

# Bat Survey Report

Residential Property of The Grange

London Road

Hackbridge

LONDON

SM6 7DJ

NGR: TQ 28757 65257



27<sup>th</sup> October 2023

**Sylvatica Ecology Ltd**

Company Registration Number: 07705793

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### **Limitations and Liabilities**

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It should be borne in mind that the behaviour of animals can be unpredictable and may not conform to standard patterns recorded in scientific literature. Therefore, this report cannot predict with absolute certainty that animal species will occur in apparently suitable locations or habitats, or that they will not occur in locations or habitats that appear unsuitable.


In order to minimise the likelihood of adverse effects on protected animal species over time, it is accepted good practice, in accordance with Natural England (NE) (formerly English Nature) guidance for ecological surveys to be repeated should works be deferred for over 12 months from the date of initial survey.

It is the duty of the landowner, developer and operations managers to act responsibly and to comply with current environmental legislation if protected species are suspected or found prior to, or during works.

The recommendations and information contained within this report are based on the information provided on the development works prior to the surveys being carried out. Should the development proposals change then the findings and recommendations contained within would potentially require revision.

The findings within this report do not constitute legal advice. Should this be required, then a suitably qualified professional practitioner should be contacted.

While the owner had organised access to the building, the residents refused access into the property to the surveyors. As a result, the surveys had to be carried out outside the property boundaries in public access areas. This prohibited the use of cameras to assist in the night observation of the building due to privacy of the public and for the personal safety of the surveyors. As a result, two emergence and a dawn re-entry survey were carried out. This survey effort was to compensate for the lack of night vision cameras, notably the dawn re-entry survey. Furthermore, no internal inspections were possible.

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# 1 SUMMARY

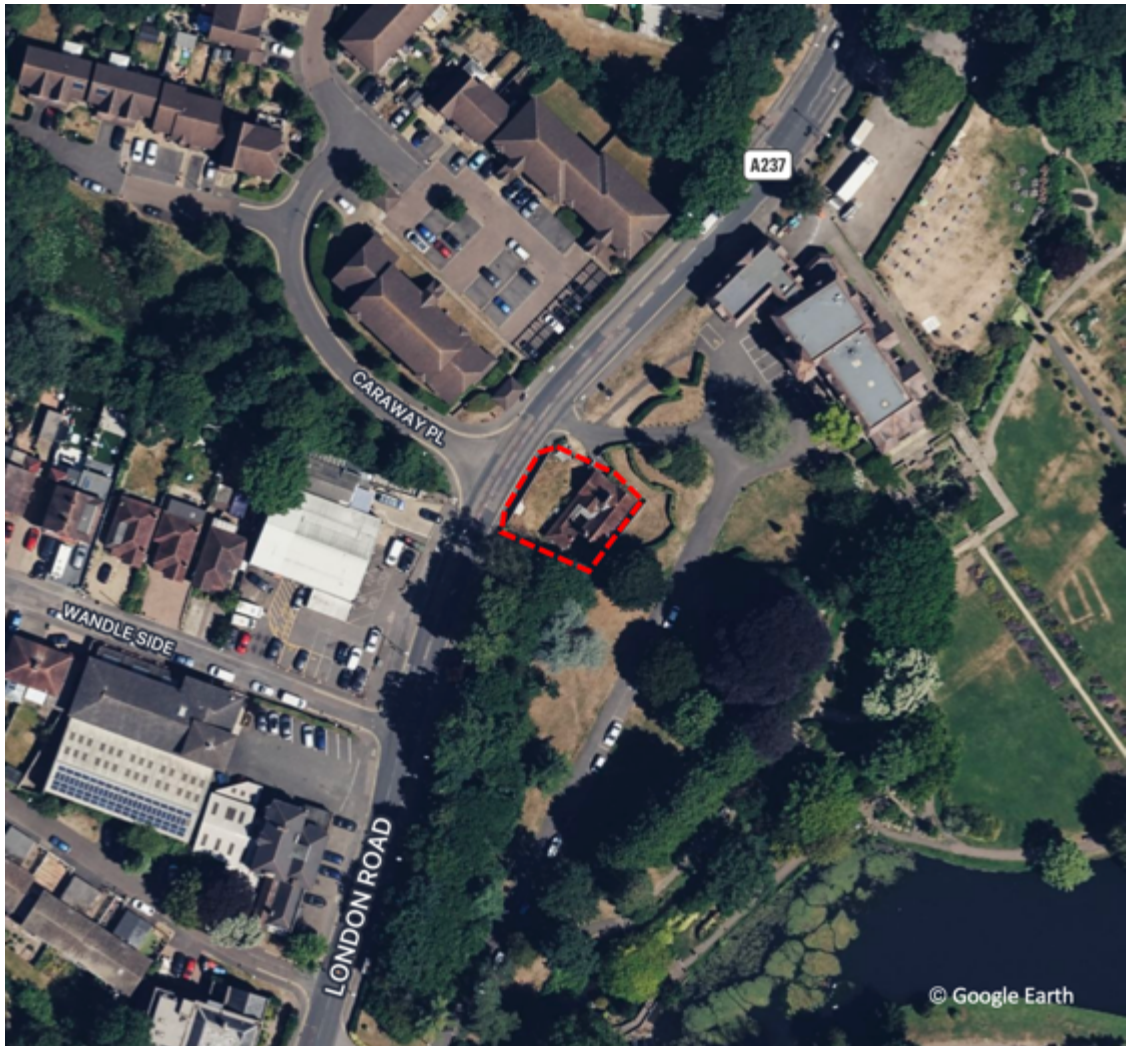
- 1.1 This report presents the findings of two bat evening emergence surveys and a single dawn re-entry survey carried out at the residential property of The Grange, London Road, Hackbridge, LONDON, SM6 7DJ, NGR: TQ 28757 65257.
- 1.2 The survey work used the guidance detailed within Bat Surveys Guidelines for Professional Ecologists – Good Practice Guidelines (BCT 2016) and the Interim Guidance Note on Surveys and Night Vision Equipment (BCT 2022) as the basis to the survey methodology.
- 1.3 A maximum of three soprano pipistrelle were observed emerging and re-entering the southern gable end hanging tiles. Soprano pipistrelle foraging activity was also observed locally as was common pipistrelle, although to a lesser extent. Noctule commuting passes were observed and recorded.
- 1.4 The maximum number of bats present within the application area is likely to be three. These were low numbers of bats and it is not likely to constitute a maternity colony of soprano pipistrelle. The low numbers and species of bat recorded (soprano pipistrelle) were indicative of these being a **day/transitional roost** for low numbers of a common bat species.
- 1.5 The building contained a roost for a commonly occurring bat species that was likely to be a day/transitional roost. In the absence of any licencing and mitigation, disturbance, damage and destruction of this roost would constitute an offence under the Wildlife and Countryside Act 1981. The recommendations outlined within this report, enable the works to proceed under licence, which in this case, the recommended licence would be the Low Impact Class Licence.

## 2 INTRODUCTION

### *Aims and Objectives of this Study*

2.1 This report presents the findings of two bat evening emergence surveys and a single dawn re-entry survey carried out at the residential property of The Grange, London Road, Hackbridge, LONDON, SM6 7DJ, NGR: TQ 28757 65257.

2.2 **Figure 1: Site Location in Wider Landscape**



### **Legal Status of Bats**

2.3 The potential presence of bat roosts within a proposed development site has to be considered as all eighteen of the UK's bat species are protected under Section 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended). The WCA states that '*a person is guilty of an offence if intentionally or recklessly they disturb [a bat] while it is occupying a structure or place which it uses for shelter or protection; or he obstructs access to any structure or place which [a bat] uses for shelter or protection*'.

2.4 Bats are also protected under the Conservation of Habitats and Species Regulations 2017. Bats are listed as European protected species under which it is an offence if;

- *a person deliberately captures, injures or kills any wild animal of a European protected species;*
- *deliberately disturbs wild animals of any such species;*
- *damages or destroys a breeding site or resting place of such an animal.*

2.5 Disturbances of animals include in particular any disturbance which is likely to impair their ability to;

- *survive, breed or reproduce, or to rear or nurture their young;*
- *in the case of animals of a hibernating or migratory species, to hibernate or migrate; or*
- *to affect significantly the local distribution or abundance of the species to which they belong.*

### **3 METHODOLOGY**

3.1 The survey work used the guidance detailed within Bat Surveys Guidelines for Professional Ecologists – Good Practice Guidelines (BCT 2016) and the Interim Guidance Note on Surveys and Night Vision Equipment (BCT 2022) as the basis to the survey methodology. The new bat survey guidance (BCT 2023) had not been released in time for these surveys.

#### ***Lead Surveyor***

3.2 The survey work and reporting has been led by Richard Law BSc MRes CEnv MCIEEM FLS. Richard has been undertaking ecological survey work within the last 20 years on a number of differing locations throughout the United Kingdom for a variety of protected species, including bats (Class 2 2015-12576-CLS-CLS) reptiles, amphibians including great crested newt (*Triturus cristatus*) (Class 1 2016-20290-CLS-CLS) and terrestrial mammals including dormice (2015-13188-CLS-CLS) and birds including barn owl licence (CL29/00236). Richard is also qualified in track and sign and trailing *via* an international system of assessment ([www.trackercertification.com](http://www.trackercertification.com)).

#### ***Bat Records Search***

3.3 A 2km search of bat data has been made from the National Biodiversity Network. A search of the Multi-Agency Governmental Information Centre (MAGIC) was made for previously granted Natural England Mitigation Licences within 2km of the proposed development site.

3.4 **Figure 2: Surveyor Positions**



**Equipment Used**

3.5 Echometer Pro 2 bat detector with iPad processor unit and Bat Box Duet detectors were used to detect bat echolocation. Calls were analysed, when required, identifying species following Russ (2021).

**Survey Type**

3.6 Emergence survey is undertaken to observe bats emerging from roost. This is carried out approximately 30mins before sunset and continues to at least 1.5hours after. Dawn re-entry surveys are normally used when species that are harder to observe such as roof void dwelling species *i.e.* brown long-eared bats (*Plecotus auritus*), have been recorded foraging locally during the evening survey around the emergence time of this species but have not been seen emerging from buildings. This type of survey will then allow re-entry to be observed in better light conditions.

## 4 RESULTS

4.1 This section provides an account of the results from the surveys carried out and from the records search. These findings will inform any further recommendations outlined within this report. Photos of the building can be viewed in Section 7.

### *Historical Records Search*

4.2 **Table 1: Summary of 2km Radius Bat Records Search**

Common Name	Latin Name	Records
Daubenton's Bat	<i>Myotis daubentonii</i>	33
Serotine	<i>Eptesicus serotinus</i>	3
Noctule	<i>Nyctalus noctula</i>	3
Nathusius' pipistrelle	<i>Pipistrellus nathusii</i>	1
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	5
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	60

4.3 Seven species of bat were present within the historical records search. Daubenton's bat had a relatively high number of records, with soprano pipistrelle also having a very high number of records. Serotine and noctule were also present, as was the nationally rare Nathusius' pipistrelle bat with a single record.

### *Granted Mitigation Licences*

4.4 **Table 2: Granted Natural England Mitigation Licences**

Licence Number	Distance and Direction	Species	Type	Date	NGR
2019-38753- EPS-MIT	0.370km southeast	Common Pipistrelle and Soprano Pipistrelle	Destruction of a Resting Place	12/01/2019 to 21/01/2025	TQ 2909 6501
EPSM2012- 4674	1.554km southwest	Brown Long Eared Bat	Destruction of a Resting Place	13/08/2012 to 01/09/2014	TQ 2790 6389



- 4.5 There were two granted mitigation licences within the 2km search radius. These were both for the destruction of resting places. One was for common pipistrelle and soprano pipistrelle and the other was for brown long eared bat.

### **Summary of Surrounding Habitats**

- 4.6 The residential property of the Grange was situated adjacent to an area of landscaped parkland with mature and veteran trees, with a mixture of managed and unmanaged grassland within the surrounding landscape. There were water courses and lakes present within the immediate surroundings. Beyond this parkland, was the urban conurbation of Greater London, and this comprised of the towns of Sutton, Carshalton and Beddington.

### **Survey Meta Data**

- 4.7 **Table 3: Timings and Weather Conditions**

Date	Sunset/ Sunrise	Survey Start and End	Temp	Rain	Wind Speed (Beaufort Scale) and direction
13 <sup>th</sup> June 2023	21:17	21:00 – 23:00	16°C	None	SW 1
13 <sup>th</sup> July 2023	21:12	20:45 – 22:45	19°C	None	S 1
14 <sup>th</sup> August 2023	05:44	03:30 – 06:00	15°C	None	Still

- 4.8 The bat surveys were carried out at a time of year when bat activity is considered to be apparent and within the maternity season (May to July/ August). The weather conditions were appropriate for a bat survey to be carried out.

### **Bat Survey Results**

- 4.9 **Table 4: 13<sup>th</sup> June 2023 – Emergence Survey**

Time	Species	Passes	Activity and Location
21:47	C.pip	1	Very brief pass. Heard not seen
21:49	C.pip	1	Very brief pass. Heard not seen
21:55 – 22:07	S.pip	Multiple	Foraging activity to the east of the survey area around the trees within the adjacent parkland
22:10	Noc	1	Commuting pass high overheard. East – West
22:19	S.pip	1	Very brief pass. Heard not seen
22:26	C.pip	1	Very brief pass. Heard not seen
22:46	C.pip	1	Very brief pass. Heard not seen
C.pip = Common Pipistrelle S.pip = Soprano Pipistrelle			

Noc = Noctule
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4.10 No bats were observed emerging from the building. Common pipistrelle commuting passes were recorded, but not seen. There was a high level of soprano pipistrelle activity to the east of the survey area, over the trees in the adjacent parkland. A single noctule was observed flying high overhead in an east – west direction.

4.11 **Table 5: 13<sup>th</sup> July 2023 – Emergence Survey**

Time	Species	Passes	Activity and Location
21:28	S.pip	1	Emergence from hanging tiles on southern face
21:29	S.pip	1	Emergence from hanging tiles on southern face
21:32 – 21:42	S.pip	14	Foraging to the east of survey area around the trees in the adjacent parkland
22:09	C.pip	1	Brief commuting pass. Heard not seen.
22:24	C.pip	1	Brief commuting pass. Heard not seen.
22:37	C.pip	1	Brief commuting pass. Heard not seen.
S.pip = Soprano Pipistrelle C.pip = Common Pipistrelle			

4.12 Two soprano pipistrelle bats were observed emerging from the hanging tiles on the southern gable end of the main building. Overall, bat activity was relatively low with soprano pipistrelle foraging activity to the east of the survey area and some occasional common pipistrelle passes.

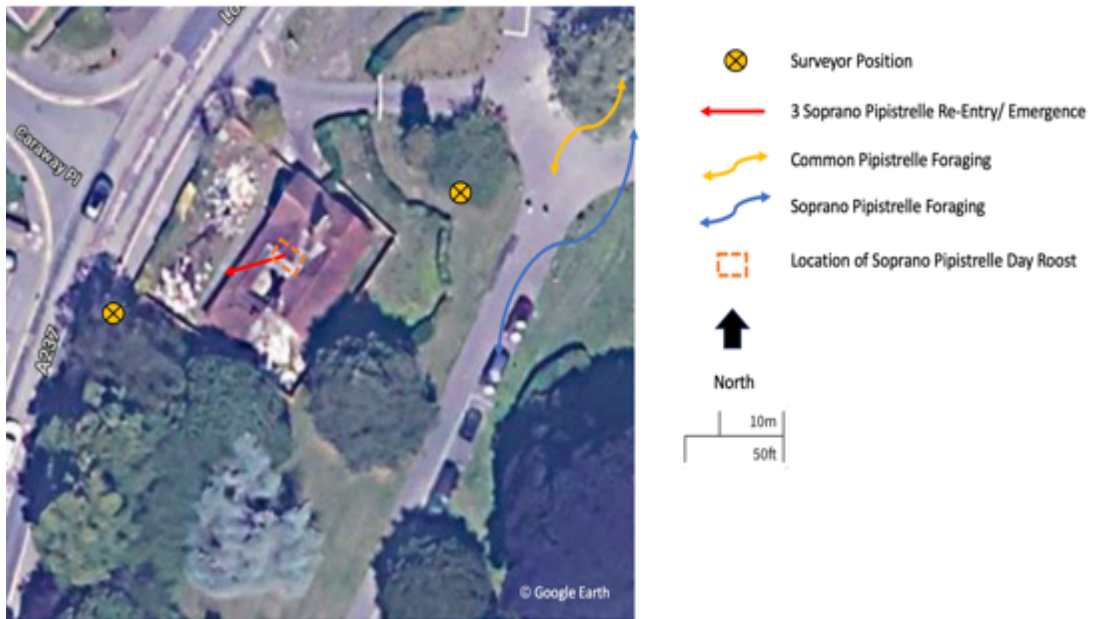
4.13 **Table 6: 14<sup>th</sup> August 2023 – Dawn Re-Entry Survey**

Time	Species	Passes	Activity and Location
03:36	C.pip	1	Brief pass. Heard not seen
04:06	C.pip	1	Brief pass. Heard not seen
04:18	C.pip	1	Brief pass. Heard not seen
04:58	S.pip	1	Re-entry into hanging tiles on southern gable end
05:07	S.pip	1	Re-entry into hanging tiles on southern gable end
05:17	C.pip	1	Brief pass. Heard not seen
S.pip = Soprano Pipistrelle C.pip = Common Pipistrelle			

4.14 Two soprano pipistrelle were observed re-entering the hanging tiles on the southern gable end. This was in the same location of the previous emergence observed. Common pipistrelle were recorded with occasional brief passes. Overall, bat activity was relatively low during this survey.

**Summary of Bat Activity**

4.15 **Figure 3: Bat Activity and Emergence/ Re-Entry Location**



**5 DISCUSSION AND RECOMMENDATION**

5.1 A maximum of three soprano pipistrelle were observed emerging and re-entering the southern gable end hanging tiles. Soprano pipistrelle foraging activity was also observed locally as was common pipistrelle, although to a lesser extent. Noctule commuting passes were observed and recorded.

**Roost Categorisation**

5.2 **Table 7: Roost Type Definitions (BCT 2016)**

<b>Roost Type</b>	<b>Naturel England Definition</b>
<b>Day Roost</b>	A place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer
<b>Night Roost</b>	A place where bats rest or shelter in the night but are rarely found in the day. May be used by a single individual on occasion or it could be used by the whole country
<b>Feeding Roost</b>	A place where individual bats or a few individuals rest or feed during the night but are rarely present by day
<b>Transitional/ Occasional Roost</b>	Used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.
<b>Swarming Site</b>	Where large numbers of males and females gather during later summer to autumn. Appear to be important mating sites.

<b><i>Mating Sites</i></b>	Where mating takes place from late summer and can continue through winter
<b><i>Maternity Roost</i></b>	Where female bats give birth and raise their young to independence
<b><i>Hibernation Roost</i></b>	Where bats may be found individually or together during winter. They have a constant cool temperature and high humidity
<b><i>Satellite Roost</i></b>	An alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.

- 5.3 The maximum number of bats present within the application area is likely to be three. These were low numbers of bats and it is not likely to constitute a maternity colony of soprano pipistrelle. The low numbers and species of bat recorded (soprano pipistrelle) were indicative of these being a ***day/transitional roost*** for low numbers of a common bat species.

#### ***Impact Assessment***

- 5.4 Any works to the building that would impact the location where bats have been found to be roosting would constitute either a disturbance or destruction of the roost present here.
- 5.5 Without mitigation, any impact is likely to be permanent and would result in both the disturbance and likely destruction of the soprano pipistrelle roost. These carried out without licence would constitute an offence under the Wildlife and Countryside Act (1981).

#### ***Mitigation Licencing***

- 5.6 A mitigation licence is required as it is predicted that there will be disturbance of the roosts as a result of the works a mitigation licence is required from Natural England. The licence would require the production of a method statement of works, which would include measures such as hand removal of the roof tiles and any cladding under the supervision of a licenced ecological consultant and the use of bitumen felt, rather than a semi-breathable membrane, under any tiles, so to avoid causing injury or death to bats through entanglement.
- 5.7 Two bat boxes would be installed prior to the works. These could be installed in the adjacent trees and could consist of types that would be specific to the bat species present. For soprano pipistrelle, these would take the form of a Schwegler 2F general purpose bat box installed within adjacent trees. Should any bats be found during the works, then they can be relocated to these.
- 5.8 Replacement roost locations would then be installed into the newly developed areas. These would utilise bat access tiles/ bricks, the type and design would be suitable to the design of any newly constructed location (examples can be viewed in Section 8).

5.9 To account for the foraging activity of bat species within the local area, any lighting installed at the property will conform to the specifications which are outlined within BCT Guidance Note (2018). This will reduce any light pollution would have on nocturnal activity of fauna, namely bat species, some of which are extremely sensitive to light pollution. Light spill into adjacent habitats will be reduced and avoided by the following:

- *All luminaries will lack UV elements; metal halide and fluorescent sources will be avoided,*
- *A warm white light spectrum on external lighting will be adopted (<2700kelvin) to reduce the blue light component,*
- *LED luminaries will be used where a sharp cut off is required to avoid light spill into adjacent habitat,*
- *External luminaries will feature wavelengths higher than 550nm to avoid the component of light most disturbing to bats,*
- *Column heights of external lighting will be limited,*
- *Luminaries will be mounted on the horizontal plane, with no upwards tilt,*
- *Security lighting will be set on motion sensors and on short timers (<1min).*

#### **Summary**

5.10 The building contained a roost for a commonly occurring bat species that was likely to be a day/transitional roost. In the absence of any licencing and mitigation, disturbance, damage and destruction of this roost would constitute a crime under the Wildlife and Countryside Act 1981. The recommendations outlined within this report, enable the works to proceed under licence, which in this case, the recommended licence would be the Low Impact Class Licence.

## 6 REFERENCES

BCT (2016) Bat Survey Guidelines for Professional Ecologist – Good Practice Guidelines

BCT (2022) Interim Guidance: Use of night vision aids for bat emergence surveys and further comment on dawn surveys

BCT (2023) Bat Survey Guidelines for Professional Ecologist 4<sup>th</sup> Edition – Good Practice Guidelines

English Nature (2004) Bat Mitigation Guidelines IN13.6

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HMSO (2017). The Conservation (Natural Habitats, &c). (As amended) Regulations 2017

Mitchell-Jones, T & McLeish, A.P (2004) Bat Workers Manual, Joint Nature Conservation Committee

Russ, J (2021) Bat Calls of Britain and Europe – A Guide to Species Identification. Pelagic Publishing

**7 SURVEYOR VIEWS AND PHOTOS OF BUILDING**

***Plate 1: South Western Surveyor View. S.pip Emergence and Re-Entry Location = White Circle***



***Plate 2: Multiple Gaps Under Roof Tiles***



***Plate 3: North Eastern Surveyor View***



***Plate 4: Northern Face of Buildings***



***Plate 5: Western Gable End***



***Plate 6: North Western View***

