



Bat emergence survey report

V1.1

Ref: 919	Land to the North of Dickley Wood
Client Name:	Neil Frost
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Principal Author:	Charlie Birch

	Name	Company	Role
REPORT AUTHOR	Charlie Birch	ECOassistance	Assistant Ecologist
REPORT REVIEW	Edward Clark	ECOassistance	Principal Ecologist
SITE SURVEYOR	Jack Clark	ECOassistance	Lead surveyor
SITE SURVEYOR	Chris Potts	ECOassistance	Assistant surveyor

Executive Summary

ECOassistance were commissioned to undertake a single bat emergence survey on a bungalow at Land to the North of Dickley Wood Harrietsham ME17 1BJ.

The objectives of the survey undertaken are to determine whether bats are using the areas surrounding the building for foraging and commuting and/or whether the building is being used as a place of rest or shelter by roosting bats.

The survey findings will be used to inform whether there are constraints relating to bats which might affect redevelopment of the site and what levels of mitigation are required to ensure there is no impact on the conservation status of any bats present.

Levels of usage are characterised in line with National guidance publications.

The main findings of the surveys were as follows:

1. Low levels of bat activity were recorded; including foraging and commuting.
2. Two species of bat were recorded; with no light averse species recorded during the survey.
3. No bats were observed entering or exiting any part of the survey building.

Mitigation and compensation measures for all impacts are provided in this report.

- The addition of a bat box suitable for the crevice dwelling species recorded the survey will provide a simple enhancement to improve the site for local bats.

Disclaimer

This bat survey and report considers the instructions and requirements of the client and is not intended for and should not be relied upon by any third party.

The results contained within this report can be relied on for decision-making purposes without the need to be updated for twelve months providing there is no significant change in land use or land management in that time.

Interpretations and recommendations contained in this report represent the author's professional opinions. They are based on currently accepted industry practices and personal experience. This is a working document and must be updated if development proposals change, or new information become available.

Contents

Executive Summary.....	2
Introduction.....	4
Methodology	5
Constraints and Limitations.....	7
Results	8
Conclusion and Recommendations.....	9
References	10
Appendix 1: Review of Protected Species UK Legislation and Policy	11
Figures / Results forms.....	13
Bat boxes suitable for pipistrelle bats.....	15
IR Screenshots (taken at darkest part of the survey)	16

Introduction

ECOassistance were instructed by Neil Frost (hereafter: the client) to undertake a single bat emergence survey (BES) on a bungalow situated within Land to the North of Dickley Wood, Harrietsham, ME17 1BJ¹ (hereafter referred to as: the site).

BES inform planning applications where proposed works have the potential to impact bats, their roosts and foraging and commuting habitats, all of which are protected by law under The Conservation of Habitats and Species Regulations 2017. Bats and their roosts are also protected under the 1981 Wildlife & Countryside Act (as amended). More information on the relevant legislation protecting bats is presented in the appendix of this document.

The BES follows on from a Preliminary Ecological Appraisal (PEA) undertaken in June 2023 by ECOassistance² in which a loft inspection was undertaken under a Natural England (NE) survey licence; and the survey building was deemed to have low Bat Roost Potential (BRP).

Buildings with low BRP require a minimum of one BES to determine likely absence of roosting bats. When bat roosts are identified further BES may be required to properly characterise the roost(s) for the purposes of applying for a mitigation licence from NE should one be required. The Local Planning Authority (LPA) must be satisfied that a NE licence application will be successful in order to grant planning permission.

The key objectives of the BES was to:

- Assess the presence or likely absence of bat roosts within the building;
- Assess how bats are using the areas on and around the site for foraging and commuting;
- Characterise the roost size and type if present; and
- Recommend further courses of action as required.

This report describes the survey findings.

¹ The grid reference for the approximate centre of the site is: TQ 88530 52349

² PEA 919 Land To The North Dickley Wood, Neil Frost, July 2023, ECOassistance.

Methodology

BES carried out by ECOassistance follow the most up-to-date published good practice guidance¹ for survey effort and methodology.

The survey was led by Jack Clark alongside assistant surveyor Chris Potts. Jack Clark and Chris Potts have been carrying out bat surveys for ECOassistance and other local ecological consultancies including the use of Night Vision Aids (NVAs) for a combined total of more than 11 years.

One emergence survey was undertaken on the evening of 22/08/23 from 15 minutes before sunset until 90 minutes afterwards in favourable weather conditions.

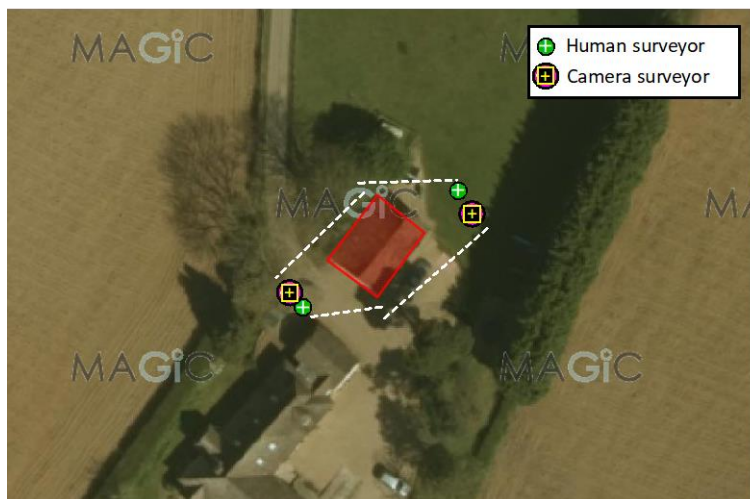
In line with the recently published Bat Conservation Trust (BCT) Interim Guidance Note², where required, extra surveyor/survey positions were created through the use of an unmanned (Canon) infra-red camera system with infra-red torches/illuminator rigs³. Additional (Canon) infra-red camera systems with infra-red torches/illuminator rigs were deployed as NVAs to the site surveyors.

One dusk emergence survey was preferred to a dawn re-entry survey following the recommendation to '*transition away from the standard use of dawn surveys, particularly as a method for presence/absence surveys, in favour of dusk surveys supported by NVAs*' as set out in the Interim Guidance Note.

Bat survey equipment including Batlogger M2 bat detectors and Canon XA11 and Canon XA20 infra-red video cameras with infra-red lighting rigs were used.

Surveyors and camera rigs were positioned around the outside of the building ensuring as many aspects as possible were visible and that bats entering or exiting the structure would be readily observed. The surveyors and camera positions for the survey are shown in Figure 1 below.

Figure 1: Surveyor/camera positions and indicative field of view (white dotted lines) for the survey



¹ Bat Surveys for Professional Ecologists Good Practice Guidelines. 3rd Edition. (Collins,2016).

² Use of night vision aids for bat emergence surveys and further comment on dawn surveys Bat Conservation Trust (May 2022)

³ The guidance note supersedes the 3rd edition Good Practice Guidelines (Collins, 2016).

The location, appearance, flight characteristics and time of any sightings of bats were recorded by the site surveyor on ECOassistance BES results forms. Survey results forms are presented in the Appendix.

Bat calls were automatically recorded by the detectors to enable sound analysis where needed and post-operative sound analysis was carried out by Charlie Birch and Edward Clark using BatExplorer software. Video review was carried out by Charlie Birch using VLC media player.

The CIEEM bat mitigation guidelines (beta version 1.0) assessment criteria and BCT Good Practice Guidelines and professional judgement were used to assign a level of importance to any bat roosts identified and assess the importance of assemblages and commuting and foraging habitats in order to:

- predict the level of impact on bats;
- determine suitable and proportionate avoidance, mitigation and enhancement measures.

Constraints and Limitations

Long eared bats of the Plecotinae often do not echolocate, instead making use of their relatively good eyesight to navigate. As a result, long eared bats more than any other UK species are likely to be under recorded during activity or emergence and re-entry surveys. It should be noted however that long eared bats are distinctively larger; with different flight characteristics to the bats observed on the site. No larger species of bat were seen during the survey or during post-survey video review.

Results

During the survey two species of bat, common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* were recorded flying over or near to the site.

The earliest recorded bat (25 minutes after sunset) was not seen by the surveyors who were looking towards the building. It was not until six minutes later that the first bat was observed by the surveyors.

The earliest bats recorded did not emerge from the survey building but flew towards the survey building some six minutes after they were first pick-up by the ultrasonic recording equipment.

At other times the site surveyors recorded no emergences from the survey building and review of the IR video footage confirms this.

Conclusion and Recommendations

1. The emergence survey results indicate that bats are not using any part of the structure for roosting.
2. The bat species recorded are not considered to be light averse.

No further survey effort or action is required at this stage in relation to the programme of works as bats are deemed likely absent from the structure. This is in line with current good practice guidance used to inform planning decisions.

Bat sensitive lighting at the site is not required as no light averse species have been recorded. Where possible however it is recommended that any new external lighting be restricted to downward facing lighting and/or activated by motion sensors to keep non-essential lighting to a minimum. This is because reducing non-essential artificial lighting has been shown to have a beneficial effect on nocturnal wildlife in general.

There is no impact to roosting sites but bats are present in low number.

A net gain for bats at the site can be achieved by providing simple habitat enhancements for the species known to be present.

- 1 x woodcrete type bat boxes suitable for pipistrelle bats to be hung from a mature tree or affixed to an elevation of the property post construction is recommended. Suitable bat box designs for illustrative purposes are provided in the appendix¹.

¹ the product shown is from the NHBS website: www.nhbs.com

References

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Appendix 1: Review of Protected Species UK Legislation and Policy

The level of protection afforded to protected species varies dependent on the associated legislation. A full list of protected species and their specific legal protection is provided within the Schedules and/or Sections of the associated legislation. Case law may further clarify the nature of the legal protection afforded to species.

The legal protection afforded to protected species overrides all planning decisions. European Protected Species (EPS) - and the Conservation of Habitats and Species Regulations 2010 (as amended)

European Protected Species (EPS) are afforded the highest level of protection through the Conservation of Habitats and Species Regulations 2017. EPS are also afforded legal protection by parts of the Wildlife and Countryside Act 1981 (as amended).

In general, any person and/or activity that:

- Damages or destroys a breeding or resting place of an EPS. (This is sometimes referred to as the strict liability or absolute offence);

Deliberately captures, injures or kills an EPS (including their eggs);

Deliberately disturbs an EPS, and in particular disturbance likely to impair animals' ability to survive, breed or nurture young, their ability to hibernate and migrate and disturbance likely to have a significant effect on local distribution and abundance; intentionally or recklessly disturbs an EPS while occupying a structure or place used for shelter and/or protection (Wildlife and Countryside Act 1981)1 (as amended); and

Intentionally or recklessly obstructs access to any structure or place that an EPS uses for shelter or protection (Wildlife and Countryside Act 1981) (as amended). may be guilty of an offence.

The legislation applies to the egg, larval and adult life stages of great crested newts and to bat roosts even when they are not occupied.

Actions affecting multiple animals can be construed as separate offences and therefore penalties can be applied per animal impacted.

Under certain circumstances licences can be granted by the Statutory Nature Conservation Organisation (Natural England in England) to permit actions that would otherwise be unlawful.

There are some very specific defences associated with the Conservation of Habitats and Species Regulations 2017. However, these are unlikely to apply to construction related projects. The Sections of the Regulations provide further details of these defences.

The Wildlife and Countryside Act (1981) includes defence for those aspects of the legislation that apply to an EPS. These defences are unlikely to apply to construction related projects and do not apply to those acts included in the Conservation of Habitats and Species Regulations 2010 (as amended). The Schedules of the Act provide further details of defences.

Local authorities have obligations under sections 40 and 41 of the Natural Environment and Rural Communities Act (NERC) 2006 to have regard to the purpose of conserving biodiversity in carrying out their duties. The majority of EPS are listed on Section 41 the NERC Act.

The Natural Environment and Rural Communities Act 2006 (as amended)

Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act (2006) requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers, including local and regional authorities, in implementing their duty under Section 40 of the act to have regard to the conservation of biodiversity in England when carrying out their normal functions. S41 lists 56 habitats and 943 species of principal importance. Section 42 of the NERC Act relates to Wales.

Wildlife and Countryside Act 1981 (as amended)

The level of protection afforded to species listed on the Wildlife and Countryside Act 1981 (as amended) varies considerably. 'Fully protected species', such as water vole, are afforded the highest level of protection. Any person who intentionally kills, injures, or takes 'fully protected species', or who intentionally or recklessly damages or destroys a structure or place used for shelter and/or protection, disturbs the animal whilst occupying a structure and/or place used for shelter and protection, or obstructs access to any structure and/or place used for shelter or protection is likely to have committed an offence. Other species, such as common reptiles, are afforded less protection and for these species it may only be an offence to intentionally or recklessly kill or injure animals.

All active bird nests, eggs and young are protected from intentional destruction. Schedule 1 listed birds are also protected from intentional and reckless disturbance whilst breeding.

Schedule 9 of The Wildlife and Countryside Act lists plant species for which it is an offence for a person to plant, or otherwise cause to grow in the wild. Schedule 9 also lists animals for which it is an offence to release into the wild. The National Planning Policy Framework

Planning policy requires new developments to take into consideration our local and national wildlife. With the objective to maintain or increase the viability of the site for wildlife. The existing proposals are considered to determine whether Habitat enhancements are offered and whether they are adequate to meet the policy requirements. Again, national, regional, county and borough policies are considered.

The National Planning Policy Framework states that the planning system should contribute to and enhance the natural and local environment by minimizing impacts on biodiversity and delivering net gains in biodiversity where possible. Ecological habitat enhancements measures need to be over and above any mitigation measures.

Figures / Results forms

STATIC HUMAN SURVEYOR			
Site Name/Survey visit	Dickley Wood	Date	22/08/2021
Start Time	19:50	Surveyor	JC
Sunset Time	20:05	Detector number	gold
Finish Time	21:35	Position Relative to Structure	SW Corner
Weather Conditions pre sunset	0% cloud wind 1	Detector Used	batlogger m2
Air Temperature Start	20	Air Temperature End	17
Brief summary (fill out at end of survey)			
<p>*Shorthand: Common Pipistrelle = P45; Soprano Pipistrelle = P55 Brown/Grey long eared = LE; All Myotis = myo followed by single letter; Greater Horseshoe - GHS; Greater Noctule = Noc; Leislars Noctule = Leis; Serotine = se</p>			
<p>**Shorthand - 'NS' = not seen; 'SNH' = seen not heard; 'E' = emergence; 'R' = return; 'F' = foraging; 'C' = commuting.</p>			
Time	Species*	Activity**	Notes including flight direction (if seen)
20:36	p45	c	e-w Infront of building
20:51	p55	hns	
21:26	p45	hns	very distant

STATIC HUMAN SURVEYOR

Site Name/Survey visit	Dickley Wood	Date	22/08/2021
Start Time	19:50	Surveyor	CP
Sunset Time	20:05	Detector number	2321-1152
Finish Time	21:35	Position Relative to Structure	North east corner
Weather Conditions pre sunset	cloud 0 wind 1	Detector Used	silver M2 batlogger
Air Temperature Start	20'	Air Temperature End	17'
Brief summary (fill out at end of survey)	Owl calling from woods about 40mts to north, from 20,25 until about 20,40, and again around 21,10. Dog from nearby house barking throughout. Much activity in the 32-35kHz range detected throughout.		
<p>*Shorthand: Common Pipistrelle = P45; Soprano Pipistrelle = P55 Brown/Grey long eared = LE; All Myotis = myo followed by single letter; Greater Horseshoe - GHS; Greater Noctule = Noc; Leislers Noctule = Leis; Serotine = se</p>			
<p>**Shorthand - 'NS' = not seen; 'SNH' = seen not heard; 'E' = emergence; 'R' = return; 'F' = foraging; 'C' = commuting.</p>			
Time	Species*	Activity**	Notes including flight direction (if seen)
20,30	Ppip	ns	
20,31	Ppip	ns	
20,35	Ppip	ns	
20,40	Ppip	c	flew from left to right above the building
20,49	"myotis"	ns	coincided with passing train
20:49	P45		Amended to p45 during sound analysis
21,10	"pipistrelloid"	ns	
21:10	P45		Amended to distant p45 during sound analysis
21,11	"Bbar"	ns	
21:10 & 21:11	Noise		Amended to noise during sound analysis
21,25	Ppip	ns	
	P55		P55's were also confirmed during sound analysis

Bat boxes suitable for pipistrelle bats



IR Screenshots (taken at darkest part of the survey)

