



## PRELIMINARY BAT ROOST ASSESSMENT

**Yew Tree House,  
Main Street, Sibford Gower,  
Oxfordshire OX15 5RT**

**A report to:  
Mr. Roger Mallows**

**Report Reference  
C1565-1**

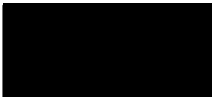
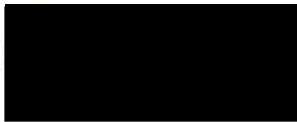
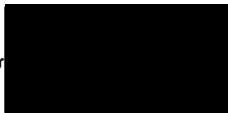
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**QUALITY CONTROL**

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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. We confirm that the opinions expressed are our true and professional bona fide opinions.

Every reasonable attempt has been made to comply with BS42020 (Biodiversity: Code of practice for planning and development) and the Bat Conservation Trust's Bat Surveys: Good practice guidelines 2nd edition (BCT, 2012). If compliance has not been achieved, justification/explanation has been given.

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## 1 SUMMARY

- A preliminary bat roost assessment was undertaken on 15<sup>th</sup> December 2015 of a private dwelling in Sibford Gower in connection with proposals to extend and renovate the house. Because the renovation works will involve repairs and/or modification to the roof structures, a bat survey was requested by the owner in order to ensure that impacts upon protected species can be avoided.
- The house and adjoining outbuilding contains several small roof voids, one of which was not accessible for internal inspection. However, due to the relatively well-sealed nature of the roof slates, with limited access opportunities for bats, and presence of extensive ivy growth along parts of the roof, it is considered that the dwelling has a low potential to support roosting bats.
- The preliminary roost assessment revealed no evidence of roosting bats within any of the roof structures of the property, and thus there is a low likelihood of bats being present and low risk of impacts arising as a result of the renovation works.
- As the presence of roosting bats cannot be completely ruled out, it is considered that the risk of impacts upon bats, if present, and associated offences can be minimised by appropriate timing and adoption of precautionary working measures, including a pre-works inspection and limited supervision during roof incursions by a licensed ecologist.

## 2 INTRODUCTION

### 2.1 Background

A preliminary bat roost assessment was undertaken on 15<sup>th</sup> December 2015 of a detached residential dwelling and adjoining outbuilding in the small village of Sibford Gower, in north Oxfordshire. The property is located at approximate OS grid ref. SP35123790.

The survey was required in connection with an application for planning consent to extend the property and undertake repairs to the existing roof. The dwelling is a Grade II listed building.

The purpose of this report is to describe the results of the assessment and to provide recommendations for working methods that will allow the works to take place without significant adverse effects on any bats or their roosts, if present.

### 2.2 Personnel

The roost assessment at Yew Tree House was undertaken by Dr Nick Underhill-Day. Nick is employed as Senior Ecologist with Swift Ecology Ltd and is a licensed bat worker (Natural England Bat licence WML-CL18 2015-15526-CLS-CLS). He has been actively involved with bat work for the last six years and has undertaken numerous bat surveys, including both preliminary roost assessments and activity surveys, of a variety of buildings such as residential dwellings, farm buildings, industrial buildings, historic properties and churches. He also has considerable experience in the associated ecological appraisal of bat roosts and in methods required for appropriate mitigation.

### 2.3 Ecological Context

Yew Tree House is located in the small village of Sibford Gower, approximately 9 km to the south-west of Banbury, north Oxfordshire. The dwelling is set in private gardens, to the front and rear, with areas of garden lawn, flower beds, shrubs and several mature trees. The property is bounded on all sides by roads, residential properties and their associated gardens but is a short distance (c. 130 m) from open arable fields to the north and west.

The boundaries of the property are lined by stone walls, several adjoining the main house and associated outbuilding, and there is a large stone-built dovecote in the north-east corner of the garden, as well as several tall or mature specimens of silver birch *Betula pendula*, holly *Ilex aquifolium* and yew *Taxus baccata*. The adjacent gardens also contain mature trees, shrubs and areas of garden lawn.

The village comprises low density residential housing with large gardens and numerous trees, and is surrounded by open countryside comprising a mixture of arable and pastoral farmland, with networks of hedgerows and lines of trees.

The corridor of the River Stour lies some 1.8 km to the south, although there are several minor tributaries of the Stour to the west and south of the village, some 500 m and 600 m distant respectively. There are few woodlands within the surrounding landscape; the nearest small woodland is located approximately 1.75 km to the north, but is relatively isolated and poorly connected with other woodlands. The closest area of more extensive woodland lies over 5 km to the south-west; however, the nearby River Stour is partially lined by trees and comprises a narrow corridor of semi-natural riparian habitat.

There are no obvious direct links from the property to these areas but roosting bats, if present, could use field boundary hedgerows and/or lines of trees to commute from the village to nearby foraging grounds. The large gardens and abundant mature trees within the village would also provide suitable foraging opportunities for bats. This assemblage of habitats provides moderate opportunities for foraging and/or roosting bats.

## **2.4 Legislation**

All bats and their roosts are protected under the *Wildlife and Countryside Act 1981* and the *Conservation of Habitats and Species Regulations 2010*. As such it is an offence to kill, injure, capture or disturb bats or to obstruct access to, damage or destroy bat roosts. This protection includes reckless damage, destruction or disturbance of a roost. A roost is defined as any structure or place used for shelter or protection, and all bat roosting sites receive protection even when bats are not present.

Where it is necessary to carry out an action that could result in an offence, it is possible to apply for a licence from Natural England. Licences are only issued where Natural England is satisfied that works are unavoidable and that all reasonable steps have been taken to ensure that adverse effects on bats are minimised.

## 3 METHODS

### 3.1 *Background Data Search*

A data search was undertaken for bat records within 2 km of the site by the Thames Valley Environmental Records Centre (TVERC).

### 3.2 *Preliminary Bat Roost Assessment*

The preliminary roost assessment on 15<sup>th</sup> December 2015 was undertaken by Nick Underhill-Day of Swift Ecology Ltd. Dr Underhill-Day holds a Natural England licence for the disturbance of bats (licence no. 2015-15526-CLS-CLS).

#### 3.2.1 *Assessment of Bat Roost Potential*

The house and adjoining outbuilding was assessed for its potential to support bat roosts. This involves a consideration of various factors including:

- Light levels
- Temperature regime and protection from weather
- Access to the interior of the buildings or to other suitable roost sites
- Potential roost sites
- Building construction
- Habitat context

Based on these factors, an assessment was made of whether the house or outbuilding might support bats, and the type and number of roosts that might be present.

#### 3.2.2 *Survey for Signs of Bats*

A detailed inspection was made of the exterior and interior of the property for any evidence of bat use, such as live or dead bats, droppings, scratch marks, staining and prey remains, and in some cases the absence of cobwebs. Large quantities of cobwebs in roof voids or at access points tend to be suggestive of no bat use, although this evidence is not conclusive.

Features identified as possible bat access points or potential roosting locations were thoroughly searched where possible, using powerful torches and binoculars to facilitate the process. An endoscope and ladders were available to enable more detailed inspection of cracks and crevices as far as access allowed.

#### 3.2.3 *Constraints*

The survey was undertaken in good light conditions. No sweeping or other cleaning had been recently carried out. The roof voids of the outbuilding were mostly accessible for inspection; however, an enclosed roof void above the single-storey western extension of the house had no human access, and thus could not be internally examined. Similarly, a minor cavity within the main roof of the house

could not be inspected internally, although it is understood that this cavity is filled with insulation material.

An initial assessment cannot rule out bat presence, as bats may roost in areas that are not accessible other than by a destructive search.



## 4 RESULTS

### 4.1 Background Data Search

TVERC holds 13 bat records, from 1999 to 2014, within 2 km of the dwelling including records of common pipistrelle *Pipistrellus pipistrellus*, Daubenton's bat *Myotis daubentonii*, serotine *Eptesicus serotinus* and lesser horseshoe bat *Rhinolophus hipposideros*. Seven records are from Lamb's Pool, 1.7 km to the south; the nearest record, from 2014, is of a pipistrelle *Pipistrellus* sp. bat roost located 200 m to the south in Sibford Gower; details of the roost were not provided.

An absence of records does not mean that a species is not present, merely that it has not been recorded. Some species records are not obtainable from the sources utilised and there may be further undetected records for such species on the study site or in the local area.

### 4.2 Building Description

Yew Tree House is a three-storey Georgian building (c. 1750) with a cellar, small single-storey extension on the west gable wall and an adjoining outbuilding (Plates 1 and 4).

The main house is oriented approximately west to east, with an extension on the west gable, and outbuilding adjoined to the extension orientated north to south (Plates 3 and 4). The third storey of the house is built into the roof space, with two dormer windows, one in each of the two third storey rooms, on the southern roof pitch; consequently, there are no enclosed roof voids in the main house although one of the rooms contains a false ceiling beneath a small cavity, which is understood to contain insulation.

There is an enclosed roof void above the single room comprising the west extension and two small roof spaces, open and partially open respectively, above the rooms in the adjoining outbuilding. The cellar comprises a single room with a small alcove and two windows, one boarded and one unglazed.

The house, extension and outbuilding are constructed of stone blocks beneath pitched roofs covered in slates and stone ridge tiles. The roof of the outbuilding is unlined; however, it is not known whether the other roofs are lined.

The main house has a chimney extending from both gable ends; these are built of red brick upon a stone base, with lead flashing in some areas. There is a third chimney on the gable end of the west extension; this is covered in ivy (Plate 4). The eaves and gable end walls of the building are well sealed to the roof. The windows and doors are bordered by stone lintels and stone surrounds.

The outbuilding adjoining the west extension contains two rooms, each supporting a doorway, with old, poorly fitting wood-panelled doors, and a single window; only one of the windows is fully glazed (Plate 3).

The outbuilding is partially covered in dense ivy, which extends along the length of the roof onto the west extension; this has been cut back recently to reveal extensive damage to the stonework, roof slates and one of the windows; there is extensive ingress of ivy into the two roof spaces.

There is a small extension, with a single-pitched corrugated metal roof, on the northern end of the outbuilding, understood to be a former privy. The stonework is badly damaged, with areas of crumbling stone and mortar, and the extension has an open doorway; the wood-panelled door is present but off its hinges (Plate 3).

The property has been occupied until relatively recently (2015) but is in need of extensive repair and renovation.



*Plates 1 and 2. Yew tree House: north elevation showing the main house and canopy from the rear garden (left), and south-east corner showing the east gable wall with cellar windows just visible (right); the single-storey extension is proposed on the east gable wall (right).*



*Plates 3 and 4. Outbuilding and western extension to the main house; showing the single-storey outbuilding and ivy-covered chimney of the extension from the rear garden (left) and western extension from the south elevation of the dwelling (right).*

### **4.3 Assessment of Bat Roost Potential and Survey for Signs of Bats**

#### **4.3.1 Building Exterior**

##### ***Main house***

The stonework of the main dwelling is in relatively good condition; there are areas where the mortar between the stone blocks has crumbled, but any such gaps are shallow and would not be suitable for roosting bats. The wooden window and door-frames are tightly sealed with the stone surrounds and lintels, and the roof slates and stone ridge tiles are generally well sealed with no missing slates or tiles; there are a few minor gaps beneath several lifted or slipped slates which might potentially offer access to bats to spaces beneath the slates.

The eaves and gable end walls are tightly sealed with the roof slates, as are the two gable end chimneys. Any lead flashing between the slates and chimneys is also tightly sealed with no apparent gaps visible from ground level that would allow bats access. The woodwork and lead flashing covering the sides of the two dormer windows appear well sealed with the roof slates but there may be minor gaps beneath the flashing. The main house and roof presents relatively few opportunities for bats to access spaces beneath the slates but there are several small gaps that are potentially suitable for low numbers or individual crevice-dwelling species.

One of the cellar windows is unglazed and would allow bats easy flying access into the cellar. It is understood that the area adjacent to the east gable wall and cellar windows was, until recently, covered with dense vegetation, and thus access may have been more limited than currently. The second window is boarded over and would not allow bats access.

The rear (north) elevation of the house supports an open canopy with a slate-covered unlined roof; this might present opportunities for cover, prior to re-entry or after emergence, if bats were roosting within the building.

##### ***West extension***

The single-storey extension adjoining the west gable of the house is of similar construction and condition as the main house, with limited access opportunities for bats to enter gaps, cracks or crevices on the stone walling or beneath the slate covered roof. The extension is tightly sealed with the west gable wall of the main house with lead flashing. There are several slipped slates on both roof pitches which might offer potential access into the roof but there was no visible staining, scuffing or any other marks in these areas to suggest they had been used by bats or other animals.

##### ***Outbuilding***

The adjoining stone outbuilding is in poor condition, with areas of crumbling mortar and stonework that contains cracks and crevices potentially suitable for roosting bats. The majority of the pitched roof is covered with ivy; this has been recently cut at ground level revealing extensive damage to the wall and one of the windows. Several slates are broken, missing or have slipped, and thus bats could potentially

access the roof spaces. The damaged window and doorways would also allow bats access into the interior of the building.

No bat droppings or other signs of bats were found on the exterior of the house, extension or adjoining outbuilding, or beneath the rear canopy. Any gaps, cracks and crevices visible within the exterior stonework were closely inspected but no evidence of bats or of bat roosts was found.

#### **4.3.2 Building Interior**

##### ***Main house***

The house was empty on the day of the survey but is in reasonable condition; it has been used as an occupied dwelling until relatively recently, so the living areas are well sealed and, when occupied, would have conditions of light and human activity that are unsuitable for roosting bats.

There are no enclosed roof voids within the main house. The third floor is built into the roof space with the west room ceiling extending up to the roof apex (Plate 5). The east room has a false ceiling extending between two of the roof timbers, with a small cavity above (Plate 6), but it is understood that the cavity has been filled with insulation material; consequently, there are limited roosting opportunities for roof-void dwelling bat species within the main house. There may be spaces between the roof slates and ceiling boards, if accessible from the outside, that are suitable for crevice-dwelling bat species (although see Section 4.3.1).

The cellar is cool but relatively well-lit from the unglazed east-facing window (Plate 7). The stone walling of the cellar contains only minor cracks while the ceiling is currently covered with suspended polythene; consequently, although bats would be able to access the cellar relatively easily, there are few roosting opportunities for crevice or void-dwelling bats.

##### ***West extension***

The single room comprising the west extension contains a wood-panelled ceiling, above which is a small roof void (Plate 8); there is no human access into the void, and thus it was not accessible on the day of the survey. The void has some potential to support roosting bats if accessible from the exterior, although part of the roof and chimney are covered with dense ivy.

##### ***Outbuilding***

The outbuilding has two unconnected roof spaces. The south room contains a lath and plaster ceiling; this has several large holes through which can be seen extensive ivy growth within the void above; the roof is unlined (Plate 9). The north room is open from the floor to the unlined roof, which has several large holes; the timbers and tile batons support dense ivy growth (Plate 10).

The small extension (former privy) on the north of the outbuilding is open from the floor to the wood-panelled ceiling, and thus there could be a small space between the corrugated tin roof panel and ceiling beneath. The interior walling of the

extension contains areas of crumbling plaster; there are small gaps between the plaster and stone walling which may provide potential roosting opportunities for bats.

No bats or evidence of bats was found within the interior areas of the house or outbuilding. All gaps, cracks and crevices within the interior walling were closely examined for signs of bats but none was found.



*Plates 5 and 6. Third storey interior within the main house; showing the west room (left) and east room (right); the east room has a false ceiling, installed at the level of the purlins, with a small void above understood to contain thick insulation material.*



*Plate 7: Cellar beneath house*



*Plate 8: Interior of western extension*



*Plates 9 and 10: Interior areas of outbuilding; showing extensive ivy ingress into the south (left) and north (right) roof spaces.*

## 5 EVALUATION

It is considered that the main house has a relatively low potential to support bat roosts. The house does not contain large enclosed roof voids, only a small insulation-filled cavity in one area, and there is limited external access for bats to spaces beneath the roof slates suggesting there is a low probability of bats being present. However, the presence of low numbers or individual crevice-roosting bats beneath lifted roof slates cannot be entirely ruled out.

The cellar of the main house is easily accessible to bats but has few features, such as gaps, cracks or crevices, that would be suitable for roosting bats; the cellar ceiling is also covered with polythene, which would deter bats from resting or roosting in this area. The single cellar room is relatively well-lit from the unglazed window and exposed to draughts; consequently, it is considered that the cellar is unlikely to support roosting bats, and thus there is a very low likelihood of Impacts arising as a result of the construction of the proposed extension.

The enclosed roof void of the west extension was not accessible for internal inspection, and thus the presence of a bat roost in this area cannot be entirely ruled out; however, the relatively well-sealed nature of the slates, extensive covering of ivy on part of the roof and chimney, with probable ingress of ivy into the roof void, and lack of evidence of bats on any external gaps, makes the presence of a bat roost in this void less likely.

The damaged roof of the outbuilding is less suitable for roosting bats due to conditions of light, exposure and clutter (from extensive ivy ingress). It is considered that there is a low likelihood of bats roosting within this building.

No evidence of bats or bat roosts was found in any of the areas or structures inspected.

Nevertheless, the presence of roosting bats can never be ruled out entirely on the basis of such surveys, and thus precautionary measures should be followed during repair and renovation works to the roof structures in the unlikely event that roosting bats are present.

## 6 CONCLUSIONS AND RECOMMENDATIONS

### 6.1 *Legal Context*

There is no evidence that Yew Tree House or its associated outbuilding is used as a bat roost. Normally, works to bat roosts require a European Protected Species (EPS) licence from Natural England (NE). However, in this case there is no such requirement because no impacts upon bats or their roosts are anticipated.

However, as the presence of bats cannot be entirely ruled out, any potential impacts can be avoided by following precautionary working methods.

### 6.2 *Renovation Works*

The risk of committing offences relating to bats during repair and renovation works to the rood structures can be minimised by appropriate timing and by adopting precautionary working measures as follows.

- In order to minimise any disturbance to bats, if they are present, all repair and renovation works to roof structures in the building, including removal of roofing materials, should be undertaken at an appropriate time of year, before the 1<sup>st</sup> May or after the 30<sup>th</sup> September, when bats are least likely to be present.
- Renovation works which involve incursions into the non-accessible roof void, and/or removal of roof materials above the roof void on the west extension, should be supervised by a licenced bat ecologist. Dismantling of the roof structure in other areas should be undertaken in a sensitive manner, including careful removal of all roof coverings, ridge tiles and slates, and any roof linings, if present.
- Prior to the commencement of renovation works on the roof of the west extension, a licensed bat ecologist will inspect the roof void internally and externally to look for any roosting bats or signs of roosting bats, so far as it is safe to do so. Should any roosting bats be found in locations where they are deemed to be vulnerable to disturbance or harm all work must cease immediately and an application to Natural England for an EPS licence may be required.
- All site workers will be made aware of the possibilities of finding bats and the procedure to follow should they be found. If at any point during works a bat is discovered, contractors will stop work immediately and telephone an ecological professional qualified to deal with bats. Telephone numbers of such will be held on site (Swift Ecology numbers: 07719 329170 or 07825 711861).

- Should any bats fall out of structures or be injured, they will be gently placed in a secure ventilated box (e.g. a cardboard box) by the contractor and left in a cool dark place, until appropriate advice can be sought. Bats should not be handled without gloves.
- A copy of these recommendations will be available to site workers and displayed on site.

**In the unlikely event that a bat is discovered during the course of renovation works, all work must cease immediately and the advice of a licensed bat ecologist should be sought. Further surveys and an EPS licence may be required before works can proceed.**



## 7 RELEVANT LITERATURE

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