

Bat Activity Survey



Project: Caerllwyn Bungalow, Trefechan

Instructed by: WDL Homes Ltd

Reported by: Ecological Services Ltd
10 Mount Pleasant, Llanelly Hill, Abergavenny, Monmouth NP7 0NT
Reported by

Author	Date	Version
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1. Introduction

The applicant is seeking planning permission to demolish the current building and include the land within a much wider development plot adjacent to the site. The wider development proposals are to create a residential scheme of 45 dwellings and associated infrastructure. The building is centred at SO 03419 09049. The option to include the land at Caerllwyn Bungalow has only recently been made available to the client.

An extended phase 1 survey of the land adjacent to the bungalow was completed in January 2019 by Ecological Services Ltd. Bat Transect surveys were also completed by Ecological Services during the summer months of 2019. The details and findings of the bat transect survey work is included within the Biodiversity Strategy dated 29th October 2019 (V2). Very limited bat activity was noted around the site during the bat survey work previously completed.

A data search has previously been undertaken with Sewbrec to support the phase 1 survey and assessment completed in January 2019. The closest bat record to site is approximately 450m away and is for a common pipistrelle commuting and foraging. There are other records for commuting and foraging unidentified bat species pipistrelle and brown long eared bats, however confirmed species or roost records in the locality are scarce. The closest roost record is approximately 860m away.

There are a number of common bird records also provided within 1km of the development site. Species records include reed bunting, house sparrow, dunnock, starling, song thrush, peregrine, red kite and skylark. The current owner of the bungalow frequently feeds birds in the grounds of the property.

1.1 Site Description

The bungalow is located in a rural setting being immediately surrounded by open fields, a small number of scattered trees, dilapidated stone walling and a small area of woodland to the

north. Another detached property sits to the west of the building and a single lane access track provides vehicle access to Crabtree Walk to the south of the site.

External Description

The building is a detached residential dwelling that is currently used as a family home. The building is single storey with a pitched clay tile hipped roof. A single rendered small chimney is present on the southern elevation of the bungalow. Another chimney is present on the east facing elevation which appears to be brick built and painted white. The building is covered in a cement render which is painted white and has plastic fascia and wooden soffit board around the entire roof line. A flat roof extension is present on the eastern elevation of the building. Part of the extension has a corrugated metal tin roof and part of the extension has a glazed roof line.

A large outbuilding is present to the east of the main house. The outbuilding is used as a dog kennel for approximately 6 large dogs. The outbuilding is a single storey with a gently pitched corrugated metal sheet roof. The building appears to be made from cement block work and partially covered in cement render.

Internal Description

A single attic space is present above the main body of the bungalow. The attic space is lined with a bitumen based roofing felt that appears to be intact. The roof space is approximately 2.5m high at the ridge board and approximately 7m wide by 7m long. Insulation material is present along the floor of the roof void with a small section boarded out for storage.

No roof space is present above the flat roof extension to the bungalow. No attic space is present within the outbuilding.

1.2 Survey Constraints

No constraints were experienced during this site survey.

1.3 Surveyor Experience

Aislinn Harris is a full member of Chartered Institute of Ecology and Environmental Management (CIEEM). Aislinn is an ecologist with 10 years experience undertaking a wide range of flora and fauna surveys. Aislinn is a licence bat worker with a current NRW survey licence (SO85699-1).

2. Report Constraints

Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. The survey methods employed can provide evidence for the potential presence of bat at the times when the site was visited. Although the methods follow best practice guidance and were carried out in such a way as to maximise the chances of detection, failure to detect the target species cannot be considered as definitive proof of their absence.

Even though bats are habitual creatures they can still move to new roosts if conditions are more suitable. Therefore this report cannot predict the status of the structure in regard to bat occupancy in the future. This report should be acted upon as soon as it is practical and will be valid for two year from date of issue. If planning or building works are delayed, it is the responsibility of the client to discuss and gain approval from the *author* before work commences. Natural Resources Wales will only consider bat reports that are undertaken in the preceding 2 years

3. Legal Constraints

Bats, and any place a bat uses for breeding or shelter, either currently occupied or unoccupied are protected by European and British law, predominantly by **The Conservation of Habitats and Species Regulations 2017** which are the principal means by which the Habitats Directive is transposed from European directive into law in England and Wales.

In summary this law states that it is an offence to:

- **Deliberately capture or kill a bat**
- **Deliberately disturb a bat**
- **Damage or destroy a breeding site or resting place of a bat**

- **Keep, transport, sell or exchange, or offer for sale or exchange a living or dead bat or any part of a bat**

‘Deliberately’ may also be interpreted, as not intending to injure or kill a bat but having done so due to being insufficiently informed and unaware of the consequences of the action. For a more comprehensive description and exact wording of the legislation please refer to:

<http://www.legislation.gov.uk/ukxi/2010/490/contents/made>

Where there is a risk that a bat roost may be present, it is incumbent upon the owner to commission a specialist bat survey to identify bat roosts before any work commences. Maximum penalties for offences relating to disturbance to bats or their roosts can amount to imprisonment for a term not exceeding six months or fines of up to Level 5 on the standard scale under the Criminal Justice Act 1982/1991 (i.e. £5000 in April 2001) per roost or bat disturbed or killed, or to both.

If a bat roost is discovered no work that could affect the roost can be undertaken until Natural Resources Wales (NRW), grants a licence endorsing the work. A thorough method statement and adequate mitigation proposal will need to be submitted to support any licence application.

4. General Information

Bats are unable to build roosts themselves but instead rely on both man made and naturally occurring features to provide suitable accommodation. Bats generally prefer older buildings built with traditional materials, as traditional building methods provide more opportunities for gaps and entrances to buildings. Traditional cut roofs are preferred to a roof with trusses. Bats also prefer to roost where the external roost area has access to sunlight during the day such as south facing roof elevations.

Bats can utilise the following features on a building; end tiles, barge board, soffit, gable end, porch, lead flashing hanging tiles, ridge tiles, broken tiles, eaves, sash window frame, wood cladding, fascia board, window sill, and internal roof spaces and timbers. Although this list demonstrates the most popular roosting sites it is by no means definitive. Bats can use apertures as small as 10mm in diameter to gain access.

The U.K bat population is divided into two distinct families, Rhinolophidae and Vespertilionidae. In general, Rhinolophidae (Horse Shoe) bats differ in there roosting requirement to Vespertilionidae (The remainder of UK bat species), in that Horseshoe bats prefer to roost in large areas such as internal attic spaces and hang in the open from the roof of the roost. The bats tend to roost in visible clusters to maintain the high temperatures that a maternity colony needs. Horseshoe bats also prefer free flight access and egress into the roosting area. Horseshoe bats tend to be more light averting to other UK bat species, and routinely fly around the internal roosting area to warm up before exiting. It is noted that Plecotus (Long Eared) bats share some of these preferences. Vesper bats are on the whole are crevice dwelling bats who squeeze into small apertures to access the roost. These like Horseshoe bats will cluster in maternity colonies, but are normally hidden from view. Vesper bats with the exception of Long Eared bats do not require a large internal roost to fly around before exit. Long Eared bats although part of the vesper family are very light averting and will on occasions share the roosting patterns of both Horseshoe and crevice dwelling species.

5. External Scoping Survey

A scoping survey was undertaken on the 23rd January 2020 in conditions of good natural light, all external aspects of the buildings were comprehensively evaluated for roost potential. Evidence was also sought for any staining or droppings, which could suggest bat occupation. Binoculars were used when required.

The building was inspected for overt evidence of bat presence and occupation such as:

- Staining around entry or roosting point caused by oils secreted by the bat into its fur

- Scratching on surfaces caused by the bat in the act of take off and landing
- Bat droppings on walls, floors, roof voids, window cills or panes and barge boards
- Urine stains below a possible entrance site, within entrance to a cavity or on timbers used for roosting
- Bats can produce chatter on warm evenings prior to leaving the roost. A heterodyne bat detector is used to help determine this
- Flies around entrance or on the floor of possible roosts, which may be attracted to bat guano.

The building appears to be in very good condition with hardly any gaps or cracks visible. A single gap was noted between the soffit board and chimney breast but bird nesting material was visible in the gap. Another gap was noted between the metal fascia board on the flat roof extension and main bungalow wall. This gap is superficial and does not lead into any deeper gap. Photos of the building are shown in Appendix 1. No evidence of the presence of bats was noted on the exterior of the building.

No suitable roost features were observed within the outbuildings of the property. However it is possible gaps are present between the roofing timbers and corrugated sheet roof. However no gaps were not visible from ground level.

6. Internal Scoping Survey

An internal inspection of the building within the proposed development site footprint was undertaken on the **23rd January 2020**. No bat droppings or evidence of bat presence was noted within the building. Crevice dwelling bats may also be present between the roofing tiles and roofing membrane of the building. Evidence of their presence in this location is difficult to ascertain based on a scoping survey alone.

No evidence of the presence of bats were noted in the outbuildings adjacent to the bungalow.

7. Activity Surveys

7.1 Bat Activity Survey

The scoping survey of the building concluded that the building had negligible potential for use by bats. However an activity survey and period of static monitoring of the outbuildings was request by the Local Planning Authority Ecologist,

A single bat activity survey was completed in the property using 4 surveyors. The survey was conducted half and hour before sunset until two hours post sunset or when it becomes to dark to see emerging bats.

1) Dusk Activity Survey - 25th August 2020

Weather Conditions - 20°C, clear sky,

Sunset Time - 20:15

A very low level of bat activity was noted around the area during the survey. The first bat recorded was heard and not seen at 21:05. A single common pipistrelle bats flew from south to north across the site at 21:32. A single common pipistrelle bat was observed briefly foraging in the garden of the property at 21:32 for a few minutes. No bats were seen to emerge from the building.

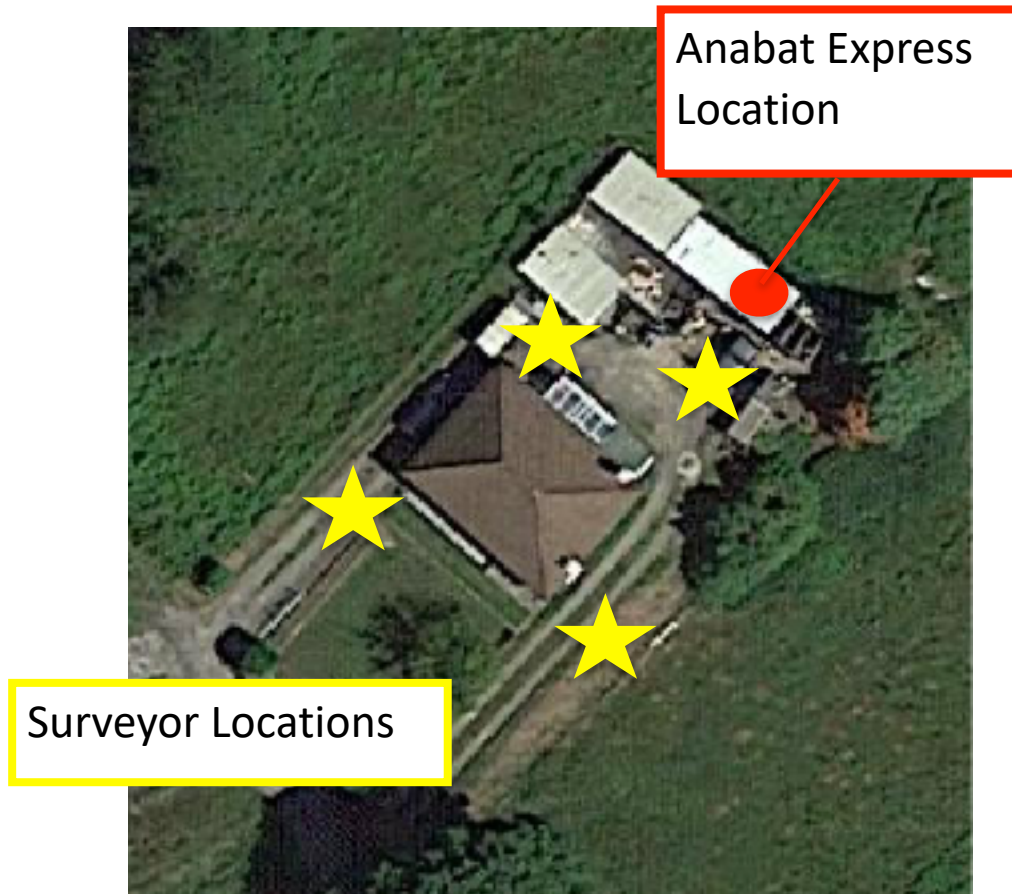
7.2 Static Bat Monitoring

An Anabat express was left within the outbuilding to the rear of the bungalow. The outbuildings are used as a dog kennel and as such there are limited places to safely place a bat detector for monitoring. Therefore one bat detector was set out on the 12th August 2020 for 10 nights. All recorded data was downloaded and assessed using Analook soft ware. The survey periods and a brief description of the activity recorded is given below.

- Dates of Static Monitoring 12th August to 22nd August 2020

No bat calls were recorded during the monitoring period. Periods of noise were recorded attributed to dogs barking and use of the kennels. As some recordings were taken confidence can be gained that the detector was working there was just no bat activity in the outbuilding.

No evidence of nesting bird use of the building was observed during the site inspection.



8. Concluding Remarks and Recommendations

No evidence of the presence of bats was found during the scoping survey completed at site. No bats were observed roosting within the building during the activity survey completed within the site boundary. Based on the conclusion of the survey work detailed within this report the building is not currently used as a bat roost.

It is difficult to completely rule out the potential presence of bats within a building due to their transitory nature. Contractors should still remain vigilant for the potential presence of

bats during works. If at any time bats are discovered all work must stop and an ecologist be contacted for advice on how to proceed.

The general shelf life of a bat activity survey is around 2 years. Should there be a delay of more than 2 years between this survey report and development work commencing, further bat survey work may be required.

The Environment Act (Wales) 2016 places a duty on competent authorities such as the Merthyr Tydfil County Borough Council to conserve and enhance biodiversity. An Ecological Impact Assessment (EcIA) report will be completed to support the proposed planning application for the site and surrounding land. The EcIA will contain detail on a variety of integrated bat boxes to be built into the new buildings on site and delivered through the scheme. The EcIA will also look at It is suggested that this document details sufficient mitigation for the loss of the bungalow.

Appendix 1 – Site Photographs



Western (front) elevation of building



Southern elevation of building



Eastern (rear) elevation of the building



Northern elevation of building



View of outbuilding



View of outbuilding



View of outbuilding roof line



View of ridge board in attic space



View of attic space



View of attic space



Internal view of outbuilding



Internal view of outbuilding

Appendix 2 - Site Location in Wider Landscape

