



DARWIN ECOLOGY
integrating nature conservation

Unit 13 & 14, Sandy Farm Business Centre,
Sands Road, Farnham, GU10 1PX

Email: info@darwin-ecology.co.uk
www.darwin-ecology.co.uk

Preliminary Roost Assessment Survey

Barn at Green Pig Farm
Castle Gate
Ludgvan
TR20 8BG

July 2021

Darwin Ecology Ltd
Registered Office: 8 Layton Lane, Shaftesbury, Dorset SP7 8EY
Company No. 07654823

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QUALITY CONTROL		
The information which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.		
Prepared by	Sophie Higgins, Senior Ecologist	14.06.2021
Checked by	Sophie Higgins, Senior Ecologist	14.06.2021
<p>This report remains valid for 12 months from date of issue.</p> <p>Survey data are valid for 12-24 months from the date the survey was undertaken.</p>		

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The views and opinions contained within the document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to works.

1. EXECUTIVE SUMMARY

- 1.1. Darwin Ecology was commissioned by Cornwall Planning Group to undertake a preliminary roost inspection at a barn at Green Pig Farm, Castle Gate,, Ludgvan, TR20 8BG, OS Grid Reference SW 49318 34623. The survey and report are required to support a proposed planning application for the conversion of the barn to a holiday let. This report documents the survey results.
- 1.2. The barn is constructed of stone and had no roof at the time of the survey. Gaps were identified in the stonework, but no bats or evidence of roosting bats were identified.
- 1.3. The survey has confirmed no bat roosts within the barn therefore, no further surveys are considered necessary.

2. INTRODUCTION AND BACKGROUND

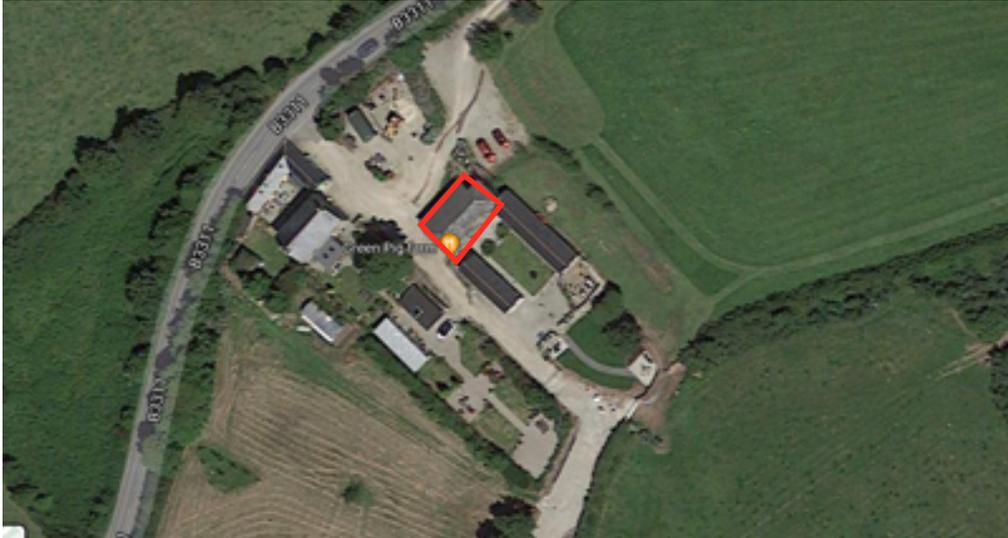
- 2.1. Darwin Ecology was commissioned by Cornwall Planning Group to undertake a preliminary roost inspection at a barn at Green Pig Farm, Castle Gate,, Ludgvan, TR20 8BG, OS Grid Reference SW 49318 34623. The survey and report are required to support a proposed planning application for the conversion of the barn to a holiday let. This report documents the survey results.
- 2.2. The survey and report follow the standard Bat Conservation Trust (2016) and CIEEM guidelines.
- 2.3. A Bat and Barn Owl was previously carried out on the barn by Spalding Associates in April 2011. During this survey the barn had a corrugated asbestos roof. No bats were identified roosting inside the barn and no further surveys were carried out.

Site Overview

- 2.4. Green Pig Farm lies in a rural area approximately 1.8km north-east of Ludgvan and to the south of the B3311. The barn lies in the centre of the site with a single storey barns to the south, which have already been converted to holiday lets. Hardstanding lies to the north, east and west of the barn. The site is exposed with short Cornish hedges bounding the farm to the north and south. Areas of dense scrub habitat with scattered mature trees lie to the south-west which link the site to deciduous woodland approximately 560m south.
- 2.5. Due to its exposed location and lack of mature linear habitats, the site is considered to support foraging habitat for common species.



Map 1: Red circle shows the location of the site (Google Maps, 2021).



Map 2: Red circle shows the location of the site (Google Maps, 2021).

3. BAT LEGISLATION

3.1. In England and Wales, all bat species and their roosts are legally protected under the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000; the Natural Environment and Rural Communities Act (NERC, 2006); and by the Conservation of Habitats and Species Regulations 2017 (as amended). You will be committing a criminal offence if you:

- Deliberately capture, injure or kill a bat
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time)
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat
- Intentionally or recklessly obstruct access to a bat roost

3.2. Barbastelle, Bechstein's, greater horseshoe, lesser horseshoe, brown long-eared, soprano pipistrelle, and noctule bats are all priority species under the UK Biodiversity Action Plan (UK BAP) and have also been adopted as species of principal importance in England under Section 41 of the NERC Act 2006.

3.3. The government's statutory conservation advisory organisation, Natural England, is responsible for administering European Protected Species (EPS) licences, and Bat Mitigation Class Licenses (BMCL) that permit activities that would otherwise lead to an offence.

3.4. A licence can be obtained if the following three tests have been met:

- Regulation 53(9)(a) - there is "no satisfactory alternative" to the derogation, and;
- Regulation 53(9)(b) - the derogation "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range" and;
- Regulation 53(2)(e) - the derogation is for the purposes 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 for the environment".

National Planning Policy Framework (NPPF) 2019

- 3.1. NPPF aims to minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity. Chapter 15 'Conserving and enhancing the natural environment' details what local planning policies should seek to consider with regard to planning applications.
- 3.2. Planning policies and decisions should contribute to and enhance the natural and local environment by:

170 a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

170 d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

174 b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

175 a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

175 d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

4. METHODOLOGY

Preliminary Roost Assessment

- 4.1. Sophie Higgins BSc (Hons), MSc and ACIEEM carried out a bat building inspection on the 14th June 2021.

Internal Survey:

- 4.2. An internal inspection survey was carried out to check for roosting bats, evidence of bats and to check possible entrance points.

External Survey:

- 4.3. An investigation was carried out of features that may indicate bat presence. For example; gaps under roof and ridge tiles, or behind soffit boards and wooden fascias. A search for bat droppings was made beneath each potential entry/exit point identified. The surveyors used a powerful, low heat LED torch and binoculars where appropriate.

Habitat Assessment:

- 4.4. The trees and other vegetation immediately adjacent to the area to be affected were assessed for their potential to support roosting and foraging bats. The wider landscape is also assessed through satellite imagery to identify possible key commuting belts near to the site. Any trees on site and due to be affected were assessed visually for evidence of bats and assessed for features which increase the likelihood of bats roosting, such as storm damage, rot holes, ivy cover, flaying bark and splits in the trunk.

5. SURVEY RESULTS

Preliminary Roost Assessment

- 5.1. The barn is a former two-storey stone barn with no roof. The barn has already been subject to planning permission and works were started which have removed the roof and capped the top of the walls (Photo 1-2).
- 5.2. Internally, there is no upper floor. The stone walls inside had crevices in the stone work which were checked with an endoscope. Some crevices ran deep but others were shallow. The western internal wall has undergone some re-filing of the mortar (Photo 3).
- 5.3. Externally, the stone walls were in good condition with some crevices identified on the northern elevation. The western elevation was well sealed.
- 5.4. During the survey, no bats or evidence of bats were identified.

Summary

- 5.5. Overall, the survey has confirmed that the barn does not support a bat roost and there are limited roosting opportunities for bats in the barn.

Nesting Birds

- 5.6. A single wren nest was identified in a crevice on the northern elevation. It was not in use at the time of the survey.
- 5.7. There was no evidence of barn owls using the barn.



Photo 1: Eastern elevation of the barn



Photo 2: Internal view of the barn.



Photo 3: Upper southern section showing mortar

6. DISCUSSION AND RECOMMENDATIONS

Status of Bats on Site

- 6.1. The survey has confirmed that the barn does not support a bat roost.

Bats & Lighting Recommendations

- 6.2. Bats are sensitive to light and could potentially avoid the area if access points or the surrounding areas become lit. Any new external lighting during and post construction must be directed to avoid light spillage onto the building, trees, hedgerows or adjacent habitat. Appropriate lighting options will prevent a negative impact on bats using the habitats on site and should be approved by a suitably qualified Licensed Bat Ecologist if there is any doubt as to their effect.
- 6.3. Minimising the periods of lighting will reduce the potential impact on bats, motion sensors are strongly recommended, using a short timer to reduce the duration of lighting. Bulbs with “warmer” lights should be used as a preference as these are less penetrating than bright white lights. It is important to direct the light only where it is needed and avoid light spillage onto vegetated margins. Upward lighting can be minimised by fitting lights with downward facing baffles to avoid light pollution. Preventing light spillage above an angle of 70 degrees can be achieved by using fixtures that shield the bulb and direct the light downward.
- 6.4. **In the unlikely event that a bat is discovered during the works, all works must cease and a bat licensed ecologist contacted for advice.**

Enhancements

- 6.5. There is potential to include roosting features into new dwellings by building in integrated bat boxes or leaving features in ridge tiles and under fascias suitable for crevice dwelling bats. These gaps typically measure 100mm by 200mm in size.

Nesting Birds

- 6.6. Works to convert the barn should be undertaken outside of the nesting bird season (August-February, inclusive). If this time frame cannot be adhered to then an suitable qualified ecologist should attend site to check for nesting birds.
- 6.7. Bird boxes suitable for use by wrens should be included on trees nearby.

7. REFERENCES

Bat Conservation Trust (2016). Bat Surveys – Good Practice Guidelines. BCT London.

Mitchell-Jones, A.J., (2002). Bat Mitigation Guidelines. English Nature, Peterborough.

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