

COLEG CAMBRIA, LLYSFASI ACCOMMODATION BLOCK

PRELIMINARY ROOST ASSESSMENT, NESTING BIRD ASSESSMENT AND EMERGENCE SURVEYS

DATE	E COLOGIST	A PPROVED	VERSION	COMMENTS
07/08/24	Lucy Boyett	Joe Franklin	V1	
15/11/24	Lucy Boyett	Keymar Wake	V2	Change of development location

This report has been prepared by Enfys Ecology Ltd with all reasonable skill, care and diligence, within the terms of the Contract with the Client. The report is confidential to the Client and Enfys Ecology Ltd accepts no responsibility of whatever nature to third parties to whom this report may be made known.

No part of this document may be reproduced without the prior written approval of Enfys Ecology Ltd.

Report Ref: EE.4269.24.LB



Aelod o Cymdeithas Ymgyngoriaethau Ymddiriedolaethau Natur A member of the Association of Wildlife Trust Consultancies

Mae Enfys Ecology yn is-gwmni i Ymddiriedolaeth Natur Gogledd Cymru Enfys Ecology is a subsidiary of North Wales Wildlife Trust Rhif Cwmni / Company Number 2535184



Executive Summary

Site	Coleg Cambria, Llysfasi, Accommodation Block							
Surveyors	Preliminary Roost Assessment (PRA) and two emergence surveys led by Lucy Boyett							
, , , ,	(accredited agent on bat licence number S087351/1) and Keymar Wake (licence No.							
	S092545/1) and assistants.							
Proposed	Demolition of an open shed and the Learning Resource Centre, which is to be replaced							
work	with a new accommodation block and parking areas.							
Habitats and	Structures to be affected will include an open corrugated metal shed, the learning							
structures	Resource Centre and habitats to be removed will include hardstanding, amenity							
affected	grassland and scrub. Preliminary Roost Assessment - 15/05/24							
Type of	•							
survey	Emergence Surveys - 30/05/24 and 01/07/24							
	Static detector left within the outbuilding - 20/06/24 - 01/07/24							
B 4 - 2 11 -	Static detector left within the Learning Resource Centre - 20/06/24 - 11/07/24							
Main results	Shed							
of survey	Negligible potential as a day roost. Provides a consistent with leaver loop and found (DLS) as to perfect and materials.							
	Droppings consistent with brown long-eared found (BLE) on top of stored materials within the selection.							
	within the shed.							
	Learning Resource Centre - Outbuilding							
	Scattered droppings consistent with LHS, were found on the ground floor. During the ground as a survey of this ground out of the ground decrease.							
	During the emergence surveys, a LHS was seen flying in and out of the open doorway. A static left within the good world found it to be used by LHS, close to both support and							
	A static left within the roof void found it to be used by LHS, close to both sunset and							
	sunrise times and also throughout the night. Learning Resource Centre – Main Building							
	During the PRA, a number of access points and potential roosting features were							
	identified and droppings consistent with pipistrelles, were found scattered							
	throughout.							
	 During the first and second emergence surveys, two common pipistrelles emerged 							
	from behind a soffit on the northern elevation.							
	A static left within the roof void found it to be occasionally used by a single or low							
	• A static left within the roof void found it to be occasionally used by a single or low number of common pipistrelle and <i>Myotis</i> sp.							
	, , , , , , , , , , , , , , , , , , ,							
	The buildings were found to be suitable for use by nesting birds and a jackdaw nest							
	was identified on the southern elevation of the library building.							
Survey	The shed is used as a feeding perch/night roost by BLE.							
conclusions	The outbuilding attached to the Learning Resource Centre is occasionally used by a							
	single or low number of LHS as a non-breeding day and night roost.							
	The main Learning Resource Centre building is used by at least two common							
	pipistrelles and a single or low number of <i>Myotis</i> sp. as a non-breeding day and night							
	roost.							
Mitigation	As the shed and Learning Resource Centre is a known bat roost, no works to the							
Compensation	buildings must commence until a licence has been obtained from NRW.							
and								
Enhancement	A separate Mitigation Strategy (Enfys Ecology, 2024) has been written, which details							
	mitigation, compensation and enhancement measures.							

Contents

Execu	itive Summary	2
	ents	
1.0	Introduction	
2.0	Site Description	5
3.0	Methodology	
4.0	Building Descriptions	9
5.0	Desk Study	13
6.0	Preliminary Roost Assessment: Results	14
7.0	Survey Results: Dusk Emergence Survey: 30 th May 2024	16
8.0	Survey Results: Dusk Emergence Survey: 1 st July 2024	17
9.0	Survey Results: Static Detector	18
10.0	Discussion and Evaluation	20
11.0	Mitigation, Compensation and Enhancement	22
12.0	Legislation	22
13 N	References and Information Sources	25

1.0 Introduction

- 1.1 Enfys Ecology Limited were commissioned by TACP Architects on behalf of Coleg Cambria, to carry out a Preliminary Roost Assessment (PRA) for bats, and bat emergence surveys of the Learning Resource Centre and adjacent shed at Coleg Cambria, Llysfasi.
- 1.2 The proposed works are for the demolition of the Learning Resource Centre and the corrugated metal shed to the north, which are to be replaced with a three-storey accommodation block, a parking area, hardstanding and planting.
- 1.3 A Preliminary Roost Assessment of the Learning Resource Centre and shed was undertaken in April 2019 by Enfys Ecology, and numerous bat droppings, characteristic of a brown long-eared bat and pipistrelle sp., were found scattered throughout the loft space of the western section of the building. Various insect wings, including moths were also found.
- 1.4 The surveys detailed in this report provide an update to this survey, to further inform whether the proposed works would affect protected species, specifically bats and nesting birds. The survey work to inform this report was carried out between May and July 2024. This report is valid for a period of eighteen months in accordance with best practice.
- 1.5 All British bats (and roost sites) are protected under the Wildlife and Countryside Act 1981 (as amended). In addition, all bats are classified as European Protected species by The Conservation of Habitats and Species Regulations 2017 (as amended). Under this legislation, it is an offence to kill, injure or disturb a bat, or to destroy any place used as a shelter by bats.
- 1.6 All birds (and their nests) are legally protected under the Wildlife and Countryside Act 1981 and it is an offence to intentionally take, damage or destroy the nest of any wild bird while it is in use or being built (as well as kill or injure wild birds of their eggs).
- 1.7 Should evidence of bats be found and it is deemed likely that the proposed works will disturb them; a licence from Natural Resources Wales (NRW) must be obtained before any work may proceed.

2.0 Site Description

2.1 Survey Area

2.1.1 The survey area comprised the Learning Resource Centre, situated at the southern end of the campus, which had a three-storey section on the western elevation, a single storey section on the eastern elevation and a small single storey outbuilding on the northern elevation. To the north of this building, was a large corrugated metal shed, which was open on the southern side. Other habitats within the immediate area, included an area of amenity grassland, a multi-use games area (MUGA), and trees and scrub along the northern boundary including hawthorn, holly, hazel and elder. A plan of the surveyed buildings is shown in Figure 2.1 below.

2.2 Surrounding area

2.2.1 The immediate surrounding area was the college campus, which comprised teaching buildings, agricultural buildings, hardstanding, roads and footpaths; as well as other areas of amenity grassland and scattered trees. The area surrounding the campus was mainly farm land and pasture fields, with field boundaries of hedgerows and trees. There was a small area (5.5 acres) of woodland approx. 100m to the east of the site and a larger area (70 acres) of woodland approx. 250m south east of the site, which were connected to each other and the site through hedgerows and tree lines. The small village of Pentrecelyn was the nearest residential area to the site, approx. 700m north of the site; while the more built up town of Ruthin was approx. 5km north west of the site. The wider area is shown in Figure 2.2.



FIGURE 2.1. THE SURVEYED BUILDINGS ARE SHOWN IN BLUE. BASE IMAGE @GOOGLE 2024



FIGURE 2.2. THE WIDER LANDSCAPE BASE IMAGE © GOOGLE 2024

3.0 Methodology

- 3.1 Preliminary Roost Assessment
- 3.1.1 The external and internal building inspections were carried out on the 15th May 2024 by Lucy Boyett (accredited agent on bat Licence No.S090407/1) and Keymar Wake (Licence holder S092545/1). Potential roost assessments were carried out following the guidelines set by the Bat Conservation Trust, 'Bat Surveys Good Practice Guidelines' (Collins, 2023).
- 3.1.2 The metal shed and Learning Resource Centre were assessed for any signs of bats; these included droppings, feeding remains, and other indicative marks, plus features of potential use to bats such as crevices, cracks and other holes, and any potential access points into the buildings. High powered torches were used to inspect any identified features, and an endoscope was used to investigate any gaps or crevices, where appropriate. Photographic evidence was taken where necessary.
- 3.2 Daytime Bat Walkover
- 3.2.1 A daytime bat walkover (DBW) was also carried out following the Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition) (Collins, 2023). The DBW intended to observe and record any habitat features suitable for bats to roost, commute, and forage both on site and in the surrounding area.

- 3.3 Dusk Emergence Surveys
- 3.3.1 Two emergence surveys were carried out on 30th May 2024 and 1st July 2024; one led by Keymar Wake and the other by Lucy Boyett with assistants. Surveyors were positioned to be able to observe and monitor all elevations of the buildings, using Anabat scout detectors.
- 3.3.2 Night vision aids (NVAs) were used to support the emergence surveys, as per the Good Practice Guidelines (Collins, 2023). The NVAs can allow bats to be observed which may otherwise not be visible to the surveyors when the light levels drop. Canon XA60 video cameras in infrared (IR) mode were used to record footage throughout the surveys, with a combination of IR floodlights and spotlights used to illuminate the buildings. These IR lights do not produce visible light and cause no disturbance to emerging bats.
- 3.3.3 Records were taken of any bats observed emerging from the buildings, and of any other bat activity taking place in the area during the survey. The survey began approximately half an hour before sunset and continued for 90 minutes after sunset.
- 3.3.4 The bat call data was analysed using Anabat Insight Software with the BatClassify plugin set at 70% confidence to auto analyse the bat calls; all of the calls were then reviewed and reassessed as required.
- 3.4 Static Detector
- 3.4.1 An Anabat Swift detector was left within the roof void of the outbuilding of the Learning Resource Centre from 20/06/24 01/07/24, and an Anabat Express within the roof space of the Library building section from 20/06/24 11/07/24, which recorded activity within these spaces (see Figure 3.1 for detector locations).



FIGURE 3.1. STATIC DETECTOR LOCATIONS INDICATED BY THE RED SPOTS. BASE IMAGE @GOOGLE 2024

3.5 Nesting Birds

3.5.1 The site was assessed for any signs of nesting birds, previous nests, or other signs of bird activity such as droppings or feeding remains. Features of potential use to nesting birds, such as crevices, cracks and other holes, were also noted and (where accessible) high-powered torches were used to inspect them. Observations were made of bird activity within the site during each of the visits.

3.6 Desk Study

3.6.1 A desk study was carried out following a data search by Cofnod, the Local Environmental Records Centre for north Wales, to assess bat and bird records within 1km of the site.

3.7 Limitations

- 3.7.1 A large area of loft space was not accessible in the single storey library section of the Learning Resource Centre. The ceilings containing the loft hatches were too high for standard ladders. Access was gained to the south east end of the loft space and from there a visual inspection of the remaining loft space was carried out. This limitation did not significantly impact the survey results.
- 3.7.2 The roof void of the outbuilding was not accessible due to safety concerns and lack of a suitable access point. This limitation did not significantly impact the survey results.
- 3.7.3 Bats are highly mobile animals and it is possible that they may move into a building after the survey has occurred. Therefore, absence of bats cannot be absolutely guaranteed. The

- surveys were carried out in May and July 2024, which is within the appropriate survey window as per bat survey guidelines (Collins, 2023).
- 3.7.4 It is possible that birds can nest on or within a building at any point during the nesting bird season (generally March September inclusive), however, some species such as pigeons can nest all year round. Therefore, absence of nesting birds cannot be absolutely guaranteed.

4.0 Building Descriptions

- 4.1 The buildings comprised a large shed (open on the southern side) with corrugated metal sides and roof, and the Learning Resource Centre, comprised a three-storey section on the western elevation, a long single storey section on the eastern elevation and a small single storey outbuilding on the northern elevation.
- 4.3 The basic layout of the buildings is shown in Figure 4.1, with a description in Table 4.1.



FIGURE 4.1. BASIC PLAN OF SITE BASE IMAGE @GOOGLE 2024

TABLE 4.1. BUILDING DESCRIPTIONS

Description Photo

Metal Shed

- Metal frame with single skin corrugated metal sides and roof.
- Two internal dividing walls, creating three separate areas.
- Open on the southern side.
- Used for storage of materials and machinery.





Outbuilding, Learning Resources Centre

- Single storey, brick built outbuilding, on the northern elevation of the Learning Resource Centre.
- Slated roof, with bare slates and a wooden frame. No facias or soffits at the eaves.
- There was a ceiling within the building, creating a roof void, accessible (for bats) through a hole approx. 30x30cm at the southern side.
- During the PRA, the door on the western elevation was open.





Description

Photo

Western Section, Learning Resources Centre

- Three storey stone-built building, with a slated roof.
- Western gable end was clad with wooden panelling.
- The main area of the roof had been converted into a classroom with a vaulted ceiling.
- There was a small loft space (105cm high to ridge), which comprised wooden beams, bitumen roof lining and insulation.









Description Photo

Library, Learning Resources Centre

- Stone built, single storey building.
- Slated roof, with large wooden vents at the apex (many blocked), running the length of the building.
- Large roof space with the only accessible part, at the eastern gable end. This section of loft had been converted and had two windows in the gable end wall that provided a lot of light into the room.









5.0 Desk Study

- 5.1 A Preliminary Roost Assessment of the Learning Resource Centre and shed had been previously undertaken in April 2019 by Enfys Ecology, and numerous bat droppings, characteristic of a brown long-eared bat and pipistrelle *sp*. were found scattered throughout the loft space of the western section of the building. Various insect wings, including moths were also found.
- 5.2 Cofnod Data Search
- 5.2.1 Cofnod returned records including noctule (*Nyctalus noctula*), brown long-eared (*Plecotus auritus*), lesser horseshoe (*Rhinolophus hipposideros*), common pipistrelle (*Pipstrellus pipstrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) within a 1km radius of the survey area.
- 5.3 Incidental Records
- 5.3.1 Surveys of buildings, approximately 180m to the west, by Enfys Ecology Ltd in 2023, found there to be a non-breeding day roost for two pipistrelle bats.
- 5.4 Designated Sites
- 5.4.1 There were four designated sites (of ecological relevance) within 1km of the survey area. These included Bryniau Clwyd a Dyffryn Dyfrdwy, an Area of Outstanding Natural Beauty (AONB) and three local wildlife sites, between 450m and 630m away (Table 5.1).
- 5.4.2 Ruabon/Llantysilio Mountains and Minera SSSI was located 5.5km to the south, where a number of disused mines are used by hibernating bats including Lesser horseshoe (LHS). Bryn Alyn SSSI, which was also used by hibernating bats was located 7.7km to the east.

TABLE 5.1. SUMMARY OF WILDLIFE SITES WITHIN 1KM OF THE SURVEY AREA

Name of Wildlife Site	Distance from	Description
	site (approx.)	
Dingle/ Faenol/Coed Bach	452m	Ancient broadleaf woodland
Nant-y-Garth Pass woodland	517m	Ancient mixed woodland
Coed Talwrn	627m	Hill of broadleaved woodland and
		calcareous grassland

6.0 **Preliminary Roost Assessment: Results**

Table 6.1 below provides details of potential roosting features identified and any evidence 6.1 of bats found during the PRA.

TABLE 6.1. EXAMPLES OF POTENTIAL ROOSTING FEATURES FOR BATS AND NESTING BIRDS

Description **Example Photos Metal Shed** • The shed was open on the southern elevation, with no dark areas. • A small number of droppings consistent with brown long-eared bats, were found on top of some stored wood, underneath a beam.

- At the time of the PRA, the door on the western elevation was open, providing access for bats.
- A large hole in the ceiling led to the roof void above.
- Number of gaps present where the outbuilding attached to the Library Section, so would be possible for bats to move between them.
- Many gaps present at the eaves.
- Droppings consistent with lesser horseshoe, were present on the floor of the outbuilding.





Western Section, Learning Resources Centre

- There was a hole in the gable end wall that attached to the library building which provided access into the library loft space, suggesting bats could have access between the two buildings.
- Small hole where a pipe exited at the western gable end.
- Droppings consistent with pipistrelle sp. within the roof space.



Library, Learning Resources Centre

- Large vents ran along the length of the apex of the library section.
- Loft space significantly darker than the converted section at the eastern gable end. Vents were largely blocked, but there was still access via gaps underneath the bottom wooden vent panel
- Some gaps above the wall and below the rafters, seen externally.
- Small number of bat droppings on the floor of the accessible area at the eastern gable end of the building, concentrated under the central roof beam.
- Birds next above light fitting on southern elevation.



7.0 Survey Results: Dusk Emergence Survey: 30th May 2024

7.1 Table 7.1 provides details of the dusk survey, including timing and weather conditions and Table 7.2 provides details of any emergences and general bat activity during the survey.

TABLE 7.1. SUMMARY OF SURVEY DETAILS

Date	Start time	Sunset time	End time	Temp. at start	Weather
30/05/24	21:12	21:27	22:57	14°C	Dry and calm

TABLE 7.2. SUMMARY OF EMERGENCES AND DUSK SURVEY ACTIVITY

		Emergen	ces
Time	Species	Emergence Location	Photo
21:27	2x	From under soffit on the	
&	common	northern elevation of the	
21:31	pipistrelle	Library building, to the	
		east of the outbuilding.	
22:30	1x lesser	Elving in and out of the	1. To South
	horseshoe	Flying in and out of the	
to 22:34	norsesnoe	outbuilding doorway	
22.34			
		Compand Apr	1 0 0

General Activity

- Common pipistrelles foraged intermittently throughout the survey along the tree and scrub lined site boundaries to the north and east, with occasional passes from a soprano pipistrelle.
- A noctule was heard but not seen, commuting at 22:06, 22:25 and 22:38.

8.0 Survey Results: Dusk Emergence Survey: 1st July 2024

8.1 Table 8.1 provides details of the dusk survey, including timing and weather conditions and Table 8.2 provides details of any emergences and general bat activity during the survey.

TABLE 8.1. SUMMARY OF SURVEY DETAILS

Date	Start time	Sunset time	End time	Temp. at start	Weather	
01/07/24	21:27	21:42	23:12	12°C	Dry with moderate	
					breeze	

TABLE 8.2. SUMMARY OF DUSK SURVEY ACTIVITY

	Emergences							
Time	Species	Emergence Location	Photo					
21:48 & 21:57	2x common pipistrelle	From under soffit on the northern elevation of the Library building, to the east of the outbuilding.						

General Activity

- Common and soprano pipistrelles foraged intermittently throughout the survey along the tree and scrub lined site boundaries to the north and east.
- A noctule was heard but not seen, commuting at 22:20, 22:30 and 22:36.
- A brown long-eared was seen but not heard passing to the north of the Learning Resource Centre at 21:40.

9.0 Survey Results: Static Detector

9.1 Outbuilding

- 9.1.1 An Anabat Swift detector was placed within the roof void of the outbuilding, for 12 nights, from 20th June to 1st July 2024, to record any bat activity within the building. The weather throughout the static survey period was generally agreeable with typical bat survey conditions. Table 9.1 shows the sunset and sunrise times at the start and end of this period. Table 9.2 provides a summary of the bat activity recorded.
- 9.1.2 Analysis of the data showed only lesser horseshoe calls were recorded during the static survey period.
- 9.1.3 When the static was first placed within the roof void of the outbuilding, the entrance door on the western elevation was open. On returning to collect the detector, the door had been shut. No calls were recorded from 24th July until the end of the survey period.

TABLE 9.1. SUNSET AND SUNRISE TIMES ON 20TH JUNE AND 1ST JULY 2024

Date	Sunset Time	Sunrise Time
20/06/2024	21:43	04:46
01/07/2024	21:42	04:50

TABLE 9.2: TOTAL NUMBER OF CALL FILES PER HOUR FOR LESSER HORSESHOE BETWEEN 20TH JUNE — 1ST JULY 2024

	_											
Time		Date										
	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul
21:00 - 21:59	0	0	0	2	0	0	0	0	0	0	0	0
22:00 - 22:59	18	1	9	67	0	0	0	0	0	0	0	0
23:00 - 23:59	16	13	41	7	0	0	0	0	0	0	0	0
00:00 - 00:59	14	9	10	37	0	0	0	0	0	0	0	0
01:00 - 01:59	27	6	4	10	0	0	0	0	0	0	0	0
02:00 - 02:59	15	8	69	7	0	0	0	0	0	0	0	0
03:00 - 03:59	12	0	2	6	0	0	0	0	0	0	0	0
04:00 - 04:59	3	0	3	0	0	0	0	0	0	0	0	0
05:00 - 05:59	0	0	0	0	0	0	0	0	0	0	0	0
First Call	22:31	22:48	22:23	21:49	N/A							
Last Call	04:00	02:40	04:18	03:58	N/A							

- 9.2 Library, Learning Resources Centre
- 9.2.1 An Anabat Express detector was placed within the roof void of the Library section, at the eastern gable end, from 20th June to 11th July 2024, to record any bat activity within the building. The weather throughout the static survey period was generally agreeable with typical bat survey conditions. Table 9.3 shows the sunset and sunrise times at the start and end of this period. Table 9.4 provides a summary of the bat activity recorded.

TABLE 9.3. SUNSET AND SUNRISE TIMES 20TH JUNE AND 11TH JULY 2024

Date	Sunset Time	Sunrise Time
20/06/2024	21:43	04:46
11/07/2024	21:35	04:51

TABLE 9.4. DETAILS OF CALLS RECORDED BETWEEN 20TH JUNE AND 11TH JULY 2024

Date	Calls Recorded
20-Jun	No calls recorded
21-Jun	No calls recorded
22-Jun	No calls recorded
23-Jun	No calls recorded
24-Jun	No calls recorded
25-Jun	No calls recorded
26-Jun	Faint common pipistrelle calls at 23:49 and 03:40
27-Jun	No calls recorded
28-Jun	No calls recorded
29-Jun	Faint common pipistrelle calls at 23:39 and 01:55
30-Jun	No calls recorded
01-Jul	Faint common pipistrelle call at 00:36
02-Jul	No calls recorded
03-Jul	No calls recorded
04-Jul	Myotis sp. calls recorded at 21:23 and 21:24
05-Jul	No calls recorded
06-Jul	Myotis sp. call recorded at 21:17
07-Jul	No calls recorded
08-Jul	No calls recorded
09-Jul	No calls recorded
10-Jul	No calls recorded

10.0 Discussion and Evaluation

10.1 Proposed Works

10.1.1 The proposed works are for the demolition of the Learning Resource Centre and the corrugated metal shed to the north, which are to be replaced with a three-storey accommodation block, a parking area, hardstanding and planting. No trees will be removed and existing trees will be protected.

10.2 Designated Sites

- 10.2.1 Ruabon/Llantysilio Mountains and Minera SSSI are located 5.5km to the south, where a number of disused mines are used by hibernating bats including LHS. Bryn Alyn SSSI, which is also used by hibernating bats was located 7.7km to the east. Given the relatively close distance, it is possible that bats present at the site, in particular LHS, BLE and *Myotis* sp., may travel to hibernate with the SSSI.
- 10.2.2 The proposed works should not have a significant or detrimental impact on the SSSI, bat populations within the local area, or the favourable conservation status of the species concerned, as long as mitigation measures detailed within a separate mitigation strategy and subsequent Natural Resources Wales licence application method statement are followed.
- 10.3 Commuting and Foraging Habitats
- 10.3.1 The suitability of the surrounding habitats for commuting and foraging was moderate, with scrub vegetation and trees along the northern and eastern site boundaries for foraging and good connectivity to the surrounding area. Proposed planting will ensure foraging habitat and cover for bats at the site will be maintained and enhanced.
- 10.4 *Shed*
- 10.4.1 The shed had negligible potential as a day roost, as it was open on one side, with no darker areas. However, a small number of droppings, consistent with brown long-eared, were found on top of some stored materials during the PRA, which shows it was used as a feeding perch/night roost by this species.
- 10.5 Outbuilding
- 10.5.1 During the PRA, droppings consistent with LHS, were found scattered on the ground floor. There was access for bats into the roof void through the open door and up through a hole in the ceiling, along with other potential roosting features.

- 10.5.2 During the first emergence survey, a single LHS was seen flying in and out of the outbuilding doorway. The doorway had been closed prior to the second emergence survey.
- 10.5.3 A static left within the roof void found it to be used by LHS, close to both sunset and sunrise times and also throughout the night. There were four nights of calls followed by no calls for the remainder of the static survey period. This is likely to be due to the access door being closed, there were other access points identified, however, these were likely to be too small and not suitable for LHS.
- 10.5.4 The outbuilding was therefore occasionally used by a single or low number of LHS as a non-breeding day and night roost.
- 10.6 Learning Resource Centre
- 10.6.1 During the PRA, a number of access points and potential roosting features were identified and droppings consistent with pipistrelle species, were found scattered throughout.
- 10.6.2 During the first and second emergence surveys, two common pipistrelles emerged from behind a soffit on the northern elevation.
- 10.6.3 A static detector left within the roof void found it to be occasionally used by a single or low number of common pipistrelle and *Myotis* sp. as a non-breeding day and night roost.
- 10.7 Roost Summary
- 10.7.1 Table 10.1 provides a summary of the species and roost types present within the survey area and their relative importance on a site, local or district scale.

TABLE 10.1. SUMMARY OF SPECIES AND ROOST TYPES PRESENT WITHIN THE SHED AND LEARNING RESOURCE CENTRE, LLYSFASI

Building	Species	No. Individuals	Species Rarity Category (Reason & Wray, 2023)	Roost type	Roost Importance (Reason & Wray, 2023)
Shed	BLE	Low number of individuals	Widespread	Feeding perch /night roost	Site
Outbuilding (Learning Resource Centre)	LHS	Low number of individuals	Rarer or restricted distribution	Non-breeding day & night roost	Local
Learning Resource Centre	Common pipistrelle	Low number of individuals	Widespread	Non-breeding day & night roost	Site
Learning Resource Centre	<i>Myotis</i> Sp.	Low number of individuals	Widespread in many geographies, but not abundant in all	Non-breeding day & night roost	Site

10.8 Birds

10.8.1 The buildings were found to be suitable for use by nesting birds and a nest was identified above a light fitting on the southern elevation of the library building. There were potential areas for nesting both internally and externally within the cracks in the walls and various crevices.

11.0 Mitigation, Compensation and Enhancement

11.1 A separate Mitigation Strategy (Enfys Ecology, 2024), which is to be read alongside this document, has been written, detailing mitigation, compensation and enhancement measures required as a result of the proposed works and the results of the surveys.

12.0 Legislation

12.1 Bats

12.1.1 All species of bat, their breeding sites and their resting places in England and Wales are protected through a 'dual' system of protection, under the England and Wales Habitats Regulations and W&CA. Because two regimes give legal protection to bats, the implications of both regimes must be fully understood (Reason & Wray, 2023).

- 12.1.2 Regulation (Reg.) 43 of the England and Wales Habitats Regulations makes it an offence to:
 - deliberately capture, injure or kill a bat;
 - deliberately disturb bats (which includes any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate or to affect significantly the local distribution or abundance of the species to which they belong);
 - damage or destroy a breeding site or resting place of a bat; or
 - possess, control, transport, sell or exchange, or offer for sale or exchange, any live or dead bat or part of a bat or anything derived from a bat or any part of a bat.
- 12.1.3 Under Section 9 of the W&CA (s.9(4)(b), 9(4)(c) and 9(5) only), it is an offence (in relation to bats) to:
 - intentionally or recklessly disturb a bat while it is occupying a structure or place of shelter or protection;
 - intentionally or recklessly obstruct access to any structure or place used by a bat for shelter or protection;
 - sell, offer or expose for sale, or have in their possession or transports for the purpose of sale, any live or dead bat or any part of, or anything derived from a bat (or be responsible for adverts suggesting the intention to do this).

12.2 *Birds*

In addition, under the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act 2000, all wild birds, their nests and eggs are protected during the breeding season (typically March to August inclusive). This makes it an offence to:

- Intentionally kill, injury or take any wild bird.
- Take, damage or destroy the nest of a wild bird included in Schedule ZA1.
- Take, damage or destroy the nest of any wild bird while that nest is in use or being huilt
- Take or destroy an egg of any wild bird.
- 12.3 Biodiversity Net Gain Relevant sections of legislation
 - Section 6 of the Environment (Wales) Act 2016:

Biodiversity and resilience of ecosystems duty

- (1) A public authority must seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions.
- (2) In complying with subsection (1), a public authority must take account of the resilience of ecosystems, in particular the following aspects—
 - (a) diversity between and within ecosystems;
 - (b)the connections between and within ecosystems;
 - (c)the scale of ecosystems;
 - (d)the condition of ecosystems (including their structure and functioning);
 - (e)the adaptability of ecosystems.
- (5) In complying with subsection (1), a public authority other than a Minister of the Crown or government department must have regard to—
 - (a) the list published under section 7;.....
 - Section 7 of the Environment (Wales) Act 2016:

Biodiversity lists and duty to take steps to maintain and enhance biodiversity

- (1) The Welsh Ministers must prepare and publish a list of the living organisms and types of habitat which in their opinion are of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.
- (2) Before publishing a list under this section the Welsh Ministers must consult the Natural Resources Body for Wales ("NRW") as to the living organisms or types of habitat to be included in the list.
- (3) Without prejudice to section 6, the Welsh Ministers must—
 - (a) take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section, and
 - (b) encourage others to take such steps

13.0 References and Information Sources

Collins, J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines, (4th Edition). Bat Conservation Trust, London.

Enfys Ecology (2019). Coleg Cambria, Llysfasi Preliminary Ecological Appraisal Ref: EE.555.19.KW.01

Enfys Ecology (2024). Coleg Cambria, Llysfasi, Accommodation Block Bat Mitigation Strategy Ref: EE.4269b.24.LB

Mitchell-Jones, A. J. & McLeish, A. P. (1999). *The Bat Workers' Manual (2nd Ed.).* JNCC, Peterborough.

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

Stone, E.L., Jones, G., Harris, S. (2012). Conserving energy at a cost to biodiversity? Impacts of LED lighting on bats. Glob. Change Biol. 18, 2458-2465

Tree Solutions (2024). Arboricultural Impact Assessment & Method Statement New Accomodation Block, Llysfsai College Ref:24/AIA/DEN/86