

EWS

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Ecology & Wildlife Services

Specialists in Ecological Surveys, Assessments and Wildlife Management

Bat Survey

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Prepared for:

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1.0 EXECUTIVE SUMMARY

This bat survey report details the findings of survey work undertaken during May, July and September 2020 at Llwynceilyn Farm, Rhiwfawr, Swansea, SA9 2RB. Grid Ref SN 74833 10104.

Due to current Covid 19 restrictions it was not permissible to undertake an internal survey on the main house.

From the surveys undertaken at the site Soprano pipistrelle (*Pipistrellus pygmaeus*) bats were observed and recorded emerging from the SW elevation of the house during the emergence survey undertaken on the 30/05/20 approx. 30 bats were counted, all bats flew directly in to the woodland adjacent. No other bats were observed or recorded emerging from the building that is proposed for modernisation works. Soprano pipistrelle were and recorded returning to the identified roost in the SW elevation of the building during the dawn survey undertaken on the 23/07/20 a count of 53 bats was recorded. During the dawn survey 15/09/20 48 Soprano pipistrelle bats were recorded returning to the identified roost. During all survey's undertaken only one species of bat, Soprano pipistrelle were recorded and observed leaving/returning to the identified roost. There was very little foraging activity recorded or observed around the building and garden area with all bats dispersing quickly into adjoining woodlands.

The current owners are also aware of the position of the bat roost and have given an undertaking to maintain the end of the house where the roost is located. The design of the extension on the NE elevation does not require access or opening up of the existing roof void and as such there will be no disturbance to the roof void or identified roost.

All UK species of bat are protected species. Their breeding sites or resting places³ (roosts) are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species (Amendment) (EU Exit) [‘CHSAEU’] Regulations 2019⁵.

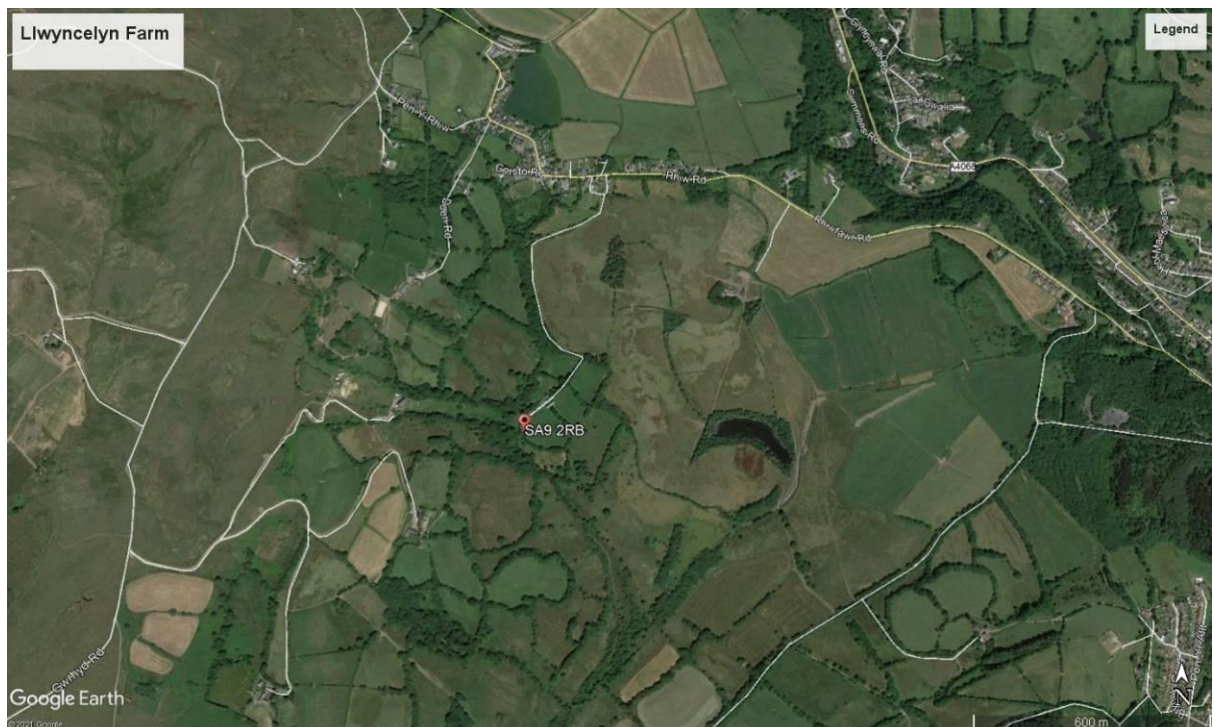
Works affecting bats are subject to licensing procedures by Natural Resources Wales (NRW). The legal protection and licensing procedures are summarised below.

2.0 INTRODUCTION

This report outlines the findings of bat survey work carried out at Llwyncelyn Farm, Rhiwfawr, Swansea, SA9 2RB. Grid Ref SN 74833 10104 by N. Price of EWS.

2.1 Site Description and Proposed Works

The site being surveyed is a detached cottage. The current owner proposes a two-storey extension to the NE elevation of the house.



The site location

2.2 Objectives

The objectives of the survey were to obtain sufficient data to:-

1. Identify potential bat activity levels and use of building(s) on site e.g. roosting within the building(s) identified and/or foraging in and around the surrounding area.
2. Identify any other potential constraints to redevelopment on the site from other species/habitats present.
3. Assess whether the proposed redevelopment of the site would be likely to have an impact upon those species, if present.
4. Make recommendations for further survey work (if necessary) to establish the seasonal use of the site and to help determine the species status, if present; and
5. Recommend a mitigation strategy (where possible) for those habitats/species present that pose a constraint to the redevelopment of the site.

3.0 Legislation

Bats

All bats are European Protected Species (EPS). It is against the law to damage or destroy a bat roost, or deliberately to capture, kill, injure, or disturb a bat. Natural Resources Wales (NRW) issues EPS licenses in Wales.

All British bat species are protected under the Conservation of Habitats and Species Regulations 2010 (further amended 2017) known as the 'Habitats Regulations'.

Under the Habitats Directive, it is an offence if you:

- Deliberately capture, injure, or kill any wild animal of an EPS,
- Deliberately disturb wild animals of any such species,
- Damage or destroy a breeding site or resting place of such an animal.

Disturbance is defined as that which is likely:

1. 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
2. To significantly affect the local distribution or abundance of the species to which they belong.

Defra and the Welsh Government published a joint guidance document on the interpretation of the offences relating to disturbance, and to damage and destruction of breeding sites and resting places.

There are other offences relating to possession, transport, and sale.

The Conservation of Habitats and Species Regulations 2010 (as amended 2017) makes it illegal:

- To be in possession of, or to control
- To transport
- To sell or exchange, or
- To offer for sale or exchange, any live or dead EPS which has been taken from the wild, or any derivative

Another international agreement is the Implementation in the Community of the Convention of International Trade in Endangered Species of wild Fauna and Flora (CITES). CITES aims to regulate international trade in species which are endangered, or which may become endangered if over exploited. It lists species in three Appendices, according to the level of protection they need.

Licensing

NRW issues licenses under Regulation 53 of the Habitats Regulations. NRW will issue a license for specific purposes stated in the Regulations, if the following three tests are met:

- the purpose of the work meets one of those listed in the Habitats Regulations (see below).
- that there is no satisfactory alternative.
- that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range.

Licensing purposes

The Habitats Regulations permits licenses to be issued for a specific set of purposes including:

- include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.
- scientific and educational purposes,
- ringing or marking
- conserving wild animals

The introduction of the Conservation of Habitats and Species Regulations 2017 has removed the defence of killing or injuring a protected species during a lawful operation, thus even in an instance where planning permission is granted, the presence of bats must be considered and mitigated for prior to commencement of works. Under the above regulations, an NRW licence can only be given if three tests are satisfied:

1. The action proposed is in the interest of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance to the environment.
2. That there is not a satisfactory alternative.
3. That the action proposed will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Failure to satisfy the regulations and obtain an EPSL where required is likely to result in prosecution and can lead to severe fines of up to £5000 per bat and possible imprisonment. Eight species of bat are listed under section 7 of the Environment Wales Act (2106). Section 7 of the Act provides a list of living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. This is a list of species considered at threat within Wales and in need of conservation management to maintain and enhance population numbers. A duty is placed on the Local Authority by the Welsh Assembly Government to maintain and enhance populations of species listed in Section 7.

TAN 5

Planning Policy Wales Technical Advice Note (TAN) 5, Nature Conservation and Planning, provides advice on how the planning system should contribute to biodiversity protection and enhancement. TAN 5 recognises the importance of biodiversity and the enjoyment of it. TAN 5 requires Local Planning Authorities (LPA's) to protect and enhance biodiversity during the planning process and to encourage sustainable developments. It also requires LPA's to ensure that protected sites are properly accounted for within the planning system.

Nesting Birds

All British birds, their nests and eggs are protected in law. It is an offence to deliberately take, kill or injure any wild bird or to take, damage, or destroy any nest or egg of any wild bird under Part 1 of the Wildlife and Countryside Act 1981 (WCA 1981) (as amended) (this applies to birds whilst building a nest and/or near a nest containing eggs and/or young).

4.0 METHODOLOGY

4.1 Desk Study

Maps and aerial photographs of the site and surrounding area, including existing habitats, were assessed. A search for statutory and non-statutory conservation designated sites for bats within 10km was undertaken using NRW Geographic Information System (GIS) dataset. A 2km search was undertaken for all other statutory and non-statutory conservation designated sites. A local planning portal search was undertaken looking for other sites within the same postcode area which have had bat surveys submitted as a part of their planning applications.

4.2 Internal and External Survey

Externally the building was surveyed, with the aid of binoculars where necessary, for evidence of access points and droppings, grease marks and urine staining. The buildings were examined to identify features that are favoured by bats as roosting sites, including pitched roofs with a void/loft, behind fascia boards and soffits, in and through gaps around windows and hanging tiles or weatherboarding. Any potential access points are recorded, along with any external physical evidence of use by roosting bats, such as urine staining and/or droppings around access points, on windows and on window ledges. This involved recording the location of any suitable roost locations, and associated access points.

Internal evidence of roosting bats such as droppings, staining, scratch marks and live or dead bats were also recorded, as well as the physical structure of the roof, any suitable access points and other features of note.

Due to current Covid 19 restrictions it was not permissible to undertake an internal survey on the main house.

4.2 Activity Surveys

Dusk emergence and dawn return surveys were undertaken in weather conditions conducive to bat activity i.e. little or no rain and temperatures in excess of 10°C.

The emergence surveys began half an hour before sunset and continued for an hour and a half after sunset, when it was considered that all bat species would have emerged according to Mitchell-Jones and McLeish (2004).

The dawn survey started 2 hours before sunrise and ended 15 minutes after sunrise

Each of the bat surveyors were positioned so they had a clear view of the section of building they were surveying, and each surveyor had a heterodyne Pettersson detector and an Echometer touch on a Samsung tablet/ Ipad or a Petterson M500-384 to record. All bat activity detected during the survey was recorded and analysed. Anabat Express static detectors and Anabat Swift Static detectors were used as the static detectors.

4.3 Survey Constraints

There were no constraints to the survey as: -

- Suitable bat survey weather conditions are when the ambient air temperature exceeds 10°C and when there is little/no wind or rain.
- The surveys were carried out in optimal weather conditions during the time period recommended in the BCT Best Practise Guidelines.

5.0 RESULTS

5.1 Survey Personnel and Experience

Name	Surveys undertaken	Experience
Neil Price	External, Emergence, Dawn	Licensed Bat worker 20+ years' experience
Carol Price	Emergence, Dawn	Assistant 15+ years' experience

5.2 Survey Effort

Survey	Result	Other observations
30/05/20 Dusk/ activity survey Sunset 21.22 Temp 18 Dry	Approx. 30 soprano pipistrelle bats emerged from the SW elevation from behind UPVC fascia (pic Appendix A)	All bats flew straight into adjacent woodland
23/07/20 Dawn return survey Sunrise 5.26 Temp 14 Dry	Soprano pipistrelle bats were observed returning to the identified roost on the SW elevation. Swarming activity started at 5.01	53 Soprano pipistrelle bats were counted returning to the identified roost last bat entered roost at 5.45
15/09/20 Dawn return survey Sunrise 06.51 Temp 12 Dry	Soprano pipistrelle bats were observed and recorded returning to the identified roost on the SW elevation. Swarming activity started at 06.47	48 soprano pipistrelle bats were observed returning to the identified roost on the SW elevation .Last bat entered roost at 07.35

Positions of surveyors



5.4 Bat Flight lines and Roost locations



The white lines indicate Soprano pipistrelle flight lines across the site

5.5 Field Study

5.5.1 Ecological context

Site and Surrounding Habitats

The area adjacent the site is a designated Woodland SINC and designated mosaic habitats which offers high value foraging and commuting habitats for bats .

The proposed modernisation and extension are within the current curtilage of the site and will not have any impact on the SINC/designated sites due to the small scale of the works.

It is not anticipated that any air or water pollution will arise from the proposed works that will affect the function of the designated sites. No further consideration if these is required.

6.0 DISCUSSION & CONCLUSION

6.1 Bats

There is a long term established Soprano pipistrelle roost present in the SW elevation of the detached cottage which the householder was aware of. Numbers of bats recorded was constant over the 3 surveys undertaken, suggesting that the roost is a maternity roost.

The proposed works to modernise and build a two-storey extension on the SW elevation will not impact the roost and will allow for the bats to continue using the roost site and identified flight lines.

From the surveys undertaken there are no constraints to proposed works on the site from bats. However due to the proximity of a known bat roost the following should be undertaken

Artificial Lighting

All bat species are affected by artificial light to a greater or lesser extent. Their emergence time may be delayed if exit points are lit, or they may no longer enter the site.

This can have an impact upon their foraging success. Consideration will therefore be given to the level of external lighting around the site. If lighting is considered necessary, installation of security or other external lighting will be:

Located with consideration for bats and other nocturnal species, any lights will be pointed towards the ground and shaded to prevent spill to the surrounding areas and should be no higher than 3 metres from the ground and will be confined only to areas where there is access or particular security considerations and where health and safety issues need to be considered. Light spill into the adjacent areas should be prevented.

From the survey work undertaken there will be no constraints to the proposed works on the site from the presence of bats. However due to the nomadic nature of bats, care should be taken during the proposed works as there is a possibility that bats could be encountered during the work. If this happens work should stop, and advice be sought from Natural Resources Wales or a suitably qualified bat ecologist.

6.2 Nesting Birds

No nesting birds were observed during any of the bat surveys however should any works to the building be planned within the nesting bird season (March to September inclusive) a further assessment for the presence of nesting birds should be carried out prior to works. This would involve a suitably experienced ecologist carrying out visual observation of the buildings to identify any bird nesting behaviour. Without it, development works may result in an offence being committed under the relevant legislation.

If an occupied nest and/or a nest under construction is found, the nest site must be left undisturbed until the chicks have fledged and/or the nest is abandoned. This again will need to be determined by a suitably experienced ecologist.

6.3 Barn Owl

No evidence of owls was found at the property being surveyed.

7.0 References

- Mitchell-Jones, A.J. and McLeish, A.P. (2004) : *The Bat Worker's Manual*, 3rd Edition, Joint Nature Conservation Committee.
- Bat Conservation Trust (2016): Bat surveys – Good Practice Guidelines
- Natural England (2004): Bat mitigation guidelines

Appendix A - Photographs

SW elevation of the building & bat roost position



NE elevation of building



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SE Elevation



SW Elevation of building

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