

HIGH WINDS, TREDUNNOCK, USK

Bat Survey Report

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EXECUTIVE SUMMARY

It is proposed to alter and improve High Winds, Llangattock, Usk.

An initial bat inspection survey was undertaken on 24th June 2021. A small number of droppings characteristic of a pipistrelle species were scattered throughout the roof void.

The surveys revealed that the property is an occasional day roost for up to two single common pipistrelle bats.

As a result of the above, the works cannot commence until such a time a European Protected Species Licence has been sought and issued from Natural Resources Wales.

No evidence of breeding birds was found on the exterior nor interior of the building.

All work to the building will need to be undertaken in line with a licensed method statement and ecological supervision.

Mitigation and enhancements will be required as part of the proposals.

1 INTRODUCTION

1.1 Background

BE ECOLOGICAL LTD was commissioned by the client to undertake an initial bat inspection survey and subsequent activity survey of High View, Llangattock, Usk in support of a planning application to alter and improve the property.

This report includes the findings of the aforementioned bat activity surveys undertaken in the appropriate season.

The surveys were undertaken in line with the current guidance on standards for bat surveys (Bat Conservation Trust, 2016¹).

1.2 Site description

The property subject of this survey is located at High Winds, Tredunnoch, Usk. The property is a two story partially rendered stone built structure beneath a clay tile roof. The main ridge of the property generally runs in a north east to south westerly direction. There is a smaller ridge to the west which again runs in an eastern to western direction. There is a second ridge on the eastern side of the building that runs generally in an east to western direction. There are numerous dormers to the front along with a porch. There is a single storey extension to the rear. There are skylights present along the eastern elevation.

The property is set within its own grounds and garden and is surrounded by fields delineated by mature hedgerows that lead to the wider landscape that comprises of woodland and further agricultural fields with a network of hedges. There is good connectivity to the wider landscape.

¹ *Bat Surveys for Professional Ecologists - Good Practice Guidelines* (Collins, J (Ed). BCT, 2016)



Figure 1: Detailed view of the property (arrowed red) (Google Earth 2021)



Figure 2: View of wider landscape surrounding the property (property arrowed red) (Google Earth, 2021)

1.3 Proposed development

It is proposed to alter and improve High Winds, Tredunnoch, Usk.

LEGISLATION & POLICIES

1.4 Conservation of Habitats & Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) provides safeguards for European Protected Species (those listed under Annex IV Habitats Directive). With regards to bats, this makes it an offence to:

- Deliberately (or recklessly in Scotland) capture, injure or kill a bat
- Deliberately (or recklessly in Scotland) disturb a bat in a way that would (significantly in Scotland) affect its ability to survive, breed or rear young (or hibernate or migrate in England, Wales and Northern Ireland) or (significantly in England, Wales and Scotland) affect the local distribution or abundance of the species.
- Damage or destroy a roost (this is an 'absolute' offence)
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat

1.5 Wildlife & Countryside Act 1981

The Wildlife & Countryside Act 1981 (as amended) is the legislation for England and Wales for nature conservation, making it an offence to:

- Intentionally or recklessly disturb a bat at a roost
- Intentionally or recklessly obstruct access to a roost

1.6 The Environment (Wales) Act 2016

The Environment (Wales) Act 2016 requires that all public authorities, when carrying out their functions in Wales, seek to "maintain and enhance biodiversity" where it is within the proper exercise of their functions. In doing so, public authorities must also seek to "promote the resilience of ecosystems". This ensures that biodiversity is an integral part of the decisions that public authorities take in relation to Wales. It also links biodiversity with the long term health and functioning of our ecosystems, therefore helping to align the biodiversity duty with the framework for sustainable natural resource management provided in the Act. In Wales, this legislation replaces and enhances the Natural Environment and Rural Communities Act (2006) which sought to raise the profile of biodiversity and to make sure that it is considered in all local authority decisions by ensuring that "Every public 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.". Other elements of NERC 2006 may still apply.

2 METHODOLOGY

2.1 Survey Objectives

- To carry out an initial bat inspection survey along with the recommended activity surveys
- To present the above details and if necessary recommendations for mitigation, future research and compensation within this report.
- To carry out a scoping survey for breeding birds

2.2 Survey Summary

The bat survey comprised of three parts:

- Part 1- Initial bat inspection survey
- Part 2- A single activity survey
- Part 3- A single activity survey
- Part 4- A single activity survey

2.3 Surveyor Information

The survey was run by Beth Evans. Beth is the owner of BE ECOLOGICAL LTD and has a postgraduate degree in Environmental Biology: Conservation & Resource Management, specialising in British bats. Beth has six years' experience of ecological surveys, both in a small scale and large multi-disciplinary context. Beth also holds Natural Resources Wales and Natural England bat licences to disturb and handle bats.

Beth Evans was assisted during the activity surveys by Hugh Dixon. Hugh is an experienced licensed ecologist with over 20 years experience. Beth was also assisted by Michael Rodgers, Stephen Shutt, Sylvia Sanyalou and Maddie Anderson.

2.4 Internal & External Inspection

An initial inspection survey was carried out on 24th June 2021 to search all buildings, both externally to identify potential bat roosting areas and signs of bat use including; live bats, dead bats, droppings, urine staining, grease marks and discarded prey items. The buildings and all areas/items of interest were recorded and photographed. Extension ladders/steps were used to safely access roof areas and fascia boards etc; where no safe access was available the survey was conducted using, close focus binoculars and/or a high powered lamp.

2.5 Activity Surveys (emergence/re-entry surveys)

Building 'emergence' and 're-entry' surveys were carried out on the following dates, times and weather conditions. Climatic conditions including rain, wind, temperature and cloud cover were recorded for each survey using a hand held Kestrel 4500 weather station.

2.5.1 Survey – 1- 13th July 2021

A dusk survey was carried out on 13th July using four surveyors ,positioned in such a way that as much of the building was visible to surveyors as possible. Surveyors were equipped with Batlogger M detectors.



2.5.2 Survey – 2- 29th July 2021

A dusk survey was carried out on 29th July using two surveyors and two cameras ,positioned in such a way that as much of the building was visible to surveyors as possible. Surveyors and cameras were equipped with Batlogger M detectors.

2.5.3 Survey – 3- 17th September 2021

A dusk survey was carried out on 17th September using two surveyors and two cameras ,positioned in such a way that as much of the building was visible to surveyors as possible. Surveyors were equipped with Batlogger M detectors.

2.6 Survey limitations

Any survey for bat species can only be a series of snapshots in time. Bats are highly mobile, long lived creatures (capable of living up to 30 years, sometimes longer) with complex social structures and utilising multiple roost sites within a year. The implications of this are that surveys and surveyors have to make informed assumptions based on observations, recorded data, local information and a detailed knowledge of the species.

The west and south of the site are extremely dark making it difficult to see the roof. This issue was counteracted by using IR and thermal cameras during the second and third surveys.

3 RESULTS

3.1 Inspection survey

3.1.1 External survey results

The survey carried out by BE Ecological Ltd revealed no droppings or evidence of bats on the exterior of the building, however, access and roosting potential for bats was identified in the form of:

- Small number of potentially lifted ridge tiles
- Small number of slipped tiles
- Gaps beneath fascias and barge boards

Despite the above gaps, the roof does appear to be generally in relatively good order.

As such, the property was categorised as being of moderate potential for roosting bats and further emergence/re-entry surveys were recommended.

3.1.2 Internal survey results

Internally, there is a large, roof void across the property that is accessed in three locations. All roof void areas have evidence of rats and mice. The largest portion of the roof is over the northern and western end of the property. The roof is a typical rafter and perlin type construction and is lined with bitumen felt. The roof void is approximately 3m from joist to ridge and is insulated at joist level with fiberglass insulation. The roof is partially boarded out with ply.

A scattering of droppings commensurate with a pipistrelle species was found in this location.

3.2 Activity surveys

The surveys were undertaken as per the table below:

3.3 Survey Schedule and Weather Conditions

Table 1: Schedule and weather conditions

Visit	Date (sunrise) (sunset)	Start End	Time	Temp C	Wind	Cloud Cover	Notes
Survey 1 13 th July 2021	21:25	Start	21:10	15	Low	20%	Dry evening, insects flying
		End	23:10	14	Low	25%	
Survey 2 29 th July 2021	21:05	Start	20:50	16	Low	30%	Dry evening, insects flying
		End	23:00	16	Low	15%	
Survey 3 17 th September 2021	19:21	Start	19:05	14	Low	15%	Dry evening, insects flying
		End	21:15	14	Low	20%	

3.4 Activity Survey Results

3.4.1 Survey 1- 13th July 2021

Despite acceptable bat survey conditions, no bats were heard throughout the course of the survey excluding a single common pipistrelle approximately one hour post sunrise. The bat was seen foraging along the hedgerow to the west.

3.4.2 Survey 2- 24th July 2021

Numerous bat calls were heard throughout the survey.

The first bat call heard was a common pipistrelle at 21:15, the bat was seen emerging from the apex of the western gable (figure 5, arrowed red). The bat then commuted north.

Numerous common pipistrelle and lesser horseshoe calls were heard throughout the course of the survey, the bats were noted by surveyors commuting and foraging back and forth the hedgerows to the front and the rear of the property.

No other bats emerged from the property on this date.



Figure 5- common pipistrelle emergence point (arrowed red)

3.4.1 Survey 3- 17th September 2021

Again numerous common pipistrelle and soprano pipistrelle bats were heard throughout the course of the survey. The bats were seen commuting back and forth the hedgerow to the rear and front of the property.

The first common pipistrelle heard was a common pipistrelle at 19:30, the bat was seen emerging from the western gable, the same location it had emerged from during the previous survey (figure 5, arrowed red).

This was shortly followed by a second common pipistrelle emerging from the corner of the southern gable (figure 6, arrowed red). Both bats commuted west.



Figure 6: common pipistrelle emergence point (arrowed red)

3.5 Identified Roosts

3.5.1 Survey 1

The property was not identified as a roost on this date.

3.5.2 Survey 2

The property was identified as a roost for a single common pipistrelle bats.

3.5.3 Survey 3

The property was identified as a roost for up to two single common pipistrelle bats.

3.6 Conclusion

Overall levels of bat activity at the site were relatively moderate with only common and soprano pipistrelles heard throughout the course of the surveys excluding the second survey where a number of lesser horseshoe bats were heard.

It is considered that the property is an occasional day roost for up to two single common pipistrelle bats, likely a male or non-breeding females.

Based on the current evidence, it is considered that mitigation and an NRW development licence will be required as the works will result in the destruction of a common pipistrelle roost albeit occasional. A method statement and supervision will be required as part of that licence.

3.7 Breeding Birds

No evidence of breeding birds was found throughout the property.

4 INTERPRETATION & IMPACT ASSESSMENT

4.1.1 Summer roosts

It is considered that the property is an occasional roost for two single common pipistrelle bats. The surveys and the evidence inside the building do not seem to suggest that the roost is used on a more occasional basis nor by more than single bats.

4.1.2 Hibernation roosts

It is always possible that single pipistrelles will remain in the building over winter and any licence application and method statement will need to take account of this.

4.2 Breeding Birds

No evidence of breeding birds was found throughout the property.

4.3 Ecological Impacts of development

The impacts of the development have been assessed using the current information of the proposed works. Should any changes be made to the proposed works, the assessment will need to be reviewed and amended as necessary.

It is considered that an occasional day roost for up to two single common pipistrelle bats will be lost as a result of the proposed works.

A licence and mitigation will be required.

5 MITIGATION/ENHANCEMENT

5.1 Bats

Temporary mitigation

A Schwegler 1FF bat box will be attached to the southern elevation of the property. Should the 1FF prove difficult to source, an eco bat box (crevice box) <https://www.nhbs.com/title?slug=eco-bat-box> will be installed in its place. A second Schwegler 1FF will be attached to retained vegetation within the garden of the property. The boxes will be erected no less than 3m from the ground.

Permanent mitigation

If it is required to remove the barge boards, A no more than 15mm gap will be left beneath the barge board and the wall on the western and southern gable

5.2 Birds

A Schwegler 1SP Sparrow Terrace or the following <https://www.nhbs.com/sparrow-terrace-nest-box> will be attached to the western elevation of the property.

6 RECOMMENDATIONS

6.1.1 Timing

It is considered that as the building is a roost for single bats only, the work can be undertaken at any time of year.

6.1.2 Timber/roofing materials

There will strictly be no use of breathable membranes and the lining of the roof will be Type 1 bitumen felt only. Only bat friendly timber treatment will be used.

6.1.3 Lighting

Potential access points and bat boxes will not be directly illuminated. All external lighting will face downwards and be set on timers to ensure that bats can use the area should they wish. – In addition to this, any onsite lighting will conform to the following guidelines:

<https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

6.1.4 Bat Licensing

A European Protected Species Licence obtained from Natural Resources Wales will be required on receipt of planning permission and prior to works commencing on the building.

6.1.5 Supervision

Supervision for the removal of the roof will be required.

7 METHOD STATEMENT (once a licence has been obtained)

1. A suitably licenced and experienced ecologist will be on site/call for the duration of the works.
2. Before any work begins on site, a briefing for contractors and other site-staff 'toolbox talk' will be given by an ecologist. The briefing will cover the issues in respect of protected species they may encounter on site, where they might find them, methods of working, and what they need to know to avoid committing an offence. Every briefing attendee will be provided with a copy of a Method Statement and the contact details of an ecologist and Natural Resources Wales.
3. All suitable bat roosting features will need to be removed by hand (tiles) and inspected by the onsite bat ecologist.
4. The tiles will also need to be removed manually, one at a time, with the bed and underside inspected for bats/sign of bats by the onsite ecologist before moving onto the next.
5. The area that the extension is to be tied into will be checked for the presence of bats by the onsite ecologist.
6. Only when the onsite bat ecologist is happy that there is no further potential for bats, may he/she leave and the works continue with no supervision. A licensed bat ecologist will be on call for the remainder of the works. In the unlikely event that bats are found during a period that the licensed bat ecologist is not present on site, all works must cease and the licenced bat ecologist engaged.
7. If bats or their signs are found, a EPS licence may be required before works can legally resume.

8 REFERENCES

Bat Conservation Trust. (2016) *Bat Surveys - Good Practice Guidelines*. Bat Conservation Trust, London.

Mitchell-Jones, A.J. & McLeish, A.P. (2004) *The bat workers' manual (3rd Edition)*. Joint Nature Conservation Committee.

Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. Natural England

The Conservation of Habitats and Species Regulations 2017 (as amended) (HMSO).

The Natural Environment and Rural Communities Act (2006) (as amended) (HMSO).

The Wildlife and Countryside Act 1981 (as amended) (HMSO).

APPENDIX A- SITE PHOTOGRAPHS









