

Former Piggery Site, Horn Street, Hythe, Kent

Bat Survey and Mitigation Strategy

12th October 2022 / Ref No 2022/06/08

Client: Mr D Hewlett



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1 Introduction

Following a 'Preliminary Ecological Appraisal'¹ which identified the risk of bats being present in stone walls (assessed as having low 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

Should bats be roosting on site, the proposed development would lead to potential loss of habitat and/or disturbance to bats.

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 13th February 2020 / Ref No 2020/01/16

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

Therefore a first dawn survey was undertaken with four surveyors at the end of August 2022, followed by a second one in mid-September.

The surveyors were K Bresso², M Austin³, P Austin⁴, L Hoadley⁵, S Stanley⁶; they used Bat Box Duet / Batscanner / Anabat Express / Pettersson D240x / Echo Meter Touch 2 Pro / Batlogger M2 bat detectors⁷. Nightscopes with infra-red light and a Pulsar Quantum thermal imaging scope were also used. Each surveyor had a section of the site to cover but were mobile within the section, to track bats.

One Anabat Express was also left on site to record bat activity between 17th and 23rd September (i.e. 6 nights).

3 Results

During the first dawn re-entry survey, three large *Myotis sp* bats were seen flying close to the walls and one bat was seen returning into a wall cavity:

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, the anabat data was analysed by Megan Austin, who has undertaken Analook Training Course in 2014.

⁴ first survey season

⁵ 5 years' experience in bat surveys

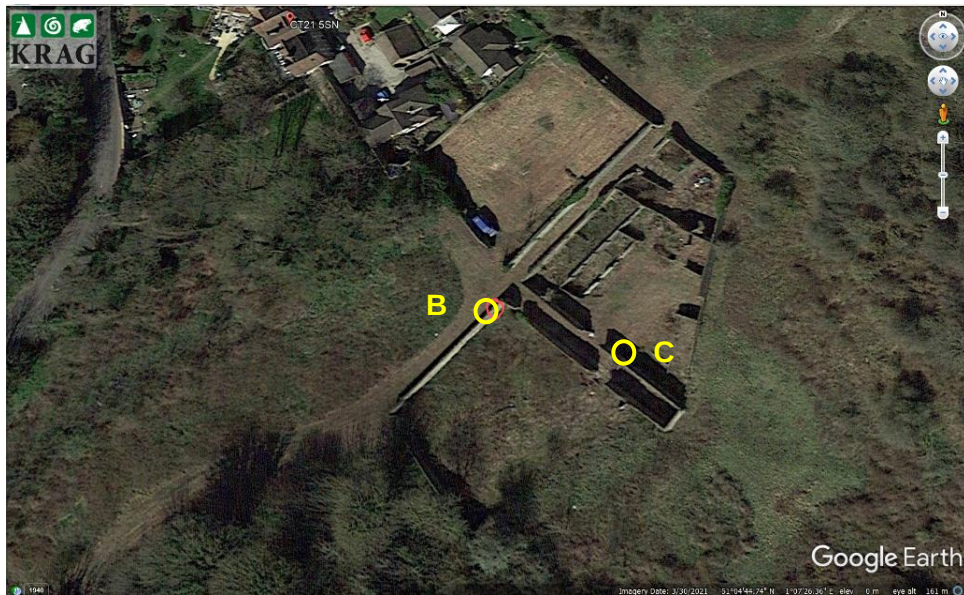
⁶ 12 years' experience in bat surveys

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.



The next morning, bat droppings were collected from near the cavity on the wall and sent for DNA analysis; which confirmed the species: Natterer's bat.

During the second dawn re-entry survey, three Natterer's bats were seen flying close to the walls and two bats were seen returning into wall cavities (different to the one during the first survey).



The remote bat detector left between 15th and 23rd September only recorded one *Myotis* call.

4 Status of Species and Protection

Fourteen of the eighteen species of British bat have been recorded in Kent⁸:

⁸ see <http://www.kentbatgroup.org.uk/bats-in-kent/> Please note that the presence of greater horseshow bats has now been reported in Kent (near Dover), in summers 2019 and 2020.

UK and Kent bats distribution table 2018

From: **UK Mammals: Species Status and Population Trends**
 Edited and compiled by Jessamy Battersby 2005
 and Mammals of Kent Atlas 2001 - 2012.

Species	Common name	UK status	Kent status
<i>Rhinolophus ferrumequinum</i>	Greater horseshoe bat	Native, very rare and endangered	Not present
<i>Rhinolophus hipposideros</i>	Lesser horseshoe bat	Native, rare and endangered	Not present
<i>Myotis mystacinus</i>	Whiskered bat	Native, locally distributed	Scarce and elusive
<i>Myotis brandtii</i>	Brandt's bat	Native, common in west and north England, rare or absent elsewhere	Rare and elusive
<i>Myotis bechsteinii</i>	Bechstein's bat	Native, very rare	Very rare
<i>Myotis daubentonii</i>	Daubenton's bat	Native, common throughout much of the UK	Common near water
<i>Myotis nattereri</i>	Natterer's bat	Generally scarce	Scarce
<i>Eptesicus serotinus</i>	Serotine	Native, widespread in southern Britain	Widespread but declining
<i>Nyctalus noctula</i>	Noctule	Native, generally uncommon, but more numerous in well-wooded areas	Generally uncommon, declining
<i>Nyctalus leisleri</i>	Leisler's bat	Native, widespread, scarce in GB, common in Northern Ireland	Scarce, may be under-recorded
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Native, common across the UK	Common
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	Native, common across the UK	Common
<i>Pipistrellus nathusii</i>	Nathusius' pipistrelle	Native, rare	Scarce, often migrant
<i>Barbastella barbastellus</i>	Barbastelle	Native, widespread but rare	Not present or very rare
<i>Plecotus auritus</i>	Brown long-eared bat	Native, common	Common
<i>Plecotus austriacus</i>	Grey long-eared bat	Native, very rare	Not present or very rare
<i>Myotis alcathoe</i>	Alcathoe's bat	Native, uncertain distribution	Insufficient data, status uncertain, probably rare

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 a "European Protected Species" (EPS). Some species of bats (noctule, soprano pipistrelle, brown long-eared bat, barbastelle) are also listed as species of principal conservation importance.

The serotine is also an Indicator Species under the Kent Biodiversity Strategy⁹.

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 disturb 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.

⁹ <http://kentnature.org.uk/uploads/files/Nat-Env/Kent%20Biodiversity%20Strategy%202020.pdf>

For more information, guidance from Natural England is available at <https://www.gov.uk/bats-protection-surveys-and-licences>

5 Impact and Mitigation Strategy

The 2002 surveys revealed that the walls are used as a day roost by a small number of Natterer's bats, a rarer species. Usage of the cavities during the winter for hibernation is judged unlikely as the internal conditions are not expected to be favorable in such an open site.

At the time of writing this report, it is unsure if the sections of walls with the confirmed bat roosts will be directly impacted by the works. By all accounts, as night-time bat surveys are not without limitations as they only provide a snapshot in time, all suitable cavities of all the walls on site should be expected to support roosting bats.

The Natterer's bat is a light-sensitive and shy species^{10, 11, 12} which can be adversely affected by lighting (see below¹³).

Table 5.2. Summary of predicted impacts of lighting for each species/group according to bat behaviour. Further research is required to have high confidence in many of these predictions and therefore they should be used as guidance only.

Impact Behaviour	High	Medium	Low
Maternity roost	All species	-	-
Night roost	<i>Rhinolophus hipposideros</i> <i>Rhinolophus ferrumequinum</i> <i>Myotis</i> spp. <i>Plecotus</i> spp.	<i>Pipistrellus</i> spp. <i>Nyctalus</i> spp. <i>Eptesicus serotinus</i> <i>Barbastella barbastellus</i>	-
Emergence	All species	-	-
Foraging	<i>Rhinolophus hipposideros</i> <i>Rhinolophus ferrumequinum</i> <i>Myotis</i> spp. <i>Plecotus</i> spp.	-	<i>Pipistrellus</i> spp. <i>Nyctalus</i> spp. <i>Eptesicus serotinus</i> <i>Barbastella barbastellus</i>
Commuting	<i>Rhinolophus hipposideros</i> <i>Rhinolophus ferrumequinum</i> <i>Myotis</i> spp. <i>Plecotus</i> spp.	-	<i>Pipistrellus</i> spp. <i>Nyctalus</i> spp. <i>Eptesicus serotinus</i> <i>Barbastella barbastellus</i>
Swarming	All species	-	-
Hibernation	All species	-	-

¹⁰ http://www.bats.org.uk/pages/bats_and_lighting.html

and

<http://www.batsandlighting.co.uk/index.html> for more information

¹¹ Additionally, the new owners may also want to have cats which could predate on the bats.

¹² https://cdn.bats.org.uk/uploads/pdf/About%20Bats/natterers_11.02.13.pdf?v=1541085181

¹³ see Stone, E.L. (2013) Bats and lighting: Overview of current evidence and mitigation [http://www.bats.org.uk/data/files/Bats_and_Lighting - Overview of evidence and mitigation - 2014 UPDATE.pdf](http://www.bats.org.uk/data/files/Bats_and_Lighting_-_Overview_of_evidence_and_mitigation_-_2014_UPDATE.pdf)

Therefore, even if none of the suitable cavities are directly impacted by the works, the bats are expected to not return roosting on site once the works start, which would amount to loss of roost.

The Bat Mitigation Guidelines document by English Nature (2004) provides information about scale of impact of different activities on bats and the mitigation/compensation requirements.

Roost type	Development effect	Scale of impact		
		Low	Medium	High
Maternity	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction, modification		✓	
	Temporary disturbance outside breeding season	✓		
	Post-development interference			✓
Major hibernation	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction, modification		✓	
	Temporary disturbance outside hibernation season	✓		
	Post-development interference			✓
Minor hibernation	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction, modification		✓	
	Modified management		✓	
	Temporary disturbance outside hibernation season	✓		
	Post-development interference		✓	
	Temporary destruction, then reinstatement	✓		
Mating	Destruction		✓	
	Isolation caused by fragmentation		✓	
	Partial destruction	✓		
	Modified management	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
Night roost	Temporary destruction, then reinstatement	✓		
	Destruction	✓		
	Isolation caused by fragmentation	✓		
	Partial destruction	✓		
	Modified management	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
	Temporary destruction, then reinstatement	✓		
NB This is a general guide only and does not take into account species differences. Medium impacts, in particular, depend on the care with which any mitigation is designed and implemented and could range between high and low.				

Table 6.1. The scale of main impacts at the site level on bat populations.

Low Conservation significance High	Roost status Feeding perches of common/rarer species Individual bats of common species Small numbers of common species. Not a maternity site Feeding perches of Annex II species Small numbers of rarer species. Not a maternity site Hibernation sites for small numbers of common/rarer species Maternity sites of common species	Mitigation/compensation requirement (depending on impact) Flexibility over provision of bat-boxes, access to new buildings etc. No conditions about timing or monitoring Provision of new roost facilities where possible. Need not be exactly like-for-like, but should be suitable, based on species' requirements. Minimal timing constraints or monitoring requirements Timing constraints. More or less like-for-like replacement. Bats not to be left without a roost and must be given time to find the replacement. Monitoring for 2 years preferred.
	Maternity sites of rarer species Significant hibernation sites for rarer/rarest species or all species assemblages Sites meeting SSSI guidelines Maternity sites of rarest species	Timing constraints. Like-for-like replacement as a minimum. No destruction of former roost until replacement completed and usage demonstrated. Monitoring for at least 2 years. Oppose interference with existing roosts or seek improved roost provision. Timing constraints. No destruction of former roost until replacement completed and significant usage demonstrated. Monitoring for as long as possible.

Figure 4. Guidelines for proportionate mitigation. The definition of common, rare and rarest species requires regional interpretation.

5.1 Mitigation Strategy

If the impacted sections of walls have suitable cavities for roosting bats, these should be considered as Potential Roosting Features and no works should start until a European Protected Species Mitigation EPSM licence is in place for the project.

If the impacted sections of walls don't have suitable cavities for roosting bats, due to the high likelihood that bats will not return to roost on site once the works start, it is also recommended that no works should start until a mitigation licence is in place for the project.

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 consideration¹⁴,
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 measures¹⁵;
3. And lastly compensation¹⁶ should be used to off-set unavoidable remaining impacts.

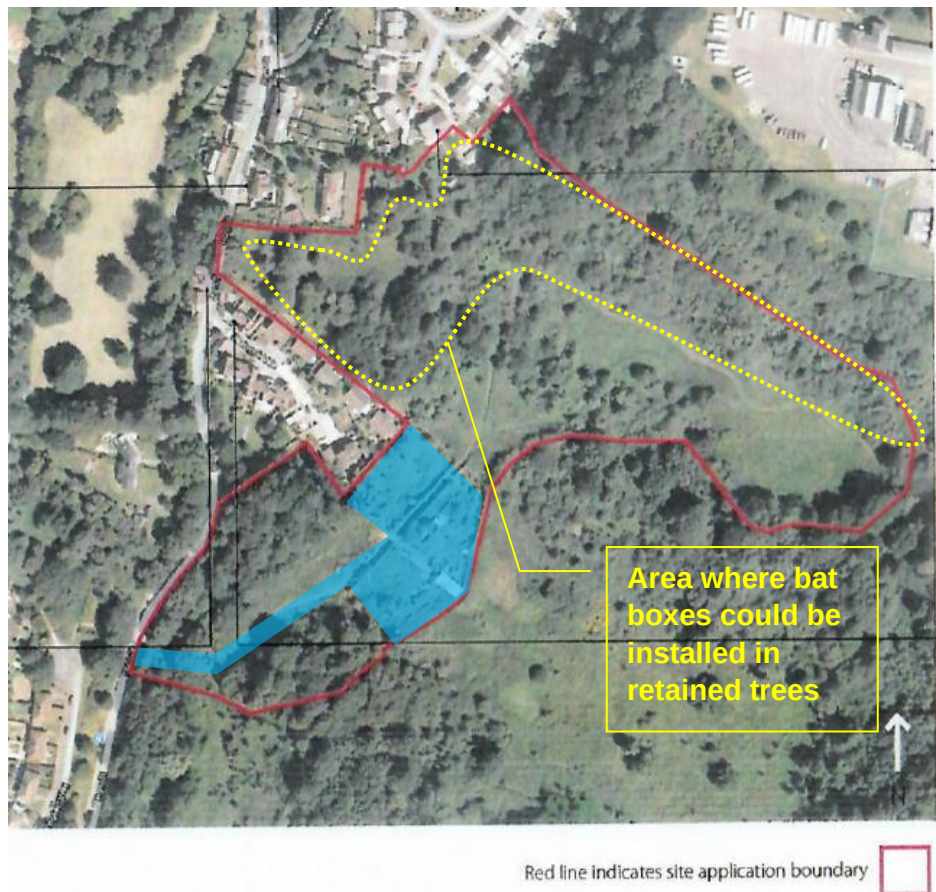
Here, due to the shy and light-sensitive nature of the bat species roosting on site, avoidance of impact is not compatible with any proposal on this land.

However, mitigation is possible with the provision of twenty bat boxes (mix of Schwegler 1FS, 2FN, 1FW, 2F, 2M, 1B and 1FF) on retained near-by trees (3-4m high), within the ownership of the applicant but away from any disturbance/light, as shown on plan below.

¹⁴ 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.

¹⁵ 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).

¹⁶ 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).



Once a licence is in place, should impacted sections of walls have suitable cavities for roosting bats, the following should be done prior to any wall demolition:

- 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.
- Exclusion - Exclusion devices will be fitted by the licensed bat ecologist to all the cavities to ensure no bats are present. They will need to stay in place for 5 nights during suitable weather during the bat active season (from April to October included, with dry and mild and temperatures, i.e. not dropped below 8c). After a minimum of 5 nights, the one-way excluders will be dismantled and the access points will be permanently blocked (using expanding foam for instance). Then the section of walls can be demolished.

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.

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 Need for application for a EPSM licence

As the proposed works would result in the loss of a bat roost, the works only be undertaken once a licence is in place for the project. A European Protected Species Mitigation licence (or EPSM licence) 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. The licence application would need to include full details of the proposed ecological mitigation / compensation and a program for these works.

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>

5.3 Additional survey

Prior to applying for the mitigation licence, it will be necessary to undertake additional bat surveys in mid-May to mid-July to confirm that the site is not used as a maternity roost, as the 2022 surveys were undertaken late in the bat active season (from end August) and may have missed such use (although this is a low likelihood).

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.

Appendix A – Night-time Bat Survey Results



Site Name and Building Number		Walls at Former Piggery Site, CT21 5SN		Surveyor Name / Equipment		Liam Hoadley/Echo Meter Touch 2 Pro	
Weather Conditions		cloud - 100% wind -1 rain - 0		Date		24/08/2022	
Start Time		04:26		Finish Time		06:11	
Air Temperature (°C) at Start of Survey		20		Air Temperature (°C) at End of Survey		20	
Sunset		N/A		Sunrise		05:56	
position around building:		NW courtyard					
Time	Species*	Activity**	Comments				
05.00	45 pip	F	NS, brief faint foraging				
05.06	45 pip	F	S, East corner of courtyard then flew East over wall				
05.12	55 pip	F	S, South corner briefly then flew East over wall				
05.29	55 pip	C	S, flew South to North over wall towards houses				
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 eared	BLE	Daubenton's	Dau			
	Myotis sp	Myo	Nathusius' p	Nat			
	Noctule	Noc					

Site Name and Building Number	Walls at Former Piggery, Hythe	Surveyor Name / Equipment	Steve Stanley / Batlogger M2
Weather Conditions	Cloud: 100% Wind: 1 Rain: 0	Date	24th August 2022
Start Time	04:26	Finish Time	06:11
Air Temperature (°C) at Start of Survey	20	Air Temperature (°C) at End of Survey	20
Sunset		Sunrise	05:56
Position:	NE courtyard and middle access track		
Time	Species	Activity*	Comments
05:00	Pip 45 x2	F	F mostly around north and east sections of site for 25 mins. Second pip around for 10 mins only.
05:08	Pip 55	F	F north end of site for 3 mins.
05:32	Pip 55	C	Brief pass from north to south across east side of site.

Site Name and Building Number	Former Piggeries, Horn Street, Hythe	Surveyor Name / Equipment	Megan Austin/Elekon Batscanner and Anabat Express D1
Weather Conditions	100% cloud,v.light wind (1)	Date	24.08.2022
Start Time	04:26	Finish Time	05:56
Air Temperature (°C) at Start of Survey	20	Air Temperature (°C) at End of Survey	20
Sunset		Sunrise	05:56
as plan below			
Time	Species*	Activity**	Comments
04:30- 05:34	45pip	F	intermittent foraging
05:02	Myotis	F	up and down 'corridor' and towards pete
05:15	3 x myotis	C	circling overhead above corridor and over walls near Pete

Site Name and Building Number	Former Piggeries, Horn Street, Hythe	Surveyor Name / Equipment	Pete Austin/Elekon Batscanner and Anabat Express D2
Weather Conditions	100% cloud,v.light wind (1)	Date	24.08.2022
Start Time	04:26	Finish Time	05:56
Air Temperature (°C) at Start of Survey	20	Air Temperature (°C) at End of Survey	20
Sunset		Sunrise	05:56
as plan below			
Time	Species*	Activity**	Comments
04:58	45pip	F	NS
05:00	45pip	F	S
05:04-05:25	Myotis		circling over wall 1-3 bats
05:25	Myotis	R	In gap in stone work, as pic below

Site Name and Building Number	Walls at Former Piggery Site, CT21 5SN		Surveyor Name / Equipment	Liam Hoadley/Echo Meter Touch 2 Pro
Weather Conditions	cloud - 90% wind -1 rain - 0		Date	15/09/2022
Start Time	05:00		Finish Time	06:45
Air Temperature (°C) at Start of Survey	14		Air Temperature (°C) at End of Survey	14
Sunset	N/A		Sunrise	06:30
position around building: NW courtyard (First part), then South of walls, then moved to N for a moment then back to NW courtyard				
Time	Species*	Activity**	Comments	
05.23	55 pip	F	NS, quick pass	
05.30	Myo	F	S, over wall between Katia and I for 10 mins then returned her side	
05.45	Myo	F	S, over wall between Megan and I for 10 mins then returned her side	

Site Name and Building Number	Walls at Former Piggery, Hythe		Surveyor Name / Equipment	Steve Stanley / Batlogger M2
Weather Conditions	Cloud: 90% Wind: 1 Rain: 0		Date	15th September 2022
Start Time	05:00		Finish Time	06:45
Air Temperature (°C) at Start of Survey	14		Air Temperature (°C) at End of Survey	14
Sunset			Sunrise	06:30
Position:	NE courtyard and middle access track			
Time	Species	Activity*	Comments	
05:18	Pip 55	C	From south to north through central corridor of site.	
05:26	Pip 55	F	Brief F in NE section of site, then C east.	
05:50	Pip 55	F	F around NE section of site sporadically for 15 mins.	
05:10	Pip 55	F	F in central corridor section for 3 mins, making several inspections of cavities in west wall before C east.	

Site Name and Building Number	Walls at Former Piggery, Hythe		Surveyor Name / Equipment	K Bresso / Batscanner and Batlogger M
Weather Conditions	Cloud: 90% Wind: 1 Rain: 0		Date	15th September 2022
Start Time	05:00		Finish Time	06:45
Air Temperature (°C) at Start of Survey	14		Air Temperature (°C) at End of Survey	14
Sunset			Sunrise	06:30
Position:	SW and middle access track			
Time	Species	Activity*	Comments	
05:18	Pip 55	C	From south to north through central corridor of site.	
05:21	Noc	CNS		
05:26-42	Pip 55	F	on and off foraging along the trees along the stream to the west	
05:30	Myo	C	Up to three bats, flying above head till re-entry at 05:35	
05:35	Myo	R	Bat entered a wall cavity, slightly lower but near the cavity used during the first dawn survey	
			a second Myo bat entered a wall cavity where Megan was standing; the third bat disappeared, presumably off site	
05:58	Ser	CNS		



9 September 22

Re: Identification Results for Katia Bresso, KB Ecology

Job number 18789, received 30 August 2022

Sample labelled: Former Piggery Site, Horn Street, Hythe, CT21 5SN

PCR amplification successful. DNA sequence:

CACCCCCTAATGAAAATTATCAATAACTCCTTCATTGACCTACCCGCTCCATCAAATA
TCTCTTCCTGATGGAATTTCCGATCTCTTTTAGGA

Phylogenetic analysis identification: *Myotis nattereri*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Professor Robin Allaby

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

Professor Robin Allaby

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