate 20 m gap in a hedgerow that extends north of the woodland. Habitat to the west of the woodland is expected to retain its agricultural use, and habitat to the south-east will certainly do so, with crops and planting schedules selected to enhance the area for Skylark (*Alauda arvensis*) nesting suitability (**Application Document 7.5.7.1 Outline Landscape and Ecological Management Plan – Suffolk**).

1.5.15

During NBWs, barbastelle bats were also recorded to the east (Transect 5) and west (Transect 6) of Grove Wood, which is located outside of the Suffolk Onshore Scheme Order Limits. The Suffolk Onshore Scheme will comprise an underground cable only to the east and north of this woodland, with habitat creation to the west (**Application Document 7.5.7.1 Outline Landscape and Ecological Management Plan – Suffolk**).

1.6 Discussion

Bat Assemblage

1.6.1

Based on the nighttime bat walkover surveys and the SM4bat FS detector surveys undertaken between August 2023 and October 2024, the Suffolk Onshore Scheme Order Limits is considered to support an assemblage of at least nine species comprising common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, brown long-eared bat, barbastelle, and *Myotis* species that could not be identified to species level. Key areas of bat activity have been identified as follows:

- Woodland edges particularly at the south of Transect 2 (Eight Acre Covert, Round Plantation and Old Broom Covert), between two woodlands at the south of Transect 2 and the north-west of Transect 1, and at the east of Transect 9 (Bloomfield's Covert); and
- Hedgerows throughout all transect routes, particularly within the west of Transect 3, throughout Transect 4 and the east of Transect 8.

1.6.2

Both *Myotis* and barbastelle activity was recorded at all SM4bat FS detector locations monitored across the Suffolk Onshore Scheme Order Limits. The highest levels of *Myotis* activity were recorded at Transect 2. The highest levels of barbastelle activity were also recorded at Transect 2.

1.6.3

Notwithstanding their legal protection, based on the rarity categories within the Bat Mitigation Guidelines (Reason & Wray, 2023) common pipistrelle, soprano pipistrelle and brown long-eared bats are widespread in East Anglia. Noctule bats are considered

to be widespread, but not abundant. Serotine, Leisler’s bat and Nathusius’ pipistrelle have a rarer or restricted distribution. The Annex II listed barbastelle bat is considered to be very rare. From the *Myotis* species, Daubenton’s bat, Natterer’s bat are considered to be widespread, but not abundant. Whiskered and Brandt’s bat are considered to have a rarer or restricted distribution, and Alcaethoe bat is considered to be very rare.

- 1.6.4 In addition to species identified during the NBW and SM4bat FS detector surveys, the desk study identified the presence two *Myotis* species; Daubenton’s bat and Natterer’s bat. Therefore, these two species have been assumed present within the Suffolk Onshore Scheme Order Limits in the below evaluation.
- 1.6.5 It is inherently more difficult to assess the importance of foraging and commuting bats and requires a higher degree of professional judgement. For example, some routes may only be used at certain times of year with a low number of bat passes at other times. As such, the importance of foraging areas and flight lines are not interpreted in isolation but judged on the overall knowledge of bat activity in the area using the desk study and survey data collected.
- 1.6.6 Table 3.3 ‘Assessing the importance of a bat assemblage’ within the Bat Mitigation Guidelines (Reason & Wray, 2023) has been used to provide an assessment of the importance of the bat assemblage present. The Suffolk Onshore Scheme Order Limits is within the ‘South-eastern/East Anglia to The Wash’ geographic category. This returns a result of ‘National’ importance for the bat assemblage present.
- 1.6.7 Using a combination of both survey and desk study data for the Suffolk Onshore Scheme, common pipistrelle, soprano pipistrelle and brown long-eared bat have been assigned a score of one, noctule, Daubenton’s and Natterer’s bats have been assigned a score of two, serotine, Leisler’s bat and Nathusius’ pipistrelle have been assigned a score of three, and barbastelle bat has been assigned a score of four. In total, the bat assemblage has a score of 22. However, assigning a level of importance to an assemblage provides contextual information only; it is not expected that the assemblage as a whole would be assessed as a single Important Ecological Feature (IEF) (or receptor).
- 1.6.8 Based on professional judgement, activity levels of all species recorded during the walked transects were considered to generally be low across the Suffolk Onshore Scheme Order Limits. Taking into account the synthesis of results presented in Section 1.5, and using a precautionary approach due to a potential barbastelle roost in woodland outside of, but adjacent to the Suffolk Onshore Scheme Order Limits the mosaic of habitats within the Survey Area is considered to be of **Regional Importance**.

Table 1.23 Summary of importance of commuting and foraging habitat, and bat assemblage

Species	Importance of Commuting and Foraging Habitat (summary of justification)	Importance of Assemblage
Widespread: Common pipistrelle Soprano pipistrelle Brown long-eared bat	There is foraging and commuting activity by a diverse assemblage of bats. High reliance on habitats by	(One point per species) Score three for this part of the assemblage (of a maximum of three).

Species	Importance of Commuting and Foraging Habitat (summary of justification)	Importance of Assemblage
Widespread in many geographies, but not as abundant in all:	common and soprano pipistrelle, demonstrated by regular use by larger numbers of bats (although this is still considered to be relatively low), with a lower reliance on habitats by all other species recorded, including the rarest Annex II species barbastelle. Woodland edges and hedgerows form commuting routes, with grassland, scrub and arable margins used for foraging.	(Two points per species) Score six for this part of the assemblage (of a maximum of six).
Daubenton's bat Natterer's bat Noctule		
Rare or restricted distribution:	Woodland edges and hedgerows form commuting routes, with grassland, scrub and arable margins used for foraging.	(Three points per species) Score nine for this part of the assemblage (of a maximum of 15).
Serotine Leisler's bat Nathusius' pipistrelle		
Rarest Annex II species and very rare:	Barbastelle bats were recorded on SM4bat FS detectors in all recording periods at Transects 1, 2 and 3. [REDACTED] [REDACTED] [REDACTED], and higher numbers of barbastelle bats were also recorded near Old Broom Covert and Grove Wood. Therefore, habitats within the Suffolk Onshore Scheme may be used by barbastelle bats commuting between roost sites and foraging areas, as well as the Suffolk Onshore Scheme being used intermittently for foraging. On this basis, as a precaution the mosaic of habitats within the Study Area is considered to be of Regional Importance.	(Four points per species) Score four for this part of the assemblage (of a maximum of four).
Barbastelle		
Overall score: Assemblage score 22/28; meets the threshold for National importance		

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Annex 2.I.1 NBW Full Results Tables

A.1 Transect 1

Table A.1 Transect 1 Visit 1 NBW 15 August 2023

Time	Species	Number	Activity	Observation	Transect point
20:42	Noctule	1	Commuting	Heard and seen	6-8
20:47	Noctule	1	Commuting	Heard not seen	6
21:07	Common pipistrelle	1	Foraging	Heard not seen	7-8
21:09	Common pipistrelle	1	Foraging	Heard and seen	8
21:10	Soprano pipistrelle	1	Foraging	Heard not seen	8
21:12	Common pipistrelle	1	Brief pass	Heard not seen	8
21:13	Common pipistrelle	1	Brief pass	Heard not seen	8-5
21:15	Soprano pipistrelle	1	Commuting	Heard not seen	5
21:16	Leisler's	1	Commuting	Heard not seen	5
21:18	Soprano pipistrelle	1	Commuting	Heard not seen	5-1
21:24	Soprano pipistrelle	1	Brief pass	Heard not seen	1
21:25	Pipistrelle species	1	Brief pass	Heard not seen	1
21:27	Soprano pipistrelle	1	Commuting	Heard not seen	1-2
21:29	Common pipistrelle	1	Brief pass	Heard not seen	1-2
21:33	Common pipistrelle	1	Brief pass	Heard not seen	2
21:36	Serotine	1	Commuting	Heard not seen	3-4

Time	Species	Number	Activity	Observation	Transect point
21:37	Common pipistrelle	1	Brief pass	Heard not seen	3-4
21:39 - 40	Common pipistrelle	2	Foraging	Heard not seen	3-4
21:40	<i>Myotis</i> species	1	Brief pass	Heard not seen	3-4
21:44	Common pipistrelle	1	Brief pass	Heard not seen	3-4
21:50	Brown long-eared bat	1	Brief pass	Heard not seen	4-5
21:54	<i>Myotis</i> species	1	Brief pass	Heard not seen	4-5
21:56	<i>Myotis</i> species	1	Commuting	Heard not seen	5
21:59	Common pipistrelle	1	Brief pass	Heard not seen	5-6
22:02	Leisler's bat	1	Foraging	Heard not seen	5-6
22:03	Brown long-eared	1	Commuting	Heard not seen	5-6
22:06	Soprano pipistrelle	1	Brief pass	Heard not seen	6
22:09	<i>Myotis</i> species	1	Brief pass	Heard not seen	5-6
22:13	Soprano pipistrelle	1	Brief pass	Heard not seen	5-1
22:16	Common pipistrelle	1	Brief pass	Heard not seen	5-1
22:19	Brown long-eared bat	1	Brief pass	Heard not seen	5-1
22:19	Common pipistrelle	1	Brief pass	Heard not seen	5-1
22:19	Soprano pipistrelle	1	Brief pass	Heard not seen	1

Table A.2 Transect 1 Visit 2 NBW 3 October 2023

Time	Species	Number	Activity	Observation	Transect point
19:05	Common pipistrelle	1	Brief pass	Heard not seen	8-7
19:06	Common pipistrelle	1	Foraging	Heard not seen	8-7
19:09 – 19:10	Soprano pipistrelle	1	Foraging	Heard not seen	8-7
19:16	Soprano pipistrelle	1	Foraging	Heard not seen	7-6
19:27	Common pipistrelle	1	Foraging	Heard not seen	6
19:33 – 19:34	Soprano pipistrelle	1	Foraging	Heard not Seen	6-5
19:37	Soprano pipistrelle	1	Brief pass	Heard not seen	6-5
19:47 – 19:48	Pipistrelle species	1	Foraging, social calling	Heard not seen	1
19:49	Pipistrelle species	1	Foraging	Heard not seen	1
19:51	Pipistrelle species	1	Brief pass, social calling	Heard not seen	1
19:52	Pipistrelle species	1	Foraging, social calling	Heard not seen	1-2
19:56	Common pipistrelle	1	Brief pass	Heard not seen	2-3
19:59 – 20:01	Soprano pipistrelle	1	Social calls	Heard not seen	2
20:02	Soprano pipistrelle	1	Social calling	Heard not seen	2-1
20:03	Pipistrelle species	1	Brief pass	Heard not seen	1
20:15	<i>Myotis</i> species	1	Brief pass	Heard not seen	1-8

Time	Species	Number	Activity	Observation	Transect point
20:21 – 20:22	<i>Myotis</i> species	1	Foraging	Heard not seen	1-8
20:28	Soprano pipistrelle	1	Brief pass	Heard not seen	1-8

Table A.3 Transect 1 Visit 3 NBW 4 June 2024

Time	Species	Number	Activity	Observation	Transect point
22:30	Soprano pipistrelle	1	Brief pass	Heard not seen	5
22:38	Soprano pipistrelle	1	Commuting	Heard not seen	6-7
22:46 – 22:47	Common pipistrelle	1	Foraging	Heard not seen	5
22:49	Nathusius' pipistrelle	1	Foraging	Heard not seen	5
22:58	Barbastelle	1	Brief pass	Heard not seen	1
23:10	Barbastelle	1	Brief pass	Heard not seen	1

A.2 Transect 2

Table A.4 Transect 2 Visit 1 NBW 15 August 2023

Time	Species	Number	Activity	Observation	Transect point
20:49	Noctule	1	Commuting	Heard not seen	4
20:53	Common pipistrelle	1	Commuting	Heard not seen	1
20:56	Soprano pipistrelle	1	Brief pass	Heard not seen	1
20:56	Noctule	1	Commuting	Heard and seen	1
20:58 – 20:59	Soprano pipistrelle	1	Brief passes	Heard not seen	1

Time	Species	Number	Activity	Observation	Transect point
21:00	Common pipistrelle	1	Brief pass	Heard not seen	1
21:02	Soprano pipistrelle	1	Brief pass	Heard not seen	1-3
21:04	Soprano pipistrelle	1	Brief pass	Heard not seen	1-3
21:05	Serotine	1	Brief pass	Heard not seen	1-3
21:05	Soprano pipistrelle	1	Brief pass	Heard not seen	1-3
21:06	Brown long-eared bat	1	Brief pass	Heard not seen	1-3
21:06	Common pipistrelle	1	Brief pass	Heard not seen	1-3
21:07	Soprano pipistrelle	1	Brief pass	Heard not seen	1-3
21:08	Common & soprano pipistrelle	2	Brief pass, social calls	Heard not seen	1-3
21:09	Leisler's & soprano pipistrelle	1	Brief pass	Heard not seen	1-3
21:13 – 21:14	Common pipistrelle	1	Brief passes	Heard not seen	1-3
21:15	Soprano pipistrelle	1	Brief pass	Heard not seen	3-2
21:15	<i>Myotis</i> species	1	Foraging	Heard not seen	3-2
21:17 – 21:18	Common pipistrelle	1	Brief pass	Heard not seen	3-2
21:19 – 21:20	Soprano pipistrelle	1	Brief passes	Heard not seen	3-2
21:22	Barbastelle	1	Brief pass	Heard not seen	3-2
21:24	Brown long-eared bat	1	Brief pass	Heard not seen	2
21:25	Soprano pipistrelle	1	Brief pass	Heard not seen	2

Time	Species	Number	Activity	Observation	Transect point
21:30	Common pipistrelle	1	Foraging	Heard not seen	1-10
21:38	Soprano pipistrelle	1	Foraging	Heard not seen	10-9
21:42 – 21:44	Soprano pipistrelle	1	Foraging	Heard not seen	10-9
21:43	Common pipistrelle	1	Foraging	Heard not seen	9
21:53	Common pipistrelle	1	Brief pass	Heard not seen	8
21:54	Common pipistrelle	1	Brief pass	Heard not seen	8
21:55	Common pipistrelle	1	Brief pass	Heard not seen	8-7
21:57	Common pipistrelle	1	Brief pass	Heard not seen	8-7
22:07	Soprano pipistrelle	1	Brief pass	Heard not seen	7
22:16	Soprano pipistrelle	1	Brief pass	Heard not seen	7-6

Table A.5 Transect 2 Visit 2 NBW 3 October 2023

Time	Species	Number	Activity	Observation	Transect point
18:59	Soprano pipistrelle	1	Brief pass	Heard not seen	2-3
19:00	Soprano pipistrelle	1	Brief pass	Heard not seen	2-3
19:03	Soprano pipistrelle	2	Foraging	Heard and seen	2-3
19:05	Barbastelle	1	Brief pass	Heard not seen	2-3
19:05	Common pipistrelle	1	Foraging	Heard and seen	2-3
19:07	Soprano pipistrelle	1	Brief pass	Heard not seen	2-3

Time	Species	Number	Activity	Observation	Transect point
19:08	Soprano pipistrelle	1	Foraging	Heard not seen	3
19:09 – 19:11	Serotine	1	Foraging	Heard not seen	3
19:09	Noctule	1	Brief pass	Heard not seen	3
19:10	Soprano pipistrelle	1	Foraging	Heard and seen	3-4
19:11	Soprano pipistrelle	1	Brief pass	Heard not seen	3-4
19:14	Serotine	1	Brief pass	Heard not seen	3-4
19:15	Soprano pipistrelle	1	Brief pass	Heard not seen	3-4
19:18	Barbastelle	1	Brief pass	Heard not seen	3-4
19:19	Soprano pipistrelle	1	Brief pass	Heard not seen	3-4
19:20	Common pipistrelle	1	Brief pass	Heard not seen	3-4
19:22	Common pipistrelle	1	Brief pass	Heard not seen	3-4
19:29	<i>Myotis</i> species	1	Brief pass	Heard not seen	3-4
19:39	Serotine	1	Brief pass	Heard not seen	3-4
19:42	Soprano pipistrelle	1	Brief pass	Heard not seen	4
19:43	Serotine	1	Brief pass	Heard not seen	4
19:43 – 19:46	Soprano pipistrelle	1	Foraging	Heard not seen	4
19:44	Serotine	1	Brief pass	Heard not seen	4
19:45	Serotine	1	Brief pass	Heard not seen	4
19:51	Barbastelle	1	Brief pass	Heard not seen	4-5
19:55 – 19:56	Soprano pipistrelle	1	Brief pass	Heard not seen	5
19:57 – 19:59	Soprano pipistrelle	1	Foraging	Heard not seen	5
19:58	Serotine	1	Brief pass	Heard not seen	5

Time	Species	Number	Activity	Observation	Transect point
19:59 – 20:00	Serotine	1	Brief pass	Heard not seen	5-6
20:00	Soprano pipistrelle	1	Brief pass	Heard not seen	5-6
20:25	Soprano pipistrelle	1	Brief pass	Heard not seen	7-8

Table A.6 Transect 2 Visit 3 NBW 30 May 2024

Time	Species	Number	Activity	Observation	Transect point
21:35 – 21:36	Common pipistrelle	1	Foraging	Heard not seen	8-9
21:46	Common pipistrelle	1	Foraging	Heard not seen	9-10
21:58 – 22:01	Soprano pipistrelle	1	Foraging	Heard not seen	2-3
22:02	<i>Myotis</i> species	1	Brief Pass	Heard not seen	2-3
22:03	Barbastelle	1	Brief pass	Heard not seen	2-3
22:11	Barbastelle	1	Brief pass	Heard not seen	4-5
22:12 – 22:13	Soprano pipistrelle	1	Foraging	Heard not seen	4-5
22:16	Pipistrelle species	1	Foraging	Heard not seen	5
22:21	Barbastelle	1	Brief pass	Heard not seen	6
22:29	Common pipistrelle	1	Foraging	Heard not seen	6-7
22:37	Leisler's bat	1	Commuting	Heard not seen	7-8
22:49	Soprano pipistrelle	1	Foraging	Heard not seen	7-8

A.3 Transect 3

Table A.7 Transect 3 Visit 1 NBW 16 August 2023

Time	Species	Number	Activity	Observation	Transect point
20:53	Soprano pipistrelle	1	Commuting	Heard not seen	4
20:53	Soprano pipistrelle	1	Social Calls	Heard not seen	4
20:55	Leisler's bat	1	Brief pass	Heard not seen	4-5
20:56	Soprano pipistrelle	1	Commuting	Heard and seen	4-5
21:00	Soprano pipistrelle	1	Commuting	Heard not seen	4-5
21:02	Soprano pipistrelle	1	Commuting	Heard and seen	4-5
21:04	Common pipistrelle	1	Brief pass	Heard not seen	4-5
21:09	Common pipistrelle	1	Commuting	Heard not seen	4-5
21:12	<i>Myotis</i> species	1	Commuting	Heard not seen	5
21:15	Common pipistrelle	1	Foraging	Heard not seen	5
21:19	Common pipistrelle	1	Commuting	Heard and seen	5-6
21:20	Barbastelle	1	Commuting	Heard not seen	5-6
21:41	Soprano pipistrelle	1	Foraging	Heard not seen	6-7
21:42	Common pipistrelle	1	Commuting	Heard not seen	6-7
21:46	Brown long-eared bat	1	Commuting	Heard not seen	6-7
21:46	Soprano pipistrelle	1	Commuting	Heard not seen	6-7
21:47	Serotine	1	Commuting	Heard not seen	6-7

Time	Species	Number	Activity	Observation	Transect point
21:48	Common pipistrelle	1	Commuting	Heard not seen	6-7
21:50	Pipistrelle species	1	Commuting	Heard not seen	6-7
21:51	Soprano pipistrelle	1	Commuting	Heard not seen	6-7
21:52	Serotine	1	Commuting	Heard not seen	6-7
21:53	Soprano pipistrelle	1	Brief pass	Heard not seen	7
21:55	Leisler's bat	1	Brief Pass	Heard not seen	7
21:55	Soprano pipistrelle	1	Commuting	Heard not seen	7
21:55	<i>Myotis</i> species	1	Commuting	Heard not seen	7
21:56	Common pipistrelle	1	Commuting	Heard not seen	7
21:57 - 22:00	Serotine	1	Commuting	Heard not seen	7
22:00 – 22:02	Serotine	1	Commuting	Heard not seen	7-1
22:02	Pipistrelle species	1	Brief pass	Heard not seen	7-1
22:03 – 22:05	Common pipistrelle	1	Brief pass	Heard not seen	7-1
22:03	<i>Myotis</i> species	1	Brief pass	Heard not seen	7-1
22:03	Soprano pipistrelle	1	Brief pass	Heard not seen	7-1
22:05	Pipistrelle species	1	Commuting	Heard not seen	7-1
22:06	Soprano pipistrelle	1	Commuting	Heard not seen	7-1
22:07 – 22:08	Common pipistrelle	1	Commuting	Heard not seen	7-1
22:07 – 22:09	Soprano pipistrelle	1	Brief pass	Heard not seen	7-1

Time	Species	Number	Activity	Observation	Transect point
22:10	Common pipistrelle	1	Commuting	Heard not seen	7-1
22:10 – 22:11	Soprano pipistrelle	1	Commuting	Heard not seen	7-1
22:12	<i>Myotis</i> species	1	Commuting	Heard not seen	7-1
22:12	Common pipistrelle	1	Brief pass	Heard not seen	7-1
22:13	Leisler's bat	1	Commuting	Heard not seen	7-1
22:13	Common pipistrelle	1	Brief pass	Heard not seen	7-1
22:14	Common pipistrelle	1	Commuting	Heard not seen	7-1
22:16	Common pipistrelle	1	Commuting	Heard not seen	1
22:17	Soprano pipistrelle	1	Brief pass	Heard not seen	1
22:18	Common pipistrelle	1	Brief pass	Heard not seen	1

Table A.8 Transect 3 Visit 2 NBW 4 October 2023

Time	Species	Number	Activity	Observation	Transect point
18:53	Soprano pipistrelle	1	Brief pass	Heard not seen	3-4
18:54 - 18:55	Soprano pipistrelle	1	Foraging	Heard not seen	3-4
18:58	Barbastelle	1	Brief pass	Heard not seen	3-4
18:59 – 19:00	Pipistrelle species	1	Commuting	Heard not seen	3-4
19:04	Common & soprano pipistrelle	1	Brief pass	Heard not seen	4
19:05	Common pipistrelle	1	Foraging	Heard not seen	4

Time	Species	Number	Activity	Observation	Transect point
19:10	Soprano pipistrelle	1	Brief pass	Heard not seen	4-5
19:15	Common pipistrelle	1	Brief pass	Heard not seen	5
19:17	Barbastelle	1	Brief pass	Heard not seen	5
19:19	Common pipistrelle	1	Foraging	Heard not seen	5-6
19:19	Soprano pipistrelle	1	Foraging	Heard not seen	5-6
19:35	Soprano pipistrelle	1	Foraging	Heard not seen	6-2
19:36	Leisler's bat	1	Commuting	Heard not seen	6-2
19:38	Common pipistrelle	1	Brief pass	Heard not seen	6-2
19:40	Brown long-eared bat	1	Brief pass	Heard not seen	2
19:43	Common pipistrelle	1	Brief pass	Heard not seen	2-1
19:44	Common pipistrelle	1	Foraging	Heard not seen	2-1
19:47	Common pipistrelle	1	Foraging	Heard not seen	2-1
19:48 - 19:50	Common pipistrelle	1	Foraging	Heard not seen	2-1
19:53	Soprano pipistrelle	1	Foraging	Heard not seen	2-1
19:55	Common pipistrelle	1	Foraging	Heard not seen	1
19:55 – 19:56	Nathusius' pipistrelle	1	Foraging & social calling	Heard not seen	1
19:57	Soprano pipistrelle	1	Foraging & social calling	Heard not seen	1

Time	Species	Number	Activity	Observation	Transect point
19:57 – 19:59	Common pipistrelle	1	Foraging & social calling	Heard not seen	1
19:58	Nathusius' pipistrelle	1	Brief pass	Heard not seen	1
20:19	<i>Myotis</i> species	1	Foraging	Heard not seen	1-2
20:25	Common pipistrelle	1	Brief pass	Heard not seen	1

Table A.9 Transect 3 Visit 3 NBW 4 June 2024

Time	Species	Number	Activity	Observation	Transect point
21:43 - 21:44	Soprano pipistrelle	1	Brief pass	Heard not seen	1-2
22:04	Leisler's bat	1	Brief pass	Heard not seen	4-5
22:24	Common pipistrelle	1	Brief pass	Heard not seen	5-6
22:31	Common pipistrelle	1	Foraging	Heard not seen	6-7
22:31	Common pipistrelle	1	Brief pass	Heard not seen	6-7
22:38 - 22:39	Soprano pipistrelle	1	Foraging	Heard not seen	7-1
22:47	<i>Myotis</i> species	1	Foraging	Heard not seen	1
22:47	Nathusius' pipistrelle	1	Foraging	Heard not seen	1
22:47 – 22:48	Soprano pipistrelle	1	Brief pass	Heard not seen	1
23:03	Soprano pipistrelle	1	Brief pass	Heard not seen	1-2
23:05 – 23:07	Soprano pipistrelle	1	Foraging	Heard not seen	1-2
23:06 – 23:07	Common pipistrelle	1	Foraging	Heard not seen	1-2

A.4 Transect 4

Table A.10 Transect 4 Visit 1 NBW 16 August 2023

Time	Species	Number	Activity	Observation	Transect point
20:54	Common pipistrelle	2	Brief pass	Heard and seen	5-6
20:55	Soprano pipistrelle	1	Brief pass	Heard not seen	5-6
20:55	<i>Myotis</i> species	1	Brief pass	Heard not seen	5-6
20:55	Common pipistrelle	1	Brief pass	Heard not seen	5-6
20:59	Soprano pipistrelle	1	Brief pass	Heard not seen	6
21:06	Soprano pipistrelle	1	Brief pass	Heard not seen	6-7
21:09	Common & soprano pipistrelle	1	Brief pass	Heard not seen	6-7
21:16	Common pipistrelle	1	Brief pass	Heard not seen	7
21:16	Soprano pipistrelle	1	Brief pass	Heard not seen	7
21:22	Common pipistrelle	1	Brief pass	Heard not seen	7-5
21:22	Serotine	1	Brief pass	Heard not seen	7-5
21:23	Common pipistrelle	1	Brief pass	Heard not seen	7-5
21:25	Pipistrelle species	1	Brief pass	Heard not seen	7-5
21:28	Serotine	1	Brief pass	Heard not seen	7-5
21:31 – 21:33	Serotine	1	Brief pass	Heard not seen	7-5
21:35	Serotine	1	Brief pass	Heard not seen	5-4
21:36	Soprano pipistrelle	1	Brief pass	Heard not seen	5-4

Time	Species	Number	Activity	Observation	Transect point
21:37	Soprano pipistrelle	1	Brief pass	Heard not seen	5-4
21:38 – 21:39	Common pipistrelle	1	Brief pass	Heard not seen	5-4
21:40	Common pipistrelle	1	Brief pass	Heard not seen	5-4
21:41	Common pipistrelle	1	Brief pass	Heard not seen	5-4
21:45	Serotine	1	Brief pass	Heard not seen	5-4
21:46	Common pipistrelle	1	Brief pass	Heard not seen	4
21:46	Soprano pipistrelle	1	Brief pass	Heard not seen	4
21:47	Leisler's bat	1	Brief pass	Heard not seen	4-3
21:48	Common pipistrelle	1	Brief pass	Heard not seen	4-3
21:50	Common pipistrelle	1	Brief pass	Heard not seen	3-2
21:52	Common pipistrelle	1	Brief pass	Heard not seen	3-2
21:56 – 21:58	Common pipistrelle	1	Brief pass	Heard not seen	3-2
21:59 - 22:00	Common pipistrelle	1	Foraging	Heard not seen	2-1
22:01	Soprano pipistrelle	1	Foraging	Heard not seen	2-1
22:02	Serotine	1	Brief pass	Heard not seen	2-1
22:02 – 22:05	Common & soprano pipistrelle	2	Foraging	Heard not seen	2-1
22:07 – 22:08	Common & soprano pipistrelle	2	Foraging	Heard not seen	2-1
22:10 – 22:12	Common pipistrelle	1	Foraging	Heard not seen	2-1
22:12	<i>Myotis</i> species	1	Brief pass	Heard not seen	2-1

Time	Species	Number	Activity	Observation	Transect point
22:15	Common pipistrelle	1	Foraging	Heard not seen	1

Table A.11 Transect 4 Visit 2 NBW 4 October 2023

Time	Species	Number	Activity	Observation	Transect point
18:44	Noctule	1	Brief pass	Heard not seen	4
18:47	Noctule	1	Brief pass	Heard not seen	4-5
18:50	Soprano pipistrelle	1	Brief pass	Heard not seen	4-5
18:59	Common pipistrelle	1	Brief pass	Heard not seen	5-7
19:06	Soprano pipistrelle	1	Brief pass	Heard not seen	7
19:08	Common pipistrelle	1	Brief pass	Heard not seen	7-6
19:10	Serotine	1	Foraging	Heard not seen	7-6
19:11	Noctule	1	Brief pass	Heard not seen	7-6
19:12	Common pipistrelle	1	Brief pass	Heard not seen	7-6
19:13	Noctule	1	Brief pass	Heard not seen	7-6
19:15 – 19:17	Serotine	1	Foraging	Heard not seen	7-6
19:23	Serotine	1	Brief pass	Heard not seen	6-5
19:24	Leisler’s bat	1	Brief pass	Heard not seen	6-5
19:29 – 19:30	Leisler’s bat	1	Brief pass	Heard not seen	6-5
19:31 - 19:32	Serotine	1	Foraging	Heard and seen	6-5
19:33 – 19:34	Serotine	1	Brief passes	Heard not seen	5
19:36	Soprano pipistrelle	1	Brief pass	Heard not seen	5-4

Time	Species	Number	Activity	Observation	Transect point
20:20	Common pipistrelle	1	Brief pass	Heard not seen	5-1

Table A.12 Transect 4 Visit 3 NBW 4 June 2024

Time	Species	Number	Activity	Observation	Transect point
21:59 - 22:00	Common pipistrelle	1	Foraging	Heard not seen	5
22:15	Soprano pipistrelle	1	Foraging	Heard not seen	4
22:16	Common pipistrelle	2	Foraging	Heard not seen	4
22:19	Soprano pipistrelle	1	Social calls	Heard not seen	4-3
22:32 - 22:34	Common pipistrelle	1	Foraging	Heard not seen	5
22:36	Common pipistrelle	1	Foraging	Heard not seen	5
22:38	Common pipistrelle	1	Foraging	Heard not seen	5
22:43 – 22:44	Soprano pipistrelle	1	Foraging	Heard not seen	5-4
23:03	Common pipistrelle	1	Foraging	Heard not seen	7-5
23:05 - 23:06	Common pipistrelle	1	Foraging	Heard not seen	5
23:08 – 23:09	Soprano pipistrelle	1	Foraging	Heard not seen	5
23:13	Common pipistrelle	1	Brief pass	Heard not seen	2-1
23:17	Soprano pipistrelle	1	Brief pass	Heard not seen	2-1

A.5 Transect 5

Table A.13 Transect 5 Visit 1 NBW 5 June 2024

Time	Species	Number	Activity	Observation	Transect point
21:46 – 21:47	Soprano Pipistrelle	1	Foraging	Heard not seen	8
21:48	Common Pipistrelle	1	Foraging	Heard not seen	8
21:48	Soprano pipistrelle	1	Foraging	Heard and seen	8
21:49	Common pipistrelle	2	Foraging	Heard and seen	8
21:50	Soprano pipistrelle	1	Foraging	Heard and seen	8
21:51	Soprano pipistrelle	1	Foraging	Heard and seen	8
21:52	Common pipistrelle	1	Foraging	Heard and seen	8
21:53	Common pipistrelle	1	Foraging	Heard and seen	8-1
21:54	Common pipistrelle	1	Foraging	Heard and seen	2
22:01	Soprano Pipistrelle	1	Commuting	Heard not seen	5-6
22:06 22:07	Noctule	1	Commuting	Heard not seen	6
22:08	Common pipistrelle	1	Foraging	Heard not seen	6
22:08	Brown long-eared bat	1	Brief pass	Heard not seen	5-6
22:09 – 22:10	Common pipistrelle	1	Foraging	Heard not seen	6
22:11	Serotine	1	Commuting	Heard not seen	6
22:12	Serotine	1	Commuting	Heard and seen	6
22:16	Noctule	1	Commuting	Heard not seen	6
22:17	Noctule	1	Commuting	Heard and seen	6

Time	Species	Number	Activity	Observation	Transect point
22:17	Common pipistrelle	1	Foraging	Heard not seen	6
22:18	Barbastelle	1	Commuting	Heard not seen	6
22:20	Common pipistrelle	1	Foraging	Heard not seen	6
22:20	Noctule	1	Foraging	Heard not seen	6
22:23	Barbastelle	1	Brief pass	Heard not seen	6-1
22:23 – 22:24	Common pipistrelle	1	Foraging	Heard not seen	6-1
22:24 – 22:26	Serotine	1	Foraging	Heard not seen	6-1
22:25	Common pipistrelle	1	Foraging	Heard not seen	6-1
22:35	Brown long-eared bat	1	Commuting	Heard not seen	1-7
22:36	Common pipistrelle	1	Foraging	Heard not seen	1-7
22:42	Pipistrelle species	1	Foraging	Heard not seen	7
22:44	Soprano pipistrelle	1	Foraging	Heard not seen	7
22:54	Common pipistrelle	1	Foraging	Heard not seen	8-1
22:55	Common pipistrelle	1	Foraging	Heard not seen	2
22:59	Common pipistrelle	1	Foraging	Heard not seen	5
23:01	Soprano pipistrelle	1	Foraging	Heard not seen	5
23:01	Soprano pipistrelle	1	Foraging	Heard not seen	5
23:01	Soprano pipistrelle	1	Foraging	Heard not seen	5
23:01	Common pipistrelle	1	Foraging	Heard not seen	5

Time	Species	Number	Activity	Observation	Transect point
23:02	Soprano pipistrelle	1	Foraging	Heard not seen	5
23:03	Common pipistrelle	1	Foraging	Heard not seen	5-6
23:03	Soprano pipistrelle	1	Foraging	Heard not seen	5-6
23:06	Soprano pipistrelle	1	Foraging	Heard not seen	5-6
23:06	Common pipistrelle	1	Foraging	Heard not seen	5-6
23:07	Pipistrelle species	1	Foraging	Heard not seen	5-6
23:09 – 23:10	Common pipistrelle	1	Foraging	Heard not seen	5-6

Table A.14 Transect 5 Visit 2 NBW 5 August 2024

Time	Species	Number	Activity	Observation	Transect point
20:50 – 20:55	Noctule	2	Foraging	Heard and seen	4-3
21:02	Noctule	1	Commuting	Heard not seen	4-3
21:23	Noctule	1	Brief pass	Heard not seen	2-1
21:25 – 21:25	Noctule	2	Foraging	Heard and seen	6
21:26	Common pipistrelle	1	Brief pass	Heard not seen	6-1
21:26 – 21:36	Noctule	1	Brief pass	Heard not seen	6-1
21:29 – 21:30	Common pipistrelle	2	Foraging	Heard and seen	6
21:36	Common pipistrelle	1	Brief pass	Heard not seen	6-5
21:38	<i>Myotis</i> species	1	Brief pass	Heard not seen	6-5

Time	Species	Number	Activity	Observation	Transect point
21:38 – 21:40	Common pipistrelle	1	Foraging	Heard and seen	6-5
21:41	Soprano pipistrelle	1	Brief pass	Heard not seen	6-5
21:42 – 21:43	Soprano pipistrelle	1	Brief passes	Heard not seen	6-5
21:43 – 21:44	Common pipistrelle	1	Brief pass	Heard not seen	6-5
21:43	Barbastelle	1	Brief pass	Heard not seen	6-5
21:44	Soprano pipistrelle	1	Foraging	Heard not seen	6-5
21:49	Common pipistrelle	1	Brief pass	Heard not seen	5-4
21:49	Soprano pipistrelle	1	Brief pass	Heard not seen	5-4
21:50	Noctule	1	Brief pass	Heard not seen	5-4
21:52	Common pipistrelle	1	Brief pass	Heard not seen	1
21:53	Barbastelle	1	Brief pass	Heard not seen	1
21:53	Soprano pipistrelle	1	Brief pass	Heard not seen	1
21:56	Common pipistrelle	1	Brief pass	Heard not seen	1-2
21:57	Common pipistrelle	1	Brief pass	Heard not seen	1-2
21:58	Barbastelle	1	Brief pass	Heard not seen	1-2
22:00	Barbastelle	1	Brief pass	Heard not seen	3-2
22:03	Leisler's bat	1	Brief pass	Heard not seen	4-3
22:04 – 22:05	Common pipistrelle	2	Foraging	Heard not seen	4-3
22:04	Barbastelle	1	Brief pass	Heard not seen	4-3
22:06	Noctule	1	Foraging	Heard not seen	4-3
22:07 – 22:08	Soprano pipistrelle	1	Brief pass	Heard not seen	4-3

Time	Species	Number	Activity	Observation	Transect point
22:09	Common pipistrelle	1	Brief pass	Heard not seen	4-3
22:10	Soprano pipistrelle	1	Brief pass	Heard not seen	4-3
22:11	Noctule	1	Brief pass	Heard not seen	4-3
22:12 - 22:17	Common pipistrelle	1	Foraging and social calls	Heard not seen	4-3
22:18	Serotine	1	Brief pass	Heard not seen	4-3
22:21	Serotine	1	Foraging	Heard not seen	4-3
22:22	Common pipistrelle	1	Foraging	Heard not seen	4-3
22:24	Common pipistrelle	1	Brief pass	Heard not seen	4-3
22:26 – 22:27	Common pipistrelle	1	Brief pass	Heard not seen	4-3
22:27	Soprano pipistrelle	1	Brief pass	Heard not seen	4-3
22:29 – 22:30	Common pipistrelle	1	Brief pass	Heard not seen	4-3
22:31	Common pipistrelle	1	Brief pass	Heard not seen	4-3
22:31	Noctule	1	Foraging	Heard not seen	4-3
22:31 – 22:37	Common pipistrelle	1	Foraging	Heard and seen	4-3
22:35	Soprano pipistrelle	1	Foraging	Heard and seen	4-3

Table A.15 Transect 5 Visit 3 NBW 3 September 2024

Time	Species	Number	Activity	Observation	Transect point
19:49 – 19:50	Noctule	1	Foraging	Heard and seen	8
20:03	Noctule	1	Foraging	Heard and seen	8

Time	Species	Number	Activity	Observation	Transect point
20:09 – 20:10	Soprano pipistrelle	1	Commuting	Heard not seen	8-7
20:11	Soprano pipistrelle	1	Brief pass	Heard not seen	8-7
20:13	Common pipistrelle	1	Brief pass	Heard not seen	8-7
20:15	Soprano pipistrelle	1	Brief pass	Heard not seen	7
20:16	Noctule	1	Commuting	Heard and seen	7
20:19	Common pipistrelle	1	Commuting	Heard and seen	7
20:21	Common pipistrelle	1	Brief pass	Heard not seen	7
20:23	Soprano pipistrelle	1	Brief pass	Heard not seen	7-1
20:25	Common pipistrelle	1	Brief pass	Heard not seen	7-1
20:29	Serotine	1	Brief pass	Heard not seen	7-1
20:37	Common pipistrelle	1	Brief pass	Heard not seen	7-1
20:44	Common pipistrelle	1	Brief pass	Heard not seen	5-6
20:48	Noctule	1	Brief pass	Heard not seen	5-6
20:48	Barbastelle	1	Brief pass	Heard not seen	5-6
20:57	Soprano pipistrelle	1	Brief pass	Heard not seen	6
21:03	Soprano pipistrelle	1	Brief pass	Heard not seen	6-1
21:09	Soprano pipistrelle	1	Brief pass	Heard not seen	6-1
21:15	Common pipistrelle	1	Brief pass	Heard not seen	6-1
21:16	Common pipistrelle	1	Foraging	Heard not seen	6-1
21:17 – 21:18	Common pipistrelle	1	Foraging	Heard not seen	6-1

Time	Species	Number	Activity	Observation	Transect point
21:18	Nathusius' pipistrelle	1	Brief pass	Heard not seen	6-1
21:19	Soprano pipistrelle	1	Brief pass	Heard not seen	6-1
21:19	Common pipistrelle	1	Brief pass	Heard not seen	6-1
21:21	Barbastelle	1	Brief pass	Heard not seen	1-2
21:25	Soprano pipistrelle	1	Brief pass	Heard not seen	2
21:27	Common pipistrelle	1	Brief pass	Heard not seen	2-3
21:28	Brown long-eared bat	1	Brief pass	Heard not seen	2-3
21:29	Common pipistrelle	1	Brief pass	Heard not seen	2-3
21:36	Common pipistrelle	1	Brief pass	Heard not seen	3-4

A.6 Transect 6

Table A.16 Transect 6 Visit 1 NBW 31 August 2023

Time	Species	Number	Activity	Observation	Transect point
20:02	Undetermined species	1	Commuting	Heard and seen No call recorded	7
20:04	Undetermined species	1	Foraging	Seen not heard No echolocation	7
20:05	Undetermined species	1	Foraging	Seen not heard No echolocation	7
20:11	Undetermined species	2	Commuting	Seen not heard No echolocation	2-3

Table A.17 Transect 6 Visit 2 NBW 3 October 2023

Time	Species	Number	Activity	Observation	Transect point
18:56 – 18:57	Noctule	1	Commuting	Heard not seen	3-4
18:59 - 19:00	Soprano pipistrelle	1	Foraging	Heard not seen	3-4
19:00	Noctule	1	Foraging	Heard not seen	3-4
19:03 – 19:06	Soprano pipistrelle	1	Foraging	Heard not seen	3-4
19:03	Leisler’s bat	1	Foraging	Heard not seen	3-4
19:06	Noctule	1	Foraging	Heard not seen	4
19:06	Common pipistrelle	1	Foraging	Heard not seen	4
19:08	Noctule	1	Brief pass	Heard not seen	4
19:10	Soprano pipistrelle	1	Brief pass	Heard not seen	4
19:12	Soprano pipistrelle	1	Brief Pass	Heard not seen	4
19:36 – 19:37	Soprano pipistrelle	1	Foraging & social calling	Heard not seen	6
19:40 - 19:41	Soprano pipistrelle	1	Foraging	Heard not seen	6-7
19:41	Common pipistrelle	1	Brief pass	Heard not seen	6-7
20:01	Barbastelle	1	Brief pass	Heard not seen	6-7
20:07 - 20:08	Soprano pipistrelle	1	Foraging	Heard not seen	1-6

Table A.18 Transect 6 Visit 3 NBW 6 May 2024

Time	Species	Number	Activity	Observation	Transect point
21:44	Soprano Pipistrelle	1	Commuting	Heard not seen	4
21:49	Common pipistrelle	1	Commuting	Heard and seen	4

Time	Species	Number	Activity	Observation	Transect point
21:56	Soprano Pipistrelle	1	Foraging	Heard not seen	4-5
21:59	Soprano pipistrelle	1	Brief pass	Heard not seen	4-5
22:04	Soprano pipistrelle	1	Brief pass	Heard not seen	5
22:10	Brown long-eared bat	1	Brief pass	Heard not seen	5-6
22:14	Common pipistrelle	1	Commuting	Heard not seen	6
22:16 – 22:17	Common pipistrelle	1	Brief Pass	Heard not seen	6
22:37	Barbastelle	1	Foraging	Heard not seen	7-8
22:37	Leisler's bat	1	Brief pass	Heard not seen	7-8
22:40	Barbastelle	1	Brief Pass	Heard not seen	7-8
22:47	<i>Myotis</i> species	1	Brief Pass	Heard not seen	8
23:00	Soprano pipistrelle	1	Foraging	Herd not seen	3

A.7 Transect 7

Table A.19 Transect 7 Visit 1 NBW 30 August 2023

Time	Species	Number	Activity	Observation	Transect point
No Bats Observed					

Table A.20 Transect 7 Visit 2 NBW 2 October 2023

Time	Species	Number	Activity	Observation	Transect point
18:46	Noctule	1	Brief pass	Heard not seen	1-2
19:13	Common pipistrelle	1	Brief pass	Heard not seen	3-4

Time	Species	Number	Activity	Observation	Transect point
19:51	Common pipistrelle	1	Brief pass	Heard not seen	4-5
19:59 - 20:00	Common pipistrelle	1	Foraging	Heard not seen	4-5
20:26	Soprano pipistrelle	1	Commuting	Heard not seen	1
20:27	Soprano pipistrelle	1	Commuting	Heard not seen	1

Table A.21 Transect 7 Visit 3 NBW 5 June 2024

Time	Species	Number	Activity	Observation	Transect point
21:32 – 21:33	Common pipistrelle	1	Brief pass	Heard not seen	6
21:34 – 21:36	Common pipistrelle	1	Brief passes	Heard not seen	6
21:37	Common pipistrelle	1	Brief pass	Heard not seen	6-5
21:39	Common pipistrelle	1	Brief pass	Heard not seen	6-5
21:49	Soprano pipistrelle	1	Brief pass	Heard not seen	6-5
21:50 - 21:52	Common pipistrelle	1	Foraging	Heard not seen	5
21:52	Common pipistrelle	1	Brief pass	Heard not seen	6-5
21:55	Soprano pipistrelle	1	Brief pass	Heard not seen	5
-22:00	Common pipistrelle	1	Brief pass	Heard not seen	5-4
22:06	Common pipistrelle	1	Brief pass	Heard not seen	4
22:09 - 22:10	Common pipistrelle	1	Brief pass	Heard not seen	4-3
22:12	Leisler's bat	1	Brief pass	Heard not seen	1-4

Time	Species	Number	Activity	Observation	Transect point
22:27	Common pipistrelle	1	Brief pass	Heard not seen	3
22:37	Common pipistrelle	1	Brief pass	Heard not seen	3-2
22:55	Common pipistrelle	1	Brief pass	Heard not seen	5
22:58 - 22:59	Common pipistrelle	1	Brief pass	Heard not seen	5
23:03	Common pipistrelle	1	Brief pass	Heard not seen	6-5
23:04	Common pipistrelle	1	Brief pass	Heard not seen	6-5

A.8 Transect 8

Table A.22 Transect 8 Visit 1 NBW 17 August 2023

Time	Species	Number	Activity	Observation	Transect point
20:50	Noctule	1	Commuting	Heard not seen	7
20:50	Common pipistrelle	1	Brief Pass	Heard not seen	7
20:52	Soprano pipistrelle		Commuting	Heard not seen	7
20:52	Noctule	1	Foraging	Heard not seen	7
20:53	Soprano pipistrelle	1	Foraging	Heard and seen	7
20:54	Soprano pipistrelle	1	Foraging	Heard not seen	7-6
20:57 – 20:58	Common pipistrelle	1	Foraging	Heard and seen	7-6
20:58	Soprano pipistrelle	1	Brief pass	Heard not seen	6
20:59	Soprano pipistrelle	1	Brief pass	Heard not seen	6

Time	Species	Number	Activity	Observation	Transect point
21:02	Soprano pipistrelle	1	Commuting	Heard not seen	6-5
21:03	Serotine	1	Commuting	Heard not seen	6-5
21:05 - 21:08	Common pipistrelle	1	Foraging	Heard not seen	6-5
21:09 – 21:10	Common pipistrelle	1	Foraging	Heard not seen	5-6
21:11	Pipistrelle species	1	Brief pass	Heard not seen	6-7
21:12	Common pipistrelle	1	Foraging	Heard not seen	6-7
21:15	Soprano pipistrelle	1	Foraging	Heard not seen	6-7
21:21	Common pipistrelle	1	Commuting	Heard not seen	7-8
21:29 - 21:30	Common pipistrelle	1	Foraging	Heard not seen	8
21:31 – 21:32	Common pipistrelle	1	Foraging	Heard not seen	8
21:51	Soprano pipistrelle	1	Foraging	Heard not seen	1-2
21:51	Pipistrelle species	1	Brief pass	Heard not seen	1-2
21:59	Common pipistrelle	1	Commuting	Heard not seen	1-2

Table A.23 Transect 8 Visit 2 NBW 2 October 2023

Time	Species	Number	Activity	Observation	Transect point
18:51	Soprano pipistrelle	1	Foraging	Heard not seen	2-1
18:55	Common pipistrelle	1	Brief pass	Heard not seen	2-1
19:21	Barbastelle	1	Brief pass	Heard not seen	8-7

Time	Species	Number	Activity	Observation	Transect point
19:22 - 19:23	Common pipistrelle	1	Foraging	Heard not seen	8-7
19:24	Soprano pipistrelle	1	Foraging	Heard not seen	7
19:24	Common pipistrelle	1	Foraging	Heard not seen	7
19:24	Noctule	1	Foraging	Heard not seen	7
19:25	Pipistrelle species	2	Brief pass	Heard and seen	7-6
19:25	Common pipistrelle	2	Brief pass	Heard and seen	7-6
19:27	Leisler's bat	1	Brief pass	Heard not seen	7-6
19:27	Common pipistrelle	1	Brief pass	Heard not seen	7-6
19:28	Soprano pipistrelle	1	Foraging	Heard not seen	7-6
19:28	Barbastelle	1	Brief pass	Heard not seen	7-6
19:28	Common pipistrelle	1	Brief pass	Heard not seen	7-6
19:30	Barbastelle	1	Foraging	Heard not seen	7-6
19:32	Common pipistrelle	1	Foraging	Heard not seen	7-6
19:48 - 19:50	Common pipistrelle	1	Foraging	Heard not seen	4
19:51	Common pipistrelle	1	Brief pass	Heard and seen	4-3
19:56	Barbastelle	1	Brief pass	Heard not seen	3
19:56	Soprano pipistrelle	1	Brief pass	Heard not seen	3
19:57	Barbastelle	1	Brief pass	Heard not seen	3
19:57 - 19:58	Noctule	1	Brief pass	Heard and seen	3
20:01	Common pipistrelle	1	Brief pass	Heard not seen	3-2
20:02 – 20:04	Soprano pipistrelle	1	Foraging & social calls	Heard not seen	3-2

Time	Species	Number	Activity	Observation	Transect point
20:03	Common pipistrelle	1	Brief pass	Heard and seen	3-2
20:05	Noctule	1	Brief pass	Heard and seen	3-2
20:08	Soprano pipistrelle	1	Brief pass	Heard not seen	2
20:10 – 20:12	Soprano pipistrelle	1	Foraging, social calling	Heard not seen	2

Table A.24 Transect 8 Visit 3 NBW 6 June 2024

Time	Species	Number	Activity	Observation	Transect point
21:34	Common pipistrelle	1	Brief pass	Heard not seen	3-4
21:39 – 21:40	Common pipistrelle	1	Foraging	Heard and seen	3-4
21:42	Common pipistrelle	1	Brief pass	Heard not seen	3-4
21:46	Common pipistrelle	1	Foraging	Heard not seen	6
21:47 - 21:48	Soprano pipistrelle	1	Foraging	Heard not seen	6
21:52	Pipistrelle species	1	Foraging	Heard not seen	7
22:17 - 22:19	Soprano pipistrelle	1	Foraging	Heard not seen	2
22:21 – 22:22	Common pipistrelle	1	Foraging	Heard not seen	2
22:25 - 22:27	Common pipistrelle	1	Foraging	Heard not seen	2-2
22:35	Serotine	1	Brief pass	Heard not seen	2
22:40 – 22:42	Soprano pipistrelle	1	Foraging	Heard not seen	2
22:44 – 22:46	Soprano pipistrelle	1	Foraging	Heard not seen	2-3
22:45	<i>Myotis</i> species	1	Brief pass	Heard not seen	3-4

Time	Species	Number	Activity	Observation	Transect point
22:47 – 22:50	Common pipistrelle	2	Foraging	Heard not seen	3
23:10	Common pipistrelle	1	Foraging	Heard not seen	2
23:12 – 23:13	Common pipistrelle	1	Foraging	Heard not seen	2

A.9 Transect 9

Table A.25 Transect 9 Visit 1 NBW 17 August 2023

Time	Species	Number	Activity	Observation	Transect point
20:34 - 20:35	Common pipistrelle	1	Foraging	Heard not seen	4
20:35	Soprano pipistrelle	1	Foraging	Heard not seen	4
20:37	Soprano pipistrelle	1	Brief pass	Heard not seen	4
20:52	Noctule	1	Foraging	Heard not seen	5-6
20:53	Soprano pipistrelle	1	Foraging	Heard not seen	5-6
20:56	Noctule	1	Brief pass	Heard not seen	5-6
20:57	Serotine	1	Brief pass	Heard not seen	5-6
21:00	Common pipistrelle	1	Foraging	Heard not seen	6
21:04	Common pipistrelle	1	Brief pass	Heard not seen	6
21:05 – 21:06	Noctule	1	Brief pass	Heard not seen	6-7
21:06	Soprano pipistrelle	1	Foraging	Heard not seen	6-7
21:06 – 21:07	Common pipistrelle	1	Foraging	Heard not seen	6-7
21:07	Soprano pipistrelle	1	Brief pass	Heard not seen	6-7

Time	Species	Number	Activity	Observation	Transect point
21:07	Barbastelle	1	Brief pass	Heard not seen	6-7
21:08 – 21:09	Common pipistrelle	1	Brief pass	Heard not seen	6-7
21:11	Soprano pipistrelle	1	Foraging	Heard not seen	6-7
21:15 – 21:16	Noctule	1	Brief pass	Heard not seen	6-7
21:16 – 21:18	Common pipistrelle	2	Foraging	Heard not seen	6-7
21:17 – 21:18	Soprano pipistrelle	1	Foraging	Heard not seen	6-7
21:18 – 21:19	Serotine	1	Commuting	Heard not seen	6-7
21:19	Common pipistrelle	1	Brief pass	Heard not seen	6-7
21:20	Pipistrelle species	1	Brief pass	Heard not seen	6-7
21:20	Serotine	1	Commuting	Heard not seen	6-7
21:21	Common pipistrelle	1	Brief pass	Heard not seen	6-7
21:21 - 21:24	Soprano pipistrelle	1	Foraging	Heard not seen	7
21:22 – 21:24	Common pipistrelle	1	Foraging	Heard not seen	7
21:26	Soprano pipistrelle	1	Brief pass	Heard not seen	7-8
21:26 – 21:27	Common pipistrelle	1	Foraging	Heard not seen	7-8
21:27	Barbastelle	1	Brief pass	Heard not seen	7-8
21:28 – 21:29	Soprano pipistrelle	1	Foraging	Heard not seen	7-8
21:29 - 21:31	Common pipistrelle	2	Foraging	Heard not seen	7-8
21:32	Soprano pipistrelle	1	Brief pass	Heard not seen	7-8
21:38 – 21:39	Common pipistrelle	1	Brief pass	Heard not seen	7-8

Time	Species	Number	Activity	Observation	Transect point
21:41	Common pipistrelle	1	Brief pass	Heard not seen	8
21:55	Soprano pipistrelle	1	Brief pass	Heard not seen	8-9
21:59	Soprano pipistrelle	1	Foraging	Heard not seen	8-9
22:00 - 22:02	Common pipistrelle	1	Brief passes	Heard not seen	8-9
22:05	Common pipistrelle	1	Brief pass	Heard not seen	9
22:15	Common pipistrelle	1	Brief pass	Heard not seen	9-1

Table A.26 Transect 9 Visit 2 NBW 2 October 2023

Time	Species	Number	Activity	Observation	Transect point
18:36	Noctule	1	Brief pass	Heard not seen	2
19:44 - 19:46	Soprano pipistrelle	1	Foraging	Heard not seen	6-7
19:47	Barbastelle	1	Brief pass	Heard not seen	6-7
19:49	Barbastelle	1	Brief pass	Heard not seen	7
19:50	Barbastelle	1	Brief pass	Heard not seen	7
19:52	Soprano pipistrelle	1	Foraging	Heard not seen	7
19:54 - 19:56	Common pipistrelle	1	Foraging	Heard not seen	7-8
20:07 – 20:08	Pipistrelle species	1	Foraging	Heard not seen	8
20:27 - 20:28	Common pipistrelle	1	Foraging	Heard not seen	9-1
20:31	Common pipistrelle	1	Brief pass	Heard not seen	1

Table A.27 Transect 9 Visit 3 NBW 6 June 2024

Time	Species	Number	Activity	Observation	Transect point
21:33	Pipistrelle species	1	Brief pass	Heard not seen	5-4
21:38	Pipistrelle species	1	Brief pass	Heard not seen	5-4
21:38	Soprano pipistrelle	1	Brief pass	Heard not seen	5-4
21:49	Common pipistrelle	1	Foraging	Heard not seen	8
21:57 - 21:58	Soprano pipistrelle	1	Brief pass	Heard not seen	8-7
22:02	Brown long-eared bat	1	Brief pass	Heard not seen	8-7
22:03	Soprano pipistrelle	1	Brief pass	Heard not seen	8-7
22:04	Brown long-eared bat	1	Brief pass	Heard not seen	7
22:05 – 22:06	Soprano pipistrelle	1	Brief pass	Heard not seen	7
22:05 – 22:07	Serotine	1	Foraging	Heard not seen	7
22:07	Soprano pipistrelle	1	Brief pass	Heard not seen	7-6
22:08	Common pipistrelle	1	Brief pass	Heard not seen	7-6
22:08	Noctule	1	Brief pass	Heard not seen	7-6
22:09	Soprano pipistrelle	1	Brief pass	Heard not seen	7-6
22:10	Serotine	1	Brief pass	Heard not seen	7-6
22:10	Soprano pipistrelle	1	Brief pass	Heard not seen	7-6
22:12	Serotine	1	Brief pass	Heard not seen	7-6
22:18 – 22:19	Serotine	1	Brief pass	Heard not seen	7-6
22:20	Serotine	1	Brief pass	Heard not seen	7-6
22:22 - 22:23	Soprano pipistrelle	1	Brief pass	Heard not seen	6

Time	Species	Number	Activity	Observation	Transect point
22:33	Leisler's bat	1	Brief pass	Heard not seen	6
22:33 – 22:34	Common pipistrelle	1	Foraging	Heard not seen	6
22:36	Common pipistrelle	1	Brief pass	Heard not seen	6
22:49	<i>Myotis</i> species	1	Brief pass	Heard not seen	1
22:50	Common pipistrelle	1	Brief pass	Heard not seen	1
22:52	Soprano pipistrelle	1	Brief pass	Heard not seen	1
23:04	Common pipistrelle	1	Brief pass	Heard not seen	1
23:04	Soprano pipistrelle	1	Brief pass	Heard not seen	1
23:07 – 23:10	Common pipistrelle	1	Brief pass	Heard not seen	1

Annex 2.1.2 NBW Example Sonograms

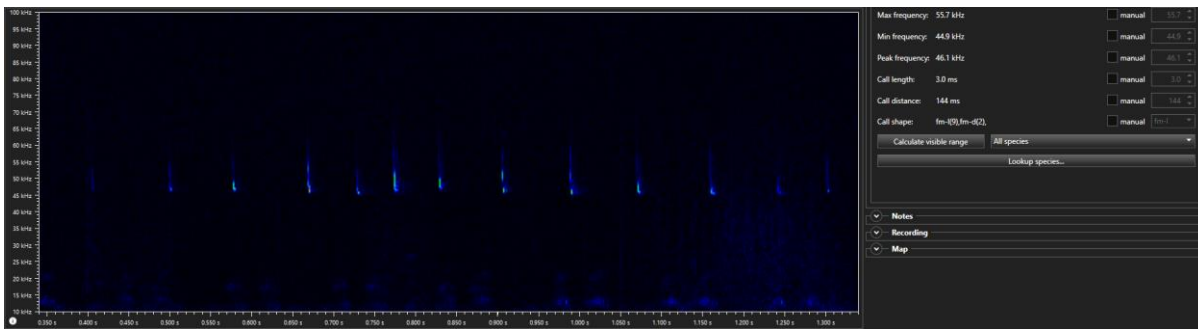


Plate A.1 Common pipistrelle recorded at 20:53 on 15 August 2023, Transect 2

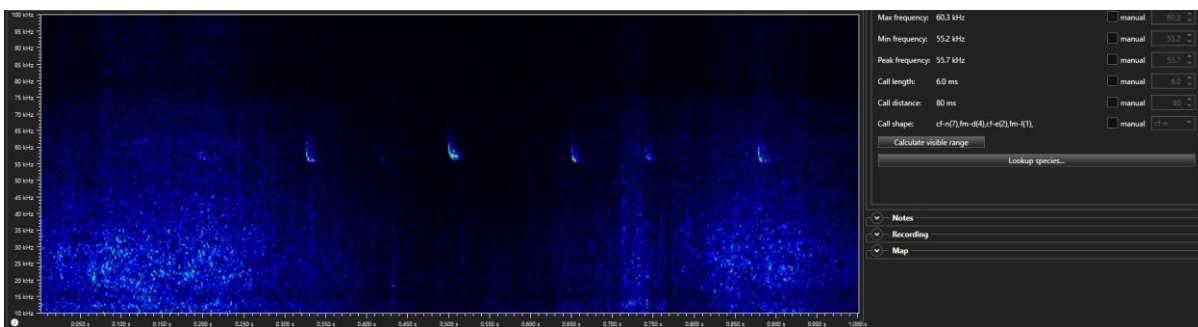


Plate A.2 Soprano pipistrelle recorded at 22:38 on 4 June 2024, Transect 1

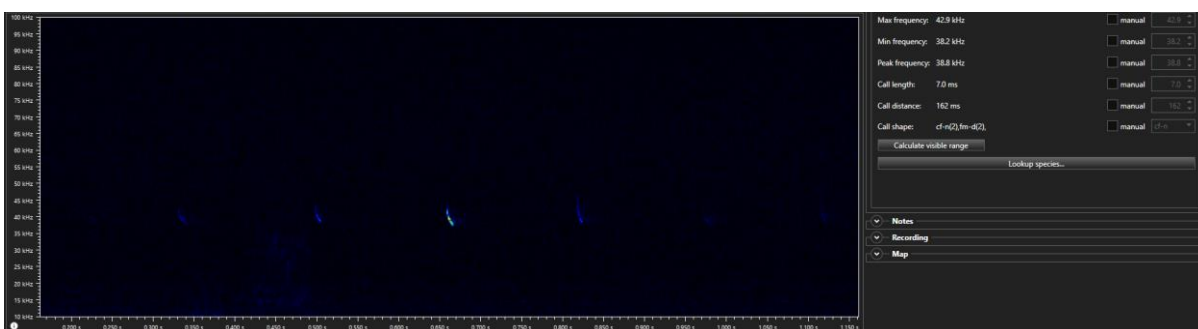


Plate A.3 Nathusius' pipistrelle recorded at 22:49 on 4 June 2024, Transect 1

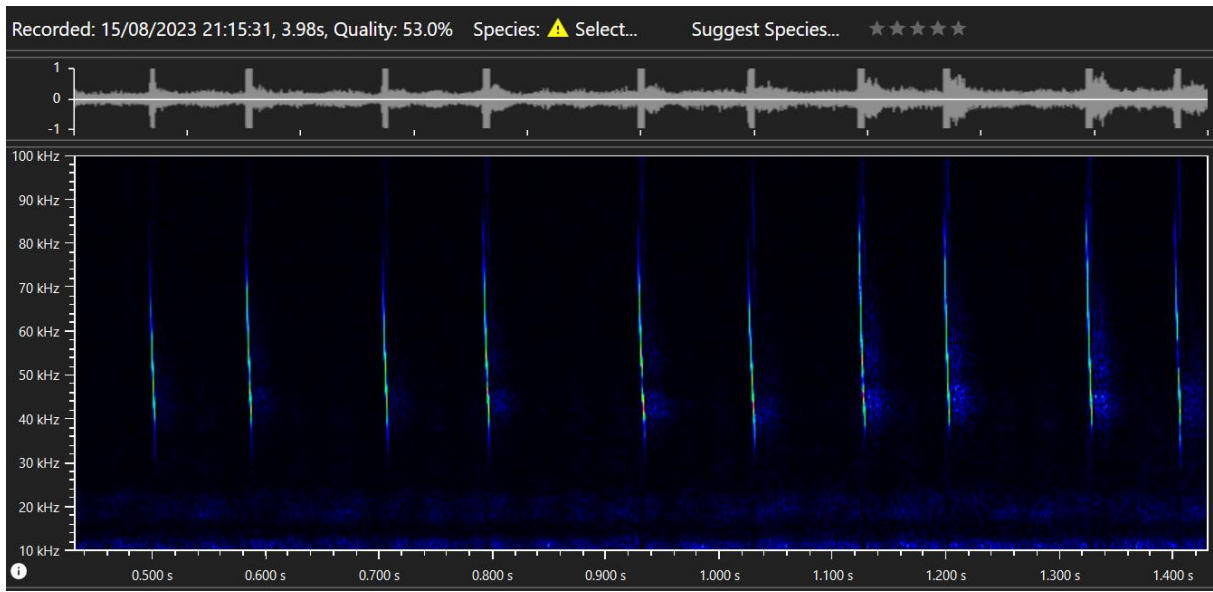


Plate A.4 *Myotis* species recorded at 21:15 on 15 August 2023, Transect 2

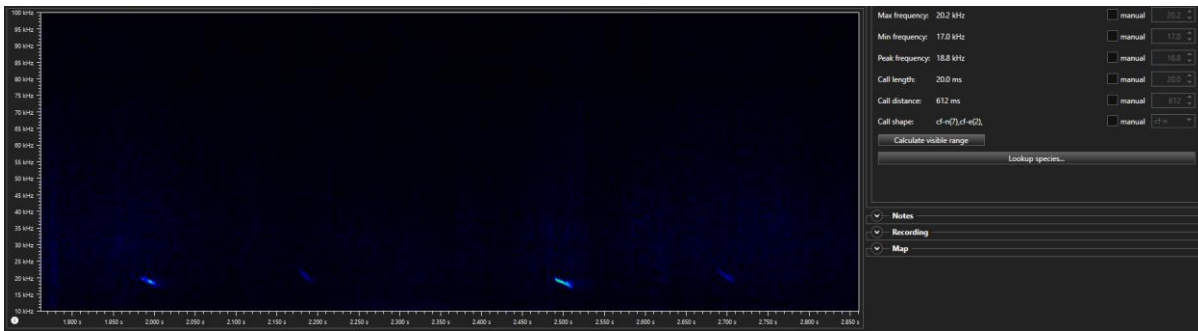


Plate A.5 Noctule recorded at 18:44 on 4 October 2023, Transect 4

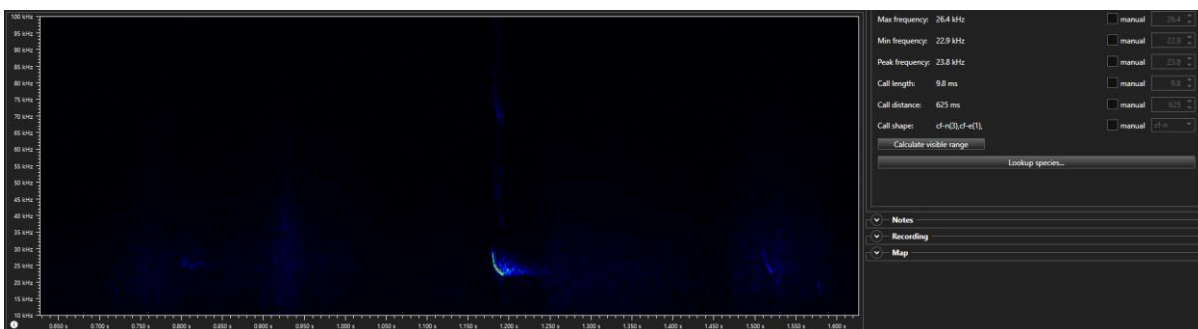


Plate A.6 Leisler's bat recorded at 22:37 on 30 May 2024, Transect 2

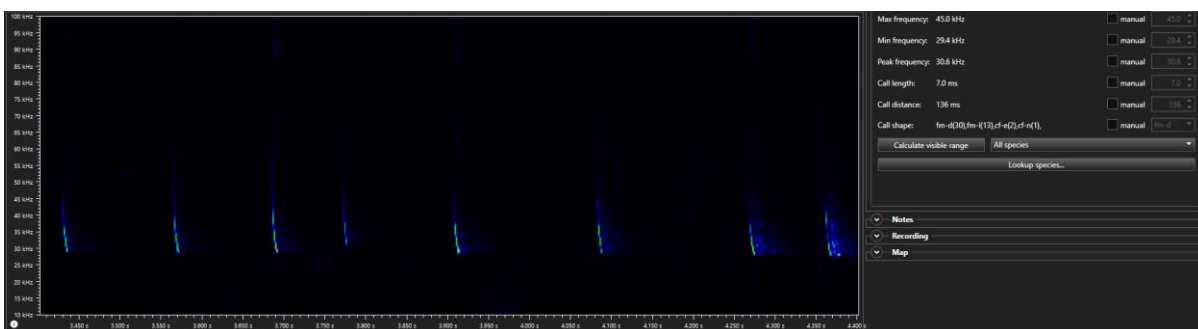


Plate A.7 Serotine recorded at 19:43 on 3 October 2023, Transect 2

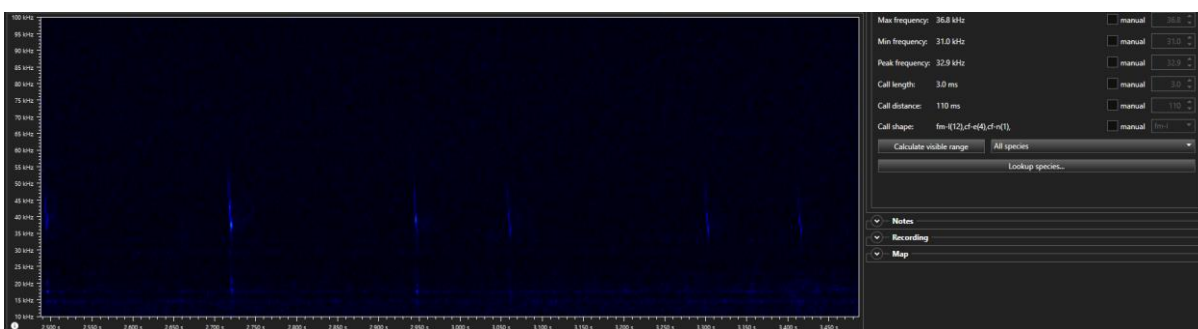


Plate A.8 Brown long-eared bat recorded at 19:40 on 4 October 2023, Transect 3

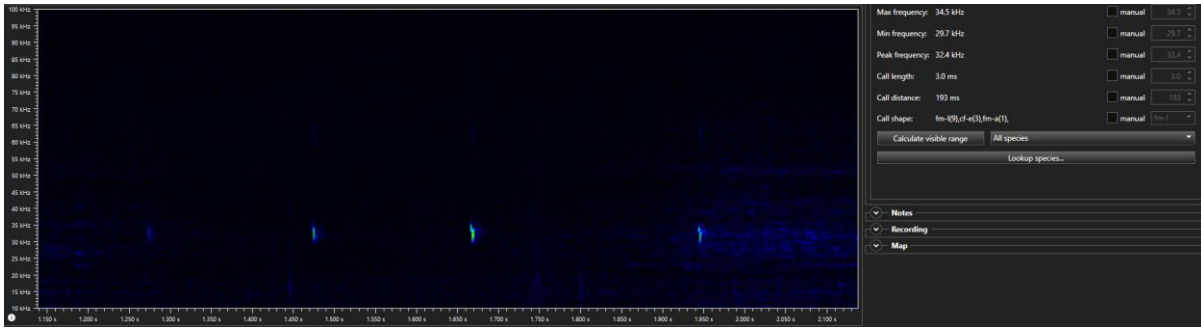


Plate A.9 Barbastelle recorded at 22:58 on 4 June 2024, Transect 1

Annex 2.I.3 SM4bat FS Detector Surveys Full Results Tables

D.1 Transect 1

Table A.28 Transect 1 August 2023 SM4 Results

Observation																
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Brown long-eared bat	Leislars' bat	Noctule or Leisler' s bat	Myotis or brown long-eared bat	Noctule, Leisler' s or serotine	Barbastelle	Serotine	Myotis species	Possible barbastelle	
30/08/2023	10.25	33	21	0	46	2	2	0	0	0	0	0	0	1	1	
31/08/2023	10.25	7	19	0	4	50	4	4	0	2	0	1	1	0	0	
01/09/2023	10.25	7	50	0	18	3	1	0	0	0	0	0	0	1	1	

	Observation														
02/09/2023	10.5	2	6	0	0	0	3	0	1	0	0	0	0	1	0
03/09/2023	10.5	15	39	1	10	0	2	1		1	1	0	1	1	0
Total	51.75	71	135	1	78	55	12	5	1	3	1	1	2	4	2
Registrations per hour by species		1.37	2.60	0.01	1.50	1.06	0.231	0.09	0.01	0.05	0.01	0.01	0.03	0.07	0.03
Registrations of all bat species per hour		7.17													

Table 1.29 Transect 1 September 2023 SM4 Results

	Observation														
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Possible barbastelle	Noctule	Myotis species or brown long-eared bat	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Barbastelle	Myotis species	
25/09/2023	12	95	34	4	14	2	4	3	0	0	4	0	8	10	

	Observation														
26/09/2023	12	53	56	1	12	0	1	1	1	0	6	0	6	11	
27/09/2023	12	472	243	1	14	1	0	3	0	1	2	0	3	8	
28/09/2023	12.25	615	326	2	28	1	0	2	1	0	2	1	1	3	
29/09/2023	12.25	9	7	0	0	0	0	0	0	0	0	0	0	0	
Total	60.5	1244	666	8	68	4	5	9	2	1	14	1	18	32	
Registrations per hour by species		20.56	11.00	0.13	1.12	0.06	0.08	0.14	0.03	0.01	0.23	0.01	0.29	0.52	
Registrations of all bat species per hour		34.25													

Table A.30 Transect 1 May 2024 SM4 Results

	Observation														
Date (night commencing)	Night hours	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Brown long-eared bat	Noctule or Leisler' s bat	Leisler' s bat	Noctule, Leisler' s bat or serotine	Barbastelle	Possible barbastelle	Myotis or brown long-eared bat	
24/05/2024	8	3	3	0	1	0	0	0	0	0	1	2	1	0	
25/05/2024	8	31	16	0	3	0	3	3	1	0	0	0	5	4	

Observation															
26/05/2024	8	20	24	2	2	0	3	0	0	0	0	0	0	0	0
27/05/2024	8	4	4	1	1	1	0	0	1	0	0	0	0	1	1
28/05/2024	8	21	5	0	2	0	3	1	0	1	0	0	0	0	2
Total	40	79	52	3	9	1	9	4	2	1	1	2	7	7	
Registrations per hour by species	1.9	1.3	0.08	0.23	0.03	0.225	0.1	0.05	0.03	0.025	0.05	0.18	0.175		
Registrations of all bat species per hour	4.43														

Table A.31 Transect 1 June 2024 SM4 Results

Observation															
Date (night commencing)															
Night length															
Common pipistrelle															
Soprano pipistrelle															
Nathusius' pipistrelle															
Pipistrelle species (common or soprano)															
Pipistrelle species (common or Nathusius' pipistrelle)															
Noctule															
Leisler' s bat															
Brown long-eared bat															
Noctule, Leisler' s bat or serotine															
Noctule, or Leisler' s bat															
Barbastelle															
Myotis species															

Observation														
04/06/2024	7.5	26	11	0	0	0	1	0	0	0	1	0	3	
05/06/2024	7.5	6	5	1	5	0	1	0	2	0	2	1	4	
06/06/2024	7.5	38	21	1	3	1	8	2	1	1	0	0	7	
07/06/2024	7.25	19	10	1	2	0	0	2	0	2	2	0	2	
08/06/2024	7.25	22	4	0	2	1	0	0	0	0	1	0	1	
09/06/2024	7.25	8	20	0	4	0	0	0	0	0	0	0	4	
10/06/2024	7.25	2	1	0	0	0	0	0	1	0	0	0	0	
Total	51.5	121	72	3	16	2	10	4	4	3	6	1	21	
Registrations per hour by species	2.34	1.39	0.05	0.31	0.03	0.19	0.07	0.07	0.05	0.11	0.01	0.40		
Registrations of all bat species per hour	5.11													

Table A.32 Transect 1 July 2024 SM4 Results

Date (night commencing)	Observation												
	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius Pipistrelle	Pipistrelle species (common or soprano)	Possible barbastelle	Serotine	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule or Leisler' s bat	Barbastelle	Myotis species
18/07/2024	8	59	13	2	3	1	12	1	0	0	0	0	3
19/07/2024	8	11	8	0	1	0	8	0	1	4	0	1	8
20/07/2024	8	31	8	1	1	1	3	0	1	3	0	0	3
21/07/2024	8.25	23	23	1	8	0	53	2	0	4	0	3	5
22/07/2024	8.25	36	6	0	0	3	2	0	1	1	0	0	4
23/07/2024	8.25	19	2	0	4	0	0	0	0	0	0	1	2
Total	48.75	179	60	4	17	5	78	3	3	12		5	25
Registrations per hour by species		3.67	1.23	0.08	0.34	0.10	1.60	0.06	0.06	0.24		0.10	0.51
Registrations of all bat species per hour		8.02											

Table A.33 Transect 1 August 2024 SM4 Results

Date (night commencing)	Observation												
	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Serotine	Leisler's bat	Brown long-eared bat	Barbastelle	Myotis species	
05/08/2024	8.75	49	29	2	0	0	0	5	1	0	1	1	
06/08/2024	8.75	15	9	0	1	0	1	1	2	2	0	0	
07/08/2024	8.75	5	0	0	0	0	0	0	0	0	0	0	
08/08/2024	8.75	68	28	0	0	0	0	1	0	1	0	0	
09/08/2024	9	25	15	0	1	0	1	2	0	0	0	0	
10/08/2024	9	45	6	0	0	1	4	1	0	0	1	1	
Total	53	207	87	2	2	1	6	9	3	3	2	2	
Registrations per hour by species		3.90	1.64	0.03	0.03	0.01	0.01	0.16	0.05	0.05	0.03	0.03	
Registrations of all bat species per hour		6.11											

Table A.34 Transect 1 October 2024 SM4 Results

Observation													
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius')	Noctule	Brown long-eared bat	Barbastelle	Serotine	Leisler' s bat	Myotis species	Social call
09/10/2024	13	11	10	5	0	2	6	1	0	1	0	0	2
10/10/2024	13	0	0	0	0	0	0	0	0	0	0	5	0
11/10/2024	13	30	73	0	7	0	0	0	0	0	1	19	1
12/10/2024	13.25	22	70	2	0	0	0	0	2	0	0	3	2
13/10/2024	13.25	76	37	5	5	2	0	0	1	0	0	7	1
14/10/2024	13.25	29	19	7	0	0	0	0	0	0	0	20	0
Total	78.75	168	209	19	12	4	6	1	3	1	1	54	6
Registrations per hour by species		2.13	2.65	0.24	0.15	0.05	0.07	0.01	0.03	0.01	0.01	0.68	0.07

Observation	
Registrations of all bat species per hour	6.15

D.2 Transect 2

Table A.35 Transect 2 August 2023 SM4 Results

Observation																
Date (night commencing)																
	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Brown long-eared bat	Noctule or Leisler' s bat	Leisler' s bat	Noctule, Leisler' s bat or serotine	Barbastelle	Myotis species or brown long-eared bat	Serotine	Myotis species	
30/08/2023	10.25	64	129	3	13	1	5	3	1	2	9	11	1	5	33	
31/08/2023	10.25	32	79	0	21	0	26	2	4	9	9	1	0	9	27	
01/09/2023	10.25	85	135	0	86	2	76	6	6	28	9	6	0	4	62	
02/09/2023	10.5	78	102	2	9	1	28	0	4	9	4	16	0	1	68	

Observation																
03/09/2023	10.5	26	82	0	3	0	31	0	3	1	10	5	1	6	58	
Total	51.75	285	527	5	132	4	166	11	18	49	41	39	2	25	248	
Registrations per hour by species	5.50	10.18	0.09	2.55	0.08	3.20	0.21	0.34	0.94	0.79	0.75	0.03	0.48	4.79		
Registrations of all bat species per hour	29.99															

Table 1.36 Transect 2 September 2023 SM4 Results

Observation																
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Possible barbastelle	Noctule	Serotine	Myotis or brown long-eared bat	Leisler' s bat	Brown long-eared bat	Noctule, Leisler;s bat or serotine	Barbastelle	Myotis species	
25/09/2023	12	30	154	1	3	1	1	0	21	1	0	2	3	0	10	
26/09/2023	12	50	101	0	5	0	0	2	7	12	5	2	51	0	4	

Observation															
27/09/2023	12	64	87	0	9	0	0	0	3	4	0	0	1	2	1
Total	36	144	342	1	17	1	1	2	31	17	5	4	55	2	15
Registrations per hour by species	4	9.5	0.02	0.47	0.02	0.02	0.05	0.86	0.47	0.13	0.11	1.52	0.05	0.41	
Registrations of all bat species per hour											17.69				

Table A.37 Transect 2 May 2024 SM4 Results

Observation																	
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Brown long-eared bat	Leisler' s bat	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Barbastelle	Myotis species or brown long-eared bat	Serotine	Myotis species	Possible barbastelle	
24/05/2024	8	129	100	2	28	5	5	18	3	0	4	80	7	5	16	3	
25/05/2024	8	111	65	2	30	3	18	3	3	1	1	12	0	8	6	0	
26/05/2024	8	165	131	1	37	3	5	8	6	8	7	23	10	23	11	2	
27/05/2024	8	110	86	1	17	7	0	3	1	1	6	15	2	7	17	0	
Total	32	515	382	6	112	18	28	32	13	10	18	130	19	43	50	5	
Registrations per hour by species		16.09	11.93	0.18	3.5	0.56	0.87	1	0.40	0.31	0.56	4.06	0.59	1.34	1.56	0.15	
Registrations of all bat species per hour		43.16															

Table A.38 Transect 2 June 2024 SM4 Results

Observation												
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Serotine	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule or Leisler' s bat	Barbastelle
05/06/2024	7.5	54	6	4	1	2	0	0	0	0	0	0
06/06/2024	7.5	243	18	19	4	5	3	4	2	3	0	1
07/06/2024	7.25	56	7	9	4	7	0	1	2	1	1	4
08/06/2024	7.25	48	2	10	1	0	0	0	0	0	0	0
09/06/2024	7.25	68	8	5	0	1	0	0	0	0	1	2
10/06/2024	7.25	11	2	0	1	0	0	0	0	0	0	0
11/06/2024	7	9	0	0	0	0	0	0	0	0	1	0
Total	51	491	43	47	11	15	3	5	4	4	3	7
Registrations per hour by species		9.62	0.84	0.92	0.21	0.29	0.05	0.09	0.07	0.07	0.05	0.13
Registrations of all bat species per hour		12.41										

Table A.39 Transect 2 July 2024 SM4 Results

		Observation															
Date (night commencing)		Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Leisler' s bat	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Serotine	Barbastelle	Possible barbastelle	Myotis species	Myotis species or brown long-eared bat	Brown long-eared bat
18/07/2024	8	18	44	0	3	0	0	0	0	5	2	2	0	5	0	2	
19/07/2024	8	22	62	2	6	0	2	1	2	13	10	0	2	7	1	2	
20/07/2024	8	16	72	0	1	0	1	4	0	0	9	1	0	9	1	1	
21/07/2024	8	31	56	0	9	1	0	0	0	8	25	2	1	7	2	1	
22/07/2024	8	18	73	0	3	2	0	39	10	19	9	3	0	6	0	1	

Observation																	
23/07/2024	8.25	20	73	3	12	1	0	14	0	24	45	5	3	5	6	2	
Total	48.25	125	380	5	34	4	3	58	12	69	100	13	6	39	10	9	
Registrations per hour by species	2.59	7.88	0.10	0.70	0.08	0.06	1.20	0.25	1.43	2.07	0.27	0.12	0.80	0.21	0.19		
Registrations of all bat species per hour	17.95																

Table A.40 Transect 2 August 2024 SM4 Results

Observation																	
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Possible barbastelle	Myotis or brown long-eared bat	Serotine	Leisler' s bat	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Brown long-eared bat	Barbastelle	Myotis species		

Observation																
05/08/2024	8.75	61	88	3	5	1	0	0	9	7	0	0	2	2	3	
06/08/2024	8.75	76	122	2	1	2	0	0	43	15	0	10	5	5	4	
07/08/2024	8.75	106	120	3	3	2	1	1	80	26	1	14	4	3	10	
08/08/2024	8.75	57	118	0	3	0	0	1	14	8	0	4	2	1	7	
09/08/2024	9	113	162	4	3	1	0	1	38	23	3	2	6	4	7	
10/08/2024	9	167	188	3	6	6	0	2	37	24	2	1	2	5	3	
Total	53	580	798	15	21	12	1	5	221	103	6	31	21	20	34	
Registrations per hour by species	10.94	15.05	0.28	0.39	0.22	0.01	0.09	4.16	1.94	0.11	0.58	0.39	0.37	0.64		
Registrations of all bat species per hour	35.25															

Table A.41 Transect 2 September 2024 SM4 Results

Observation																
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius')	Serotine	Noctule	Barbastelle	Brown long-eared bat	Leislers' bat	Possible barbastelle	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Myotis species or brown long-eared bat	Myotis species
03/09/2024	12	35	58	1	4	1	1	1	0	1	0	2	0	2	0	5
04/09/2024	12	79	92	4	3	3	0	1	1	0	0	4	0	2	2	3
05/09/2024	12.25	32	36	1	0	0	0	0	0	0	0	0	0	0	1	9
06/09/2024	12.25	13	17	2	1	1	1	0	0	2	0	1	0	0	0	2
07/09/2024	12.25	30	42	3	1	0	1	0	0	2	2	0	1	2	1	5
08/09/2024	12.5	21	18	3	0	1	0	0	0	0	0	3	1	1	0	4
09/09/2024	12.5	9	24	0	0	0	0	0	1	1	0	1	0	0	0	3
Total	85.75	219	287	14	9	6	3	2	2	6	2	11	2	7	4	31

Observation

Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius')	Serotine	Noctule	Barbastelle	Brown long-eared bat	Leislere's bat	Possible barbastelle	Noctule or Leislere's bat	Noctule, Leislere's bat or serotine	Myotis species or brown long-eared bat	Myotis species
		2.55	3.35	0.16	0.10	0.07	0.03	0.02	0.02	0.07	0.02	0.13	0.02	0.08	0.05	0.36
Registrations per hour by species																
Registrations of all bat species per hour									7.06							

Table A.42 Transect 2 October 2024 SM4 Results

Observation									
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Brown long-eared bat	Barbastelle	Serotine	Noctule or Leisler' s bat	Myotis species
12/10/2024	13.25	5	12	1	0	0	0	0	1
13/10/2024	13.25	5	9	1	3	0	0	1	5
14/10/2024	13.25	1	2	0	0	0	0	0	0
15/10/2024	13.5	6	3	1	1	5	1	3	0
Total	53.25	17	26	3	4	5	1	4	6
Registrations per hour by species		0.31	0.48	0.05	0.07	0.09	0.01	0.07	0.11
Registrations of all bat species per hour		1.24							

D.3 Transect 3

Table A.43 Transect 3 August 2023 SM4 Results

Observation																
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Possible barbastelle	Noctule	Serotine	Myotis species or brown long-eared bat	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule or Leisler' s bat	Barbastelle	Myotis species
30/08/2023	10.25	35	68	1	1	0	0	31	0	0	0	2	0	0	0	0
31/08/2023	10.25	75	108	0	6	1	0	4	10	0	1	2	1	0	0	3
01/09/2023	10.5	219	46	0	27	0	1	2	11	0	2	1	1	1	3	2
02/09/2023	10.5	38	48	1	2	1	2	6	7	0	0	3	1	1	0	1
03/09/2023	10.5	59	82	3	3	0	0	2	6	1	0	11	5	0	0	4

Observation																
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Possible barbastelle	Noctule	Serotine	Myotis species or brown long-eared bat	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule or Leisler' s bat	Barbastelle	Myotis species
Total	52	426	352	5	39	2	3	45	34	1	3	18	8	2	3	10
Registrations per hour by species		8.19	6.76	0.09	0.75	0.03	0.05	0.86	0.65	0.01	0.05	0.34	0.15	0.03	0.05	0.19
Registrations of all bat species per hour		18.29														

Table A.44 Transect 3 September 2023 SM4 Results

Observation															
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Brown long-eared bat	Leisler' s bat	Myotis species or brown long-eared bat	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Barbastelle	Serotine	Myotis species	Possible barbastelle
25/09/2023	12	38	180	2	0	9	8	1	1	1	8	35	4	1	3
26/09/2023	12	34	111	0	0	1	4	5	0	1	5	5	0	1	0
27/09/2023	12	391	334	6	3	0	0	1	0	2	3	8	5	3	2
28/09/2023	12.25	95	438	0	0	3	6	1	0	1	5	13	3	0	1
29/09/2023	12.25	8	21	1	0	2	2	1	0	1	0	4	0	2	1
Total	60.5	566	1084	9	3	15	20	9	1	6	21	65	12	7	7
Registrations per hour by species		9.35	17.91	0.14	0.04	0.24	0.33	0.14	0.01	0.09	0.34	1.07	0.19	0.11	0.11
Registrations of all bat species per hour		30.16													

Table A.45 Transect 3 May 2024 SM4 Results

Observation															
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Brown long-eared bat	Leisler' s bat	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Barbastelle	Myotis species or brown long-eared bat	Serotine	Myotis species	Possible barbastelle
24/05/2024	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25/05/2024	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26/05/2024	8	135	123	0	6	7	1	0	2	1	1	2	6	18	3
27/05/2024	8	177	181	0	7	0	1	5	0	6	1	0	4	7	2
28/05/2024	8	58	112	1	7	6	0	1	0	3	11	1	1	10	1
Total	40	370	416	1	20	13	2	6	2	10	13	3	11	35	6
Registrations per hour by species		9.25	10.40	0.03	0.50	0.33	0.05	0.15	0.05	0.25	0.33	0.08	0.8	0.88	0.15
Registrations of all bat species per hour		22.70													

Table A.46 Transect 3 June 2024 SM4 Results

Observation														
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Serotine	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule, or Leisler' s bat	Barbastelle	<i>Myotis</i> species
04/06/2024	7.5	8	0	0	0	3	0	0	0	0	0	1	0	0
05/06/2024	7.5	30	10	0	1	0	0	0	0	1	0	0	0	0
06/06/2024	7.5	33	83	0	0	1	2	7	1	2	1	3	0	0
07/06/2024	7.25	14	0	3	1	1	1	4	0	1	2	3	1	0
08/06/2024	7.25	14	2	1	2	0	0	0	0	0	0	1	0	2
09/06/2024	7.25	21	52	0	1	0	1	0	0	0	1	0	0	0
10/06/2024	7.25	2	3	0	0	0	1	0	0	0	0	0	0	2
11/06/2024	7	6	92	0	1	0	1	0	0	0	0	0	0	1

Observation

Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Serotine	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule, or Leisler' s bat	Barbastelle	Myotis species	
Total	58.5	114	242	4	6	5	6	11	1	4	4	8	1	5	
Registrations per hour by species		1.94	4.13	0.06	0.10	0.08	0.10	0.18	0.01	0.06	0.06	0.13	0.01	0.08	
Registrations of all bat species per hour		7.03													

Table A.47 Transect 3 July 2024 SM4 Results

Observation																
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Pipistrelle Social Call	Noctule	Leisler' s bat	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Serotine	Barbastelle	Possible barbastelle	Myotis species	Myotis species or long-eared bat	Brown Long-eared Bat
17/07/2024	8	34	352	0	0	1	63	38	43	9	3	1	3	3	0	2
18/07/2024	8	23	147	2	0	0	55	17	12	8	8	1	5	13	0	0
19/07/2024	8	14	146	2	0	1	45	12	9	3	7	1	1	10	0	0
20/07/2024	8	31	147	2	0	0	7	12	2	3	3	0	0	4	1	2
21/07/2024	8	44	154	0	0	1	27	8	1	6	3	0	1	13	0	1
22/07/2024	8	29	19	21	1	0	1	10	2	7	2	0	0	8	3	1

Observation

Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Pipistrelle Social Call	Noctule	Leisler' s bat	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Serotine	Barbastelle	Possible barbastelle	Myotis species	Myotis species or long-eared bat	Brown Long-eared Bat
23/07/2024	8.25	12	49	0	0	0	9	5	8	3	11	0	2	2	0	0
Total	56.26	187	1014	27	1	3	207	102	77	39	37	3	12	53	4	6
Registrations per hour by species		3.32	18.02	0.48	0.02	0.05	3.68	1.81	1.37	0.69	0.66	0.05	0.21	0.94	0.07	0.11
Registrations of all bat species per hour																31.83

Table A.48 Transect 3 October 2024 SM4 Results

Observation															
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius')	Noctule	Brown long-eared bat	Barbastelle	Serotine	Noctule or Leisler' s bst	Noctule, Lesler' s bat or serotine	Leisler' s bat	Myotis species	Social call
09/10/2024	13	533	111	20	0	1	4	0	0	3	1	4	3	7	127
10/10/2024	13	2	6	0	0	1	0	0	0	0	0	0	0	3	0
11/10/2024	13	8	92	0	0	0	0	0	5	0	0	0	0	3	2
12/10/2024	13.25	275	28	115	2	0	0	0	0	0	0	0	2	4	18
13/10/2024	13.25	68	21	0	0	0	0	1	0	0	0	0	0	4	6
Total	65.5	886	258	135	2	2	4	1	5	3	1	4	5	21	153

Observation

Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius')	Noctule	Brown long-eared bat	Barbastelle	Serotine	Noctule or Leisler' s bst	Noctule, Lesiler' s bat or serotine	Leisler' s bat	Myotis species	Social call
Registrations per hour by species		13.52	3.93	2.06	0.03	0.03	0.06	0.01	0.07	0.04	0.01	0.06	0.07	0.32	2.33
Registrations of all bat species per hour		6.15													

D.4 Transect 4

Table A.49 Transect 4 August 2023 SM4 Results

Observation															
Date (night commencing)	Night Length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (Common or soprano)	Pipistrelle species (Common or Nathusius' pipistrelle)	Nathusius' pipistrelle	Noctule	Leisler' s bat	Serotine	Noctule, Leisler' s bat or serotine	Brown long-eared bat	Barbastelle	Myotis species	Myotis species or brown long-eared bat	Possible barbastelle
30/08/2023	10.25	267	32	7	0	1	8	0	0	0	0	0	4	0	0
31/08/2023	10.25	391	143	8	0	0	2	1	1	1	1	1	0	2	0
01/09/2023	10.5	892	86	27	0	8	5	0	7	3	1	8	3	1	5
02/09/2023	10.5	73	32	9	1	0	1	0	2	0	0	1	6	2	2

03/09/2023	10.5	202	107	5	2	12	4	0	2	0	0	1	3	0	4
Total	52	1825	400	56	3	21	20	1	12	4	2	11	16	5	11
Registrations per hour by species		35.10	7.69	1.08	0.06	0.40	0.38	0.02	0.23	0.08	0.04	0.21	0.31	0.10	0.21
Registrations of all bat species per hour									45.90						

Table A.50 Transect 4 September 2023 SM4 Results

Observation																
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Possible barbastelle	Noctule	Serotine	Myotis species or brown long-eared bat	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule or Leisler' s bat	Barbastelle	Myotis species
25/09/2023	12	18	25	2	4	0	1	4	3	2	0	2	3	1	7	6
26/09/2023	12	19	15	1	1	0	2	11	5	0	0	0	4	1	6	8
27/09/2023	12	5	8	0	3	0	0	2	0	0	0	0	2	2	2	0
28/09/2023	12.25	6	11	0	1	0	1	5	0	0	0	0	0	0	3	4
29/09/2023	12.25	7	12	2	0	0	2	7	1	0	3	0	4	0	1	4
30/09/2023	12.25	6	4	0	1	1	1	2	1	0	0	0	3	0	1	0
01/10/2023	12.25	13	8	0	0	0	0	1	7	1	0	0	0	0	0	0

Observation

Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Possible barbastelle	Noctule	Serotine	Myotis species or brown long-eared bat	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule or Leisler' s bat	Barbastelle	Myotis species
Total	85	74	83	5	10	1	6	32	17	3	3	2	16	4	20	22
Registrations per hour by species		0.87	0.97	0.05	0.11	0.01	0.07	0.37	0.20	0.03	0.03	0.02	0.18	0.04	0.23	0.25
Registrations of all bat species per hour	3.51															

Table A.51 Transect 4 May 2024 SM4 Results

Observation															
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Brown long-eared bat	Leisler' s bat	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Barbastelle	Serotine	Myotis species	Possible barbastelle
01/05/2024	9	103	63	0	10	0	6	0	1	0	3	0	2	1	1
02/05/2024	9	98	41	1	4	0	3	1	0	1	0	0	3	1	2
03/05/2024	9	41	15	0	3	0	0	0	0	0	0	0	0	1	0
04/05/2024	8.25	116	45	0	9	0	5	0	1	0	0	0	0	3	1
05/05/2024	8.25	195	81	1	11	0	13	0	0	1	1	3	2	5	1
06/05/2024	8.25	123	77	2	9	0	2	1	0	0	0	0	0	1	3
07/05/2024	8.25	22	22	0	1	1	4	0	0	1	0	0	0	1	2

Observation

Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Brown long-eared bat	Leisler' s bat	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Barbastelle	Serotine	Myotis species	Possible barbastelle
Total	60	698	344	3	47	1	33	2	2	2	4	3	7	13	10
Registrations per hour by species		11.63	5.73	0.05	0.78	0.016	0.55	0.03	0.03	0.03	0.06	0.05	0.11	0.21	0.16
Registrations of all bat species per hour		19.48													

Table A.52 Transect 4 June 2024 SM4 Results

Observation														
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Serotine	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s or serotine	Noctule or Leisler' s bat	Barbastelle	Myotis species
04/06/2024	7.5	34	13	0	1	2	0	1	0	0	0	0	11	1
05/06/2024	7.5	33	6	1	6	3	0	0	0	1	0	0	2	2
06/06/2024	7.5	57	14	2	11	2	2	1	4	1	0	0	6	2
07/06/2024	7.25	33	14	0	12	1	2	5	0	2	1	0	6	1
08/06/2024	7.25	17	7	0	8	3	0	0	1	0	0	1	0	1
Total	37	174	54	3	38	11	4	6	5	4	1	1	25	7
Registrations per hour by species		4.70	1.45	0.08	1.02	0.29	0.10	0.16	0.13	0.10	0.02	0.02	0.67	0.18
Registrations of all bat species per hour		9.00												

Table A.53 Transect 4 July 2024 SM4 Results

Observation															
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Noctule or Leisler' s bat	Brown long-eared bat	Leisler' s bat	Barbastelle	Serotine	Noctule, Leisler' s bat or serotine	Myotis species	Possible barbastelle	Myotis species or brown long-eared bat
10/07/2024	7.5	27	39	27	0	4	0	1	0	1	2	1	2	1	1
11/07/2024	7.5	68	30	10	3	10	0	2	0	4	0	0	2	2	0
12/07/2024	7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13/07/2024	7.5	128	144	6	0	10	0	1	1	1	1	0	4	1	0
14/07/2024	7.5	54	47	1	1	8	0	1	0	1	1	0	1	1	2
15/07/2024	7.75	219	50	10	0	6	0	0	0	3	1	0	1	4	0
16/07/2024	7.75	178	122	10	0	6	1	1	0	1	0	1	1	1	0
Total	53	674	432	64	4	44	1	6	1	11	5	2	11	10	3

Observation															
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Noctule or Leisler' s bat	Brown long-eared bat	Leisler' s bat	Barbastelle	Serotine	Noctule, Leisler' s bat or serotine	Myotis species	Possible barbastelle	Myotis species or brown long-eared bat
Registrations per hour by species		12.7 2	8.15	1.21	0.08	0.8 3	0.02	0.11	0.02	0.21	0.09	0.04	0.21	0.19	0.06
Registrations of all bat species per hour		23.92													

Table A.54 Transect 4 August 2024 SM4 Results

Observation												
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Noctule	Serotine	Leisler' s bat	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Brown long-eared bat	Barbastelle	Myotis species
05/08/2024	8.75	44	34	1	9	21	6	1	16	4	5	3
06/08/2024	8.75	54	51	0	13	10	4	1	1	3	2	1
07/08/2024	8.75	61	22	0	1	4	1	0	4	0	3	2
Total	26.25	99	107	1	23	35	11	2	21	7	10	6
Registrations per hour by species		3.77	4.07	0.03	0.87	1.33	0.41	0.07	0.80	0.26	0.38	0.22
Registrations of all bat species per hour		12.27										

Table A.55 Transect 4 October 2024 SM4 Results

Observation									
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Noctule, Leisler's bat or serotine	Myotis species	Social call
09/10/2024	13	44	37	2	1	2	2	0	2
10/10/2024	13	1	24	0	0	0	0	0	0
11/10/2024	13	0	11	0	1	0	1	0	0
12/10/2024	13.25	0	25	0	0	0	0	0	1
13/10/2024	13.25	1	12	0	0	0	0	1	0
14/10/2024	13.25	3	28	1	0	0	0	0	0
Total	78.75	49	137	3	2	2	3	1	3
Registrations per hour by species		0.62	1.73	0.03	0.02	0.02	0.03	0.01	0.03
Registrations of all bat species per hour						2.54			

D.5 Transect 5

Table A.56 Transect 5 May 2024 SM4 Results

Observation								
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Noctule or Leisler' s bat	Myotis species or brown long-eared bat
02/05/2024	9	68	21	1	5	20	1	2
03/05/2024	9	22	7	0	2	1	0	0
Total	18	90	28	1	7	21	1	2
Registrations per hour by species		5	1.55	0.05	0.38	1.16	0.05	0.11
Registrations of all bat species per hour		8.33						

Table A.57 Transect 5 June 2024 SM4 Results

Observation										
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule or Leisler' s bat
06/06/2024	7.5	258	75	1	3	43	12	1	2	6
07/06/2024	7.25	0	0	0	0	0	0	0	0	0
08/06/2024	7.25	0	0	0	0	0	0	0	0	0
09/06/2024	7.25	0	0	0	0	0	0	0	0	0
10/06/2024	7.25	0	0	0	0	0	0	0	0	0
11/06/2024	7	0	0	0	0	0	0	0	0	0
12/06/2024	7	0	0	0	0	0	0	0	0	0
Total	50.5	258	75	1	3	43	12	1	2	6
Registrations per hour by species		5.11	1.49	0.02	0.06	0.85	0.24	0.02	0.04	0.12
Registrations of all bat species per hour		7.94								

Table A.58 Transect 5 July 2024 SM4 Results

Observation															
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Noctule or Leisler' s bat	Brown long-eared bat	Leisler' s bat	Barbastelle	Serotine	Noctule, Leisler' s bat or serotine	Myotis species	Possible barbastelle
10/07/2024	7.5	202	59	0	4	0	5	0	1	0	1	0	1	0	0
11/07/2024	7.5	67	24	1	3	3	1	2	0	6	0	0	0	0	0
12/07/2024	7.5	12	0	0	0	0	0	0	0	1	0	0	0	0	0
13/07/2024	7.5	207	74	0	15	1	2	0	0	1	0	0	0	0	3
14/07/2024	7.5	26	15	0	1	0	6	0	1	0	0	0	0	0	0
15/07/2024	7.75	273	68	0	39	1	2	1	0	0	1	1	1	0	0

Observation															
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Noctule or Leisler' s bat	Brown long-eared bat	Leisler' s bat	Barbastelle	Serotine	Noctule, Leisler' s bat or serotine	Myotis species	Possible barbastelle
16/07/2024	7.75	266	47	0	4	1	7	8	0	0	1	0	2	1	0
Total	53	1053	287	1	66	6	23	11	2	8	3	1	4	1	3
Registrations per hour by species		19.86	5.41	0.01	1.24	0.11	0.43	0.20	0.03	0.15	0.05	0.01	0.07	0.01	0.05
Registrations of all bat species per hour		27.72													

Table A.59 Transect 5 August 2024 SM4 Results

Observation											
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Noctule	Serotine	Leisler' s bat	Noctule, Leisler' s bat or serotine	Brown long-eared bat	Barbastelle	Myotis species
05/08/2024	8.75	318	423	0	11	8	0	0	0	10	1
06/08/2024	8.75	200	39	0	9	5	4	0	5	5	0
07/08/2024	8.75	138	87	1	9	4	5	1	0	27	0
08/08/2024	8.75	15	16	1	2	0	0	1	0	2	1
Total	35	671	565	2	31	17	9	2	5	44	2
Registrations per hour by species		19.17	16.14	0.05	0.88	0.48	0.25	0.05	0.14	1.25	0.05
Registrations of all bat species per hour		38.51									

Table A.60 Transect 5 September 2024 SM4 Results

Observation																
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius')	Serotine	Noctule	Barbastelle	Brown long-eared bat	Leisler' s bat	Possible barbastelle	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Myotis species or brown long-eared bat	Myotis species
03/09/2024	12	156	27	0	4	0	1	1	5	0	2	11	0	0	0	1
04/09/2024	12	60	25	1	9	1	0	1	3	1	0	9	0	1	0	4
05/09/2024	12.2 5	48	23	0	2	0	2	3		1	0	2	0	3	1	0
06/09/2024	12.2 5	108	35	0	5	0	0	10	1	2	2	1	5	0	1	3
07/09/2024	12.2 5	126	28	0	6	0	0	2	1	1	0	2	1	1	2	4
08/09/2024	12.5	39	4	0	0	0	0	16	0	0	0	2	1	0	0	1
Total	73.2 5	537	142	1	26	1	3	33	10	5	4	27	7	5	4	13

Observation

Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius')	Serotine	Noctule	Barbastelle	Brown long-eared bat	Leisler' s bat	Possible barbastelle	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Myotis species or brown long-eared bat	Myotis species
Registrations per hour by species		7.33	1.93	0.01	0.35	0.01	0.04	0.45	0.13	0.06	0.05	0.36	0.09	0.06	0.05	0.17
Registrations of all bat species per hour		11.16														

Table A.61 Transect 5 October 2024 SM4 Results

Observation											
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Noctule	Brown long-eared bat	Barbastelle	Serotine	Noctule, Leisler's bat or serotine	Myotis species	Social call
09/10/2024	13	59	17	0	0	0	0	13	1	1	0
10/10/2024	13	3	8	1	0	0	0	0	0	2	0
11/10/2024	13	12	53	0	0	0	0	0	0	0	0
12/10/2024	13.25	11	56	1	1	0	0	0	0	3	1
13/10/2024	13.25	28	68	1	0	0	0	0	0	1	0
14/10/2024	13.25	266	86	6	0	0	6	5	0	2	2
15/10/2024	13.5	333	44	0	0	45	2	0	1	5	2
Total	92.25	712	332	9	1	45	8	18	2	14	5
Registrations per hour by species		7.81	3.59	0.09	0.01	0.48	0.08	0.19	0.02	0.15	0.05
Registrations of all bat species per hour						12.42					

D.6 Transect 6

Table A.62 Transect 6 August 2023 SM4 Results

Observation														
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Nathusius' pipistrelle	Noctule	Leisler' s bat	Noctule or Leisler' s bat	Serotine	Noctule, Leisler' s bat or serotine	Brown long-eared bat	Barbastelle	Myotis species	Possible barbastelle bat
31/08/2023	10.25	0	2	0	0	3	0	0	0	0	0	0	0	0
01/09/2023	10.5	47	18	2	0	30	1	1	5	6	1	0	2	0
02/09/2023	10.5	0	1	0	0	0	0	0	0	0	0	0	0	0
03/09/2023	10.5	10	6	2	1	6	0	0	0	0	0	9	3	3
Total	41.75	57	27	4	1	39	1	1	5	6	1	9	5	3

Observation

Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Nathusius' pipistrelle	Noctule	Leisler' s bat	Noctule or Leisler' s bat	Serotine	Noctule, Leisler' s bat or serotine	Brown long-eared bat	Barbastelle	Myotis species	Possible barbastelle bat
Registrations per hour by species		1.37	0.65	0.10	0.02	0.93	0.02	0.02	0.12	0.14	0.02	0.22	0.12	0.07
Registrations of all bat species per hour		38.1												

Table A.63 Transect 6 September 2023 SM4 Results

Observation													
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Noctule	Noctule or Leisler' s bat	Leisler' s bat	Serotine	Noctule, Leisler' s bat or serotine	Possible barbastelle	<i>Myotis</i> species	<i>Myotis</i> species or brown long-eared bat	Brown long-eared bat
25/09/2023	12	67	13	2	0	0	0	0	1	0	3	1	0
26/09/2023	12	29	3	0	1	0	0	1	0	2	0	0	2
27/09/2023	12	16	20	0	2	3	1	0	0	0	0	0	0
28/09/2023	12.25	9	29	0	0	2	0	0	0	1	0	0	0
29/09/2023	12.25	4	2	0	1	0	1	0	0	0	1	0	1
Total	60.5	122	67	2	4	5	2	1	1	3	4	1	3
Registrations per hour by species		2.02	1.11	0.03	0.07	0.08	0.03	0.02	0.02	0.05	0.07	0.02	0.05
Registrations of all bat species per hour		3.55											

Date (night commencing)	Observation
	Night length
	Common pipistrelle
	Soprano pipistrelle
	Pipistrelle species (common or soprano)
	Noctule
	Noctule or Leisler' s bat
	Leisler' s bat
	Serotine
	Noctule, Leisler' s bat or serotine
	Possible barbastelle
	<i>Myotis</i> species
	<i>Myotis</i> species or brown long-eared bat
	Brown long-eared bat

Table A.64 Transect 6 May 2024 SM4 Results

Observation																
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Leisler' s bat	Noctule, Leisler' s bat or serotine	Barbastelle	Serotine	Myotis species	Possible barbastelle				
01/05/2024		9		214	89	1		1	0		0	0	5	0	1	0
02/05/2024		9		182	10	0		43	1		0	2	2	1	0	0
03/05/2024		9		19	5	0		0	1		0	0	0	0	0	0
04/05/2024		8.75		11	6	0		2	1		0	0	0	0	0	0
05/05/2024		8.75		34	13	0		1	1		0	0	0	0	0	0
06/05/2024		8.75		103	14	0		5	1		1	0	0	1	0	1
07/05/2024		8.75		328	117	1		3	1		0	0	1	2	0	0
Total		62		891	254	2		55	6		1	2	8	4	1	1
Registrations per hour by species				14.37	4.09	0.03		0.89	0.10		0.02	0.03	0	0	0	0
													0	0	0	0
													1	6	2	2
Registrations of all bat species per hour								19.76								

Table A.65 Transect 6 June 2024 SM4 Results

Observation														
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle social call	Noctule	Noctule or Leisler' s bat	Serotine	Noctule, Leisler' s bat or serotine	Barbastelle	Possible barbastelle	Myotis species	Myotis species or brown long-eared bat	Brown long-eared bat
05/06/2024	7.5	63	6	5	0	3	3	0	1	2	2	2	0	0
06/06/2024	7.5	59	14	4	1	7	3	1	5	3	0	1	1	6
07/06/2024	7.25	37	6	0	0	6	1	0	9	0	5	1	0	33
08/06/2024	7.25	8	7	0	3	1	1	0	0	0	1	0	0	0
09/06/2024	7.25	26	9	0	0	3	2	0	2	1	3	0	0	0
10/06/2024	7.25	4	1	0	0	0	0	0	0	0	0	0	0	0
11/06/2024	7	16	0	0	0	1	0	0	0	1	1	0	0	0
Total	51	213	43	9	4	21	10	1	17	7	12	4	1	38

Observation

Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle social call	Noctule	Noctule or Leisler' s bat	Serotine	Noctule, Leisler' s bat or serotine	Barbastelle	Possible barbastelle	<i>Myotis</i> species	<i>Myotis</i> species or brown long-eared bat	Brown long-eared bat
Registrations per hour by species		0.42	0.84	0.18	0.08	0.41	0.20	0.12	0.33	0.14	0.24	0.08	0.12	0.75
Registrations of all bat species per hour		3.91												

Table A.66 Transect 6 July 2024 SM4 Results

Observation											
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Noctule or Leisler' s bat	Barbastelle	Serotine	Myotis species	Possible barbastelle
10/07/2024	7.5	97	75	4	1	2	1	3	0	1	1
11/07/2024	7.5	129	136	3	3	7	0	5	0	2	2
12/07/2024	7.5	8	3	1	0	0	0	0	0	0	1
13/07/2024	7.5	27	10	3	0	2	1	1	0	0	0
14/07/2024	7.5	40	19	0	0	1	1	2	0	1	0
15/07/2024	7.75	149	85	6	1	5	0	1	1	1	0
16/07/2024	7.75	59	25	4	0	6	4	0	0	0	1
Total	53	509	353	21	5	23	7	12	1	5	5
Registrations per hour by species		9.60	6.66	0.39	0.09	0.43	0.13	0.22	0.01	0.09	0.09
Registrations of all bat species per hour		17.75									

Table A.67 Transect 6 August 2024 SM4 Results

Observation											
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Noctule	Serotine	Leisler' s bat	Noctule, Leisler' s bat or serotine	Brown long-eared bat	Barbastelle	Myotis species
05/08/2024	8.75	293	14	1	1	35	76	33	0	1	1
06/08/2024	8.75	76	59	0	5	3	40	4	0	2	1
07/08/2024	8.75	103	15	0	3	12	40	6	0	2	0
08/08/2024	8.75	6	4	0	2	0	0	0	0	2	0
09/08/2024	9	32	27	0	4	9	14	4	1	3	0
10/08/2024	9	74	17	0	2	1	7	0	1	4	0
11/08/2024	9	19	5	0	2	0	5	0	0	0	0
Total	62	603	141	1	19	60	182	47	1	14	2
Registrations per hour by species		9.72	2.27	0.01	0.30	0.96	2.93	0.75	0.01	0.22	0.03
Registrations of all bat species per hour		17.26									

Table A.68 Transect 6 October 2024 SM4 Results

Observation						
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius')	Myotis species
08/10/2024	13	93	97	11	1	0
09/10/2024	13	56	39	0	0	0
11/10/2024	13	0	0	0	0	1
12/10/2024	13.25	1	9	0	0	0
13/10/2024	13.25	12	37	5	0	0
14/10/2024	13.25	8	6	1	0	0
Total	78.75	170	188	17	1	1
Registrations per hour by species		2.15	2.38	0.21	0.01	0.01
Registrations of all bat species per hour			4.79			

D.7 Transect 7

Table A.69 Transect 7 August 2023 SM4 Results

Observations											
Date (night commencing)	Night Length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (Common or soprano pipistrelle)	Noctule	Serotine	Noctule, Leisler's bat or serotine	Brown long-eared bat	Barbastelle	<i>Myotis</i> species	Possible barbastelle bat
30/08/2023	10.25	33	56	6	3	0	0	1	3	3	2
31/08/2023	10.25	49	38	5	13	1	2	1	11	0	0
01/09/2023	10.5	61	32	2	5	7	2	0	6	1	0
02/09/2023	10.5	36	77	1	2	0	0	0	3	2	0
Total	41.5	179	203	14	23	8	4	2	23	6	2

Observations

Date (night commencing)	Night Length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (Common or soprano pipistrelle)	Noctule	Serotine	Noctule, Leisler's bat or serotine	Brown long-eared bat	Barbastelle	<i>Myotis</i> species	Possible barbastelle bat
Registrations per hour by species		4.31	4.89	0.34	0.55	0.19	0.10	0.05	0.55	0.14	0.05
Registrations of all bat species per hour		11.18									

Table A.70 Transect 7 September 2023 SM4 Results

Observation															
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle social call	Noctule	Leisler' s bat	Serotine	Noctule, Leisler' s bat or serotine	Barbastelle	Possible barbastelle	Myotis species	Myotis species or brown long-eared bat	Brown long-eared bat
28/09/2023	12.25	1609	521	0	27	0	1	0	3	1	6	6	2	0	1
29/09/2023	12.25	11	10	1	0	0	0	0	2	0	5	0	0	0	1
30/09/2023	12.25	169	27	0	0	0	0	0	3	1	8	0	1	1	0
01/10/2023	12.25	273	18	0	1	1	0	1	2	2	8	1	1	0	2
Total	49	2062	576	1	28	1	1	1	10	4	27	7	4	1	4
Registrations per hour by species		42.08	11.76	0.02	0.57	0.02	0.02	0.02	0.20	0.08	0.55	0.14	0.08	0.02	0.08
Registrations of all bat species per hour		55.62													

Table A.71 Transect 7 May 2024 SM4 Results

Observation												
Date (night commencing)	Night Length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Brown long-eared bat	Leisler' s bat	Noctule, Leisler' s bat or serotine	Barbastelle	Serotine	Myotis species
01/05/2024	9	28	18	0	4	1	1	1	2	0	0	0
02/05/2024	9	267	73	1	21	12	2	0	0	19	1	2
03/05/2024	9	15	26	0	8	4	0	0	0	2	0	1
04/05/2024	8.75	49	20	1	2	0	2	0	0	12	0	0
05/05/2024	8.75	210	340	0	23	2	4	0	1	25	2	3
06/05/2024	8.75	45	65	0	6	35	1	0	1	4	1	6
07/05/2024	8.75	11	3	0	1	6	0	0	1	0	0	0
Total	62	625	545	2	65	60	10	1	5	62	4	12
Registrations per hour by species		10.08	8.79	0.03	1.04	0.96	0.16	0.02	0.08	1	0.06	0.19
Registrations of all bat species per hour		22.35										

Table A.72 Transect 7 July 2024 SM4 Results

Observation													
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Leisler' s bat	Brown long-eared bat	Noctule or Leisler' s bat	Barbastelle	Myotis species	Possible barbastelle
09/07/2024	7.5	7	11	0	6	1	3	9	3	8	0	0	0
10/07/2024	7.5	47	32	1	32	2	6	0	5	4	0	0	1
11/07/2024	7.5	23	54	0	28	8	4	0	4	1	0	4	1
12/07/2024	7.5	48	201	0	366	0	0	0	0	0	1	0	0
13/07/2024	7.5	36	101	0	42	1	1	1	1	1	1	0	3
14/07/2024	7.5	7	72	0	5	0	1	1	0	0	0	0	3
15/07/2024	7.75	22	69	0	13	3	11	3	1	5	1	0	0
16/07/2024	7.75	82	69	0	54	0	5	4	0	3	5	0	1
Total	60.5	272	609	1	546	15	31	18	14	22	8	4	9

Observation

Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Leisler' s bat	Brown long-eared bat	Noctule or Leisler' s bat	Barbastelle	Myotis species	Possible barbastelle
Registrations per hour by species		4.49	10.06	0.01	9.02	0.24	0.51	0.29	0.23	0.36	0.13	0.06	0.14
Registrations of all bat species per hour		25.60											

Table A.73 Transect 7 August 2024 SM4 Results

Observation									
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Noctule	Serotine	Leisler' s bat	Brown long-eared bat	Barbastelle	Myotis species
06/08/2024	8.75	5	3	13	4	7	10	3	2
07/08/2024	8.75	6	5	4	25	14	7	2	3
Total	17.5	11	8	17	29	21	17	5	5
Registrations per hour by species		0.62	0.45	0.97	1.65	1.20	0.97	0.28	0.28
Registrations of all bat species per hour					6.46				

Table A.74 Transect 7 October 2024 SM4 Results

Observation										
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Brown log-eared bat	Serotine	Myotis species	Social call
08/10/2024	13	815	454	0	26	0	1	1	6	99
09/10/2024	13	467	183	0	1	1	0	1	1	4
10/10/2024	13	1	9	0	0	0	0	0	3	0
11/10/2024	13	3	1	0	0	0	0	0	1	0
12/10/2024	13.25	149	106	0	0	0	0	0	0	0
13/10/2024	13.25	36	47	1	3	0	0	0	5	0
14/10/2024	13.25	175	20	1	0	1	0	0	7	2
Total	91.75	1646	820	2	30	2	1	2	22	105
Registrations per hour by species		17.94	8.93	0.02	0.32	0.02	0.01	0.02	0.23	1.14

Observation

Date (night commencing)

Night length

Common pipistrelle

Soprano pipistrelle

Nathusius' pipistrelle

Pipistrelle species (common or soprano)

Noctule

Brown log-eared bat

Serotine

Myotis species

Social call

Registrations of all bat species per hour

28.66

D.8 Transect 8

Table A.75 Transect 8 August 2023 SM4 Results

Observations														
Date (night commencing)	Night Length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Nathusius' pipistrelle	Noctule	Leisler' s bat	Noctule or Leisler' s bat	Serotine	Noctule, Leisler' s bat or serotine	Barbastelle	Myotis species	Brown long-eared bat	Possible barbastelle bat
31/08/2023	10.25	68	2	8	0	4	0	0	0	0	1	0	0	0
01/09/2023	10.50	85	22	6	1	6	2	0	1	2	2	1	1	0
02/09/2023	10.50	12	0	0	0	0	0	0	0	0	8	4	2	3
03/09/2023	10.50	226	18	10	0	1	0	0	4	1	6	1	3	0

Observations

Date (night commencing)	Night Length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Nathusius' pipistrelle	Noctule	Leisler' s bat	Noctule or Leisler' s bat	Serotine	Noctule, Leisler' s bat or serotine	Barbastelle	Myotis species	Brown long-eared bat	Possible barbastelle bat
04/09/2023	10.50	110	9	8	0	2	0	1	1	0	1	0	1	0
Total	52.25	501	51	32	1	13	2	1	6	3	18	6	7	3
Registrations per hour by species		9.59	0.98	0.61	0.02	0.25	0.04	0.02	0.11	0.06	0.34	0.11	0.13	0.06
Registrations of all bat species per hour								12.33						

Table A.76 Transect 8 September 2023 SM4 Results

Observation												
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle social call	Noctule	Noctule or Leisler' s bat	Leisler' s bat	Barbastelle	Possible barbastelle	Myotis species	Myotis species or brown long-eared bat
26/09/2023	12	7	6	1	1	0	1	0	7	4	1	0
27/09/2023	12	2	5	1	0	1	0	0	4	1	0	0
28/09/2023	12.25	8	7	3	0	0	0	1	0	0	2	0
29/09/2023	12.25	4	5	0	0	0	0	0	1	5	3	0
30/09/2023	12.25	9	12	2	0	0	0	0	1	5	1	2
Total	60.75	30	35	7	1	1	1	1	13	15	7	2
Registrations per hour by species		0.49	0.58	0.12	0.02	0.02	0.02	0.02	0.21	0.25	0.12	0.03
Registrations of all bat species per hour		1.88										

Table A.77 Transect 8 May 2024 SM4 Results

Observation												
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Barbastelle	Serotine	Myotis species	Possible barbastelle
01/05/2024	9	22	15	0	3	2	2	1	0	0	1	0
02/05/2024	9	305	42	0	1	2	0	0	12	1	0	5
03/05/2024	9	21	13	0	2	4	0	0	1	0	0	0
04/05/2024	8.75	48	18	0	2	0	1	0	5	0	1	1
05/05/2024	8.75	126	35	2	17	3	1	1	6	0	2	3
06/05/2024	8.75	153	29	2	16	10	3	0	6	2	5	0
07/05/2024	8.75	135	42	0	14	3	0	0	0	0	7	0
Total	62	696	194	4	55	24	7	2	30	3	16	9
Registrations per hour by species		11.22	3.12	0.06	0.88	0.38	0.11	0.03	0.48	0.04	0.25	0.14

Observation	
Date (night commencing)	Night length
	Common pipistrelle
	Soprano pipistrelle
	Nathusius' pipistrelle
	Pipistrelle species (common or soprano)
	Noctule
	Brown long-eared bat
	Noctule, Leisler's bat or serotine
	Barbastelle
	Serotine
	Myotis species
	Possible barbastelle
Registrations of all bat species per hour	16.77

Table A.78 Transect 8 June 2024 SM4 Results

Observation													
Date (night commencing)	Night hours	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Leisler' s bat	Noctule, Leisler' s bat or serotine	Barbastelle	Possible barbastelle	Myotis species	Myotis species or brown long-eared bat	Serotine
06/06/2024	7.5	24	17	9	1	1	1	1	1	6	1	1	0
07/06/2024	7.25	25	24	70	0	0	0	0	1	3	3	0	6
08/06/2024	7.25	30	34	70	0	0	0	0	1	3	4	0	0
09/06/2024	7.25	8	16	5	0	0	0	0	1	6	6	1	3
10/06/2024	7.25	0	4	3	0	0	0	0	0	1	2	0	0
11/06/2024	7	1	3	6	0	0	0	0	0	3	2	0	0
12/06/2024	7	9	15	7	0	0	0	0	0	3	7	0	2
Total	50.5	97	113	179	1	1	1	1	4	22	25	2	11
Registrations per hour by species		1.92	2.23	3.54	0.01	0.01	0.01	0.01	0.07	0.43	0.49	0.03	0.21

Observation	
Date (night commencing)	
Night hours	
Common pipistrelle	
Soprano pipistrelle	
Pipistrelle species (common or soprano)	
Pipistrelle species (common or Nathusius' pipistrelle)	
Noctule	
Leisler' s bat	9.05
Noctule, Leisler' s bat or serotine	
Barbastelle	
Possible barbastelle	
Myotis species	
Myotis species or brown long-eared bat	
Serotine	
Registrations of all bat species per hour	

Table A.79 Transect 8 July 2024 SM4 Results

Observation															
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Serotine	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule, or Leisler' s bat	Barbastelle	Possible barbastelle	<i>Myotis</i> species
09/07/2024	7.5	59	20	0	7	0	2	0	3	0	0	5	0	0	1
10/07/2024	7.5	50	40	0	31	0	1	1	1	0	2	1	2	1	1
11/07/2024	7.5	14	14	0	6	0	6	0	1	0	1	7	1	0	3
12/07/2024	7.5	1	1	0	0	0	0	0	0	0	0	0	0	1	1
13/07/2024	7.5	26	18	0	24	0	2	0	0	1	0	0	3	0	1
14/07/2024	7.75	30	11	0	41	1	1	0	0	1	2	0	1	0	0
15/07/2024	7.75	143	45	1	49	0	10	0	5	1	0	2	0	0	0

Observation

Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Noctule	Serotine	Leisler' s bat	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule, or Leisler' s bat	Barbastelle	Possible barbastelle	Myotis species
16/07/2024	7.75	30	73	0	61	0	0	1	0	0	4	0	5	2	0
Total	79.5	353	222	1	219	1	22	2	10	3	9	15	12	4	7
Registrations per hour by species		4.44	2.79	0.01	2.75	0.01	0.27	0.02	0.12	0.03	0.11	0.18	0.15	0.05	0.08
Registrations of all bat species per hour		11.07													

Table A.80 Transect 8 August 2024 SM4 Results

Observation													
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Possible barbastelle	Noctule	Serotine	Leisler' s bat	Noctule or Leisler' s bat	Noctule, Leisler' s bat or serotine	Brown long-eared bat	Barbastelle	Myotis species
06/08/2024	8.75	46	33	0	1	5	1	3	0	3	1	6	3
07/08/2024	8.75	49	135	2	0	6	1	15	12	0	3	7	0
08/08/2024	8.75	12	20	0	0	0	1	1	0	0	0	0	0
09/08/2024	9	82	54	1	0	1	3	3	0	0	1	3	1
10/08/2024	9	70	56	0	1	6	1	12	4	1	2	4	3
11/08/2024	9	21	13	0	1	10	1	2	0	2	0	0	0
Total	53.25	280	311	3	3	28	8	36	16	6	7	20	7
Registrations per hour by species		5.25	5.84	0.05	0.05	0.52	0.15	0.67	0.30	0.11	0.13	0.37	0.13

Observation	
Date (night commencing)	Night length
	Common pipistrelle
	Soprano pipistrelle
	Pipistrelle species (common or soprano)
	Possible barbastelle
	Noctule
	Serotine
	Leisler' s bat
	Noctule or Leisler' s bat
	Noctule, Leisler' s bat or serotine
	Brown long-eared bat
	Barbastelle
	<i>Myotis</i> species
Registrations of all bat species per hour	13.62

Table A.81 Transect 8 October 2024 SM4 Results

Observation									
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Noctule, Leisler' s bat or serotine	Leisler' s bat	Myotis species	Social call	
08/10/2024	13	75	7	0	1	1	1	1	
09/10/2024	13	20	16	0	1	0	0	0	
10/10/2024	13	1	0	0	0	0	1	0	
11/10/2024	13.25	2	3	0	0	0	1	0	
12/10/2024	13.25	5	18	1	0	0	0	1	
Total	65.5	103	44	1	2	1	3	2	
Registrations per hour by species		1.57	0.67	0.01	0.03	0.01	0.04	0.03	
Registrations of all bat species per hour		2.38							

D.9 Transect 9

Table A.82 Transect 9 August 2023 SM4 Results

Observations										
Date (night commencing)	Night Length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (Common or soprano pipistrelle)	Nathusius' pipistrelle	Noctule	Noctule, Leisler's bat or serotine	Serotine	Brown long-eared bat	Myotis species
31/08/2023	10.25	5	49	0	0	0	0	0	0	0
01/09/2023	10.50	16	710	2	1	3	1	2	1	2
Total	20.75	21	759	2	1	3	1	2	1	2
Registrations per hour by species		1.01	36.57	0.10	0.05	0.14	0.05	0.10	0.05	0.10
Registrations of all bat species per hour		38.20								

Table A.83 Transect 9 May 2024 SM4 Results

Observation										
Date (night commencing)	Night hours	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Leisler' s bat	Brown long-eared bat	Noctule or Leisler' s bat	Myotis species
01/05/2024	9	88	192	0	12	1	1	4	0	2
02/05/2024	9	19	190	1	10	1	1	1	1	0
03/05/2024	9	2	58	0	5	0	0	0	0	0
04/05/2024	8.75	1	60	0	12	0	0	0	0	1
Total	35.75	110	500	1	39	2	2	5	1	3
Registrations per hour by species		3.07	13.98	0.02	1.09	0.05	0.05	0.13	0.02	0.08
Registrations of all bat species per hour		18.55								

Table A.84 Transect 9 June 2024 SM4 Results

Observation																
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius' pipistrelle)	Pipistrelle social call	Noctule	Noctule or Leisler' s bat	Leisler' s bat	Serotine	Noctule, Leisler' s bat or serotine	Barbastelle	Possible barbastelle	Myotis species	Myotis species or brown long-eared bat	Brown long-eared bat
04/06/2024	7.5	292	263	49	0	16	3	1	0	0	0	1	1	2	0	0
05/06/2024	7.5	13	142	11	1	6	2	1	0	0	0	1	1	1	0	0
06/06/2024	7.5	37	138	42	0	1	1	0	0	2	3	3	2	0	0	1
07/06/2024	7.25	391	322	0	0	19	0	1	2	2	3	3	0	4	1	10
08/06/2024	7.25	3	189	28	0	13	5	0	0	1	2	0	2	0	0	0

Observation																
09/06/2024	7.25	109	108	33	0	2	0	0	0	0	0	1	1	0	0	2
10/06/2024	7.25	3	65	4	0	1	12	0	0	0	0	0	0	0	0	0
11/06/2024	7	10	35	8	0	0	0	0	0	0	0	0	0	0	0	0
Total	58.5	858	1262	175	1	58	23	3	2	5	8	9	7	7	1	13
Registrations per hour by species		14.67	21.57	2.99	0.02	0.99	0.39	0.05	0.03	0.09	0.14	0.15	0.12	0.12	0.02	0.22
Registrations of all bat species per hour																41.57

Table A.85 Transect 9 July 2024 SM4 Results

Observation													
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule or Leisler' s bat	Barbastelle	Possible barbastelle	Myotis species	Myotis or brown long-eared bat
09/07/2024	7.5	5	94	0	81	10	5	1	1	0	1	4	0
10/07/2024	7.5	2	109	0	48	2	3	1	0	4	1	2	0
11/07/2024	7.5	14	107	0	66	4	4	0	2	7	3	1	6
12/07/2024	7.5	0	1	0	0	0	0	0	0	0	0	0	0
13/07/2024	7.5	2	86	0	38	5	3	0	1	7	9	2	1
14/07/2024	7.75	0	27	1	9	0	5	4	0	1	5	2	0
15/07/2024	7.75	1	36	0	7	0	1	4	0	1	1	3	1
16/07/2024	7.75	36	62	0	62	2	0	2	1	0	1	0	0
17/07/2024	7.75	2	23	0	19	0	2	3	1	2	15	0	1
Total	68.5	62	545	1	330	23	11	15	6	22	36	14	9

Observation

Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Noctule	Brown long-eared bat	Noctule, Leisler' s bat or serotine	Noctule or Leisler' s bat	Barbastelle	Possible barbastelle	Myotis species	Myotis or brown long-eared bat
Registrations per hour by species		0.90	7.95	0.01	4.81	0.03	0.16	0.21	0.08	0.32	0.52	0.20	0.13
Registrations of all bat species per hour		15.68											

Table A.86 Transect 9 September 2024 SM4 Results

Observation												
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	Pipistrelle species (common or soprano)	Pipistrelle species (common or Nathusius')	Noctule	Brown long-eared bat	Leisler' s bat	Noctule, Leisler' s bat or serotine	Myotis species	Social call
03/09/2024	12	115	139	1	2	0	0	0	1	1	4	177
04/09/2024	12	15	229	0	1	1	1	2	0	0	3	569
05/09/2024	12.25	13	20	0	0	0	0	1	0	0	2	73
06/09/2024	12.25	7	9	0	1	0	0	0	0	0	0	46
Total	48.5	150	397	1	4	1	1	3	1	1	9	865
Registrations per hour by species		3.09	8.18	0.02	0.08	0.02	0.02	0.06	0.02	0.02	0.18	17.83
Registrations of all bat species per hour		29.54										

Table A.87 Transect 9 October 2024 SM4 Results

Observation									
Date (night commencing)	Night length	Common pipistrelle	Soprano pipistrelle	Pipistrelle species (common or soprano)	Noctule	Other species	Registrations	Registrations per hour	Registrations per hour by species
08/10/2024	13	2	19	1	0	2	3	0	
09/10/2024	13	45	360	1	1	4	8	54	
10/10/2024	13	1	0	1	0	1	3	0	
11/10/2024	13.25	0	2	0	0	0	1	0	
12/10/2024	13.25	393	521	6	1	0	2	119	
Total	65.5	441	902	9	2	7	17	173	
Registrations per hour by species		6.73	13.77	0.13	0.03	0.10	0.25	2.64	
Registrations of all bat species per hour					23.68				

Annex 2.I.4 SM4bat FS Detector Survey Sonograms

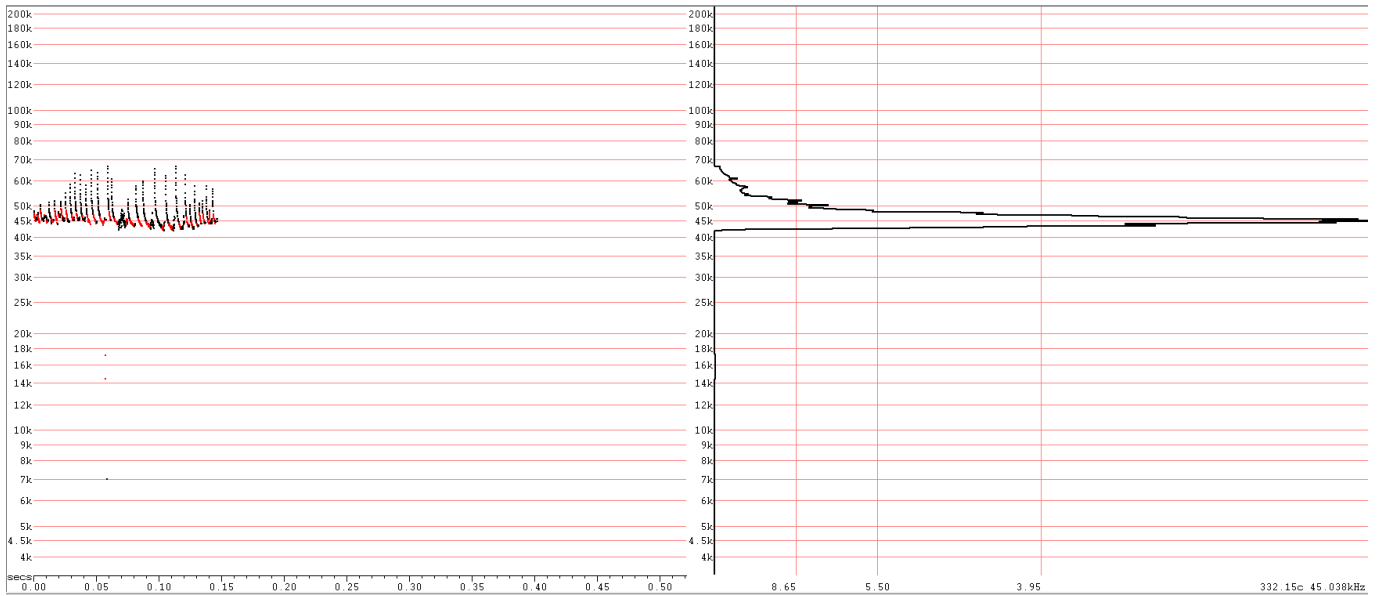


Plate A.10 Common pipistrelle recorded at 21:53 on 24 May 2024, Transect 2, F6 compression

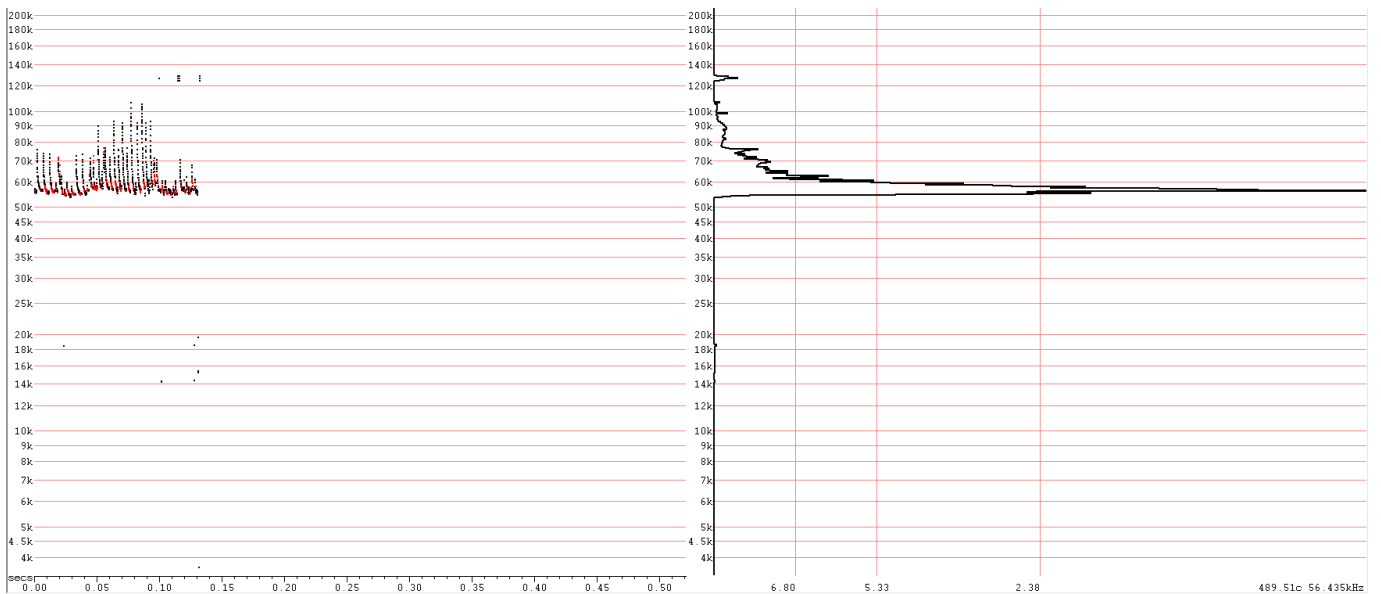


Plate A.11 Soprano pipistrelle recorded at 01:32 on 11 July 2024, Transect 8, F6 compression

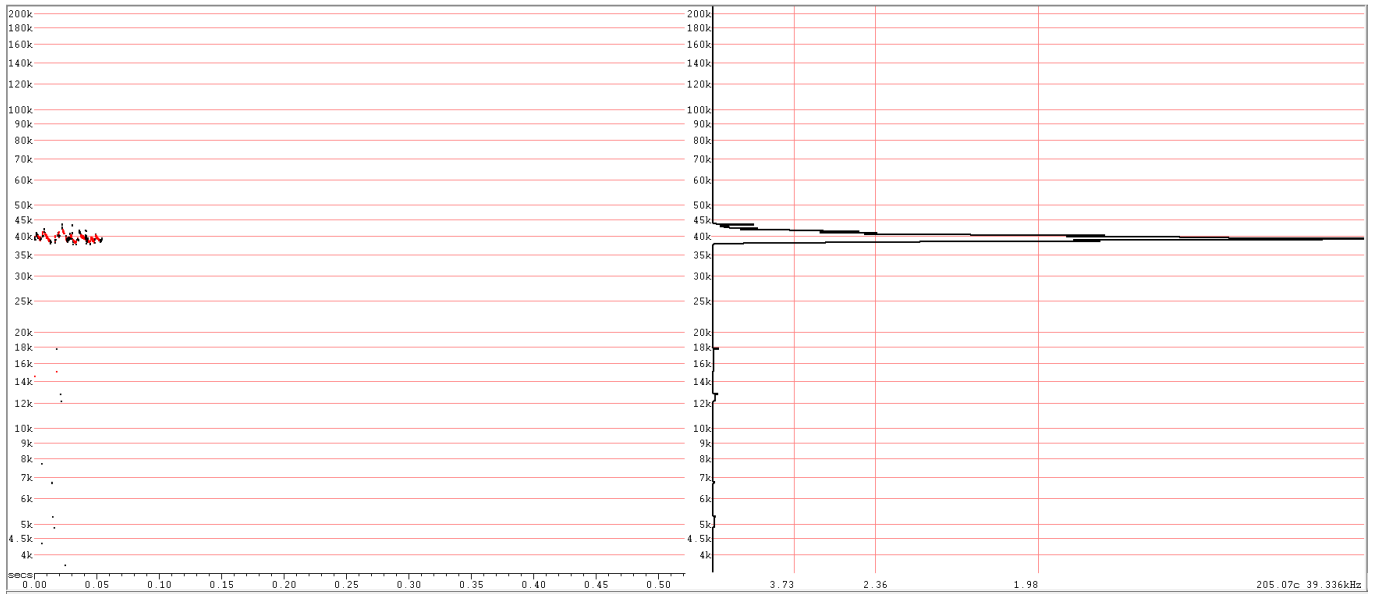


Plate A.12 Nathusius' pipistrelle recorded at 01:42 on 27 May 2024, Transect 1, F6 compression

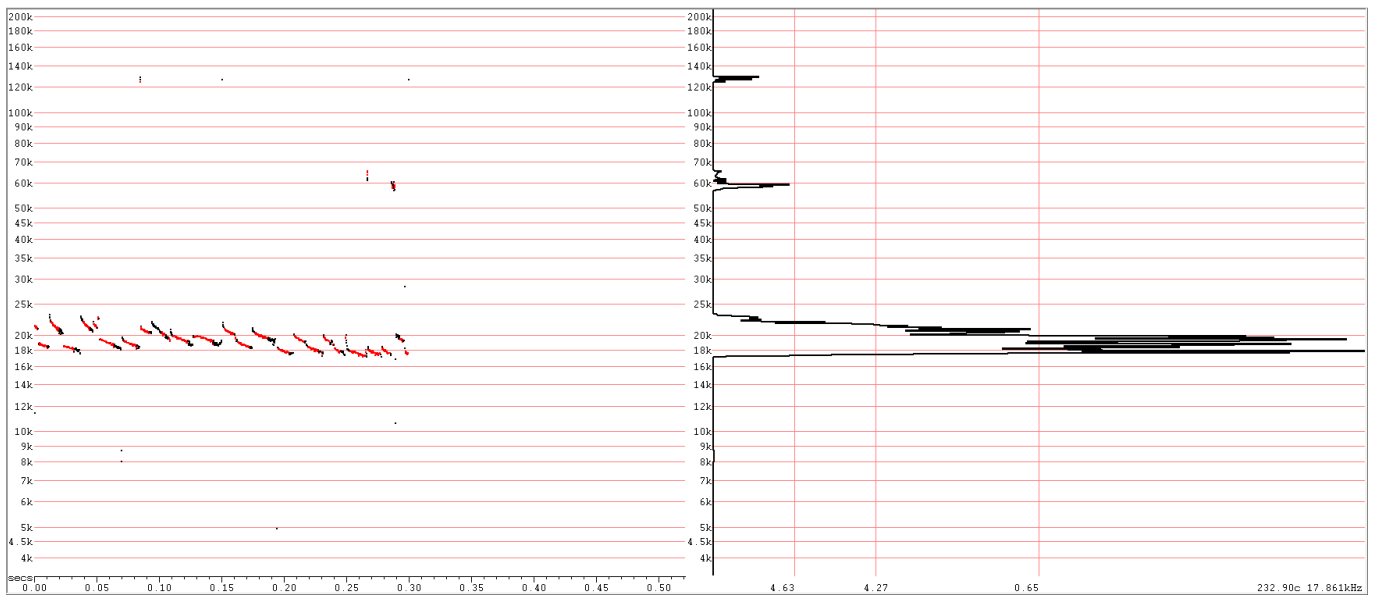


Plate A.13 Noctule recorded at 21:16 on 24 May 2024, Transect 2, F6 compression

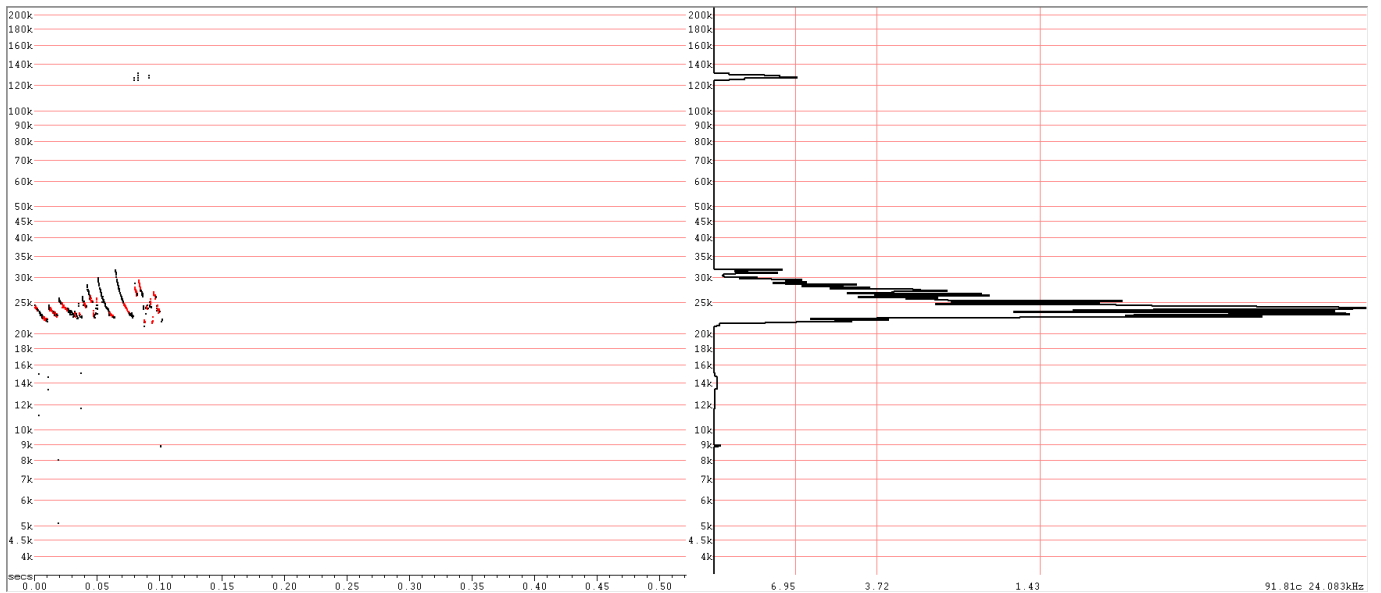


Plate A.14 Leisler's bat recorded at 21:47 on 10 July 2024, Transect 8, F6 compression

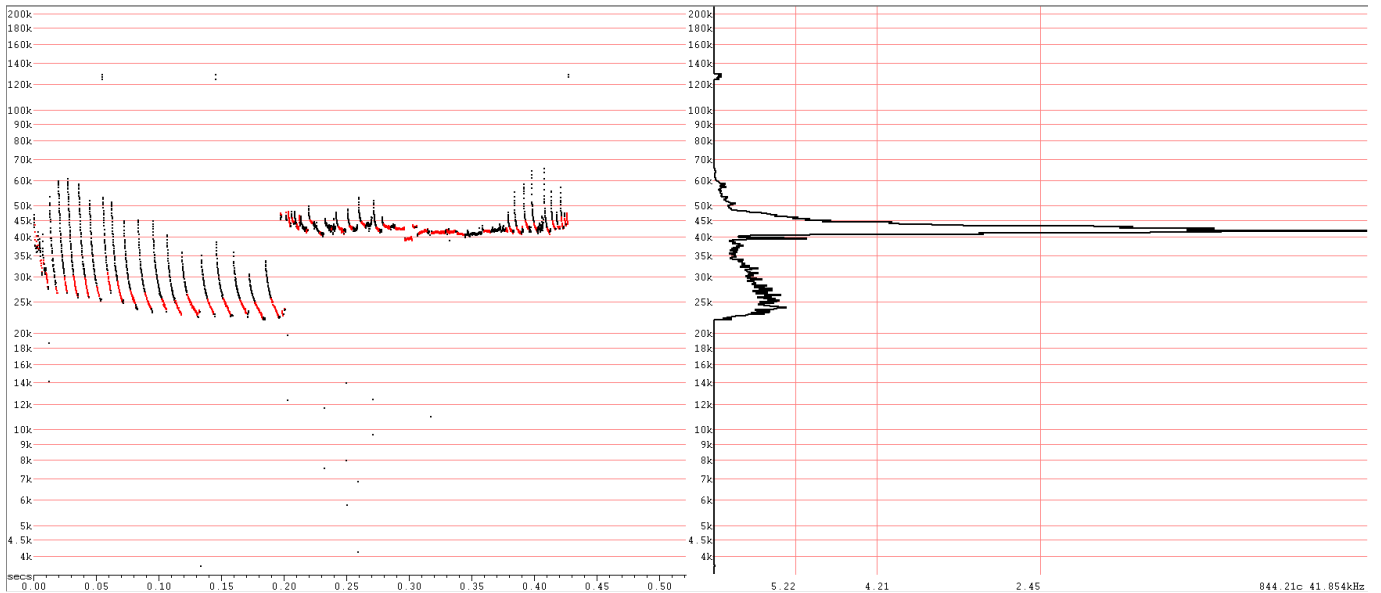


Plate A.15 Serotine (with common pipistrelle) recorded at 22:06 on 24 May 2024, Transect 2, F6 compression

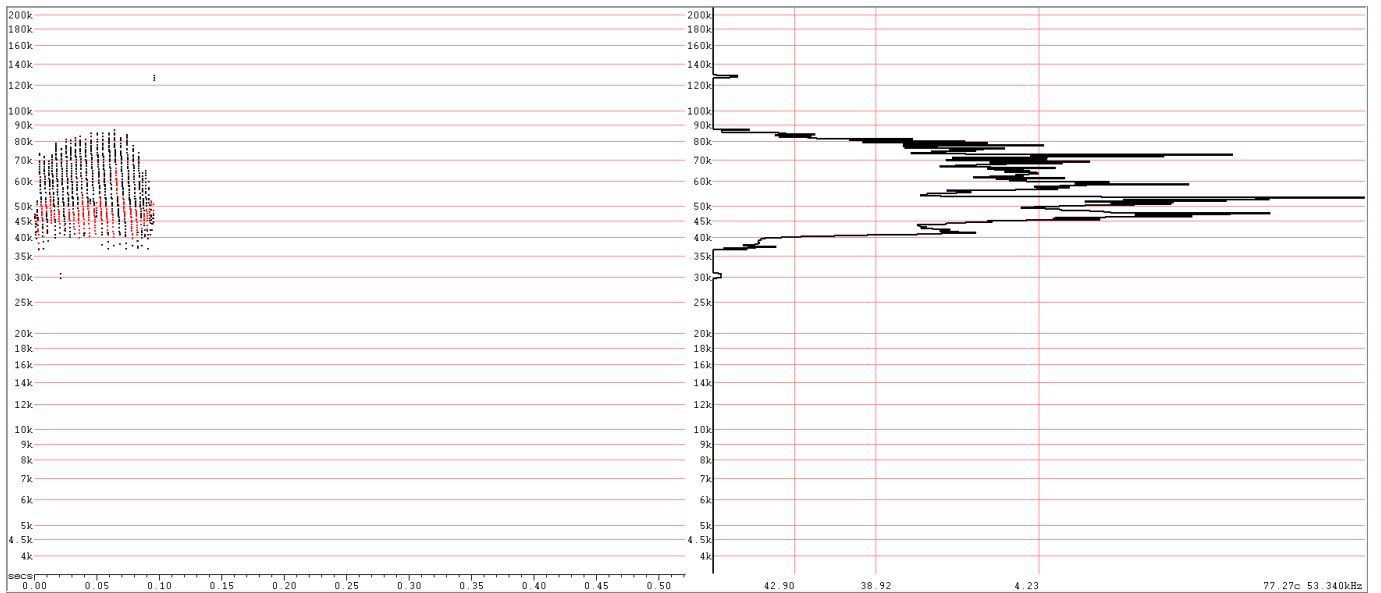


Plate A.16 *Myotis* species recorded at 22:04 on 24 May 2024, Transect 2, F6 compression

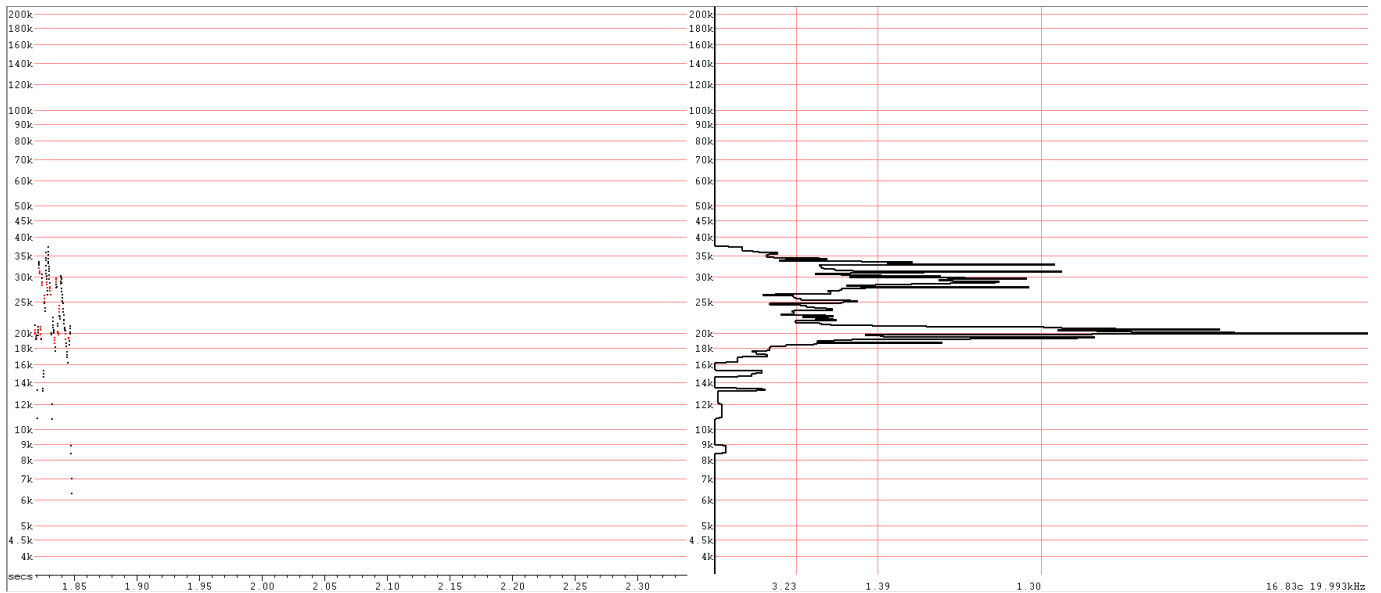


Plate A.17 Brown long-eared bat recorded at 02:25 on 26 May 2024, Transect 1, F6 compression

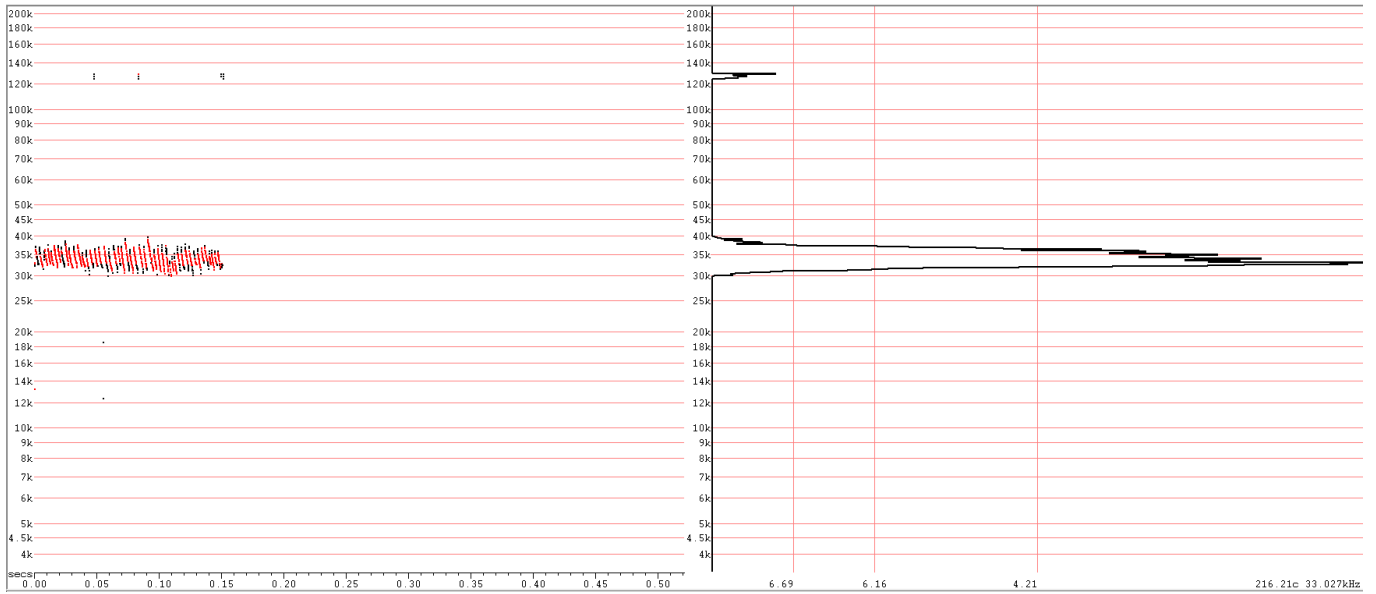


Plate A.18 Barbastelle recorded at 23:07 on 24 May 2024, Transect 2, F6 compression

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