

**BAT AND BARN OWL SURVEY OF 2 ROSEMORRAN, ZENNOR,  
ST IVES, CORNWALL**

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## BAT AND BARN OWL SURVEY OF 2 ROSEMORRAN, ZENNOR, ST IVES, CORNWALL

**O.S. Grid Ref:** SW 4608 3801

**Survey date:** 4<sup>th</sup> November 2023

**Surveyor:** John Blackburn BSc (Hons), MSc, MCIEEM  
Class Survey Licence Reg.  
Nos:2019-39576-CLS-CLS (L2)

**Time spent on site:** 1 hour

**Taxonomic groups:** Bats  
Barn Owls

**Report author:** John Blackburn BSc (Hons), MSc, MCIEEM


**Report completed:** 15<sup>th</sup> November 2023

**Filename & issue number** Rosemorran Zennor St Ives Cornwall\_BBO\_(264)\_BBO\_F1x

**Report for:** Kylie Griffiths

**Report No:** 23-13\_ Rosemorran, Zennor\_BBO

**Document approved by:** Amy Horn Norris Bsc (Hons) MSc MCIEEM, Director

**Signature:** 

**Date:** 18<sup>th</sup> December 2023

## 1. INTRODUCTION

Spalding Associates (Environmental) Ltd were instructed by to carry out a Bat and Barn Owl survey of a garage at 2 Rosemorrان, Zennor, St Ives, Cornwall. The building will be subject of a planning permission to convert the garage for residential use including an extension to the eastern aspect of the building.

## 2. DESCRIPTION OF BUILDING

The building surveyed comprised of a single storey block-built garage which supports a gabled slate roof. The garage is attached to the residential property 2 Rosemorrان on its southern extent. Whilst the building comprises of block, stone and mortar form the outer wall. The roof is in good condition with no missing or slipped slates. Slates cover the gable eaves; these are secured in place with mortar. At both gable ends there is a small gap however this is shallow and was fully examinable. The eaves on the northern extent are open, however metal chicken wire prevents access into the interior. A small, sloped roof is present above a window. This lacked a roof void.

The garage contains a large roof void that spans the length of the property. It is open to the rafters, with bitumen felt beneath the slates.



Figure 1. The building viewed from the west



Figure 2. The building viewed from the south



Figure 3. The small hole at the western gable apex



Figure 4. The roof void at the rear of the garage viewed from the south





Figure 5. The small, sloped roof on the northern extent.



Figure 6. The roof void of the garage

## 2.1. Surrounding Landscape

The building is located in a rural location 0.76 km south-east of Zennor, 4.7 km south-west of St Ives in the West Penwith area of Cornwall on the north coast. The site lies in a small area surrounded by the West Penwith Moors and Downs Site of Special Scientific Interest (SSSI). This area is designated for its moorland habitat including Lowland Heathland and Fen.

The immediate landscape relatively open and exposed in character; it is dominated by blackthorn scrub and heathland characteristic of the SSSI with some low growing oak trees to the immediate north of the garage. Further afield heathland and fens dominate the landscape, with some smaller stone-wall bound grazing fields with grassland.

In combination these habitats provide moderate commuting and foraging habitats to bats and bird species. Map 1 shows the building of interest, Map 2 shows the buildings location.



Map 1: Building Location (red line)



Map 2: The building surveyed at 2 Rosemorran, Zennor, St Ives, Cornwall.  
(Google Earth: 2023).



## 2.2. Assessment of Potential for Bats and Barn Owls

The survey includes an assessment of the building to determine the suitability for bats or birds. This includes a structured evaluation for bats based on the characteristics of the roost which allows a broad categorisation of its potential. In terms of birds, and in particular barn owl, features such as direct access and external materials also enable indicative values to be placed on the likelihood of presence, Table 1.

Potential suitability	Description	
	Roosting habitats in structures	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible <sup>a</sup>	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions <sup>b</sup> and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats <sup>c</sup> ).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.  Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions <sup>b</sup> and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens.  Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions <sup>b</sup> and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge.  High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.  Site is close to and connected to known roosts.
<p><b>a</b> Negligible is defined as ‘so small or unimportant as to be not worth considering, insignificant’. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).</p> <p><b>b</b> For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.</p> <p><b>c</b> Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten <i>et al.</i>, 2016 and Jansen <i>et al.</i>, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.</p>		

**Table 1: Classification of buildings and trees, according to their potential to support roosting bats (Taken from Collins, 2023)**

The building was assessed for bats and birds based on the features of the building and potential roosting opportunities. No evidence of breeding birds, including barn owl was recorded in association with the building. The building has been assessed as unlikely to support species such as Swallows or House Martins. The shallow gaps on the gables were inspected and assessed as not holding potential to be used as a nest site for birds.

No evidence of bats was recorded during the survey, the building has no cracks or crevices on the external aspects with potential to support a roost nor are there any entry points into the roof space. The shallow gaps on the gables were inspected and assessed as not holding potential to be used as a roost.

Overall, the building is considered to be of negligible value to bats.

### **3. METHODS**

#### **3.1. Bats**

With the aid of a high-power torch the building was carefully searched internally and externally, where access allowed, for bats or any signs of bat presence, past or present. This included searching for droppings, feeding remains and individuals as well as searching for potential entry points, polishing, or scratching of woodwork (indicating use by bats) and for cavities capable of providing roosting space for bats.

All surfaces were examined where accessible, internally, and externally, as well as ledges, hanging tiles and other protruding features for bat droppings and feeding evidence. Any cavities present and open areas were searched with a torch, for roosting bats, as were any cavities present along the wall tops, between the roof timbers and walls and around any openings.

As bats can leave little evidence of their occupation, this survey included an assessment of the potential of the buildings and features of the building to support roosting bats.

The survey was carried out at 11:30 on 4<sup>th</sup> November 2023 and the weather was 90% cloud cover, light air and an air temperature of 10°C.

#### **3.2. Barn Owls**

With the aid of a torch any access points which could admit barn owls into the building were searched for and any ledges present within the building which were thought to have the potential to be used by nesting or roosting barn owls were searched for owl pellets, feathers, and nest debris, as were the floors and beneath crossing timbers.

#### **3.3. House martins, gulls and other birds**

No suitable habitat or features is present on the building for these species.

## **4. RESULTS**

### **4.1. Bats**

No evidence of bats was recorded, the building has no cracks or crevices on the external aspect to support a roost nor are there any entry points into the loft space. Overall, the building is considered to be of negligible value to bats. No further survey is recommended.

### **4.2. Barn Owls**

No evidence of the use or occupation of this building by barn owl was found. The building is generally unsuitable to support this species.

### **4.3. Other Nesting Birds**

No evidence of roosting or nesting birds was found within or on the external aspects of the building.

## **5. RECOMMENDATIONS**

### **5.1. Bats**

Works can proceed with negligible risk to bats however in the unlikely event that a bat was found when working on the building all works must stop immediately and Spalding Associates or Natural England contacted for advice.

### **5.2. Barn Owls**

No recommendations necessary.

### **5.3. Other Nesting Birds**

The building has been assessed as having very low potential for birds to nest.

However, as a precaution, if works are to proceed during nesting bird season (March – August inclusive), the buildings should be checked prior to demolition to ensure no birds are nesting. If an active nest is present works must wait until nested chicks have fledged.



## **6. MITIGATION AND ENHANCEMENTS**

No bats or birds were found to be using this building and therefore no mitigation is required. However, if the client desires enhancements for the site could be included, recommendations below.

### **6.1. Bats**

New roosting opportunities for bats could be incorporated into the proposed works. This could be done by mounting purpose-built bat boxes to the building or incorporating access points under slates or into the roof void.

Any areas accessible to bats must employ type 1 bitumen felting is used or a breathable membrane which is deemed snag proof such as TLX Bat Safe Membrane. Modern breathable membranes can be detrimental to bats as they can become entangled.

### **6.2. Barn Owls**

No mitigation required.

### **6.3. Swallows and other bird species**

If the owners were interested in creating opportunities for birds, new nesting opportunities for birds could be incorporated in the form of prefabricated nest boxes. Species which may be attracted would include House Sparrow, Swallow and passerines. Incorporating overhanging eaves would also benefit these species.

## 7. LEGISLATION

### 7.1. Bats

Bats in England have been protected under a number of regulations and amendments but the most up to-date and relevant are:

- The Conservation of Habitats and Species Regulations 2017
- Wildlife and Countryside Act 1981 (Section 9)

The result of Regulations and Acts is that all species of bat and their breeding sites or resting places (roosts) are protected under law. It is an offence to:

- Deliberately capture, injure or kill a bat
- Deliberately disturb a bat in a way that would affect its ability to survive, breed or rear young or significantly affect the local distribution or abundance of the species
- Intentionally or recklessly disturb a bat at a roost
- Intentionally or recklessly obstruct access to a roost whether bats are present or not
- Damage or destroy a roost whether bats are present or not
- Possess, control, transport, sell exchange or offer for sale/exchange any live or dead bat or any part of a bat

Through the Conservation (Natural Habitats &c.) Regulations 1994 (this has been updated and consolidated with subsequent amendments by the Conservation of Habitats and Species Regulations 2017 mentioned above) bats were designated a European protected species as part of Europe wide effort to conserve certain plant and animal species.

Any development which is likely to result in the disturbance of a European protected species, or damage to its habitat usually requires a European protected species licence from Natural England.

‘Development’ is interpreted broadly to include projects involving demolition of buildings, rebuilding, structural alterations and additions to buildings.

### 7.2. Birds

All birds, their nests and eggs are protected by law and it is an offence, with certain exceptions, to intentionally:

- Kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird while it is in use or being built.
- Take or destroy the egg of any wild bird.

The Conservation of Habitats and Species (Amendment) Regulations 2012 require public bodies to help “*preserve, maintain and re-establish habitat for wild birds.*”

Barn Owls and other birds listed in Schedule 1 of the Wildlife and Countryside Act 1981 are given a further level of protection against disturbance whilst breeding.