

Nocturnal Bat Survey Report

Site: 31 Kidmore Road, Caversham, Reading, RG4 7LR

Ref: 231089/E1

Client: Mr A Scicluna & Ms G Moore



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QUALITY CONTROL

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The information in this report has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. The conclusions and recommendations expressed are reasoned judgements based on the evidence.

Every reasonable attempt has been made to comply with BS42020:2013 *Biodiversity – Code of practice for planning and development*, *CIEEM Guidelines for Ecological Report Writing* (CIEEM, 2017) and Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edition, Collins, 2016). If there has been deviation from recognised practice, justification/explanation has been given.

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SUMMARY

At 31 Kidmore Road, Caversham in Reading, planning permission is being sought to extend the house.

An initial daytime bat inspection of the site was carried out by Urban Tree Experts in December 2022. The report states “on the property there are lifted, missing roof tiles and missing mortar from the ridge tiles which could provide potential roosting opportunities or access points into the loft space for bats. A number of bat droppings, similar to those of pipistrelle sp. or brown long-eared (BLE) bats, were recorded scattered throughout the loft space, indicating that bats are or have used the property for roosting.”

The report stated three dusk emergence and/or dawn return to roost surveys are recommended on the property, in order to assess the status of the roost and to inform appropriate mitigation for the proposed works.

In January 2023 Indigo Surveys were instructed to undertake three nocturnal surveys of the house.

To confirm the species and numbers of bats that might be using the house, two emergence surveys were carried out on the evenings of 2nd and 17th May 2023 and a dawn return on the morning of 2nd June 2023.

All three nocturnal surveys recorded similar results *Nocule Nyctalus noctula* flying up the road and Common Pipistrelles *Pipistrellus pipistrellus* flying over the rear garden. No bats emerged or went to roost from or in the house.

Since no roosting bat was recorded during the daytime inspection or nocturnal surveys, the site is not eligible for registration under the Bat Mitigation Class Licence (BMCL) scheme, as BMCL is not to be used where mitigation works would be undertaken on a precautionary basis only, as in this case.

Instead Natural England have advised that Reasonable Avoidance Measures should be carried out, with appropriate mitigation or compensation where necessary.

As such, it is planned to erect a Schwegler 1FD and Harlech bat boxes (or similar) on a retained tree in the rear garden to provide an alternative roost site whilst the extension is built. This will be installed prior to the commencement of any works which affect the roof void, and during works, bat access will be restored to the void via a bat tile.

Other measures will include a ‘toolbox talk’ to contractors about bats and what to do if one is unexpectedly encountered, a pre-works inspection of the roof void, supervision of any destructive roof works, the latter undertaken by hand, and capture and relocation of a roosting bat to the bat box if one is discovered.

It should be noted that there will be no timing constraints, and an ecologist will be present at all key stages to ensure the replacement roosting provision is correctly installed.

1. INTRODUCTION

In December 2022, Urban Tree Experts carry out diurnal inspection of 31 Kidmore Road, Caversham in Reading to check for signs of bat occupation.

A number of bat droppings, similar to those of pipistrelle sp. or brown long-eared bats, were recorded scattered throughout the loft space.

In January 2023 Indigo Surveys were instructed to undertake three nocturnal surveys to characterise the roost/s.

To confirm the species and numbers of bats that might be using the house, two emergence surveys were carried out on the evenings of 2nd and 17th May 2023 and a dawn return on the morning of 2nd June 2023.

The results of the nocturnal surveys are contained in this report.

In England, Scotland and Wales, all bat species are fully protected under the Wildlife and Countryside Act 1981 (WCA) (as amended), through inclusion in Schedule 5. In England and Wales this Act has been amended by the Countryside and Rights of Way Act 2000 (CROW) and the Natural Environment and Rural Communities Act 2006 (NERC), which add an extra offence, makes species offences arrestable, increases the time limits for some prosecutions, and increases penalties.

All bats are also included in Schedule 2 of the Conservation (Natural Habitats, & c.) Regulations (the Habitats Regulations), which defines 'European protected species of animals'. In England this is the Conservation of Habitats and Species Regulations 2010, in Scotland the Habitat Regulations 1994 (as amended), and in Northern Ireland the Conservation Regulations 1995.

All bats are also protected under the Bern Convention Appendix II, the Bonn Convention Appendix II, and the Wild Mammals (Protection) Act 1996.

The above legislation can be summarised thus (Mitchell-Jones and McLeish, 2004):

- ❑ *Intentionally or deliberately kill, injure or capture (or take) bats*
- ❑ *Deliberately disturb bats (whether in a roost or not)*
- ❑ *Recklessly disturb roosting bats or obstruct access to their roosts*
- ❑ *Damage or destroy roosts*
- ❑ *Possess or transport a bat or any part of a part of a bat, unless acquired legally*
- ❑ *Sell (or offer for sale) or exchange bats, or parts of bats*

The word 'roost' is not used in the legislation but is used here for simplicity. The actual wording is 'any structure or place which any wild animal...uses for shelter or protection' (WCA), or 'breeding site or resting place' (Habitats Regulations).

As bats generally have both a winter and a summer roost, the legislation is clear that all roosts are protected whether bats are in residence at the time or not.

2. METHODOLOGY

To fully assess bat occupation of a particular site, the Bat Conservation Trust (2016) recommends that information gathered from a desk study of known bat records, and a daytime site walkover, is used to inform the type and extent of future bat survey work, potentially including nocturnal surveys.

The diurnal walkover provides an opportunity to check for signs of occupancy, such as droppings, scratch marks, feeding remains, carcasses, or even animals in residence, whilst nocturnal surveys (if required) allow numbers and species of bats to be confirmed. The latter are also used to determine the presence or absence of bats, where signs of bat activity are indeterminate or absent, but suitability of roosting is considered medium to high.

Roosting places vary depending on the species. Pipistrelles usually inhabit narrow cracks or cavities around the outside of buildings, but they will roost in similar niches inside larger barns. Typical sites include soffit spaces, gaps behind fascia boards and end rafters, crevices around the ends of projecting purlins, under warped or lifted roof and ridge tiles, or in gaps in stone and brickwork where mortar has dropped out.

Larger species such as Brown Long-eared Bats *Plecotus auritus*, Myotis bats (Natterer's *Myotis nattereri* and Whiskered/Brandt's *M. mystacinus*/*M. brandtii*), and Lesser Horseshoe Bats *Rhinolophus hipposideros*, like to roost in the roof voids of buildings, and can often be found hanging singly or in small groups from ridge boards or roof timbers, especially where they butt up against gable walls or chimney breasts. They especially favour older structures with timber frames. Here they squeeze into tight crevices making them difficult to observe.

Diurnal walkovers can be carried out at any time of the year, but nocturnal surveys should only be undertaken when bats are out of hibernation and in their summer roosts. The recommended period is from May to September inclusive, with May to August optimum and September sub-optimum. The season can be extended into October, although particularly cold weather will render this inadvisable. Indeed, the air temperature at the start of each survey must be at least 10°C or above.

Nocturnal surveys must be a minimum of two weeks apart, and the number of surveys is dependent on the evidence found or the suitability of the site to bats.

Where bats are found, or there is evidence of bat occupation or activity, the number and timing of visits will be decided by the ecologist and will be appropriate for the type of roost. In general, at least two nocturnal surveys must be carried out, both of which can be emergence surveys, or one emergence and one dawn re-entry.

Where there is no evidence of bat presence, and no suitability for roosting, no nocturnal surveys will be needed.

For a site with no evidence but low suitability, just one nocturnal survey is required, this to be in the optimum period, and either an emergence or a dawn re-entry.

For medium suitability a minimum of two nocturnal surveys are needed, of which one must be in the optimum period, and one must be a dawn re-entry survey. With high suitability, three nocturnals will be necessary, of which two must be in the optimum period. At least one of these must be a dawn re-entry survey, with the third visit either an emergence or a dawn re-entry.

For sites < 5 ha in size, and/or regularly shaped structures, at least two surveyors must be present, with more surveyors at larger sites and more complex buildings, e.g., those with multiple elevations and/or roof structures.

On the evenings of 2nd and 17th May 2023, nocturnal emergence surveys were undertaken by Neil Musgrave (Natural England bat licence No. 2020-44602-CLS-CLS) and assistant and on the morning of 2nd June 2023 a dawn return survey was undertaken by Kai Lenoard and assistant to determine the presence or absence of roosting bats.

The emergence surveys began 15 minutes before sunset and continued for one and three quarter hours after sunset and the dawn return start one and three quarter hours before sunrise and finished when fully light.

The results of the surveys are detailed in Section 3.

3. RESULTS

3.1 First Emergence Survey

The first emergence survey was carried out on 2nd May 2023, commencing at 20:15 and finishing at 22:15. The weather conditions during the time of the survey were recorded and are presented in Table 1.

Parameter	Value
Temperature (°C)	12.5 start; 12.0 finish
Cloud cover (%)	5
Precipitation	None
Wind speed (Beaufort scale)	0
Sunset	20:28

Table 1 Weather conditions during the first emergence survey

A Noctule flew up Kidmore road in front of the house and Common Pipistrelle flew over the rear garden. No bats emerged from the house.

Details of the bat observations and detections are listed below.

Time	Observation
20:40	Noctule flew up Kidmore Road in south to north
20:51	Common Pipistrelle flew over the rear garden north to south
20:53	Common Pipistrelle flew in the rear garden of the house next door
20:53	Two Common Pipistrelles flying over the middle of the garden
21:04	Common Pipistrelle flew over the rear garden north to south
21:12	Common Pipistrelle flew over the rear garden
21:32 – 21:37	Common Pipistrelle flew over the rear garden

The bat flight paths at emergence on 2nd May 2023 are shown on Plan 1 overleaf.

Plan 1 Bat flight paths at emergence on 2nd May 2023



Common Pipistrelle Bats →

Noctule Bat →

Positions of surveyors ☀

3.2 Second Emergence Survey

The emergence survey was conducted on 17th May 2023 commencing at 20:35 and finishing at 22.35. The weather conditions during the time of the survey were recorded and are presented in Table 2 below.

Parameter	Value
Temperature (°C)	15:0 start; finish
Cloud cover (%)	100
Precipitation	None
Wind speed (Beaufort scale)	0
Sunset	20:51

Table 2 Weather conditions during the second emergence survey

A Noctule flew up Kidmore road in front of the house and Common Pipistrelle flew over the rear garden and up the road. No bats emerged from the house.

Details of the bat observations and detections are listed below.

Time	Observation
21:15	Noctule flew up Kidmore Road in south to north
21:18	Common Pipistrelle flew up the road to the front
21:26	Common Pipistrelle flying round the rear garden
21:40	Common Pipistrelle flew over the rear garden
21:50 – 21:56	Common Pipistrelle flying round next doors rear garden

The bat flight paths at second emergence on 17th May 2023 are shown on Plan 2 overleaf.

Plan 2 Bat flight paths at second emergence on 17th May 2020



Common Pipistrelle Bats →

Noctule Bat →

Positions of surveyors ★

3.3 Dawn Return Survey

The emergence survey was conducted on 2nd June 2023 commencing at 03:~~05~~~~20~~ and finishing when fully light. The weather conditions during the time of the survey were recorded and are presented in Table 3 below.

Parameter	Value
Temperature (°C)	11.0 start; 11:0 finish
Cloud cover (%)	10
Precipitation	None
Wind speed (Beaufort scale)	0
Sunrise	04:52

Table 3 Weather conditions during the dawn return survey

Common Pipstrelle flew over the rear garden south to north. No bats went to roost in the house.

Details of the bat observations and detections are listed below.

Time	Observation
04:25	Common Pipistrelles flew over the rear garden south to north

The bat flight paths at dawn return on 2nd June 2023 are shown on Plan 3 overleaf.

Plan 3 Bat flight paths at dawn return on 2nd June 2023



Common Pipistrelle Bats →

Positions of surveyors ☀

4. CONCLUSIONS AND RECOMMENDATIONS

Bats tend to be seasonal visitors to properties and are not usually in occupation all year round. The females normally form maternity colonies during May or June and then leave for adjacent trees and/or woodland during July or August once the young bats are able to fly and become independent. Here they will spend the winter months in hibernation before returning to the house or barn the following spring.

Male bats generally live alone and have a number of favoured roosts. During the summer they visit each of these for a few days at a time, before moving to their chosen hibernation site in mid-late October. Different species have different habits, but this seasonal movement is common to all.

Bats choose their roosts carefully. During the summer they look for sites which are warmed by the sun, and as a result are most often found on the south and western side of buildings.

Pipistrelles, our smallest and commonest bats, prefer to roost in very confined spaces around the outside of buildings, typical places being behind hanging tiles, weather boarding, soffit, barge and eave boarding, between roof felt and roof tiles or in cavity walls. As such they can be difficult to find, so the suitability for roosting was also assessed.

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This was considered high.

No roosting cerevis dwelling bats were recorded using the house as a roost, although small numbers of Common Pipistrelles were noted flying past the house having emerged elsewhere.

Another bat frequently encountered in buildings is the Brown Long-eared Bat. This is also a common species, but unlike pipistrelles, they prefer the dry, warm space of the loft or roof void, and can often be found hanging from roof timbers, especially rafters and the ridge board next to chimney breasts.

From the daytime survey report: A number of bat droppings, similar to those of pipistrelle sp. or brown long-eared bats, were recorded scattered throughout the loft space.

No bats were recored using the house as a roost.

Since no roosting bat was recorded during the daytime inspection or nocturnal surveys, the site is not eligible for registration under the Bat Mitigation Class Licence (BMCL) scheme, as BMCL is not to be used where mitigation works would be undertaken on a precautionary basis only, as in this case.

Instead Natural England have advised that Reasonable Avoidance Measures should be carried out, with appropriate mitigation or compensation where necessary.

As such, it is planned to erect a Schwegler 1FD and Harlech bat boxes (or similar) on a retained tree in the rear garden to provide an alternative roost site whilst the extension is built. This will be installed prior to the commencement of any works which affect the roof void, and during works, bat access will be restored to the void via a bat tile.

Other measures will include a 'toolbox talk' to contractors about bats and what to do if one is unexpectedly encountered, a pre-works inspection of the roof void, supervision of any destructive roof works, the latter undertaken by hand, and capture and relocation of a roosting bat to the bat box if one is discovered.

It should be noted that there will be no timing constraints, and an ecologist will be present at all key stages to ensure the replacement roosting provision is correctly installed.

5. REFERENCES

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APPENDICES

Appendix 1: Location plan

Appendix 2: Site layout

Appendix 1: Location plan



31 Kidmore Road, Caversham, Reading

Appendix 2: Site layout



31 Kidmore Road