

Cookham Dene, Chislehurst, Kent

Bat Survey and Mitigation Strategy

7th August 2023/ Ref No 2022/11/22

Client: Mr M Benaron



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1 Introduction

Following a 'Preliminary Ecological Appraisal'¹ which identified the risk of bats being present in a dwelling and a coach house (both assessed as having high suitability for roosting bats), and in a garage (low suitability), KB Ecology Ltd was commissioned to undertake night-time bat surveys and provide a suitable mitigation strategy.

1.1 Survey Objectives

The purpose of the survey was to assess the likely impact of the scheme on bats, and to assist in demonstrating compliance with wildlife legislation and planning policy objectives.

The key objectives of this survey were to:

- Confirm the presence / likely absence of bats;
- Confirm the species and usage of the building, if present;
- Provide recommendations for necessary mitigation work.

1.2 Limitations

The findings of this report represent the professional opinion of a qualified ecologist and do not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited in this document.

2 Methodology

The Bat Conservation Trust's guidelines provide a table stating the 'minimum number of presence/absence survey visits required to provide confidence in negative preliminary roost assessment from buildings, built structures and trees in summer.

Table 7.3 Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey ^a (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey. ^b	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. ^b

^a Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case-by-case basis (see Section 5.2.9). If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.

^b Multiple survey visits should be spread out to sample as much of the recommended survey period (see Table 7.1) as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk one is considered only one visit.

¹ Report by KB Ecology, dated 25th April 2023 / Ref No 2022/11/22

Table 7.1 Recommended timings for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability	Moderate roost suitability	High roost suitability
May to August (structures) No further surveys required (trees)	May to September ^a with at least one of surveys between May and August ^b	May to September ^a with at least two of surveys between May and August ^b

Thus a number of emergence surveys were undertaken in May to July 2023 with two to six surveyors (K Bresso², M Austin³, L Hoadley⁴, S Stanley⁵, L Carter-Lilley⁶, A Penny⁷) using Batscanner / Anabat Express / Echo Meter Touch 2 Pro / Batlogger M2 bat detectors⁸. Nightscopes with infra-red light and a Pulsar Quantum thermal imaging scope were also used. Up to three Canon video recorders (XA11 and XA10) on tripod were used to record the surveys (with infrared illuminators).

House	High suitability	3 surveys 6 surveyors	31/05/2023	15/06/2023	13/07/2023
Coach House	High suitability	3 surveys 2 surveyors	14/06/2023	27/06/2023	16/07/2023
Garage	Low suitability	1 survey 2 surveyors	25/07/2023		

3 Results

No bats emerged from the Coach house nor from the garage during the surveys.

Three common pipistrelle bats emerged from the house during the first and second emergence surveys and two during the third emergence survey. In total, five different roosting locations were found.

² CEnv MCIEEM, a qualified professional consultant ecologist with over 20 years of experience², licensed bat surveyor (Class Survey Licence Registration Number 2015-11917-CLS-CLS (CL15 Bat Roost Visitor Level 1) and 2015-11918-CLS-CLS (CL18 Bat Survey Level 2)) and Registered Consultant of the Bat Low Impact Class Licence with Natural England

³ 12 years' experience in bat surveys

⁴ 5 years' experience in bat surveys

⁵ 12 years' experience in bat surveys

⁶ second survey season

⁷ second survey season

⁸ All surveyors were able to take recordings of bat species in either frequency division or full spectrum formats and were equipped with a bat detector that could produce audible bat calls during the survey. Also, at least one experienced surveyor was present on all of the surveys.



4 Legislation

All species of bat are afforded full legal protection under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). They are also listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 and are therefore an EPS). Some species of bats (noctule, soprano pipistrelle, brown long-eared bat, barbastelle) are also listed as species of principal conservation importance⁹.

The first official IUCN Red List for British Mammals shows that four of the 11 mammal species native to Britain classified as being at imminent risk of extinction are bats. These are: greater mouse-eared bat, grey long-eared bat, serotine and barbastelle. A further two species are classified as Near Threatened: Leisler's bat and Nathusius' pipistrelle. The serotine is also an Indicator Species under the Kent Biodiversity Strategy¹⁰.

Bats rarely use the same roosting place all year round as they need different conditions for breeding and hibernating. But bats are creatures of habit and tend to return to the same sites at the same time year after year. For this reason, roosts are legally protected even if bats don't seem to be living there at certain times of year.

The legislation makes it a criminal offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb¹¹ a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat;

⁹ Please note that this legal information is a summary and intended for general guidance only. The original legal documents should be consulted for definitive information.

¹⁰ <http://kentnature.org.uk/uploads/files/Nat-Env/Kent%20Biodiversity%20Strategy%202020.pdf>

¹¹ Disturbance, as defined by the Conservation of Habitats and Species Regulations 2010, includes in particular any action which impairs the ability of animals to survive, breed, rear their young, hibernate or migrate (where relevant); or which affects significantly the local distribution or abundance of the species.

- Intentionally or recklessly obstruct access to a bat roost.

For more information, Natural England have produced a Standing Advice Species Sheet available at <https://www.gov.uk/bats-protection-surveys-and-licences>

5 Impact and Mitigation Strategy

5.1 Coach house and garage

The Coach house and garage buildings are not considered as being used as a bat roost and no mitigation or licence is expected to be needed prior to their demolition/ conversion¹².

5.2 Dwelling

The house is not used as a maternity roost but is used as a day roost by a small number of common pipistrelle bats, a common species. Thus:

1. the roost should be regarded as being of low conservation significance as referred in the 'Bat Mitigation Guidelines' (English Nature, 2004).
2. the following mitigation strategy should be followed to ensure the local bat population stays at a favourable conservation status and include the mitigation/compensation requirements suggested in the 'Bat Mitigation Guidelines' (English Nature, 2004):

*'Flexibility over provision of bat boxes,
access to new buildings etc.
No conditions about timing or monitoring'.*

The development needs to satisfy the requirements of the 'mitigation hierarchy' to maintain the continued ecological functionality of the site, through appropriate mitigation if needed; this hierarchy means:

1. Avoidance of any impacts should be the first consideration¹³,
2. The next step is mitigation of any impacts that cannot be avoided; where significant harm cannot be wholly or partially avoided, it should be minimised by design or by the use of effective mitigation measures¹⁴;
3. And lastly compensation¹⁵ should be used to off-set unavoidable remaining impacts.

¹² Updated surveys should be carried out every two years, to check that usage hasn't changed, prior to works taking place.

¹³ Avoidance is always the preferred form of mitigation. It involves steps taken to avoid deliberate killing, injury or disturbance to bats and to existing roosts. The great majority of roosts are used only seasonally so there is usually some period when bats are not present and works can occur without impacting bats. It may also be possible to 'design out' the impacts of a development by retaining the roosting site and building around it, as well as commuting routes to and from the roost.

¹⁴ Mitigation refers to measures to protect the bat population from damaging activities and to reduce or remove the impact of development (for example, by carrying out works to a summer roost site when bats aren't present in the winter).

¹⁵ Compensation refers to the offsetting of remaining impacts in the form of roost creation, restoration or enhancement as a result of loss of breeding or resting places (for example, by building a new roosting site when the original roosting site is lost through demolition of a building).

The proposed works involve the re-roofing of the house. Thus it is recommended that:

- A least two Large Multi Chamber WoodStone Bat Boxes (or equivalent) should be installed onto retained trees prior to dismantling works starting to provide continued roosting opportunities locally during the works;
- Under bat mitigation licences, only safe roofing membranes can be used where bats are likely to roost. As bats are likely to come back roosting under the clay tiles (once re-instated), the use of a safe roofing membrane will likely be a licence requirement¹⁶.
- Gaps should be reinstated under at least ten tiles throughout the whole roof to allow bats access between the tiles and felt (by raising a tile using a timber batten and thus creating a gap that is 20mm wide by at least 50mm long).

Once a licence is in place, the roof dismantling shall be done as such:

- Briefing to contractors – A toolbox talk will be delivered to contractors in advance of works commencing on site. This will include information on relevant legislation relating to bats, and contractor's responsibilities. It will also include confirmed bat roosts proposed for retention during works and the protection measures to be enforced.
- Supervision by a licensed bat handler – Any works affecting suitable roosting opportunities will be undertaken under the supervision of a licensed bat handler. Soft techniques will be employed, with dismantling carried out by hand in a vertical rather than horizontal sliding motion checking for roosting bats, under the supervision of a licensed bat handler.
- If any bats are found during the dismantling works, they will be captured by hand, by the licenced bat worker, checked for injury and released at the site in the evening on the same day (depending on weather conditions, should weather conditions be bad, the bat would be kept in captivity by the licence holder for as little time as possible, until suitable weather conditions) or transferred to a suitable bat box which will be plugged for a short period of time to allow the bat to become acclimatised to the box.
- The licenced bat worker will decide how long to supervise the works or whether to stay 'on-call' once the works have started. If a bat is discovered at other unsupervised times, work will cease immediately, and the licensed ecologist will be called for advice. This advice will include leaving the bat to disperse of its own accord or wait for the licensed ecologist to appear and move the bat. Builders and contractors are explicitly forbidden from handling bats.

Besides, as lighting can be detrimental to roosting, foraging and commuting bats¹⁷, the recommendations from the Bat Conservation Trust and the Institution of Lighting Professionals, titled 'Guidance Note 8 Bats and Artificial Lighting'¹⁸, should be considered, when designing any lighting scheme for the proposed development.

¹⁶ This means including a certificate that proves the roofing membrane has passed a 'snagging propensity test' if you're using a non-bitumen coated roofing membrane. A snagging propensity test checks that the membrane can stand the repeated snagging actions of roosting bats. To pass, a membrane must show no change in the average number of loops per cm² as rotations are increased from 0 to 1000. You do not need a certificate for bitumen 1F felt that has a non-woven, short fibre construction.

¹⁷ http://www.bats.org.uk/pages/bats_and_lighting.html and <http://www.batsandlighting.co.uk/index.html> for more information

¹⁸ <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

5.2.1 Need for application for a EPSM licence or for registration of the site under a Bat Low Impact Class Licence

As the proposed works would result in bat disturbance and changes to bat roosts, the works should only be undertaken once a licence is in place for the project, which can be done as below:

- A. A Bat Mitigation Licence (A13) could be sought from Natural England to permit the proposed works. An application would need to be prepared and submitted to Natural England for determination, once full planning permission has been granted. A decision on the application would be made by Natural England within 30 days of receipt (although it has taken Natural England considerably more time in the last two years). The licence application would need to include full details of the proposed ecological mitigation / compensation and a program for these works.
- B. Alternatively, a Registered Consultant of the bat 'low impact' licence (CL21)¹⁹ could register the site under their licence to undertake the works; i.e.:
 - To disturb and capture up to 3 'common or widespread' bat species (which are those listed in each annex);
 - To damage or destroy up to 3 'low conservation status roosts' (these are: feeding, day, night and transitional roosts);
 - If the project has a low or temporary impact on bats or their roosts.
 - If the dismantling works (i.e. works impacting bats) would last a maximum of six months.

In all cases, the species protection provisions of the Habitats Directive, as implemented by the Conservation of Habitats and Species Regulations 2017, contain three "derogation tests" which must be applied by Natural England when deciding whether to grant a licence to a person carrying out an activity which would harm a European Protected Species.

For development activities, this licence is obtained after planning permission has been obtained. The three tests are that:

- the activity to be licensed must be for imperative reasons of overriding public interest or for public health and safety;
- there must be no satisfactory alternative; and
- favourable conservation status of the species must be maintained.



More information is present in:

<https://www.gov.uk/government/publications/bats-apply-for-a-mitigation-licence>
<http://publications.naturalengland.org.uk/publication/113030?category=8004>

Please note that the bat surveys used for licence application need to have been conducted within the current AND/OR most recent optimal season and need to follow the Bat Conservation Trust's guidelines.

¹⁹ <https://www.gov.uk/government/publications/bats-licence-to-interfere-with-bat-roosts-cl21>

Proposed Timeline:

Installation of bat boxes on trees	 EPS licence granted	
	Dismantling of bat roosting features under watching brief by licensed ecologist	
		Re-roofing starting with insertion of roosting features under tiles

Appendix A – Night-time Bat Survey Results

Dwelling:



Site Name and Building Number	Cookham Dene, Chislehurst	Surveyor Name / Equipment	Steve Stanley / Batlogger M2
Weather Conditions	100% Cloud, Wind 3, Rain 0	Date	31st May 2023
Start Time	20:50	Finish Time	22:35
Air Temperature (°C) at Start of Survey	13	Air Temperature (°C) at End of Survey	12
Sunset	21:05	Sunrise	

Position: NW corner

Time	Species	Activity*	Comments
21:34	Pip 55	C	Brief and distant pass, not seen.

**Activity - 'E' = emergence; 'R' = return; 'F' = foraging; 'C' = commuting **'S' = seen; 'NS' = not seen

*species	common pip	45 pip	Serotine	Ser
	soprano pip	55 pip	Leisler's	Lei
	brown-long	BLE	Daubenton's	Dau
	Myotis sp	Myo	Nathusius' p	Nat
	Noctule	Noc		

Site Name and Building Number	House at Cookham Dene, Cookham Dene Close	Surveyor Name / Equipment	Megan Austin, Elekon Batscanner, Anabat express (D1), Canon XA10
Weather Conditions	100% cloud, moderate wind	Date	31.05.2023
Start Time	20:50	Finish Time	22:35
Air Temperature (°C) at Start of Survey	13	Air Temperature (°C) at End of Survey	11
Sunset	21:05	Sunrise	

Time	Species	Activity*	Comments
21:22	45 pip	E	From roof then west, video doesn't show emergence clearly but bat flies from roof (out of shot) and no-one else had a bat so it must have emerged
21:30	45pip	F	from east along hedge and then intermittent foraging
21:38	45pip	CNS	
21:56	pip sp.	CNS	
22:28	55pip	CNS	

Site Name and Building Number	House at Cookham Dene, Chislehurst, BR7	Surveyor Name / Equipment	Liam Hoadley/Echo Meter Touch 2 Pro
Weather Conditions	cloud - 100% wind - 2 slight wind rain - 0	Date	31/05/2023
Start Time	20:50	Finish Time	22:35
Air Temperature (°C) at Start of Survey	13	Air Temperature (°C) at End of Survey	12
Sunset	21:05	Sunrise	N/A

position around building: S side

Time	Species*	Activity**	Comments
21.31	45 pip	C	S, flew SE to NW past SW corner, 1 bat, 1 pass, flew back 1 min later
21.34	45 pip	C	S, flew SE to NW past SW corner, 1 bat, 1 pass, flew back 1 min later
21.38	45 pip	C	S, flew E to W along guttering, 1 bat, 1 pass
21.40	45 pip	E	S, from SW corner



Site Name and Building Number	House at Cookham Dene, Chislehurst, BR7		Surveyor Name / Equipment	K Bresso / Batlogger M
Weather Conditions	cloud - 100% wind - 2 slight wind rain - 0		Date	31/05/2023
Start Time	20:50		Finish Time	22:35
Air Temperature (°C) at Start of Survey	13		Air Temperature (°C) at End of Survey	12
Sunset	21:05		Sunrise	N/A
position around building: East side				
Time	Species*	Activity**	Comments	
21:33	45 pip	E	above middle first floor window	
21:38	45 pip	C	commuting from back garden towards Liam	
21:41	45 pip	C	commuting from back garden towards Liam	
22:10	Noc	CNS		



Site Name and Building Number	Cookham Dene, Chislehurst		Surveyor Name / Equipment	Alyx Penny / Echo Meter Touch 2 Pro
Weather Conditions	100% Cloud, Wind 3, Rain 0		Date	31.5.23
Start Time	20:50		Finish Time	22:35
Air Temperature (°C) at Start of Survey	13		Air Temperature (°C) at End of Survey	12
Sunset	21:05		Sunrise	
Position: East side				
Time	Species	Activity*	Comments	
21:33	C.Pip	E	Above window in middle of East side, to the east off site (same as Katia)	
21:38	C.Pip	NS	From S towards W (reported by other surveyors)	
22:10	Noc	NS		

Site Name and Building Number	Cookham Dene, Chislehurst		Surveyor Name / Equipment	L Carterlilley / Echo Meter Touch 2 Pro
Weather Conditions	100% Cloud, Wind 3, Rain 0		Date	31.5.23
Start Time	20:50		Finish Time	22:35
Air Temperature (°C) at Start of Survey	13		Air Temperature (°C) at End of Survey	12
Sunset	21:05		Sunrise	
Position: north elevation				
Time	Species	Activity*	Comments	
21:34	55Pip	CNS		
21:38	45pip	CNS		
22:09	NOC	CNS		



Site Name and Building Number	House at Cookham Dene, Chislehurst, BR7	Surveyor Name / Equipment	Liam Hoadley/Echo Meter Touch 2 Pro
Weather Conditions	cloud - 0% wind - v.light wind rain - 0	Date	15/06/2023
Start Time	21:02	Finish Time	22:47
Air Temperature (°C) at Start of Survey	20	Air Temperature (°C) at End of Survey	17
Sunset	21:17	Sunrise	N/A
position around building:		NW corner (driveway)	
Time	Species*	Activity**	Comments
no bats recorded			

Site Name and Building Number	Cookham Dene, Chislehurst, BR7 5QD	Surveyor Name / Equipment	Megan Austin, Elekon Batscanner, EMT Pro, Canon XA10
Weather Conditions	0% cloud, v.light wind	Date	15.06.2023
Start Time	21:02	Finish Time	22:47
Air Temperature (°C) at Start of Survey	20	Air Temperature (°C) at End of Survey	17
Sunset	21:17	Sunrise	
South west corner			
Time	Species	Activity*	Comments
21:49	55pip	C	from north over roof
21:51	55pip	F	South to north then intermittent foraging
21:56	45pip	F	intermittent foraging
22:05	55pip	F	around roof and close to building

Site Name and Building Number	Cookham Dene, Chislehurst		Surveyor Name / Equipment	Steve Stanley / Batlogger M2
Weather Conditions	0% Cloud, Wind 1, Rain 0		Date	15th June 2023
Start Time	21:02	Finish Time	22:47	
Air Temperature (°C) at Start of Survey	20	Air Temperature (°C) at End of Survey	17	
Sunset	21:17	Sunrise		
Position:	South of building.			
Time	Species	Activity*	Comments	
21:46	Pip 45	F	F in garden south of building for 7 mins.	
21:50	Pip 55	F	F in garden south of building for 2 mins.	
21:55	Pip 45	E	E from chimney stack SE corner of house then brief F in south garden.	
21:57	Pip 45	F	Brief F in garden.	
22:00	Tawny Owl	C	Tawny owl C along south elevation of building, from east to west.	
22:03	Pip 45	F	Brief F in garden.	
22:10	Pip 45	F	Brief F nearby, not seen.	
22:15	Pip 45	F	Brief F in garden.	
22:28	Pip 45	C	Brief pass, not seen.	
22:37	Pip 45	F	F in garden south of building for 2 mins.	



Site Name and Building Number	Cookham Dene, Chislehurst		Surveyor Name / Equipment	Lewis Carter-Lilley / Elekon BatScanner
Weather Conditions	0% Cloud, Wind 1, Rain 0		Date	15/6/23
Start Time	21:02	Finish Time	22:47	
Air Temperature (°C) at Start of Survey	20	Air Temperature (°C) at End of Survey	17	
Sunset	21:17	Sunrise		
Position:	East side (garden)			
Time	Species	Activity*	Comments	
21:35	Pip 45	E	from around chimney stack (see photo)	
21:44	Pip 45	E	above window over balcony (same as Alyx)	
21:46-22:18	Pip 45	F	Flying between hedgerows (south east corner of house)	
22:39	Pip 45	F	Flying between hedgerows (south east corner of house)	



Site Name and Building Number	Cookham Dene, Chislehurst	Surveyor Name / Equipment	Alyx Penny / Echo Meter Touch 2 Pro
Weather Conditions	0% Cloud, Wind 1, Rain 0	Date	15/6/23
Start Time	21:02	Finish Time	22:47
Air Temperature (°C) at Start of Survey	20	Air Temperature (°C) at End of Survey	17
Sunset	21:17	Sunrise	
Position:	East side (garden)		
Time	Species	Activity*	Comments
21:35	c.pip	NS	possibly emerging on the south side near the chimney
21:44	c.pip	E	above window in the middle of E side, above gutter.
21:47	c.pip	NS	to SE, obscured by tree
21:53	c.pip	F	to SE, obscured by tree
21:58	c.pip	NS	to SE, obscured by tree
22:01	c.pip	F	around garden, off to field E

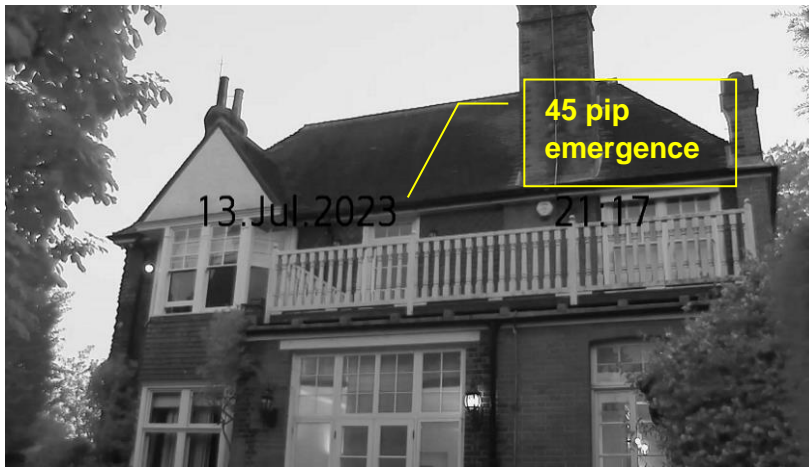


Site Name and Building Number	House at Cookham Dene, Chislehurst, BR7	Surveyor Name / Equipment	Liam Hoadley/Echo Meter Touch 2 Pro
Weather Conditions	cloud - 10% wind - light wind rain - 0	Date	13/07/2023
Start Time	20:57	Finish Time	22:42
Air Temperature (°C) at Start of Survey	18	Air Temperature (°C) at End of Survey	17
Sunset	21:12	Sunrise	N/A
position around building:		SW corner	
Time	Species*	Activity**	Comments
21.27	45 pip	E	S, flew North to South from apex of rook right hand side on south facing part of house. Maybe emerged along roof out of site and then flew south
21.33	45 pip	C	S, flew West to Southwest from hedge
21.59	45 pip	F	S, foraging from south side flying clockwise around building
22.11	45 pip	F	NS, faint pass
22.16	45 pip	F	S, flew Northwest to Southeast from hedge towards Steve

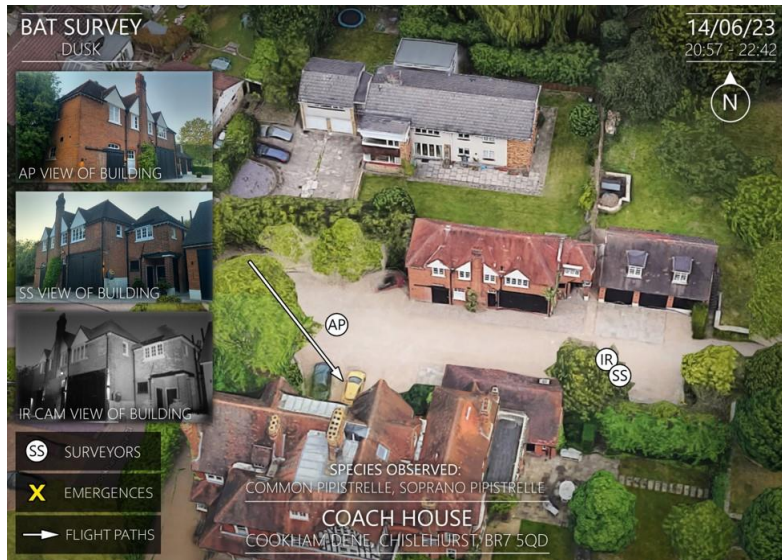
Site Name and Building Number	Cookham Dene, Chislehurst	Surveyor Name / Equipment	Steve Stanley / Batlogger M2, Canon XA11
Weather Conditions	10% Cloud, Wind 1, Rain 0	Date	13th July 2023
Start Time	20:57	Finish Time	22:42
Air Temperature (°C) at Start of Survey	18	Air Temperature (°C) at End of Survey	17
Sunset	21:12	Sunrise	
Position:	South of building.		
Time	Species	Activity*	Comments
21:27	Pip 45	C	Brief pass, not seen.
21:33	Pip 45	C	Brief pass, not seen.
21:42	Pip 55	F	In garden south of building briefly.
21:58	Pip 45	F	In garden south of building for 2 mins.
22:05	Pip 55	C	Brief pass, not seen.
22:11	Pip 45	F	In garden south of building for 1 min.
22:15	Pip 45	F	In garden south of building for 1 min.

Site Name and Building Number	Cookham Dene, Chislehurst	Surveyor Name / Equipment	Alyx Penny / Echo Meter Touch 2 Pro
Weather Conditions	10% Cloud, Wind 1, Rain 0	Date	13/7/23
Start Time	20:57	Finish Time	22:42
Air Temperature (°C) at Start of Survey	18	Air Temperature (°C) at End of Survey	17
Sunset	21:12	Sunrise	
Position:	East side (garden), SE corner		
Time	Species	Activity*	Comments
21:18	45 pip	E	emerged from hole under tiles, above gutter of middle upstairs window (same as Megan)
21:22	45 pip	NS	
22:00	45 pip	NS	possibly foraging in trees
22:30	45 pip	F	around roof, didn't see origin or where it went
22:35	55 pip	F	from NE to E, between roof and tree, then off SE

Site Name and Building Number	Cookham Dene, Chislehurst, BR7 5QD	Surveyor Name / Equipment	Megan Austin, Elekon Batscanner, Anabat D1, Canon XA10
Weather Conditions	10% cloud, light wind	Date	13.07.2023
Start Time	20:57	Finish Time	22:42
Air Temperature (°C) at Start of Survey	18	Air Temperature (°C) at End of Survey	17
Sunset	21:12	Sunrise	
Position:	north-east corner		
Time	Species	Activity*	Comments
21:17	45pip	E	From above and right of middle window (same as Alyx)
21:22	45pip	C	from the east over roof towards Lewis
21:24 onwards	45pip	F	intermittent foraging to the north and east



Coach House and Annex:



Site Name and Building Number	Coach House, Cookham Dene, Chislehurst	Surveyor Name / Equipment	Steve Stanley / Batlogger M2
Weather Conditions	0% Cloud, Wind 1, Rain 0	Date	14th June 2023
Start Time	20:57	Finish Time	22:42
Air Temperature (°C) at Start of Survey	16	Air Temperature (°C) at End of Survey	14
Sunset	21:12	Sunrise	

Position: South east corner of building.

Time	Species	Activity*	Comments
21:42	Pip 55	C	Distant pass, not seen.
22:12	Pip 55	C	Distant pass, not seen.

Site Name and Building Number	Coach House, Cookham Dene, Chislehurst	Surveyor Name / Equipment	Alyx Penny / Echo Meter Touch 2 Pro
Weather Conditions	0% Cloud, Wind 1, Rain 0	Date	14/6/23
Start Time	20:57	Finish Time	22.42
Air Temperature (°C) at Start of Survey	16	Air Temperature (°C) at End of Survey	14
Sunset	21:12	Sunrise	

Position: SW corner

Time	Species	Activity*	Comments
22:10	c.pip	C	from W to S towards main house

Site Name and Building Number	Coach House, Cookham Dene, Chislehurst		Surveyor Name / Equipment	Alyx Penny / Echo Meter Touch 2 Pro
Weather Conditions	80% Cloud, Wind 2, Rain 0		Date	27.6.23
Start Time	21:03		Finish Time	22:48
Air Temperature (°C) at Start of Survey	20		Air Temperature (°C) at End of Survey	19
Sunset	21:18		Sunrise	
Position:	North west			
Time	Species	Activity*	Comments	
22:05	55 Pip	C	east to west along south of building	
22:08	55 Pip	F	south west of building	

Site Name and Building Number	CoachHouse at Cookham Dene, Chislehurst		Surveyor Name / Equipment	Liam Hoadley/Echo Meter Touch 2 Pro
Weather Conditions	10% Cloud, Wind 1, Rain 0		Date	06/07/2023
Start Time	21:02		Finish Time	22:47
Air Temperature (°C) at Start of Survey	21		Air Temperature (°C) at End of Survey	16
Sunset	21:17		Sunrise	N/A
position around building:	SW corner (driveway)			
Time	Species*	Activity**	Comments	
21.20	45 pip	F	S, East of driveway by trees foraging briefly then flew South, 1 bat	
21.26	45 pip	C	S, flew North to South along East edge of coach house, 1 bat,	
22.09	45 pip	F	NS, few passes	
22.18	45 pip	C	S, along east side of coachhouse top of driveway briefly	

Site Name and Building Number	Coach House, Cookham Dene, Chislehurst		Surveyor Name / Equipment	Steve Stanley / Batlogger M2 and Canon XA
Weather Conditions	10% Cloud, Wind 1, Rain 0		Date	6th July 2023
Start Time	21:02		Finish Time	22:47
Air Temperature (°C) at Start of Survey	21		Air Temperature (°C) at End of Survey	16
Sunset	21:17		Sunrise	
Position:	North east			
Time	Species	Activity*	Comments	
21:19	Pip 45	F	From north, brief F east end of building, then C south.	
21:26	Pip 45	C	From north to south past east side of building.	
21:41	Pip 45 x2	C	From south to north past east side of building.	
22:09	Pip 45	C	From west to east along south side of building.	
22:19	Pip 45	C	From north to south over building.	
22:21	Pip 45	F	Brief F east of building.	

Garage:



Site Name and Building Number	Garage, Cookham Dene, Chislehurst	Surveyor Name / Equipment	Alyx Penny / Echo Meter Touch 2 Pro
Weather Conditions	70% Cloud, Wind 2, Rain 0	Date	25/7/23
Start Time	20:43	Finish Time	22:28
Air Temperature (°C) at Start of Survey	19	Air Temperature (°C) at End of Survey	17
Sunset	20:58	Sunrise	
Position:	SE corner		
Time	Species	Activity*	Comments
21:12	45 pip	C	from W to E via N of building, just above roofline, then off to S
21:15	45 pip	F	from S to N below roofline via E of building
21:23	45 pip	NS	foraging nearby
21:36	45 pip	NS	
21:38	45 pip	NS	
21:50	45 pip	NS	
21:52	45 pip	NS	
21:54	45 pip	F	from S of building to W over roofline, then foraging to SE until 21:55
22:14	45 pip	NS	

Site Name and Building Number	Garage, Cookham Dene, Chislehurst		Surveyor Name / Equipment	Steve Stanley / Batlogger M2 and Canon XA
Weather Conditions	70% Cloud, Wind 2, Rain 0		Date	25th July 2023
Start Time	20:43		Finish Time	22:28
Air Temperature (°C) at Start of Survey	19		Air Temperature (°C) at End of Survey	17
Sunset	20:58		Sunrise	
Position:	North West corner			
Time	Species	Activity*	Comments	
21:13	Pip 45	C	From NW to E past north side of building.	
21:15	Pip 45	C	From NW to E past north side of building.	
21:31	Pip 45	C	Distant pass, not seen.	
21:36	Pip 45	F	Brief F north of garage, then CNE.	
21:53	Myotis	F	Brief F nearby, not seen.	
22:14	Pip 45	F	Brief F nearby, not seen.	