

Russettings & Lytlewood, Riding Lane, Hildenborough, Kent

Bat Survey and Mitigation Strategy

20th July 2023 / Ref No 2023/03/16

Client: The Estate of Pamela Olley



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1 Introduction

Following a 'Preliminary Ecological Appraisal' which identified the risk of bats being present in two dwellings (assessed as having moderate suitability for roosting bats), 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 g	ive 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 ^e (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 reentry survey. The third visit could be either dusk or dawn. ⁵		



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.

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 6th June 2023 / Ref No 2023/03/16

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

Two emergence surveys and one dawn re-entry were undertaken for each building in May-July 2023 with two surveyors for each building (K Bresso², M Austin³, T Austin⁴, L Hoadley⁵, L Carter-Lilley⁶) using Bat Box Duet / Batscanner / Anabat Express / Echo Meter Touch 2 Pro / Batlogger M bat detectors⁷. Nightscopes with infra-red light and a Pulsar Quantum thermal imaging scope were also used. A Canon XA11 video recorder on tripod was used to record the survey (with infrared illuminators).

3 Results

During the May 2023 survey, no bats were seen emerging from the buildings.

During the June 2023 emergence survey, one common pipistrelle bat was seen emerging from Lyttlewood and one common pipistrelle bat and two brown long-eared⁸ bats seen emerging from Russetting.

During the July 2023 dawn re-entry survey, no bats were seen returning to any of the buildings.

This means that the dwellings are used as day⁹ roosts by a low number of brown long-eared and common pipistrelle bats.

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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 2 years' experience in bat surveys

⁵ 5 years' experience in bat surveys

⁶ second survey season

⁷ 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.

⁸ It is expected that it is brown long-eared bat (rather than grey) as the site is not coastal (being in-land in the middle of Kent) and there hasn't been any records of grey long-eared bats since the 1960's in Kent. This may need to be verified via DNA analysis of droppings although none have been found to date.

⁹ 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.

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 importance ¹⁰.

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 Strategy¹¹.

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 disturb¹² 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;
- 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

The dwellings are not used as a maternity roost but are used as a day roost by a small number of brown long-eared and common pipistrelle bats, both 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,

¹⁰ 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.

¹¹ http://kentnature.org.uk/uploads/files/Nat-Env/Kent%20Biodiversity%20Strategy%202020.pdf

¹² 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.

access to new buildings etc. No conditions about timing or monitoring'.

5.1 Mitigation Strategy

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.

For the proposed development, avoidance of bat impact would mean that demolition of the dwellings could not be carried out, which would make the proposed development uneconomical and thus isn't an option. Therefore mitigation and compensation measures¹⁶ are proposed below to maintain the conservation status of bats on site in the long-term.

Thus it is recommended that:

- Two bat boxes should be installed onto retained trees prior to conversion works starting to provide continued roosting opportunities locally during the works;
- A stand-alone bat room should be created along the north boundary, near trees, away from disturbance and lighting.
- Two 'Build-in Wood Stone Bat Boxes' (or similar) should be integrated in the fabric of south elevation of Plot 3 and west elevation of Plot 1 to provide long-term roosting habitat (as high as possible but not directly above windows to avoid droppings).

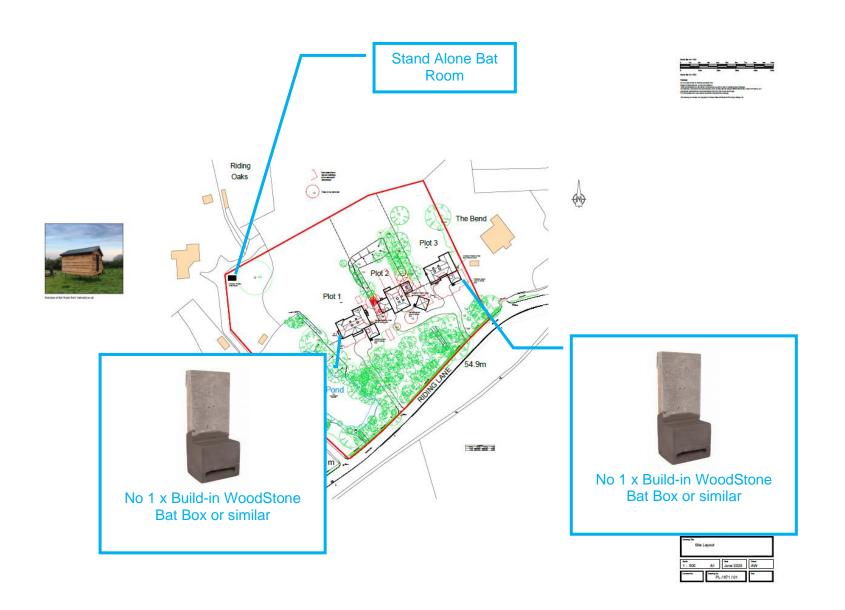
1

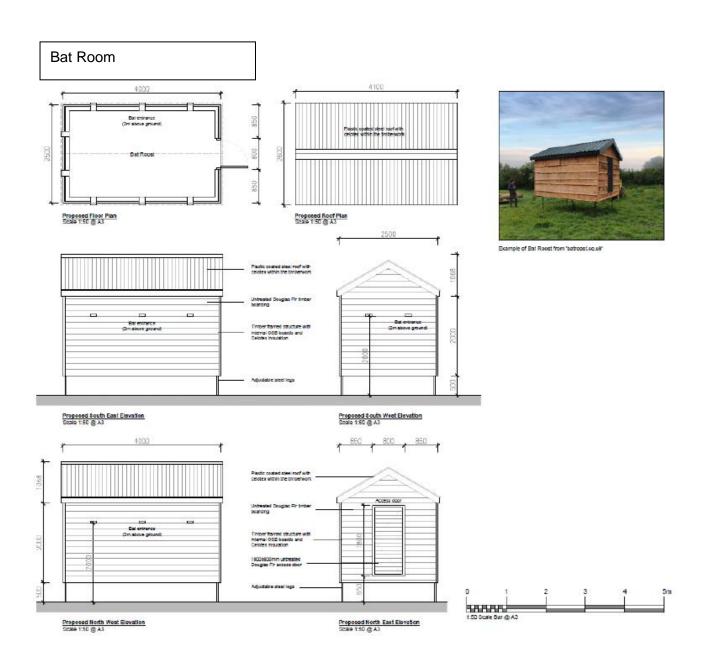
¹³ Avoidance is always the preferred form of mitigation. It involves steps taken to avoid deliberate killing, injury or disturbance to bats and to existing roosts. The great majority of roosts are used only seasonally so there is usually some period when bats are not present and works can occur without 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).

¹⁶ If a roosting site cannot be retained in situ or will be modified by development or maintenance works, then the works must ensure the roost must be restored to its former roosting opportunities or re-created to mimic the roost lost.





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Once a licence is in place, dismantling prior to demolition 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.
- The soft strip of the building will <u>not start during the hibernation period</u> (which extends between November and March included).
- <u>Supervision by a licensed bat handler</u> 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.

Should landscaping be proposed, it should include species known to benefit bats (as per the document 'Encouraging Bats' by the Bat Conservation Trust¹⁷), such as planting of hawthorn, hazel, honeysuckle, hornbeam, jasmine, rowan, silver birch, buddleia, common alder, dog rose, elder, English oak, gorse, guelder rose.

Besides, as lighting can be detrimental to roosting, foraging and commuting bats¹⁸, the recommendations from the Bat Conservation Trust and the Institution of Lighting Professionals, titled 'Guidance Note 8 Bats and Artificial Lighting'¹⁹, should be considered, when designing any lighting scheme for the proposed development.

5.2 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 the loss of 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

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¹⁷ http://www.bats.org.uk/publications detail.php/231/encouraging bats

¹⁸ http://www.bats.org.uk/pages/bats_and_lighting.html and http://www.batsandlighting.co.uk/index.html for more information

¹⁹ https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/

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 Bat Earned Recognition (ER) Class Licence could register the site under their licence to undertake the works²⁰.
- C. Alternatively, if the hibernation check shows that the barn is not used for hibernation, a Registered Consultant of the bat 'low impact' licence (CL21)²¹ 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.

²⁰ https://www.bats.org.uk/our-work/project-collaborations-partnerships/earned-recognition-project

²¹ 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	
		Building demolition and construction starting with insertion of integrated bat boxes and construction of bat room

Appendix A – Night-time Bat Survey Results



Site Name and	Building Numbe	Russettings, Riding Lane, Hildenborough			Surveyor Name	e / Equipment	Steve Stanley / Batlogger M2		
Weather Conditions		90% Cloud, Wind 1, Rain 0			Date		16th May 2023		
Start Time							22:14		
Air Temperatu of Survey	re (°C) at Start	13			Air Temperature (°C) at End of Survey		11		
Sunset		20:44			Sunrise				
Position:	NW of build	ing							
Time	Species	Activity*		Comments					

ime	Species	Activity*	Comments					
21:15	Pip 45	С	Brief pass, not seen.					
21:21	BLE	F	rief F along north side of building, from NE and back again.					
21:33	BLE	F	Brief F along north side of building, from NE and back again.					
21:43	Pip 45	С	Distant pass, not seen.					
21:46	Pip 45	С	From south to north past west side of building.					
21:53	Pip 45	F	Brief and distant F, not seen.					
Activity - 'E'	emergence; 'F	R' = return; 'F' =	foraging; 'C' = commuting *'S' = seen; 'NS' = not seen					

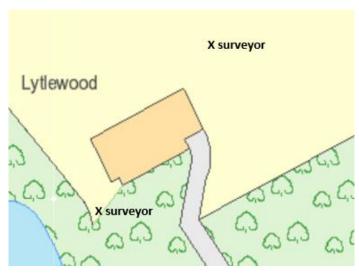
Site Name and Building Numbe Russettings, R			Riding Lane, Hildenborou	igh Surveyor Name / E	Surveyor Name / Equipment Al yx Penny /		nny / Echo Meter Touch 2 Pro	
Weather Conditions 90% Cloud, W			/ind 1, Rain 0	Date		16.5.23		
Start Time		20:29		Finish Time		22:14		
Air Temperat of Survey	ure (°C) at Start	13		Air Temperature (° Survey	°C) at End of	11		
Sunset		20:44		Sunrise				
Position:	South East c	orner						
Time	Species	Activity*		C	Comments			
21:01	C. Pip	F	Foraging around treelin	e to SE of building, fro	m SW to E ir	n front garden		
21:03	C. Pip	NS	Heard clearly					
21:09	C. Pip	NS	Heard clearly					
21:15	C. Pip	F	came from SW into from	t garden, circled garde	n anti-clock	wise twice the	n flew toward:	s S along trees
21:26	C. Pip	F	circled garden anti-cloc	kwise				
21:33	Longeared	F	foraging around west co	orner of house, from N	then back N			
21:34	C. Pip	SNH, F	came from over garage,	then flew towards tree	eline to E			
21:39	Longeared	F	Travelled towards North	West corner of house	via south a	nd west side,	from south ea:	st of house
21:40	C. Pip	F	foraging around front garden several times					
21:47	S. Pip	NS	most likely foraging am	most likely foraging amongst treeline to SW of house				
21:49	C. Pip	F	foraging amongst treel	ine to SW of house				
21:53	S. Pip	NS	most likely foraging am	ongst treeline to SW o	f house			



Site Name and B	Building Numbe	Lytlewood, Rid	ling Lane, Hild	enborough	Surveyor Name	/ Equipment	Steve Stanley	Steve Stanley / Batlogger M2		
Weather Conditions		Cloud: 80%, Wind 1, Rain 2 (heavy rain showers for 10 mins at start of survey, and		Date 10th May 2023						
Start Time					Finish Time		22:05			
Air Temperature of Survey	(°C) at Start	12		Air Temperature (°C) at End of Survey						
Sunset		20:35		Sunrise						
Position: \	West of buil	lding								

s Acti p 45 p 55		Comments Distant pass, not seen.					
	-	Distant pass, not seen.					
p 55	F	·					
	·	F over pond to SW of building for 7 mins.					
p 45	F	over pond to SW of building for 6 mins.					
p 55	F .	ong treeline from SE to NW and back, for 2 mins.					
p 55	F	over pond to SW of building for 5 mins.					
BLE	С	Brief pass, not seen.					
p 45	F	F over pond to SW of building for 2 mins.					
p 45	F	Along treeline from SE to NW and back, for 4 mins.					
otine	С	Brief pass, not seen.					
p 45	F	F over pond to SW of building for 5 mins.					
F F F	o 55 o 55 LE o 45 o 45	0 55 F 0 55 F LE C 0 45 F 0 45 F ottine C					

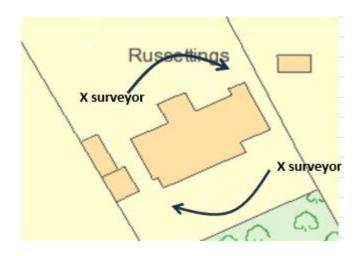
Site Name and Building Numbe Lytlew		Lytlewood, R	iding Lane, Hildenborough			Alyx Penny / E	cho Meter Touc	ch 2 Pro
Weather Con	ditions	· ·	Nind 1, Rain 2 (heavy rain 10 mins at start of survey, and	Date	Date		10/5/23	
Start Time		20:20		Finish Time		22:05		
Air Temperat of Survey	ure (°C) at Start	12		Air Temperature (° Survey	°C) at End of	11		
Sunset		20:35		Sunrise				
Position:	East Corner							
Time	Species	Activity*		(Comments			
20:55	C. Pip	F, SNH	2 pips foraging in tree canop	y to SW of proper	ty (above po	ond), origin no	t seen	
21:02	C. Pip	F	from S corner behind drive to	o W of house, belo	ow roofline			
21:19	C. Pip	NS						
21:20	C. Pip	SNH	Foraging around drive, low f	rom S corner, then	n flew back t	to S corner beh	ind drive.	
21:21	C. Pip	NS						
21:22	S. Pip	NS	Tree cover and very dark clou	ud making visibili	ty very low.			
21:24	C. Pip	F	Foraging in tree canopy in fr	ont of property				
21:29	C. Pip	NS						
21:32	C. Pip	NS						
21:35	C. Pip	F	From SW to SE below roofling	ne via S of house.				
21:47	Serotine	NS	Distant but clear	Distant but clear				
21:49	C. Pip	F	Foraging below canopy over	pond, origin not s	seen.			
21:55	C. Pip	NS						



Site Name and Building Number		Lytlewood, Riding Lane, Hildenborough TN11 9LR			Surveyor Name	Surveyor Name / Equipment		Megan Austin, Elekon Batscanner, Anaba express (D1), Canon XA10		
Weather Condi	Weather Conditions		ght wind		Date		07.06.2023			
Start Time		20:56			Finish Time	Finish Time		22:41		
Air Temperatur of Survey	Air Temperature (°C) at Start of Survey				Air Temperatur Survey	re (°C) at End of	f 11			
Sunset	Sunset				Sunrise					
North corne	r									
Time	Species	Activity*				Comments				
21:27	45 pip	Е	Emerging from	side of dorme	window					
21:46	45 pip	F	faint audio or	nly						
21:52	55 pip	CNS	2 passes, NS							
21:56 onwards	55pip	F	West to east t	West to east then intermittent foraging around garden						
22:13	45pip	CNS	1 pass	1 pass						
22:26	BLE	F	East to west. 1	Lpass						



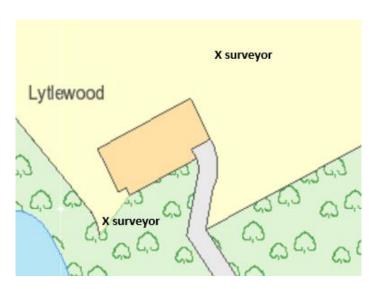
					•						
Site Name and Building Number		Lytlewood, R	Lytlewood, Riding Lane, Hildenborough, TN			Surveyor Name / Equipment		Liam Hoadley/Echo Meter Touch 2 Pro			
Weather Con	ditions	cloud - 0%	0% wind - light wind rain - 0 Date (07/06/2023				
Start Time		20:56			Finish Time		22:41				
Air Temperat	ure (°C) at Start of Survey	113			Air Temperature (°C) at End of Survey		11				
Sunset		21:11	L:11			Sunrise		N/A			
position a	ound building:	S corner of	house								
Time	Species*	Activity**			Comments						
21.22	45 pip	F	NS, brief forag	NS, brief foraging							
21.25	45 pip	С	S, flew NE to S	SW past SE side	of house, 1 b	at, 1 pass					
21.46	45 pip	F	S, over pond then flew SE briefly								
22.02	45 pip	F	S, briefly over pond								
22.06	45 pip	F	S, on and off foraging over pond till the end of the survey								
22.31	BLE	С	S nass from F	S. pass from E to W past S corner							



Site Name and	Building Number	Russeting, Ric	iding Lane, Hildenborough, TN Surveyor Name / Equipment Liam Hoadley/Echo Met					uch 2 Pro		
Weather Condi	tions	cloud - 0% v	vind - light wind rain - 0	Date		08/06/2023				
Start Time		20:57		Finish Time		22:42				
Air Temperatu	re (°C) at Start of Survey	15		Air Temperature (°C) at End of Survey		13				
Sunset		21:12		Sunrise		N/A				
position aro	und building:	W corner the	N corner then moved to N corner at 21:51							
Time	Species*	Activity**			Comments					
21.31	45 pip	С	S, flew SE to NW past S corner up garden, 1 bat, pass							
21.41	45 pip	С	S, flew S to N past W corner, 1 bat, 1 pass							
21.51 BLE F			S, came from N corner then foraged NW of house then flew NW							
21.58 45 pip F			S, foraging NW of house for 20 mins then flew NW							
22:25 45 pip F			S, foraging NW of house till end of the survey							
								<u>'</u>		
Site Name and	Building Number	Russeting, Ric	Riding Lane, Hildenborough, TN Surveyor Name / Equipment K Bresso / Elekon BatScanner					r Batlogger M		
Weather Condi	tions	cloud - 0% v	wind - light wind rain - 0 Date 08/06/2023							
Start Time		20:57		Finish Time		22:42				
Air Temperatu	re (°C) at Start of Survey	15		Air Temperature (°C) at End of Survey		13				
Sunset		21:12		Sunrise		N/A				
position aro	und building:	SE corner th	en moved to SW corner at	21:51						
Time	Species*	Activity**			Comments					
21:17	45 pip	CNS	S, flew SE to NW past S corne	orner up garden, 1 bat, pass						
21:22 55 pip C commuti			commuting west towards Lytlewood							
21:24 55 pip C			commuting west towards Lytlewood							
21:25 45 pip E emerging from side of front				hip see photo						
21:28	45 pip	С	from east towards pond							
21:29	45 pip	С	from east towards pond	om east towards pond						
21:42	45 pip	F	foraging 45 pip in front garde	rden/ parking, on and off till 22:23						

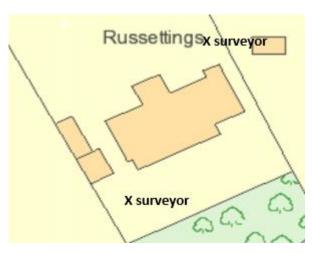
2 BLEs emerging from SW corner of house, just above entrance door (cavity present?), then flew along bottom of building towards pond





Site Name and	Building Number	Lytlewood, Ri	Riding Lane, Hildenborough, TN Surveyor Name / Equipment Liam Hoadley/Echo N				/Echo Meter To	uch 2 Pro	
Weather Condi	tions	cloud - 100%	wind - light	wind rain - 0	Date		11/07/2023		
Start Time		02:57	Finish Time 05:10						
Air Temperatu	re (°C) at Start of Survey	18		Air Temperature (°C) at End of Survey					
Sunset		N/A			Sunrise		04:57		
position aro	und building:	North Corne	er						
Time	Species*	Activity**	Comments					•	
03.01	45 pip	F	NS, brief foraging nearby						
03.03	BLE	F	S, flew Northeast to Southwest past North corner						
03.40	Noc	С	NS, brief pass						
04.17	45 pip	F	S, flew South	vest to Southea	ast around roo	f of building			
04.20	45 pip	F	S, flew South	vest to Southea	ast around roo	f of building			
04.23	Noc	С	NS, long pass						
04:23	45 pip	F	S, foraging around North corner then flew South towards Lewis by pond						
04:28	Noc	С	S, flew Southeast to Southwest directly over house						
04:30	45 pip	F	NS, brief faint foraging						
04:39	45 pip	F	S, flew around	d house clockw	ise 1 loop				

Site Name and Building Number		Russettings & Lytlewood, Riding Lane, Hildenbor			Surveyor Name / Equipment		Lewis Carter-Lilley / Elekon BatScanner		
Weather Conditi	ons	100% cloud, light wind			Date		11/07/23		
Start Time		02:57 Fi			Finish Time				
Air Temperature	(°C) at Start of Survey	18 A			Air Temperature (°C) at End of Survey		18		
Sunset					Sunrise		04:57		
position arou	und building: Lyttlewood - south east c	orner							
Time	Species*	Activity**	Comments						•
02:57-04:42	45pip	F	S by pond south of house (2+ individuals)						
03:28	55pip	F	S by pond to sou	uth					
03:40	55pip	F	NS						
03:57	55pip	F	NS						
04:05	55pip	F	S by pond to south						
04:23	Noc	С	NS						
04:28	Noc	С	ns						
04:38-52	55pip	F	NS	•				•	
04:38	noc	С	NS						



Site Name and Number	Building	Russetting, Ri TN11 9LR	ding Lane, Hilo	denborough	Surveyor Name / Equipment		Megan Austin, Elekon Batscanner, Anabat express (D1), Canon XA10			
Weather Condi	tions	100% cloud, li	ght wind		Date		11.07.2023			
Start Time		02:57			Finish Time		04:57			
Air Temperatur	e (°C) at Start	18			Air Temperature (°C) at End of Survey		18			
Sunset					Sunrise		04:57			
South corne	r									
Time	Species	Activity*	Comments							
02:57-04:43	45 pip	F	intermittent fo	oraging						
03:00	BLE	С	1 pass, over ve	egetation and	roof					
03:41 BLE C Overhead, 4 passes, then west										
03:53 BLE F East to west along treeline										
	Noctule	F	East to west, 1 pass							
04:43	45 and 55 pip	С	Eastwards alo	Eastwards along the treeline						

Site Name and Building Russetting,			Riding Lane	е,	Surveyor Name /		Tess Austin, Elekon Batscanner			
Number		Hildenboro	ugh TN11 9l	.R	Equipment		Anabat express (D2),			
Weather Cor	nditions	100% cloud, light wind			Date		11.07.2023			
Start Time	rt Time 02:57				Finish Time		04:57			
Air Tempera	ture (°C) at	18				Air Temperature (°C) at		18		
Start of Surv	ey	10			End of Survey		10			
Sunset					Sunrise 04:57					
North corr	ner									
Time	Species	Activity*	Comments							
03:40	BLE	С	from the east over garage and conservatory							
03:47-04:25	45 pip	F	faint foragi	aint foraging, NS						