



Urban Tree Experts

BS5837 – Tree Surveys – Ecological Consulting

BAT SURVEY AT 239 HEMDEAN ROAD CAVERSHAM



Prepared for:
Mr G Coale
239 Hemdean Road
Caversham
Reading
RG4 7QX

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Executive Summary

Urban Tree Experts was commissioned by Mr G Coale to carry out a preliminary bat survey and evening emergence survey at 239 Hemdean Road, Caversham, Reading, RG4 7QX. This is to support a planning application for the demolition of the rear outbuilding and erection of a double garage and two storey rear extension to the house. This report confirms the findings of the surveys, completed by an experienced licensed bat ecologist in accordance with current best practice guidance (Hundt et al, 2012) where possible, and outlined any ecological constraints or issues with the proposed works.

No statutory or non-statutory protected features of ecological significance were present within the site boundary and there are no statutory protected features within a 1km radius of the site.

239 Hemdean Road is in a satisfactory condition and is occupied. The main roof at the rear has a number of loose fitting and broken tiles and there are small gaps along the soffits providing access for crevice dwelling bat species. The existing rear extension roofs are in good condition with no gaps for bats to access. The outbuilding is smothered by wisteria and ivy, and there are occasional small gaps in the tiles that bats may exploit. An emergence survey was undertaken in accordance with current best practice to determine if bats were using the features described above.

No evidence of bats present, or signs of historic use were found in any area of the buildings. In the absence of direct signs of bat presence, the potential of the building to support bats was assessed.

239 Hemdean Road is considered to have a low potential to support roosting bats, and there is a low risk of bats using the features present. The building therefore receives no ecological protection under wildlife legislation, and there are no ecological constraints to the proposed works.

Bats are highly mobile wild animals and may be encountered within a building following a negative survey result. If bats are found during demolition works then all works should stop, Simon Holmes (01189 762902) or Natural England (0845 601 4523) should be contacted for advice, and that advice acted upon.

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



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1. Introduction

1.1 Instruction

Urban Tree Experts were instructed by Mr G Coale to conduct a preliminary bat survey at 239 Hemdean Road, Caversham, Reading, RG4 7QX, to support a forthcoming planning application to Reading Borough Council (RBC). Following the preliminary assessment we were instructed to conduct a single emergence survey in accordance with our recommendations.

1.2 Survey scope

- The survey aimed to establish baseline data on the presence/absence of bat species at the site, and to assess the potential of the building to support bats.
- The outcome of the survey has been used to inform and specify whether further surveys are required, or to establish the need for and extent of any mitigation or compensation measures required as part of the proposed works.
- For the purposes of this survey, the site boundary is defined as the property and garage footprint.

1.3 Proposed Works

The survey was commissioned in connection with a forthcoming planning application to RBC that seeks to demolish the rear outbuilding and erection of a double garage plus a two storey rear extension to the house.

1.4 Surveyor Background and Experience

The preliminary bat survey and report were completed by Simon Holmes CEnv. He holds a Class 2 Bat Licence (No.CL5003440). He has 27 years' experience of carrying out bat surveys and bat conservation work and has attended numerous training courses on bat surveys and mitigation, run by the Bat Conservation Trust, Wildwood Ecology and local bat groups.

Katie Parkhouse also assisted during the emergence survey. She has been surveying bats for two years and has received advanced training in surveying techniques, bat detector (Batlogger M) use, bat biology, identification, acoustic monitoring, echolocation analysis and netting.

2. Legislation and Planning Policy

2.1 Legislative Background

All species of British bat are protected under the Wildlife and Countryside Act 1981, as amended, and also receive additional protection via The Conservation of Species and Habitats Regulations (2010). 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.



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3. Site Location and Description

3.1 Site Location

The property is located at Grid Reference SU 71276 - 75727, see Ordnance Survey (OS) extract at Figure 1. An overview of the immediate area surrounding the property is set out in Figure 2, courtesy of Google Maps.

Figure 1. 239 Hemdean Road, Caversham, OS extract.

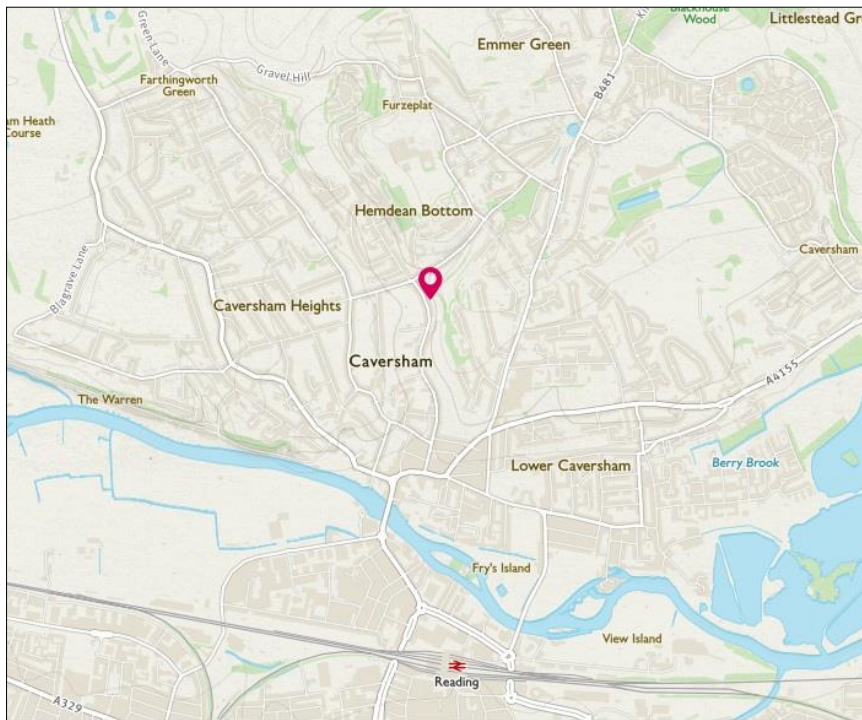
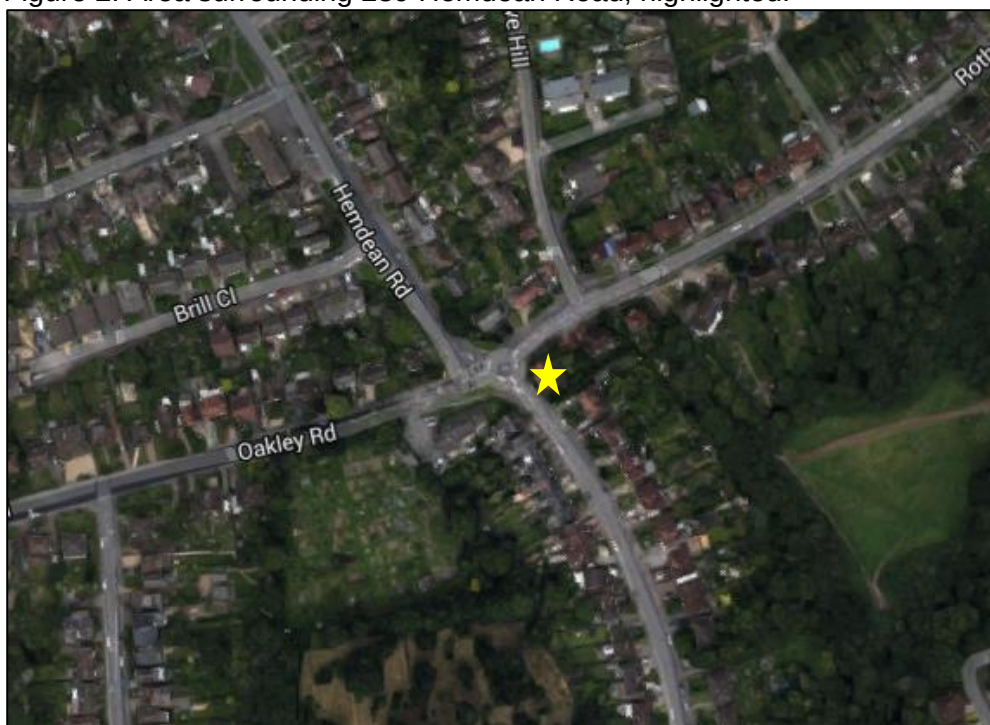


Figure 2. Area surrounding 239 Hemdean Road, highlighted.





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3.2 Site Description

The application site contains a two storey detached house - formerly two semis that have been combined. It is occupied and in good condition, see Figure 3. The rest of the application site comprises enclosed gardens, with a brick built outbuilding, lawns, fruit trees and occasional herbaceous shrubs.

Figure 3. Rear aspect of 239 Hemdean Road. 03.09.2015.



4. Survey Methodology

4.1 Pre-Survey Data Search

A search for statutory and non-statutory protected areas was undertaken on the MAGIC (magic.defra.gov.uk) website.

Due to the urbanised area, the small size of the proposed development and the very local impact that may occur, no data was sought from local biodiversity record centres.

The property is surrounded on all sides by dwellings of similar size and design and this is typical of the local topography. Habitat is limited to that of the residential dwellings with some connectivity via mature hedges and trees linking to occasional public open space (POS), for example Balmore Park, Caversham Cemetery and local allotments.

4.2 Daylight Survey

A preliminary bat survey of 239 Hemdean Road, Caversham, Reading, RG4 7QX was carried out by Simon Holmes on Thursday 3rd September 2015 at 10am. Equipment used included a high powered torch, a digital camera, binoculars and Sea Snake Micro CA 300 endoscope.

During this survey an internal and external inspection of the house and outbuilding was carried out to identify any signs of occupation by bats and features that could offer potential roosting sites following standard survey guidelines.



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4.2 Continued:

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, drafts 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, although this is not always reliable.
- 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 with no bat roosting potential and that were unsuitable for roosting bats were not inspected in detail.

4.3 Emergence Survey

One emergence survey was conducted on Tuesday 8th September 2015. The survey was at a time of year when bats are most likely to be present. Weather conditions were suitable for the bat survey, being conducted during warm weather and when bats were likely to be active. Katie Parkhouse assisted Simon Holmes during the emergence survey.

The surveyors were stationed as indicated in Figure 4 on the next page, to ensure that possible emergence areas (areas of concern) could be observed.

During the surveys bat activity was also monitored using BatLogger M bat detectors. Both detectors were fitted with SD cards for recording bat activity, allowing for later analysis with Kaleidoscope Pro 3 software.

The weather conditions and surveyor details for the survey can be found in Table 1 included on the next page.



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Figure 4 – 239 Hemdean Road. Surveyor locations during the emergence survey.



Table 1

Surveyor details and weather conditions for bat activity survey conducted at 239 Hemdean Road.

Date:	2015		
Survey Type	Dusk survey		
Surveyors and locations	Simon Holmes (A) Katie Parkhouse (B)		
Weather Conditions (Start)	22°C 20% cloud cover Dry, Beaufort 0 Humidity 80%		
Sunset/Sunrise	19.32		
Start time	19.10		
Finish Time	21.23		
Weather Conditions (Finish)	17°C 10% cloud cover Dry, Beaufort 1 Humidity 95%		



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4.4 Constraints

Full access to the site during the visit was made possible by the owner. The daylight inspection was constrained by underfelt in the loft and limited access to areas of the loft due to the building design. The emergence survey was undertaken at a time when bats are known to be active and there were no constraints to the emergence survey.

5. Survey Findings

5.1 External Inspection

The external features of the house and outbuilding were examined for signs described in section 4.2. Windowsills, exposed features around the windows, fascias, walls, doors and the wisteria, and ivy were inspected for any evidence of bat droppings or staining.

The buildings inspected are of standard brick construction with pitched, clay tiled roofs. The house has a complex roof alignment, the dominant alignment is mainly north to south. Various gaps in the tiles were observed on the rear pitch between the dormers, see image at Figure 5.

Figure 5. 239 Hemdean Road, gaps between tiles on the rear roof between the dormers 03.09.15.



During the external survey no sign of historic bat use was found.

5.2 Internal Inspection

An internal inspection of the main roof void was carried out. It was accessed from the first floor landing. The roof consisted of a series of voids beneath the main ridge, with voids over the dormer windows and the spaces were accessible, see Figure 6 on the next page.



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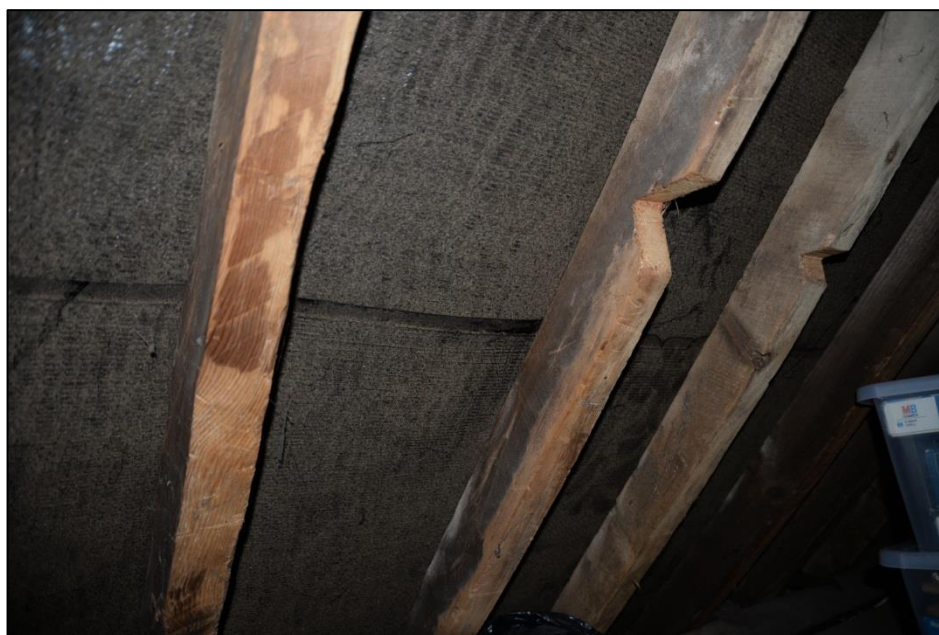
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Figure 6. 239 Hemdean Road, main boarded loft section, 03.09.15.



The visible loft spaces were examined for any signs of bats (as described in section 4.2). The loft is boarded in most locations with occasional non-boarded sections that have a deep layer of insulation at ceiling level. The roof is lined with bitumen felt, see Figure 7. The condition of the loft indicated that it had not been cleaned or tidied recently. No signs of bats were observed.

Figure 7. 239 Hemdean Road, Bitumen felt lining, 03.09.15.





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The brick outbuilding was examined for any signs of bats (as described in section 4.2). The outbuilding is almost totally covered in wisteria and ivy, see Figure 8. The condition of it indicated that it had not been cleaned or tidied recently. No signs of bats were observed.

Figure 8. 239 Hemdean Road, Brick outbuilding, 03.09.15.



5.3 Emergence survey

During the dusk survey no bats were seen emerging from or returning to the house or outbuilding to roost. In total three different species were recorded foraging within the vicinity of the building and commuting across the site. Bat passes were low around the property, a simple summary of the bat recorded can be seen in Table 2 on the next page and the most frequently used flight paths are shown in Figure 9 on the next page.



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Table 2. Bat recording/observations in the vicinity of 239 Hemdean Road. 08.09.2015

Date	Surveyor Position	Time	Seen	Heard	Species	Comments
08/09/2015	A	19.52	Y	Y	45 pip	First bat 20 minutes after sunset, came over the site from the Balmore Park area
		20.32	N	Y	noctule	Faint call, possibly in transit
		20.45 to 20.47	N	Y	45 pip	Constant foraging activity
		20.49 to 21.09	N	Y	45 and 55 pip	Foraging and social calls. The activity appeared to be limited to a low number of bats possibly 3.
		21.11 to 21.14	N	Y	45 and 55 pip	Ditto above. Foraging pattern appears to concentrate over fruit trees and towards Balmore Park to the rear of my location.
		21.17 to 21.23	N	Y	Ditto	Foraging pattern maintained as above with occasional lapses
08/09/2015	B	19.52	Y	Y	45 pip	First bat 20 minutes after sunset, came over the site from the Balmore Park area and headed due north west.
		20.33	Y	Y	Noctule	Street lighting illuminates my location. Bat not seen, most likely same bat as surveyor at A.
		20.42 to 20.49	Y	Y	45 and 55 pip	Lots of social calls over foraging calls, feeding appears to occur mainly over fruit trees in garden and the Balmore Park.
		20.57 to 21.09	Y/N	Y	45 and 55 pip with noctule	Pips observed noctule not seen. Street light illuminates bats in flight, bats not staying long in this location but flying back and forth for extended period.
		21.13 to 21.19	Y	Y	45 and 55 pip	Street light illuminates bats in flight, bats not staying long in this location but flying back and forth for extended period.
		21.20 to 21.23	Y	Y	45 and 55 pip	Ditto

Figure 9. Commonly used bat flight paths at 239 Hemdean Road. 08.09.15.





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), with any relevant 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; or
- provide appropriate hibernation conditions, such as abandoned mines, tunnels, kilns, or fortifications;
- Recent or historical records of bats on the site, or bat roosts in the general area.

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 of 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

No evidence of bat presence or historic bat activity was found within 239 Hemdean Road or the outbuilding. It is considered that the buildings present negligible roosting potential for bats and there is a low risk that bats roost within the buildings.

The emergence did not identify any bats leaving or entering 239 Hemdean Road or the brick outbuilding. Common pipistrelles were detected 20 minutes after sunset. Common pipistrelles emerge 20 to 30 minutes after sunset, our experience during this bat season has clearly shown a pattern of pipistrelle and noctule bats emerging 20 minutes after sunset. In this instance the first noctule was recorded 1 hour after sunset. The first sightings make it highly likely that the pipistrelle bats are roosting close by.



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The initial flight path suggests the bats were in transit to an area such as the rear gardens along Kidmore Road. Previous surveys this year have identified bats foraging along Kidmore Road and the adjacent gardens.

The bats could be seen foraging over fruit trees in the rear garden and heading back and forth between the site and the adjacent Balmore Park.

As the surveyors had a clear view of the property, outbuilding and possible entry/exit points at the time the calls were detected it may be concluded that the bats did not emerge from the house.

The suggested works should not cause disturbance to any bats, therefore an European Protected Species licence will not be required prior to the works being undertaken. Further surveys are not considered necessary or appropriate.

Bats are highly mobile wild animals and may be encountered within a building following a negative survey result. If bats are found during demolition works then all works should stop, Simon Holmes (01189 762902) or Natural England (0845 601 4523) should be contacted for advice, and that advice acted upon.

8. Recommendations

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 re-done.

9. References

Hundt, L. (2012) Bat Surveys: Good Practice Guidelines, 2nd edition. Bat Conservation Trust.

10. 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:

Developments that compromise the protection afforded to bats or roosts under the provisions of The Conservation of Species and Habitats Regulations (2010) 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.