



Urban Tree Experts

BS5837 – Tree Surveys – Ecological Consulting

PRELIMINARY ECOLOGICAL APPRAISAL (BATS) AT 10 COURTENAY DRIVE EMMER GREEN



**Prepared for:
Mr C Cox
10 Courtenay Drive
Emmer Green
RG4 8XH**

17 July 2023

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The validity of this report ceases at the prescribed time limit or after 12 months from the site inspection, or if the site conditions change due to unspecified works that affect the site whichever is the sooner.



Executive Summary

Urban Tree Experts was commissioned by Mr C Cox to conduct a preliminary ecological appraisal (bats) of 10 Courtenay Drive, Emmer Green, RG4 8XH. This is to support a current planning application to Reading Borough Council (reference 230808).

The site visit was carried out on Tuesday 4 July 2023 at 12.30pm, during daylight hours. An internal and external inspection of the property and integral garage took place to look for signs of bats.

The preliminary ecological appraisal (bats) comprised a detailed search of the interior and exterior of the building for bats, signs of bats and features suitable for use by roosting bats. This includes droppings, scratch marks, rubbing and staining at exit holes, live or dead bats and other features such as missing tiles, this list is not exhaustive.

A desk top study was conducted prior to the survey to review existing information about the site and its surroundings and to inform the design of subsequent bat surveys, if required. The desk top study was conducted based upon a 2km search radius and it revealed one statutory designated site is located within 2km of the proposed development site. There is one current European Protected Species Licence (EPSL) for bats recorded within the search area.

Internally and externally, there was no evidence of bats (current or historically) within the property. The building is in a good condition and had no visible roosting opportunities or access points which could be utilised by bats.

Due to the absence of roosting potential and the lack of evidence of bats found during the detailed inspection, it is concluded that there is negligible potential for roosting bats to be present within the building internally or externally. Based on the recommendations in the Bat Workers Manual and the Bat Surveys Good Practice Guidelines prior to works, no further survey effort is required.



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1. Introduction

1.1 Instruction

Urban Tree Experts was instructed by Mr C Cox to conduct a preliminary ecological appraisal (bats) of 10 Courtenay Drive, Emmer Green, RG4 8XH to support a current planning application to Reading Borough Council.

1.2 Aims and Objectives

The preliminary ecological appraisal (bats) is designed to:

- Identify the presence/likely absence of bats within the building.
- Provide information on the status of bats using the building currently or previously).
- To add confidence where no bats are found, or to categorise the nature of a roost where evidence of bats are found.
- To establish whether further surveys, mitigation or an EPSL is required.

The preliminary ecological appraisal (bats) and report writing were carried out in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition, Bat Conservation Trust, 2016).

1.3 Proposed Works

The survey was commissioned in connection with a current planning application to Reading Borough Council (reference 230808) that is seeking to construct a part two storey, part single storey rear extension, a single storey side extension and convert the garage into habitable accommodation with a first-floor front extension.

1.4 Surveyor Background and Experience

The preliminary ecological appraisal for bats was completed by Nick Powell and the report was written by Simon Holmes MSc. CEnv.

Nick commenced surveying bats last year and has received training in surveying techniques, bat detector use, bat biology, bat identification, acoustic monitoring and echolocation analysis. Simon holds Class 3 (CL19) and 4 Bat (CL20) Licenses (Nos. 17637 and 17638) and a Science and Education license (SCI64844). He has 34 years' experience of carrying out bat surveys and bat conservation work.

2. Legislation and Planning Policy

2.1 Legislative Background

All species of British bat are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981, as amended. Under this legislation it is an offence to kill or injure a bat or interfere with any roosting or resting site. A bat roost is interpreted as "*any structure or place used for shelter or protection*" whether or not bats are present at the time. A summary of the main legislation and planning considerations are included at Appendix 1.

Seven species of bat are also Species of Principal Importance for nature conservation in England under Section 41 of the Natural Environment and Rural Communities Act 2006. This places a duty on all government departments to have regard for the conservation of these species and on the Secretary of State to further, or promote others to further, the conservation of these species.



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3. Site Location and Description

3.1 Site Location

The building is located at Grid Reference SU 720 771, see Figure 1 below. An overview of the immediate area is shown on Figure 2, courtesy of Bing Maps.

Figure 1. 10 Courtenay Drive, Emmer Green, highlighted.



Figure 2. 10 Courtenay Drive, Emmer Green, overview of the immediate area.





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3.2 Site Description

The application site comprises a detached, brick-built property with an integral garage. The remainder of the site comprises a concrete driveway, and a rear garden, which is mainly laid to lawn, with some trees, hedgerows and shrubs throughout, see Figure 4 below. The site itself offers good foraging and commuting habitat for bats.

Figure 3. Rear garden. 10 Courtenay Drive, Emmer Green. 04.07.23



4. Survey Methodology

4.1 Pre-Survey Data Search

Google Earth and MAGIC maps (magic.defra.gov.uk) websites were used prior to the survey to determine the suitability of the surrounding habitat to support roosting bats and to identify any statutory designated sites within 2km of the site. Due to the suburban area, scale of the potential development and the very local impact that may occur, no data was sought from local records centre at this time.

The property is located in Emmer Green, a suburb of Reading, and is surrounded by properties and gardens of similar styles and sizes. To the east lies Clayfield Copse, an area of woodland and grassland, and to the west a large golf course, both of which provide good habitat for bats, have known populations of roosting bats and are within commuting distance for bats. To the north lie large areas of farmland and pockets of woodland, which are likely to provide good habitat for bats, although there is limited ecological connectivity from the site to these areas. Further afield lie areas of farmland, woodland and the River Thames, all of which provide good habitat for roosting, commuting and foraging bats although housing developments and main roads separate these areas from the site.



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Clayfield Copse Local Nature Reserve (LNR) lies within 2km of the proposed development site although there is limited ecological connectivity to the site from this area. A search of the Magic interactive website revealed that one current EPSL for bats has been granted within 2km of the site, the details of which are provided in Table 1 below.

Table 1. Current EPSLs for bats within 2km of the site

EPSL reference	Licence end date	Species on licence
2018-33476-EPS-MIT	2023	Serotine

4.2 Daylight Survey

The preliminary ecological appraisal (bats) of 10 Courtenay Drive, Emmer Green, RG4 8XH was carried out by Nick Powell on Tuesday 4 June 2023 at 12.30pm. The weather conditions for the survey were overcast with rain and a temperature of 19 degrees. Equipment used included a high-powered torch, a digital camera on a telescopic pole and a ladder.

During the preliminary ecological appraisal (bats), an internal and external inspection of the property and integral garage was carried out to identify any signs of occupation by bats and features that could offer potential roosting sites following standard survey guidelines. Features investigated included:

- Construction of the building – soffits, loft space, tiles/slates, lead flashings etc.
- Building condition – structure of roof and walls.
- Internal conditions – microclimate stability, draughts etc.
- Access points – potential entry and exit points for bats.
- Roosting points – cracks and crevices, between underlay and roofing tiles/slates.

Field signs that would indicate the presence of bats were searched for. These included:

- Bat droppings on the floor and walls of the building.
- Feeding remains (particularly butterfly and moth wings).
- Evidence of urine and/or oily staining around possible roost entrances.
- Presence of areas cleared of cobwebs.
- Where a breathable roofing membrane has been fitted staining on the membrane may suggest use by bats.
- Odour can sometimes suggest the present of bats.
- Squeaking and chattering can reveal bats roosting between the tiles and roofing underlay.

Buildings or structures that were not to be affected by the current proposals or with no bat roosting potential were not inspected.

4.3 Constraints

Full access to the site during the visit was made possible by the client and there were no significant constraints to the survey.



5 Survey Findings

5.1 External Inspection

The external features of the property and integral garage were examined for signs described in section 4.2. Windowsills, exposed features around the windows, fascia's and walls were inspected for any evidence of bat droppings or staining.

The property is a detached, brick-built building, that is rendered and painted and is in a good condition externally, see Figure 4 below. The roof of the property is pitched and covered in close fitting tiles, none of which are missing or broken, see Figure 5 on page 9. The ridge tiles are all tightly fitted with no gaps in which bats could utilise for roosting and the hip tiles are all well cemented and have no gaps in which crevice dwelling bats could use for roosting, see Figure 6 on page 9. The lead flashing around the chimney is all tightly fitted to the roof tiles and provided no gaps in which roosting bats could exploit (see Figure 7 on page 10) and the soffits and fascia's are all tightly fitted to the walls and had no cracks or splits which could be utilised by roosting bats, see Figure 8 on page 10. There is a single storey side extension to the property, see Figure 9 on page 11. The roof of the extension is flat and covered in bitumen and a small section of corrugated plastic, all of which is tightly fitted with no rips or tears in which roosting bats could exploit externally, or enter the building to roost, see Figure 10 on page 11.

The integral garage was also inspected externally, see Figure 11 on page 12. The sloped section of the garage roof is covered in close fitted tiles, none of which are missing or broken, see Figure 12 on page 12.

No bats or evidence of bats was recorded during the external inspection of the property and integral garage and externally there were no visible features which could be utilised by roosting bats.

Figure 4. Rear of the property. 10 Courtenay Drive, Emmer Green. 04.07.23





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Figure 5. Close fitting roof tiles. 10 Courtenay Drive, Emmer Green. 04.07.23



Figure 6. Example of ridge and hip tiles. 10 Courtenay Drive, Emmer Green. 04.07.23





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Figure 7. Lead flashing around the chimney. 10 Courtenay Drive, Emmer Green. 04.07.23



Figure 8. Soffits and fascia's. 10 Courtenay Drive, Emmer Green. 04.07.23





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Figure 9. Single storey extension. 10 Courtenay Drive, Emmer Green. 04.07.23



Figure 10. Roof of single storey extension. 10 Courtenay Drive, Emmer Green. 04.07.23





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Figure 11. Integral garage. 10 Courtenay Drive, Emmer Green. 04.07.23



Figure 12. Roof of integral garage. 10 Courtenay Drive, Emmer Green. 04.07.23





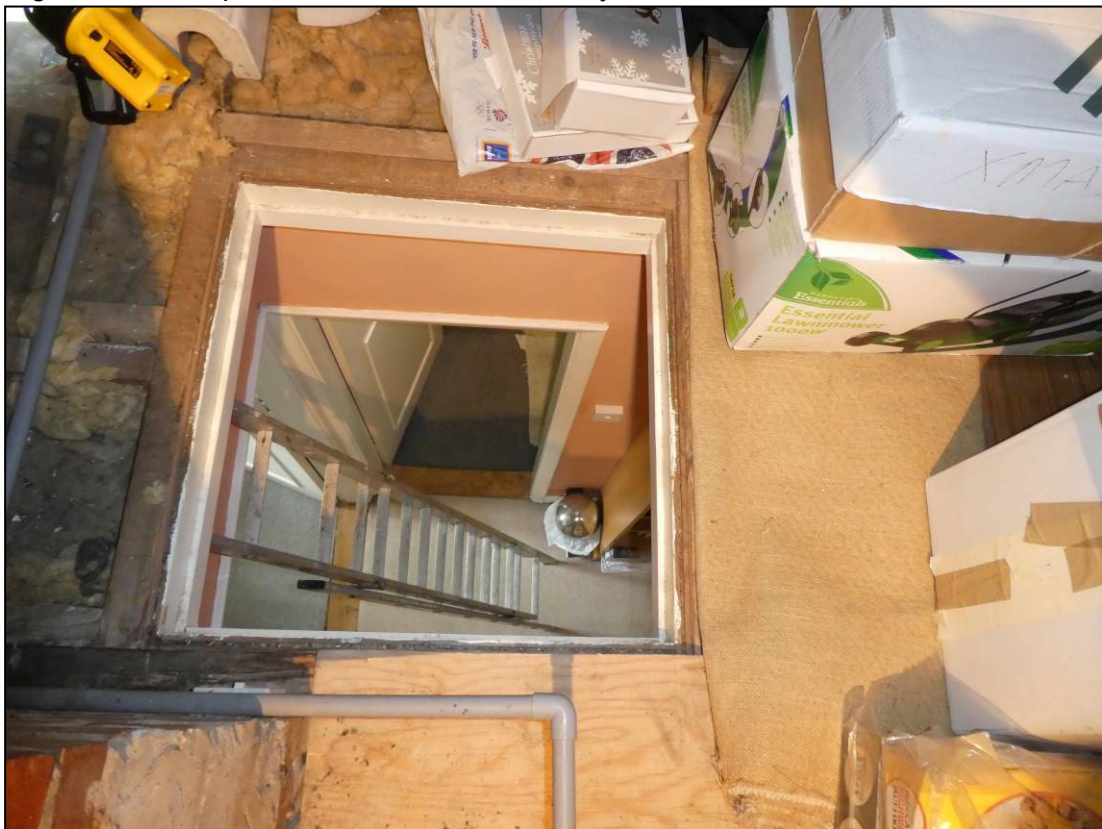
5.2 Internal Inspection

An internal inspection of the property was undertaken and were examined for any signs of bats (as described in section 4.2).

The loft space of the property was accessed via steps through a hatch and was in a good condition, see Figure 13 below. The loft is used for storage, lit, partially boarded and is insulated, see Figure 14 on page 14. The roof tiles are lined with bitumen felt, all of which is tightly fitted and had no rips or tears in which roosting bats could exploit, see Figure 15 on page 14. The single storey extension was also inspected internally. The room is used for storage and is cluttered but clean. The roof is boarded and does not contain any gaps which could be utilised by roosting bats, see Figure 16 on page 15.

No bats or evidence of bats was recorded during the internal inspection of the loft space or extension and internally there appeared to be no roosting opportunities for bats within the building.

Figure 13. Example of loft hatch. 10 Courtenay Drive, Emmer Green. 04.07.23





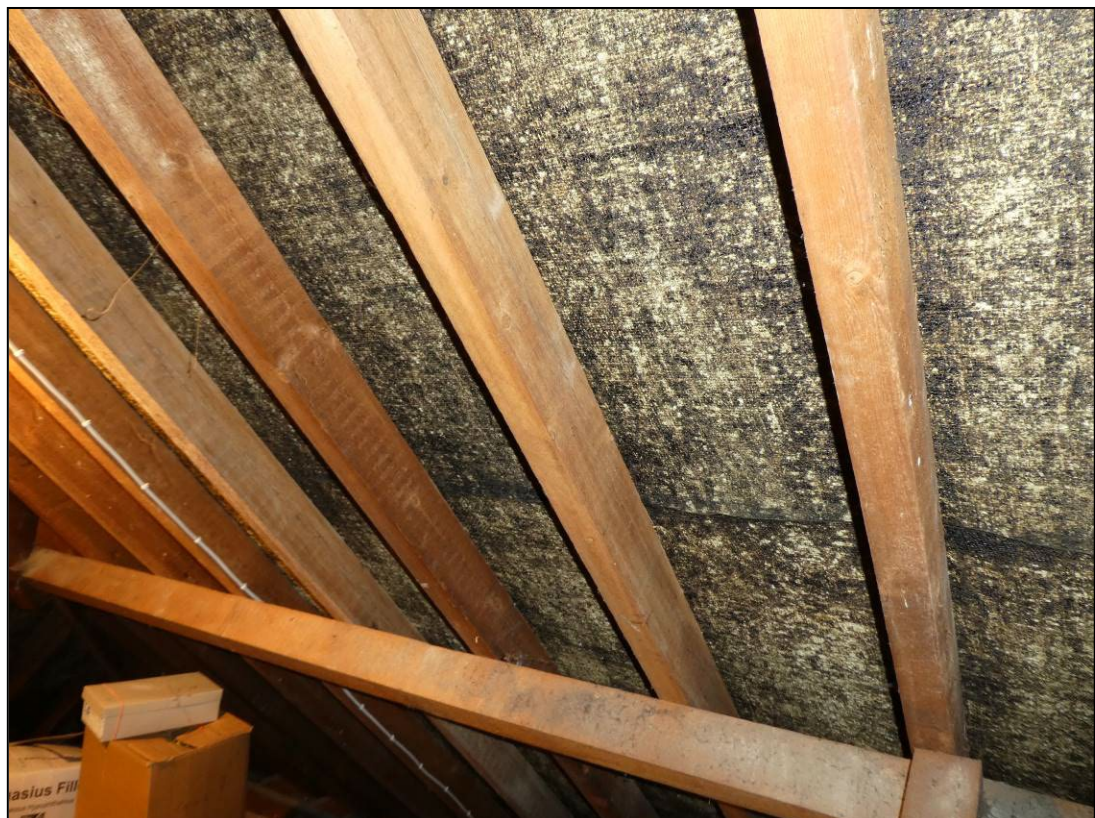
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Figure 14. Example of loft space. 10 Courtenay Drive, Emmer Green. 04.07.23



Figure 15. Example of bitumen lining in loft. 10 Courtenay Drive, Emmer Green. 04.07.23





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Figure 16. Boarding in extension. 10 Courtenay Drive, Emmer Green. 04.07.23



6. Evaluation

The bat roost potential of the features within the site have been assessed with reference to the criteria laid out in the Bat Mitigation Guidelines (Mitchell-Jones, 2004). These criteria are listed on page 22 of the guidelines with the features **highlighted in bold**.

The likelihood of bat roosts being present will be higher where structures:

- are of a pre-20th Century construction;
- are in a lowland rural setting;
- **have woodland, mature trees, species-rich grassland and/or water nearby;**
- have large dimension roof timbers with cracks, joints and holes;
- have numerous crevices in stonework and structures;
- have an uneven roof covering with gaps, though not too draughty;
- have hanging tiles or roof cladding, especially on south-facing walls;
- **have a roof warmed by the sun;**
- are disused or little used; largely undisturbed;
- provide appropriate hibernation conditions, such as abandoned mines, tunnels, kilns, or fortifications; or
- **Recent and historical records of bat roosts in the general area.**



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The likelihood of bat roosts being present will be lower where structures:

- **are in an urban setting with little green space;**
- are subject to heavy disturbance (constant movement due to draughts and noise, also unstable microclimate);
- **have a small, cluttered roof void (particularly for brown long-eared);**
- **are of a modern construction with few gaps or crevices that bats can fly or crawl through (though pipistrelle bats may still be present);**
- are comprised of prefabricated steel or sheet materials; (some sections);
- are active industrial premises.

Please note that the above list provides generic screening criteria only and there are exceptions to consider.

7. Conclusions

7.1 Interpretation

The combined evidence from the internal and external inspection of the property and integral garage provides a high level of confidence in support of the opinions as set out in this report. There are no visible features externally on the property which bats could utilise for roosting and internally there are no roosting opportunities for bats.

Informed by the results of the survey and the factors highlighted in Section 6, it is concluded that there is negligible potential for roosting bats within the property. Based on recommendations in the Bat Workers Manual and the Bat Surveys Good Practice Guidelines, no further survey effort is required.

7.2 Contingency Plan

In the unlikely event that bats are found during the proposed works, all work must stop, and advice sought from Urban Tree Experts or another licensed bat ecologist.

If, for whatever reason, there is a time delay of greater than 12 months between this survey and the commencement of work, then the survey should be repeated as the condition of the building may change and bats may start roosting within the property.

8. References

Collins, J (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition). Bat Conservation Trust (BCT), London.
HM Government (2017) Conservation of Habitats and Species Regulations.
HM Government (1981) The Wildlife and Countryside Act.
HM Government (2006) Natural Environment and Rural Communities Act.
Mitchell-Jones, A.J. & McLeish, A.P. (1999). Bat Workers' Manual (2nd Edition). Joint Nature Conservancy Committee, Peterborough.



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9. Queries

Any queries regarding this report should be addressed, in the first instance, to Urban Tree Experts:

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APPENDIX 1

In summary, the legislation combined makes it an offence to:

- Intentionally or recklessly damage, destroy or obstruct access to a structure or place used for shelter by a bat.
- Intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate.
- Intentionally or deliberately kill, injure or take any bat.

Planning Considerations:

Government guidance to Local Planning Authorities stipulates the need to consider biodiversity and protected species during the consideration of planning applications. The NPPF makes clear that the planning system should help minimise the impacts that development can have on biodiversity and provide net gains in biodiversity where possible. In addition, the ODPM Circular 04/2005 states *“It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision”*.

Policy CS36 of the Reading Borough Core Strategy states *“Development should retain, protect and incorporate features of biodiversity or geological interest (including protected species and their habitats) found within the application site into their schemes. On sites with recognised biodiversity or geological value, development will not be permitted where there would be a direct or indirect adverse impact on the site, unless it can be clearly demonstrated that: -*

- i. The need for development clearly outweighs the need to protect the value of the site; and*
- ii. Appropriate compensation, impact minimisation, mitigation and compensation are provided”*.

Developments that compromise the protection afforded to bats or roosts under the provisions of the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 will require a European Protected Species (EPS) licence from Natural England (NE).

NE, the government’s statutory conservation advisory organisation, is responsible for issuing EPS licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations.

Three tests must be satisfied before this licence (to permit otherwise prohibited acts) can be issued:

- Reg 44(2)(e) – the derogation is “in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment”.
- Reg 44(3)(a) – there is “no satisfactory alternative” to the derogation.
- Reg 44(3)(b) –the derogation is “not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range”.

Tests (a) and (e) can be met with the issue of planning permission for the proposed works. Test (b) is determined by NE’s ecology department that requires the development of a suitable mitigation strategy that would ensure that any bats present on site, are retained at the same population level or better.