



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE



PHASE 2 BAT ACTIVITY SURVEY

GWERN Y PALE (Rev A)

Project name: GWERN Y PALE,
NEW ROAD,
DOLYWERN,
GLYN CEIRIOG

Grid Reference: SJ21573771

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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the restoration and partial rebuilding of a detached house at Dolywern, near Glyn Ceiriog.

Arbor Vitae were initially commissioned by James Crompton to undertake a Preliminary Ecological Appraisal in order to assess the impact of the development on habitats and protected species. This survey concluded that the house held moderate potential to provide a roost site for bats and that at least two activity surveys would be required to confirm whether bats were indeed present on site.

1.2 SCOPE OF SURVEY

The house is in an unsafe condition and no access to internal spaces are possible. The survey therefore relied on observations of the exterior by a team of surveyors.

This report summarises the results of the surveys. The survey was also designed to assess the presence of any breeding birds using the buildings.

1.3 KEY PRINCIPLES

All ecological surveys conducted by Arbor Vitae Environment Ltd are underpinned by the following key principles, as outlined by CIEEM (2018):

Avoidance - Seek options that avoid harm to ecological features (for example, by locating on an alternative site).

Mitigation - Adverse effects should be avoided or minimized through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.

Compensation - Where there are significant residual adverse ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.

Enhancements - Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

2 SITE DESCRIPTION

2.1 LOCATION, LANDSCAPE, AND BACKGROUND

The house is located in the Ceiriog Valley 1 km to the east of the village of Glyn Ceiriog. It occupies a rural site on the south-facing slope of the valley. The house is situated at approximately 210 metres AOD in a secluded location and in a sparsely populated area. It is surrounded by small fields, large hedgerows and several small woodlands which lie within the vicinity of the house. A minor road passes to the south of the boundary and the Afon Ceiriog flows in the valley below at a distance of approximately 80 metres.

2.2 BUILDING DESCRIPTION

The house is a two-storey detached property constructed in 1936. It is built of brick and has been rendered and painted on the exterior. The roof is clad with slate with clay ridge tiles. Many slates are damaged or slipped and there is extensive moss growth on the roof surface. The first floor of the house is unsafe to enter but it is assumed that the house has, at least, a shallow attic space. The house has one dormer window. The south-facing gable end has weather boarding beneath the eaves and barge boards subtending the roof.

In general, the house is in a semi-derelict state due to damp, lack of maintenance and the growth of self-set trees adjacent to exterior walls. Ivy growth is extensive on all elevations of the house.

A small brick outhouse lies near to the main house and a wooden summer house sits in the garden to the east of the house.

3 SURVEY METHODOLOGY

3.1 VISUAL INSPECTION

No internal inspections were possible due to safety concerns other than in the two small outbuildings.

Records were maintained of any evidence of nesting birds.

3.2 ACTIVITY SURVEYS

Two activity surveys were completed at dusk on 6th May 2024 and 17th June 2024. The details of these surveys are provided below:

DATE	SURVEY TIME	SUNSET SUNRISE	WEATHER	STATIC RECORDERS
06/05/2024	20:25- 22:15	20:48	Temperature: 12d.c. Cloud cover: 100% Wind: 1 BFT	2x Anabat express,
17/06/2024	21:25-23:15	21:41	Temperature: 13d.c. Cloud cover: 0% Wind: 0 BFT	2x Anabat express
Surveyors used iPad and Android tablets using Echo Meter Pro ultrasonic microphone. Nightfox Whisker Infra-Red cameras were also used to record external activity.				

3.3 BREEDING BIRDS

The buildings were assessed for their potential to provide birds with nest sites, and to record any existing evidence of previous nesting.

3.4 PERSONNEL

The survey was carried out by the following surveyors (four on each occasion):

Phillipa Stirling MSc ACIEEM NRW bat licence number: 2021-52205-CLS-CLS

William Prestwood BSc NE bat licence number: 2024-12195-CL-BAT

Joy Miles PhD: NE bat licence number: 2024-12144-CL17-BAT

Assistants:

James Compton

Neil Heard

Surveyors were positioned on each corner of the house, enabling good views of the entire property.

3.5 CONSTRAINTS

There were no constraints to the survey being carried out in line with the Bat Conservation Trust good practice guidance.

4 SURVEY RESULTS

4.1 VISUAL INSPECTION

Visual inspection of the interior of the house could not be carried out for reasons of safety.

4.2 ACTIVITY SURVEYS RESULTS

6 May 2024 (dusk)

The first bat recorded at the site was a noctule bat which flew high over the site at 2049.

A soprano pipistrelle was recorded by two surveyors at 20.47 flying into the garden from the west and across the front of the house. This was followed by two further soprano pipistrelles which, again, appeared on the site from a westerly direction at 21.14 and 21.23.

Common pipistrelles were observed and recorded foraging along the tree line to the north of the house. Activity lasted from 21.00 until 21.26.

A Daubenton's bat was recorded but not seen at 21.24.

No bats were observed emerging from the house or other buildings and the two Anabats inside outbuildings did not record any bat activity.

The overall number of sightings and recordings was small.

17 June 2024 (dusk)

The first bat to be recorded was a soprano pipistrelle which was seen at 21.59 flying along the roadside tree line from west to east. Several other soprano pipistrelles followed up until 22.21 using the same route.

One common pipistrelle appeared on site to the rear of the house at 22.16 and foraging took place along the edge of the site until 22.53,

Noctule bats were recorded flying over the site at 22.16 and 22.38.



One Daubenton's bat was recorded at 22.10.

4.3 BREEDING BIRDS

No evidence of nesting was recorded although a wren was seen to enter dense ivy on the house wall at dusk,

5 EVALUATION OF RESULTS AND IMPACT

5.1 BATS

The two activity surveys confirmed that small numbers of common and soprano pipistrelle bats habitually use the garden area and boundary tree lines as flight lines and around which to forage. Most of the bats observed appeared to arrive from the west, mainly 30 minutes after sunset or later. This probably indicates that roost sites exist within the general area. Several other domestic and agricultural buildings exist locally and one, or more, of these might provide roost sites.

No bats were recorded by surveyors or infra-red cameras emerging from the house.

The survey concluded that no further surveys are required and that the proposed works will not disturb or destroy a bat roost.

5.2 BREEDING BIRDS

A wren was observed using the ivy on the house walls in which to roost and it is possible that this is also the location of a nest. Wrens are now an amber-listed species on the Birds of Conservation Concern. Mitigation for the loss of a possible nest site is required.

6 MITIGATION & ENHANCEMENT

6.1 BATS

No specific mitigation measures are required. However, the precautionary principle should be employed in case, by the time that building works commence, an opportunistic individual bat is using the house as a transitory roost. The following measures are recommended by way of general mitigation and enhancement:



- Roof removal will take place after the end of November when bats would not be present.
- Should a bat be discovered or disturbed at any time during the building process, work will cease until NRW and the project ecologist have been contacted for advice.
- A wildlife sensitive lighting plan will be adopted to minimise the effect of any additional external lighting as a result of the development. Details of the lighting plan are included in Appendix 2.
- Two bat tubes (Schwegler 1FR) will be incorporated into the walls of the house. These will be located on the east and west elevations of the house at a height of 3.5 above the ground.
- One Woodcrete Chillon bat box will be erected on a nearby mature beech tree at the entrance to the site.
- At least two ridge tiles and four roof slates will be raised/adapted to create access for bats to crevices beneath the roof cladding.
- Bitumen Type 1 felt will be used to line the roof space in areas near raised roof slates through which bats may gain access. An area of 2 metres x 2 metres of felt will be used, centred on the point of access. Access to areas lined with breathable membrane should be prevented,

6.2 BREEDING BIRDS

Mitigation and habitat enhancement works for birds are recommended as follows:

- Two Woodstone wren nest boxes will be erected in outbuildings.
- Two Woodcrete Seville nest boxes for hole-nesting species will be erected in mature trees on the site boundary.
- Ivy should be removed from walls after the nesting season has finished.

If works continue into the following nesting season, the building should be sealed in order to avoid birds gaining entry and making their nests.

6.3 HABITAT ENHANCEMENT

Plans for the site post-completion include the implementation of extensive landscaping. This will include wild-flower areas, scrub planting and tree planting. These new habitats will provide additional foraging area for bats and provide connectivity with habitats beyond the site.

7 SUMMARY

Planning permission will be sought for the restoration and partial rebuilding of a derelict house known as Gwern y Pale near Glyn Ceiriog. Arbor Vitae were commissioned to undertake a Preliminary Ecological Appraisal in December 2023. This concluded that the house held potential to provide bat species with roost sites and that two activity surveys would be required.

Two dusk surveys were carried out in May and June 2024. Four surveyors were used on each occasion to ensure close scrutiny of the entire house and outbuildings. Recordings were made using Anabat Express and iPads with ultrasonic microphones. Four infra-red cameras were employed.

A small number of common and soprano pipistrelles were recorded flying into the site from the west and using the boundary tree lines as flight lines and, presumably, foraging sites.

Noctule bats were recorded on both surveys flying over the site. One Daubenton's bat, possibly associated with the nearby Afon Ceiriog, was recorded on each survey.

No bats were seen to emerge from the house and the survey concluded that none of the buildings are in use as bat roosts. Given that bats arrived at the site from the west on most occasions, around half an hour after sunset, it was concluded that roost sites for pipistrelles exist in other nearby properties.

Although bats are not habitually using the house as a roost site, it is always possible that opportunistic individual bats may use the site as a transitory roost. It is recommended therefore that roof removal takes place after the end of November.

Enhancement measures for bats include installation of bat tubes, use of raised ridge tiles and slates to create roof access for bats and erection of a bat box in a nearby tree.

No birds were recorded as being associated with the buildings with the exception of a wren. The loss of a potential nest site for this amber-listed species requires mitigation and it is recommended that two wren nest boxes are installed in outbuildings or trees.



8 REFERENCES

Bat Conservation Trust (2018) Bats and artificial lighting in the UK. *Bats and the Built Environment series*, Guidance Note 08/18. Institution of Lighting Professionals.

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

Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust.

Mitchell-Jones, A.J. (2004) Bat mitigation guidelines. English Nature.

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.

FIGURE 1 LOCATION



APPENDIX 1 PHOTOGRAPHS



THE HOUSE AS SEEN FROM
SOUTH EAST, WITH SUMMER
HOUSE



THE HOUSE AS SEEN FROM
SOUTH WEST



THE HOUSE AS SEEN FROM
NORTH



APPENDIX 2 LIGHTING PLAN

- Hedgerows and key habitat features including mature trees on the site will not be illuminated in order to retain dark movement corridors for nocturnal wildlife.
- Security or decorative lights to be installed on the site will be less than 3m from the ground and fitted with hoods to direct the light below the horizontal plane, at an angle of less than 70° from vertical, and shall not be fixed to, or directed at, bat boxes, gables or eaves.
- Security lighting will be set on motion sensors with short timers less than 1 minute and will be LED.
- External lighting will be hooded and directed toward the ground to reduce upward light spill.
- A warm white spectrum will be adopted throughout the scheme to reduce blue light component (<2700Kelvin).
- Internal luminaires will be recessed where installed in proximity to windows to reduce glare and light spill. LED luminaires will be used internally where possible due to their sharp cut-off, lower intensity and dimming capability. The luminaires will always be mounted horizontally with an upward light ratio of 0%.