



Herdwick Ecology

**Mayfield House, Rode, BA11 6NZ**

## **Preliminary Roost Assessment**

A report for Max and Luisa Fisher

February 2024

**Report Reference: 306/R1/2024/V1**

<b>Rev No.</b>	<b>Status</b>	<b>Author</b>	<b>Date</b>
1	Draft for Review	CG	08/02/2024
	Final	CG	

## 1.0 Introduction

1.1 Herdwick Ecology was commissioned by Max and Luisa Fisher to undertake a Preliminary Roost Assessment on a garage at Mayfield House, Rode, BA11 6NZ in February 2023 (Grid Reference: ST80275371). The proposals include the conversion of the garage/outbuilding into a guest annexe.

1.2 This report has been prepared to support a planning application and aims to:

- Describe and evaluate the building and its potential to support bats and whether further surveys are required;
- Identify potential bat mitigation measures for incorporation into the design;
- Set out further opportunities for net gain and ecological enhancements in line with relevant planning policy, legislation and other published guidance.

1.3 This report has been prepared by Ceri Griffiths, Director at Herdwick Ecology, who is a Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Reference is made to the Good Practice Bat Survey Guidelines<sup>1</sup> and BS 42020:2013 Biodiversity - Code of practice for planning and development<sup>2</sup>

## 2.0 Legislation and Planning Policies

2.1 In carrying out this assessment relevant legislation, planning policies, and best practice guidelines were consulted and include:

- Conservation of Habitats and Species Regulations 2017 (as amended);
- Wildlife and Countryside Act 1981 (as amended);
- Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment and Rural Communities (NERC) Act 2006;
- National Planning Policy Framework 2023 (NPPF);
- Local Planning Policies and supplementary planning documents/technical guidance;
- Mendip Bat Species Action Plan (SAP); and
- Mendip (District) Gardens & Urban Greenspace Biodiversity Action Plan (BAP).

### *National Planning Policy Framework (NPPF) 2023*

2.2 National planning policy on biodiversity and conservation is set out in the National Planning Policy Framework (NPPF). This emphasises that the planning system should seek to minimise impacts on

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<sup>1</sup> Collins, J (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd. Ed.) The Bat Conservation Trust, London (p.35)

<sup>2</sup> BSI (British Standards Institute) BS4202:2013 *Biodiversity – A code of practice for planning and development*. BSI, London.

biodiversity and provide net gains in biodiversity wherever possible as part of the Government's commitment to halting declines in biodiversity and establishing coherent and resilient ecological networks. Chapter 15: Conserving and Enhancing the Natural Environment, is of particular relevance to this report as it relates to ecology and biodiversity. Relevant policies are set out below:

- 2.3 Paragraph 185: *"To protect and enhance biodiversity and geodiversity, plans should: a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and 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..."*
- 2.4 Paragraph 186 states: "When determining planning applications, local planning authorities should apply the following principles:
- 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'*
  - b) Relates to developments affecting SSSI
  - c) Relates to developments affecting irreplaceable habitats, such as ancient woodland
  - 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'.*
- 2.5 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

#### *Local Planning Policy*

- 2.6 Somerset Council will be progressing a Somerset Local Plan. It aims to replace all of the former District Council Local Plans with a new single Local Development Scheme for Somerset to cover both a new Somerset Local Plan and Minerals and Waste Plan. The former county and district councils have begun work to scope the content and timescales for a new Local Plan. This includes ongoing work to progress and align key evidence base documents. The existing District plans are still applicable at this stage.

- 2.7 The Mendip District Local Plan Plan1: Strategy and Policies 2006 – 2029 was adopted on 15<sup>th</sup> December 2014. Development Policy 5 (DP5): *Biodiversity and Ecological Networks* sets out details of the designated sites of International to Local importance that are present within the District.
- 2.8 The policy also states the importance of maintaining and improving connectivity to these sites through Ecological Networks that *'are managed with the objective of conserving biodiversity, and maintaining and restoring ecological function in the natural environment.'* The policies seeks to protect, enhance and restore Somerset's Ecological Network within Mendip.
- 2.9 Finally DP5 sets out the requirement to deliver no net loss and proposals that cause adverse impacts to protected and/or priority sites, species or habitats are likely to be refused unless appropriate offsetting/compensation can be delivered.
- 2.10 DP6 relates to bat protection within the District and sets out the requirement for planning Applications to carry out a 'test of significance' under the Habitats Regulations on sites within the Bat Consultation Zone.

*Special Areas of Conservation (SAC) for bats - Technical Guidance*

- 2.11 The district of Mendip contains, or is within the consultation zone, of three SAC's namely the North Somerset and Mendip SAC, the Mells Valley SAC and the Bath and Bradford on Avon Bats SAC. A Technical Guidance document<sup>3</sup> relating to all three of the SAC, updated in May 2019, identifies consultation zones to ensure early consideration is given to possible impacts that could affect the integrity of these SAC. The previous Mendip District Council provided a SAC flowchart to guide how the Technical Guidance should be taken in to consideration when preparing a development proposal for a site within one of the bands in the Bat Consultation Zones<sup>4</sup>. This is also included in the technical guidance.

*Species Protection*

- 2.12 All species of bat found in the UK are listed under Schedule 5 of The Wildlife and Countryside Act 1981 (as amended) and are afforded protection under Section 9(4) (b&c) and Section 9(5) of Part 1 of the Act.
- 2.13 Under this legislation, a person is guilty of an offence if a person intentionally or recklessly:
- disturbs any bat while it is occupying a structure or place which it uses for shelter or protection;
  - obstructs access to any structure or place which any bat uses for shelter or protection.

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<sup>3</sup> North Somerset and Mendip Bats Special Area of Conservation (SAC) Guidance on Development: Supplementary Planning Document Adopted January 2018

<sup>4</sup> [SAC flow chart.pdf \(mendip.gov.uk\)](#)

- 2.14 In addition the protection afforded through UK legislation, further protection is provided to a small group of species, commonly referred to as 'European Protected Species' under the aforementioned Habitat Regulations. Relevant species for this site that are included within this legislation include bats.
- 2.15 With regards to European Protected Species listed under Schedule 2 of the Act, it is an offence to:
- Intentionally or deliberately capture or kill, or intentionally injure the animal;
  - Deliberately disturb the animal or intentionally or recklessly disturb them in a place used for shelter or protection;
  - Damage or destroy a breeding site or resting place;
  - Intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection (this could include obstruction to the roost through introduction of lighting to a roost entrance that would affect the continued functionality of the roost).
- 2.16 The Habitats Directive provides for the derogation from these above prohibitions for specified reasons and providing certain conditions are met. Those derogations are transposed into the Regulations by way of a licensing regime that allows what would otherwise be an unlawful act to be carried out lawfully. Among the reasons why a licence may be granted and the reason relied upon by developers when seeking a licence to carry out operations for the purposes of development, is that there are imperative reasons of overriding public interest why the operation should be carried out.
- 2.17 Whilst Natural England is the licensing body, the LPA must have due regard for the Habitat Regulations during the planning process and that the following three derogation tests will be met:
- Test 1: *Regulation 53(2)(e) states: a licence can be granted 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".*
  - Test 2: *Regulation 53(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".*
  - Test 3: *Regulation 53(9)(b) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range*
- 2.18 The NERC Act also listed species of principle importance under Section 41 of the Act. This places further duties on the LPA to have due regard for the conservation of these species, such as hedgehog or certain bird species, which may be present on-site.

### 3.0 Methodology

#### *Data Search*

3.1 A data search was undertaken to look for designated sites, relevant to the application, and bat records within the locality. This can provide important contextual information to gain an understanding of the site and surrounds. Online sources were reviewed, such as MAGIC<sup>5</sup> and NBN Gateway<sup>6</sup>. In addition, the Somerset Council planning portal was searched for nearby applications.

3.2 A data search request from the local environmental records centre was not considered necessary to inform this report due to the scale of the proposals and size of the site.

#### *Preliminary Roost Assessment*

3.3 The Preliminary Roost Assessment was undertaken on the 1<sup>st</sup> March 2023. Weather conditions were dry and sunny, with a temperature of 3°C. There had been a heavy frost overnight. The perimeter of the building was systematically inspected, and the exterior assessed, with the aid of binoculars (Pentax 10 X 36), endoscope and high powered torch, where necessary. A description of the building was made, and the location of any potential access points or roost locations were noted. These included:

- Suitable cracks and crevices within stone or brick work;
- Suitable access points via head of gable end and within lintels and gaps around windows

3.4 The surrounding habitat was also assessed for its suitability for foraging and commuting quality.

3.5 The internal assessment involved a search to look for bats, or evidence of bats such as droppings or staining around common roost locations. A high-powered torch and endoscope were used where necessary to inspect the building more closely.

3.6 Following the inspection, an assessment was made of the building's suitability to support a bat roost, following the criteria set out in Table 1 below.

**Table 1 Suitability Assessment<sup>7</sup>**

Suitability	Roosting Habitat
Negligible	Negligible habitat features on site likely to be used by roosting bats.

<sup>5</sup> <https://magic.defra.gov.uk/>

<sup>6</sup> <https://nbnatlas.org/>

<sup>7</sup> Collins, J (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd. Ed.) The Bat Conservation Trust, London (p.35)

<b>Low</b>	A structure with one or more potential roost sites that could be used by individual bats opportunistically.  However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats
<b>Moderate</b>	A building with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status
<b>High</b>	A building 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 and surrounding habitat.

- 3.7 In many situations it is not possible to inspect all locations where bats may be present, or any bats that may be present, may not be visible at the time of the survey. Hence, an absence of bats does not necessarily mean that a roost is not present and further activity surveys may be required to confirm presence or absence.

#### 4.0 Baseline Conditions

##### *Site Location*

- 4.1 The site is located within a rural location within the small village of Rode, Somerset that lies 8km north-east of Frome and 8km south-west of Trowbridge. The garage sits within the grounds of Mayfield House. There are a number of properties of varying age and construction within Rode and wider villages. The River Frome lies 370m to the northwest.
- 4.2 The wider landscape comprises agricultural and equestrian land, with a mix of arable and pasture/silage crop. The fields are interspersed by hedgerows, which appear well managed. There are small parcels of woodland within 1km of the garage, which are highlighted as Deciduous woodland Priority Habitat. The surrounding habitat and properties are considered to offer good opportunities for bats.



Plate 1: Site Location (Google, February 2024)

#### Data Search

- 4.3 The site is not covered by any designations. The closest component of the Mells Valley Special Area of Conservation (SAC) lies approximately to 6.74km the southwest of the site boundary. The underlying Site of Special Scientific Interest (SSSI) is the Vallis Vale SSSI (whose closest point lies within 5.91km 5.5km). As mentioned in Section 2 above, this site is selected on the basis of the size of its exceptional breeding population of greater horseshoe bats *Rhinolophus ferrumequinum*, which is spread across a number of sites around Mells. It contains the maternity site associated with a population comprising about 12% of the UK greater horseshoe bat population. A proportion of the population also hibernates at the site, though other hibernation sites remain unknown. In addition the site is also selected for two Annex I habitat types: 'semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*)' and 'caves which are not open to the public'. The application site sits just outside the Bat Consultation Zone Band C of the SAC Technical Guidance.
- 4.4 The Vallis Vale SSSI is also notified for its ancient woodland habitat and supports an Ash-Wych Elm stand type with a restricted distribution in the UK. There are also two watercourses that run through



the SSSI. The habitats support a diverse range of floral and fauna. The two component parts of the SAC are well linked by broadleaved woodland and the Mells river corridor.

- 4.5 The site is located 8.9km from Salisbury Plain and therefore sits outside of the 6.5km recreational pressure radius associated with the Salisbury Plain Special Protection Area (SPA).
- 4.6 The site is not within any SSSI risk zones applicable to this proposed development.

#### *Habitats*

- 4.7 There are a number of priority habitats within 1km of the site, including two parcels of deciduous woodland and an area of wood pasture/parkland associated with the Dower House approximately 800m to the northwest.

#### *Species*

- 4.8 Three European Protected Species licences were identified within 4km of the site, all of which relate to bats. These include:
- Brown long-eared, common pipistrelle, and greater & lesser horseshoe bat roost resting place (dated 2014-2018) – 1.2km to the west
  - Brown long-eared, common & soprano pipistrelle, serotine and lesser horseshoe bat roost resting place (dated 2013-2018) – 2.61km to the southwest
  - Common & soprano pipistrelle, serotine and brown long-eared bat roost maternity roost (dated 2010-2011) – 3.9km to the northwest

#### *Preliminary Roost Assessment*

- 4.9 The garage is a single storey building constructed of breeze block internal walls with a stone exterior. The roof is a single pitch with clay tiles that are mortared in on the gable ends. There are garage up and over doors on the western elevation, with two standard timber doors and a window on the northern elevation. A single timber door and window is also present on the eastern elevation. A timber barge board runs along the northern and southern elevation.
- 4.10 Externally, the building is in a good condition, with no gaps or cracks noted within the stone work or around the lintels. There is a small gap beneath the barge board where it is partially raised along the undulating contours of the stone work. The tiles are also generally well sealed but some gaps were noted across the roof line and ridge that could offer potential roosting opportunities for bats.
- 4.11 The double standard doors on the northern elevation appear to be left open, with one door having dropped from its hinges leaving a gap along the top that is wide enough to for direct fly access for bats.

- 4.12 Internally, the building is open and light with a partially boarded ceiling below the ridge but open along the eaves, hence there is no enclosed roof void. There were open plan trusses with vertical posts and collar ties beneath the ridge. The breeze block walls are visible. The roof is lined with a breathable membrane, which is in a good condition.
- 4.13 Bat droppings were present within the boarded section and were considered to be from two different species and roost types. There was a general scattering below the ridge along the length of the building, with some small accumulations. A separate concentration (500+) of droppings was identified on the western gable and around the apex. There was also some staining on the BRM, towards the western side, which could be bat urine.
- 4.14 Samples were collected to be sent for DNA analysis, with the droppings below the ridge line labelled as 'Sample 1 (S1) and those from the western gable/apex as Sample 2 (S2). They were confirmed be:
- Sample 1 (below the ridge line along the length of the building): Lesser horseshoe bat
  - Sample 2 (larger accumulation at the western gable): brown long eared bat



**Plate 2: Side (N) and front (W) elevation of the garage. Red circles indicates likely roosting area for brown long eared bats.**



**Plate 3: Partially boarded roof void with red circle showing BLE droppings on western gable and blue line showing LHS droppings beneath ridge.**

4.15 No evidence of nesting birds was noted.

## 5.0 Recommendations

5.1 The Preliminary Roost Assessment recorded evidence of bats and the DNA analysis (Appendix 1) confirmed that there are at least two species using the garage. Whilst further surveys would be required to confirm the status of the roosts and access points, a bat mitigation strategy has been implemented that would ensure the continued functionality of the roosts and to maintain the

Favourable Conservation Status of the species. The initial conclusions of the Preliminary Roost Assessment is that the following roosts are likely to be present but will need to be confirmed following further survey:

- A brown long-eared day roost (possible maternity) at the western gable and between the BRM and tiles, with access likely from beneath the tiles/ridge
- A lesser horseshoe night roost (the building is light throughout so less suitable for day roosting) – access is likely to via the open doorway or gap along the top of the door on the northern elevation. Therefore it could be a opportunistic roost, depending on access available.

5.2 A Natural England bat mitigation licence is likely to be required post planning but prior to works commencing on the garage and this will be confirmed following the surveys. Surveys (as set out in para. 5.3) will be required to inform this licence application.

#### *Roost Characterisation Surveys*

5.3 Roost Characterisation surveys (also know as emergence surveys) will be undertaken during the active season, which is considered to be May to August for maternity roosts. It is recommended automated detectors are used to record activity over night to clarify the presence of a night roost. Whilst up to three surveys may be required, it is considered likely that sufficient information will be obtained after two surveys, spaced at least three weeks apart, when combined with static detectors. The surveys will be undertaken by suitability experienced ecologists who will position themselves around the property to look for bats emerging at dusk or returning at dawn, using night vision aids, such as IR and/or thermal imagery cameras. These surveys will ascertain the roost type and status, together with the location of the access points.

#### *Bat Mitigation Strategy*

5.4 The proposals will involve restoration and conversion of the garage into annexed accommodation. The building is not to be re-roofed. The roof void will be fully boarded over, with the accommodation solely on the ground floor. Therefore, there is likely to be a significant enhancement for bats through the creation of the segregated and dark roosting area. A new access point will be created on the western gable through an 'arrow ventilation slit' design of at least 300mm x 200mm. Boarding could be placed between the ceiling rafters to minimise access to the BRM.

#### *Timings*

5.5 If only low status roosts are recorded, then there are minimal timing constraints. Should a more significant roost be identified (i.e. maternity) roost, there will be some timing restrictions for the works that could impact on these roost i.e. creation of access points and boarding of the roof void.

These works will be undertaken in the 'shoulder months' which are generally spring (mid-March/April and autumn (mid-September/mid-November), thus avoiding the maternity and hibernation periods.

- 5.6 Once planning has been obtained, then a Natural England bat mitigation licence would be sought if the roosts identified will be impacted on by the works. This licence application must be applied for prior to works commencing and would detail the mitigation, including appropriate timings for the works, which, as stated above, is dependent on the roost type.

#### Habitats and Biodiversity Net Gain

- 5.7 There will be minimal alterations to the surrounding gardens with only a small loss of lawn. Therefore, a Biodiversity Net Gain assessment is not required.

#### Other Mitigation Measures

- 5.8 Lighting: The garage is in regular use and external lighting is present around the perimeter, with the exception of the southern elevation. There is also lighting from the adjacent properties. It is proposed to reduce excessive light spill from the building with the replacement of the existing lighting to minimise upward light spill and illumination of the adjacent habitats. Any lighting should adhere to the principles set out in the ILP Guidance Note 08/18 Bats and artificial lighting in the UK<sup>8</sup>

#### Enhancement Measures

- 5.9 Additional enhancement measures could include the installation of bird boxes either on the building or on suitably sized trees within the garden. A new native hedgerow is also to be planted along the driveway.
- 5.10 In conclusion, the garage supports two roosts and, whilst it is acknowledged that further survey will be required to ascertain the status of the roosts, the proposals have incorporated a detailed mitigation strategy that will ensure the roosts can be retained in situ, with only a minimal modification to the access point for the lesser horseshoe roost. It is considered the segregation of the roof void will create a permanent, dark roosting area that will enhance the opportunities for bats. Therefore, the proposals '*...will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range*'

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<sup>8</sup> <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>



13 July 23

Re: Identification Results for Ceri Griffith, Herdwick Ecology

Job number 19857, received 03 July 2023

Sample labelled: 306 - S1

PCR amplification successful. DNA sequence:

ATGACAAACATTTCGCAAGTCCCACCCACTATTTAAAATTATCAATGACTCATTATTGA  
TCTACCTACCCCATCAAGTATTTCTCCTGATGAACTTTGGATCCC

Phylogenetic analysis identification: *Rhinolophus hipposideros*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Professor Robin Allaby

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

**Professor Robin Allaby**

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10 July 23

Re: Identification Results for Ceri Griffith, Herdwick Ecology

Job number 19858, received 03 July 2023

Sample labelled: 306 - S2

PCR amplification successful. DNA sequence:

ATGACCAACATTCGAAAGTCCCACCCTCTCATAAAAATTATCAATGACTCATTTCATTG  
ACTTACCTGCTCCCTCAAATATTTTCATCATGATGAAACTTT

Phylogenetic analysis identification: *Plecotus auritus*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Professor Robin Allaby

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

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