Contract No: 2324/50/2

Preliminary Ecological Appraisal

Shorne Mead, Pear Tree Lane, Shorne, Kent, DA12 3JT

Report to:
Mrs. Dawn Coward

23rd July 2024

CALUMMA
Ecological Services

Responsibilities:
This document has been prepared for the titled project and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority by the author.

Biological Data:
As part of membership of our professional body we are required to provide our species data results to the relevant biological records centre. As such, it is our intention to supply biological data unless directly instructed in writing not to do so by the commissioning client.

Length of Time Report is Valid:
Provided no significant changes are made to the proposal or to the proposed site (*e.g.* significant changes to management practices or habitats present) after the report's issue, this report can be considered valid for 12 months from the date of issue.

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SUMMARY

Bat emergence surveys of a single detached dwelling and garage at Shorne Mead, Pear Tree Lane, Shorne, DA12 3JT were undertaken in May, June and July 2024. The surveys were undertaken in support of a planning application for demolition of the existing buildings and construction of a replacement family home.

Two pipistrelle day roosts (1 x common pipistrelle and 1 x soprano pipistrelle) were identified on the southwestern elevation of the dwelling. A very low level of foraging activity was recorded, with common pipistrelle, soprano pipistrelle, noctule and occasional brown long eared bats.

A licence from Natural England is required for the demolition of the dwelling as it will result in the destruction of 2 day roosts, with potential to kill/injure/disturb the bats occupying them, which are offences under UK and European legislation. The proposal is considered to fit the criteria for a Bat Mitigation Class Licence (BMCL) from Natural England, which can be used for small numbers of roosts of low conservation significance.

Outline mitigation has been suggested.

1 AIMS OF THE STUDY

The focus of this report is a single detached dwelling and garage at Shorne Mead, Pear Tree Lane, Shorne, DA12 3JT.

To inform a planning application for the proposed demolition of the existing buildings and erection of a new family home, a Preliminary Ecological Appraisal (Calumma Ecological Services, 2024) was undertaken, which found the dwelling (B1) to hold moderate suitability for roosting bats and the detached garage (B2) to hold low suitability for roosting bats.

The Preliminary Ecological Appraisal recommended further survey work to meet the following objectives:

- Identify the presence or potential presence of roosting bats within the site.
- Identify the need for European protected species licensing.
- Make outline recommendations for any mitigation and or enhancement measures.

2 BACKGROUND INFORMATION

As part of the Preliminary Ecological Appraisal (Calumma, 2023), a bat risk assessment was undertaken of a single building (shown in Figure 1).

The Site is located within a predominantly rural setting, with a low density of housing. The area is surrounded by a large block of woodland with optimal suitability for foraging and year round roosting for bats.

Figure 1 – Site plan, showing buildings B1 and B2 (taken from Calumma, 2024)

Building	Description	Bat evidence
B1 dwelling	Semi-detached dwelling of brick construction with a pitched, tiled roof. The walls are partially clad with hanging tiles. The building is occupied. Externally the building is in a generally good condition. A low number of potential bat roost/access features were noted, in particular gaps under hanging tiles. **The building was assessed as having moderate suitability for roosting bats in the PEA. There is low potential for hibernating bats.**	None
B2 Garage	Detached garage of brick construction with a pitched, tiled roof, in an apparently good condition. A small west facing dormer is clad with hanging tiles. **The building was assessed as having low suitability for roosting bats in the PEA. There is negligible potential for hibernating bats.**	None
B3 Shed	Detached brick shed with **negligible suitability for roosting bats.**	None

Table 2. Building descriptions and bat potential

3 METHODOLOGY

3.1 Emergence Surveys

Three dusk emergence surveys were undertaken, in accordance with the Bat Conservation Trust Good Practice Guidelines (Collins, 2023). All features of bat roosting potential could be observed by 4 surveyors (See Figure 2).

The surveys started approximately 15 minutes before sunset and ended approximately 90 minutes after sunset.

Each surveyor was equipped with either Elekon Batlogger or Wildlife Acoustics EM Touch detectors, plus Nightfox Whisker InfraRed cameras.

Pre-dawn surveys were not undertaken, as it was considered that with the aid of IR cameras, an adequate assessment of all features of bat roosting potential could be undertaken during dusk emergence surveys.

The surveys were led by ecologist Kate Baldock MCIEEM (Level 2 bat survey licence 2015-12362-CLS-CLS, with 18 years of bat survey, mitigation and licensing experience), assisted by experienced bat surveyors Kathryn Clements, Dr Lee Brady MCIEEM and Oliver Westergaard.

Figure 2 – Surveyor Locations and Sightlines

3.2 Survey Dates, Times and Weather Conditions

Date	Sunset	Start	End	Weather	Temperature
23/05/2024	20:55	20:40	22:25	Overcast, light breeze, dry	17°C to 14°C
11/06/2024	21:19	21:04	22:49	Overcast, still, dry	14°C to 12°C
04/07/2024	21:16	21:01	22:46	Overcast, light breeze, dry	18°C to 16°C

Table 1 - Survey dates, times and weather conditions

4 RESULTS

23rd May 2024

At 21:07, 12 minutes after sunset, a single soprano pipistrelle emerged from beneath a tile on the southwestern gable end (See Figure 3).

A very low level of common pipistrelle and soprano pipistrelle foraging was recorded within the site, with occasional noctule and brown long eared bat passes.

Figure 3 – 23rd May 2024, soprano pipistrelle day roost on the south western elevation

11th June 2024

At 20:15, 4 minutes after sunset, a single soprano pipistrelle emerged from beneath a hanging tile on the southwestern elevation (see Figure 4). Although a different access point, this is considered to be the same roost as recorded on 23rd May.

A very low level of foraging activity was recorded within the site, which was dominated by noctule, with occasional common pipistrelle and soprano pipistrelle passes and a single brown long eared bat.

Figure 4 – 11th June 2024, soprano pipistrelle day roost on the south western elevation

4th July 2024

At 21:38, 22 minutes after sunset a single common pipistrelle emerged from beneath a hanging tile on the southwestern elevation (See Figure 5).

A very low level of foraging activity was recorded within the site, which was dominated by noctule and soprano pipistrelle, with occasional common pipistrelle passes.

Figure 5 – 4th July 2024 Common pipistrelle day roost on the south western elevation

Summary

Two pipistrelle day roosts used by individual bats (1 x soprano pipistrelle and 1 x common pipistrelle) were identified on the southwestern elevation of the dwelling, with a single bat emerging on each occasion.

Very low activity was recorded on all surveys. It is likely that bats are foraging in and around the surrounding woodland which provides higher quality habitat and foraging resources.

5 LEGISLATION

Habitats and Species Regulations 2017 (as amended)

All species of bat native to the UK are European Protected Species (EPS). As such under the Habitats and Species Regulations 2017 (as amended) it is an offence to:

- Deliberately capture, injure or kill any wild animal of a European Protected Species;
- Deliberately disturb wild animals of any such species. Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong;
- Deliberately damage or destroy a breeding site or resting place of such an animal.

Wildlife and Countryside Act 1981(as amended)

Bats are afforded full protection under Section 5 of the Wildlife and Countryside Act 1981(as amended). It is illegal to:

- Deliberately or recklessly kill, injure or disturb a bat;
- Deliberately or recklessly damage, destroy or obstruct access to a bat breeding site or resting place.

In summary, all species of bat in the UK, and their roosts, are protected from killing, injury, disturbance, damage/destruction/obstruction of their roosts.

Any works that have the potential to affect bats and/or their roosts should be undertaken under a European Protected Species Mitigation Licence or Bat Mitigation Class Licence (for low impact projects), granted by Natural England.

6 IMPACT ASSESSMENT

6.1 Limitations

The surveys were undertaken within the optimum time period for carrying out bat activity surveys, and all features of bat potential could be seen. There were therefore no constraints to the survey.

6.2 Potential Impacts

Day Roosts

Two day roosts of individual common pipistrelle and soprano pipistrelle bats were recorded during the surveys. These are likely to be males or non-breeding females.

Unmitigated demolition of the building will result in the destruction of 2 day roosts and potentially kill/injure/disturb roosting bats, all of which are offences under UK and European legislation.

Lighting

There is a risk of light disturbance to foraging bats and increased risk of predation from artificial lighting during both construction and operational phases of the project.

7 RECOMMENDATIONS AND MITIGATION

7.1 Further Survey

If the proposed development does not proceed within 12 months of the date of this report, an updated survey is recommended to confirm if the results of the current survey are still valid, and that the mitigation is still appropriate. For licencing purposes, Natural England require survey data to be '*up to date and have been conducted within the current or most recent optimal season'.*

7.2 Bat Mitigation Class Licence

The survey data has confirmed the presence of day roosts of individual common pipistrelle and soprano pipistrelle bats, which will be destroyed. The proposal is considered to fit the criteria for a Bat Mitigation Class Licence (BMCL) from Natural England, which can be used for small numbers of roosts of low conservation significance.

A BMCL is granted by Natural England to permit activities which would ordinarily be unlawful, such as damage or destruction of a roost.

BMCL applications can only be submitted once planning permission is granted and must be prepared by an ecologist who is registered with Natural England to work on BMCLs (the Registered Consultant). Applications should take 15 days or less to be granted by Natural England. The licence itself must be issued prior to any development activities taking place.

7.3 Outline Mitigation

To minimise impacts to bats and their roosts, the following mitigation measures are recommended and will be confirmed during the licence application.

- Prior to demolition, the overseeing ecologist will provide a toolbox talk to the contractors involved in the building demolition. The overseeing ecologist will be the Registered Consultant, or an Accredited Agent nominated by the Registered Consultant with sufficient experience to work on BMCLs.

- Hand removal of the features used by roosting bats (and any features to have suitability for roosting bats) must be supervised by the overseeing ecologist.

- Although the buildings are of low suitability for hibernating bats, it is recommended that the winter months (November to March) are avoided to minimise the risk of encountering hibernating bats which are extremely vulnerable to disturbance.

- **Breathable roofing membranes must not be used where bats can come into contact with them, as bats can become entangled in their fibres.**

- As a minimum, at least two bat tubes should be installed in the southern/southwestern elevations of the new building. Examples include:
    - Verona Built-in Woodstone Bat Box (wildcare.co.uk)
    - Schwegler 2FR Bat Tube/Access Unit (wildcare.co.uk)

  These are designed to be built into the masonry of an external wall and can either be built flush with the wall or beneath a rendered surface. The boxes require no maintenance.

  These should be located:
    - At least 3.5m above the ground
    - Away from artificial light sources (to protect them from predation)
    - Away from windows and doors

- A single tree mounted bat box will be required as a temporary roost for any bats found during demolition, such as:
    - eco kent bat box (wildcare.co.uk)

  This should be located:
    - On a tree close to hedges or tree lines
    - Ideally at least 3.5m above the ground
    - Away from artificial light sources (to protect them from predation)
    - Sheltered from strong winds and exposed to the sun for part of the day (usually south, south-east or south-west)

7.4 Lighting

As bats were recorded within the site, it is recommended that any lighting is designed to minimise impact on foraging/commuting bats.

If lighting is required, this should be low or zero UV, which is preferred to reduce attraction of insects to lighting and therefore to reduce the attraction of foraging bats to these areas.

Lighting should be directed away or shielded from any green areas/woodland/hedgerows, and bat boxes/roost access points to allow bats safe foraging routes where they will not be visible to predators.

8 RELEVANT PUBLICATIONS

Calumma Ecological Services (2023). *Preliminary Ecological Appraisal – Shorne Mead, Pear Tree Lane, Shorne, DA12 3JT.* Calumma Ecological Services.

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