



Outbuilding, Holmlea, Nunney

Bat Survey

June 2022

Client: Lacey Architecture Ltd Report Ref: SEB2587_01

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Non-Technical Summary

Site Location	Outbuilding at Holmlea, Ridgeway Lane, Nunney, Frome (OS grid reference: ST 73670 45389).		
Scope of Works	Preliminary bat roost assessment and bat survey, supplemented with a desk study, undertaken on 7 th June 2022.		
Survey Methods	Survey undertaken with reference to BCT (2016).		
Lead Personnel	Kate Hayward MCIEEM, licensed bat surveyor (Class Licence Registration Number: 2015-15106-CLS-CLS, bat survey level 2).		
Description, Results and Evaluation	The property is located in the village of Nunney, approximately 5km to the south-west of the centre of Frome. The property is immediately surrounded by residential houses with open countryside from approximately 100m away to the east and west.		
	The property lies within Consultation Zone B of Mells Valley Special Area of Conservation.		
	The outbuilding is located in the rear garden of Holmlea. It is a small, single-storey rubble stone and brick structure with a footprint of approximately 5m ² . It has a lean-to clay, zig-zag tiled roof. There is a window on the south elevation and a door and window on the west elevation.		
	The outbuilding is assessed as <i>Low</i> suitability to crevice-dwelling species of bats owing to the presence of gaps under roof tiles and access into the interior provided by gaps at the roofline, with the interior of the roof lined with a Bitumen-type liner.		
	No evidence of bats roosting within the outbuilding was found.		
	The subsequent bat survey did not record any bats emerging from the outbuilding and very low general activity by bats.		
	No birds' nests were present on or within the outbuilding at the time of the survey. The outbuilding is assessed as low suitability to nesting birds.		
The Proposal	The property is the subject of a planning proposal for a single-storey, rear extension, requiring the removal of a small outbuilding to maintain garden space. Based on the results of the bat survey, no roosting bats will be impacted by the works.		
Recommendations	It is recommended that a pre-works check and supervision of the hand removal of the roof structure of the outbuilding is undertaken by a Licensed Bat Ecologist.		
	Recommendations for biodiversity enhancements are provided.		



Contents

Non-Technical Summary			
1.	Introduction	4	
1.1	Background	4	
1.2	Scope and Objectives of Survey	4	
1.3	Personnel	4	
2.	Legislation	4	
2.1	. Bats	4	
2.2		4	
3.	Desk Study	5	
3.1	Method	5	
3.2	Results	5	
4.	Survey Methods	6	
4.2	Preliminary Bat Roost Assessment	6	
4.3		6	
4.4	Constraints to Survey	7	
5.	Results	7	
5.2	Preliminary Bat Roost Assessment	7	
5.3		8	
6.	Evaluation	8	
7.	Recommendations	9	
		_	
7.2		9	
7.3		9	
7.4	Biodiversity Enhancements	9	

1.1 Background

1.1.1 In May 2022, Seasons Ecology was instructed by Lacey Architecture Ltd, on behalf of the property owner, to undertake a Bat Survey of an Outbuilding at Holmlea, Ridgeway Lane, Nunney, Frome (OS grid reference: ST 73670 45389). The property is the subject of a planning proposal for a single-storey, rear extension, requiring the removal of a small outbuilding to maintain garden space.

1.2 Scope and Objectives of Survey

- 1.2.1 The survey was undertaken to identify the presence of and suitability for the property to support protected species, namely bats and nesting birds. Recommendations are made, as appropriate, to avoid potential harm to bats and nesting birds during the works to ensure compliance with legislation and licencing requirements.
- 1.2.2 This report is based on the findings of a survey undertaken on 7th June 2022.

1.3 Personnel

1.3.1 The survey and reporting were led by Kate Hayward MCIEEM. Kate is Principal Ecologist and Director of Seasons Ecology with over 20 years' experience as a professional consultant. Kate is a level 2 licensed bat surveyor (Class Licence Registration Number: 2015-15106-CLS-CLS) and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM).

2. Legislation

2.1 Bats

- 2.1.1 Bat species in England and Wales are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to:
 - Deliberately capture, injure or kill bats;
 - Intentionally or recklessly disturb bats;
 - Intentionally or recklessly obstruct access to any structure or place which bats use for shelter or protection; and
 - Deliberately damage or destruction of a breeding site or resting place.
- 2.1.2 With the exception of disturbance, this legislation applies throughout the year whether bats are present or not at the time of works being carried out and generally irrespective of planning permission being obtained or being required.

2.2 Nesting Birds

- 2.2.1 All wild birds in England and Wales are granted legal protection under the Wildlife & Countryside Act 1981 (as amended). Under this legislation it is an offence to:
 - 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; and

3. Desk Study

3.1 Method

- 3.1.1 A web-based desk study was undertaken in June 2022 prior to the survey to provide local information that may be relevant to the proposal. The following online resources were consulted:
 - The MAGIC website¹, to obtain information on statutory designations with bats as a primary feature within 4km of the site, to identify Bat Consultation Zones and Impact Risk Zones relevant to the site and to locate European Protected Species licences issued for bats within 2km.
 - Google Maps², to view aerial photographs, maps and mapnik data, to assess the ecological context of the site.

3.2 Results

Statutory Designations

- 3.2.1 The property does not lie within a statutory designation and there are no statutory designations with bats as a primary feature within 4km.
- 3.2.2 The nearest statutory designations are Holwell Quarry Site of Special Scientific Interest (SSSI) and Cloford Quarry SSSI located 1km and 1.5km to the south-west. These are both geological designations.
- 3.2.3 Asham Wood SSSI, overlapped by Mendip Woodlands Special Area of Conservation (SAC), lies 2.3km to the west. Asham Wood is the largest and most diverse of the ancient semi-natural woods in the Mendips.

Bat Consultation Zones and Impact Risk Zones

- 3.2.4 The property lies within Consultation Zone B of Mells Valley SAC, which is located from approximately 8.1km to the north-west. Mells Valley SAC supports an exceptional breeding population of greater horseshoe bat *Rhinolophus ferrumequinum*, containing the maternity site of approximately 12% of the UK population of this species.
- 3.2.5 The property lies within the Impact Risk Zones for nearby SSSIs. This requires consultation with Natural England on certain planning applications but excludes householder applications and those within existing settlement boundaries. Therefore, consultation is unlikely to be required.

European Protected Species Licences

3.2.6 There are four European Protected Species licences that have been issued for locations within 2km of the site for bats. The nearest location is approximately 50m to the west for eight species: brown long-eared bat *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*,

¹ http://www.magic.gov.uk/MagicMap.aspx

² http://acme.com/planimeter/

- greater horseshoe, lesser horseshoe *Rhinolophus hipposideros*, Natterer's bat *Myotis nattereri*, serotine *Eptesicus serotinus*, soprano pipstrelle *Pipistrellus pygmaeus* and whiskered bat *Myotis mystacinus*.
- 3.2.7 The other locations are approximately 150m to the north, 200m to the west and 1.5km to the east for the species brown long-eared and lesser horseshoe.

Ecological Context

3.2.8 The property is located in the village of Nunney, approximately 5km to the south-west of the centre of Frome. The property is immediately surrounded by residential houses with open countryside from approximately 100m away to the east and west. Arable and improved pasture dominate the landscape. The large arable fields are divided by mature, native hedgerows with occasional trees. The nearest woodland is located approximately 250m to the west. This is a band of woodland approximately 10 hectares in size, with Holwell Quarry SSSI at its southern end. A large lake (water-filled quarry) is located approximately 800m to the south-west. The Nunney Brook is located approximately 200m to the north-west at its nearest point.

4. Survey Methods

4.1.1 Assessment and survey methods refer to BCT (2016)³. The survey was undertaken on 7th June 2022.

4.2 Preliminary Bat Roost Assessment

- 4.2.1 The outbuilding was assessed for its suitability to offer roosting sites to bats. This assessment considered the style, construction and condition of the outbuilding (missing roof tiles, rotten beams, cracks in stonework and ivy cover, for example) and presence of any suitable access points. Based on these factors, the outbuilding is assessed as having *Negligible*, *Low*, *Moderate* or *High* suitability to roosting bats.
- 4.2.2 A visual inspection was then undertaken of the interior of the outbuilding to search for signs of bats, such as droppings, staining, scratch marks, feeding remains, and for actual bats. Any signs of nesting birds were also noted.

4.3 Bat Survey

- 4.3.1 One dusk emergence survey of the outbuilding was carried out on the evening of 7th June 2022. The survey commenced 15 minutes before sunset and continued for an hour-and-a-half after sunset
- 4.3.2 One surveyor attended the survey. The surveyor was located to the west of the outbuilding so that all three elevations and the roof could be viewed (the fourth (east) elevation being attached to a high stone wall adjoining the neighbouring property).
- 4.3.3 The surveyor was equipped with an Echo Meter Touch bat detector supported by an Apple iPad Mini 4 interface, on which all bat activity was recorded. One passive acoustic recording devices (*Titley AnaBat Express*) was also deployed. This was positioned near to the surveyor and was set on 'continuous' recording mode for the duration of the survey. Recordings were

³ Bat Conservation Trust (BCT) (2016) *Bat Surveys for Professional Ecologists. Good Practice Guidelines.* Bat Conservation Trust. Collins. Third Edition.

later analysed using AnalookW 4.2.24. software to aid the identification of species with reference to Russ (2012⁴).

4.4 Constraints to Survey

4.4.1 There were no constraints to the survey; all identified features on the outbuilding were in view; the weather conditions were suitable and the survey was undertaken during the recommended survey period.

5. Results

5.1.1 Site photographs are provided at Annex 1.

5.2 Preliminary Bat Roost Assessment

- 5.2.1 The outbuilding is located in the rear garden of Holmlea. Its east elevation is attached to a high (approximately 2.5-3m) stone wall forming the boundary between Holmlea and the adjacent residential property. The small rear garden is mostly laid to lawn with paving and is enclosed by high stone walls and the house. There are no trees in the immediate vicinity.
- 5.2.2 The outbuilding is a small, single-storey rubble stone and brick structure with a footprint of approximately 5m². It has a lean-to clay, zig-zag tiled roof. There is a window on the south elevation and a door and window on the west elevation.
- 5.2.3 Externally, there are gaps under approximately one-third of the roof tiles, but the ridge tiles are well-sealed. There are gaps at the roofline, which lead directly into the interior of the outbuilding. The stone and brick work are in good condition with no cracks or gaps, or cracks in pointing. The door and two windows are well-sealed to the walls with no gaps.
- 5.2.4 Internally, the outbuilding is used for storage and is cluttered. The roof is lined with a traditional Bitumen-type liner with a few tears and holes. No evidence of roosting bats or nesting birds was found inside the outbuilding or externally.
- 5.2.5 The outbuilding is assessed as *Low* suitability to crevice-dwelling species of bats owing to the presence of gaps under roof tiles and access into the interior provided by gaps at the roofline, with the interior of the roof lined with a Bitumen-type liner with several tears and holes.

⁴ Russ, J. (2012) British Bat Calls. A Guide to Species Identification. Pelagic Publishing.

5.3 Bat Survey

- 5.3.1 The survey commenced at 21:06 and finished at 22:51. Sunset was at 21:21. Weather conditions were generally suitable, with a start temperature of 16°C and an end temperature of 15°C, wind was at Beaufort 3⁵ (gentle breeze), with 100% cloud cover. There was light rain for a period of approximately five minutes from 21:55.
- 5.3.2 No bats were observed emerging from the outbuilding or the attached high stone wall during the survey.
- 5.3.3 General bat activity was very low and by at least two species: soprano pipistrelle and noctule/Leisler's *Nyctalus noctula/Leisler's N. leisleri*.
- 5.3.4 The first recording was at 21:55 (34 minutes after sunset) of a brief pass by soprano pipistrelle. Soprano pipistrelle was then recorded periodically between 21:57 and 22:10, as faint calls from beyond the high stone wall over the neighbouring garden.
- 5.3.5 At 21:58, 22:00 and 22:31 there were brief, unseen passes by noctule.
- 5.3.6 No horseshoe bats were recorded during the survey.

6. Evaluation

- 6.1.1 The outbuilding is assessed as *Low* suitability to crevice-dwelling species of bats owing to the presence of gaps under roof tiles and access into the interior provided by gaps at the roofline, with the interior of the roof lined with a Bitumen-type liner with several tears and holes.
- 6.1.2 No evidence of bats roosting within the outbuilding was found, but there are opportunities for low numbers of crevice-dwelling species of bat, such as pipistrelle and *Myotis* species, recorded locally, to roost under roof tiles. There are no suitable roosting opportunities for horseshoe species of bat, recorded locally, and the site lying within Consultation Zone B of the Mells Valley SAC, which is designated for its greater horseshoe bat population.
- 6.1.3 The subsequent bat survey did not record bats roosting within the outbuilding and very low general activity by bats.
- 6.1.4 No birds' nests were present on or within the outbuilding at the time of the survey. The outbuilding is assessed as low suitability to nesting birds.

⁵ The Beaufort scale of wind velocity: 0 = Calm, 1 = Light Air, 2 = Light Breeze, 3 = Gentle Breeze, 4 = Moderate Breeze, 5 = Fresh Breeze, 6 = Strong Breeze, 7 = Near Gale, 8 = Gale, 9 = Strong Gale, 10 = Storm, 11 = Violent Storm, = 12 Hurricane (http://www.metoffice.gov.uk).

7. Recommendations

- 7.1.1 The property is the subject of a planning proposal for a single-storey, rear extension, requiring the removal of a small outbuilding to maintain garden space. Based on the results of the bat survey, no roosting bats will be impacted by the works.
- 7.1.2 The following is recommended:

7.2 Bats

- 7.2.1 It is recommended that a pre-works check and supervision of the hand removal of the roof structure of the outbuilding is undertaken by a Licensed Bat Ecologist.
- 7.2.2 In the unlikely event that a roosting bat is found, works would need to stop and advice sought from the Licensed Bat Ecologist.

7.3 Lighting

7.3.1 The site lies within Consultation Zone B of Mells Valley SAC, designated for its greater horseshoe bat population. Horseshoe bats are light-sensitive. The proposal for a single-storey rear extension is very unlikely to increase light spill onto surrounding habitats and the high boundary stone wall enclosing the rear garden, will act to prevent light spill onto surrounding habitats.

7.4 Biodiversity Enhancements

- 7.4.1 The proposal provides opportunity to enhance the site to roosting bats. A bat box could be installed onto the external south elevation wall of the house, at a height of between 3m and 5m off the ground, to offer roosting opportunities for bats.
- 7.4.2 The proposal provides opportunity to enhance the site to nesting birds. Swift nests could be attached to the north or east elevations of the property, at the roofline, to offer nesting for swifts as well as other bird species.

Annex 1: Site Photographs (June 2022)

Photograph 1. The west elevation of the outbuilding and the high stone walls surrounding the garden.



Photograph 2. The lean-to roof of the outbuilding showing gaps under the clay, zig-zag tiles.



Photograph 3. Internal view of the Bitumen-type liner below the roof tiles with tears and holes.

