



2 Peckleton Road, Kirkby Mallory, Leicester, LE9 7QH

Prepared for: Stacey Clements

Bat Presence-Absence Survey

August 2023

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Executive Summary

Background

The survey follows Collins (2016) Good Practice Guidelines. It provides recommendations for mitigation/compensation, if considered necessary. If a deviation from the guidelines has been made, this will be detailed in the Method Section.

The following report (which has been prepared with due consideration for various best-practice guidance and methodologies, including those of the Chartered Institute of Ecology and Environmental Management (CIEEM 2016) and BS 42020, details the findings and recommendations for the site at 2 Peckleton Road.

The client commissioned Midland Ecology to undertake surveys to confirm bat presence/likely-absence¹, and roost characterisation if bats are present, as the proposals include the demolition of the existing building and the construction of three residential houses.

Results and Findings

No bat activity was observed associated with the building during the survey visit; although commuting and foraging bats were observed both on and adjacent to site.

The findings suggest the likely-absence of roosting bats within the building.

Bat activity levels on site were found to be low, with no heavy use of any specific features identified.

Impact Assessment and Recommendations

As the likely-absence of roosting bats within the building has been established, and no significant commuting or foraging routes observed, no impacts on bats are anticipated from the proposed works.

Due to the highly mobile nature of bats, this result is considered to be valid for a period of 24 months from the survey date; after which the survey may need to be repeated.

¹ It is not currently scientifically possible to prove an absence, so an assessed absence is usually referred to as a "likely-absence".

1.0 Introduction

The client, Stacey Clements, has commissioned Midland Ecology to undertake a Presence-Absence Survey for the site at 2 Peckleton Road, Kirkby Mallory, Leicester, LE9 7QH. Planning permission is being sought for the demolition of the existing building and the construction of three residential houses.

A previous Preliminary Roost Assessment, conducted by Midland Ecology on the 15th of June 2023 concluded that the house (B1) showed low bat roosting potential, with B2 (Kennels) having negligible bat roosting potential. It was specified that one dusk emergence survey should be undertaken for B1 within the peak activity period (May to August).

The survey/s can be conducted between May and September with the optimal season for surveying maternity colonies limited to mid-May to August inclusive, however it can also be limited due to bad weather, when bats are less active.

The aims of the survey were:

- To find or record the emergence of bats from a building or built structure.
- To find roosts by tracking back bat flight paths or observing dawn flight activity at roosts.
- To determine presence/likely-absence of species i.e. the species present in a given area.
- To determine the intensity of bat activity both spatially and temporally i.e. to help estimate bat populations.
- To determine the type of activity, most usually foraging (e.g. by feeding buzzes), commuting (e.g. by high directional pass rates) and mating (e.g. by mating social calls).

If bats, evidence of their recent activity or the emergence of bats from a roost are found during our survey, this report will make recommendations for further survey work and/or design mitigation, where this is consistent with national guidelines, and assessed appropriate by the surveyor in the context of the proposal. These recommendations will be based on an evaluation of which of the following roost categories may be present onsite (if any):

Table 1: Bat roost status definitions

Status	Description
Hibernation Site	Where bats may be found during the winter. (This is assessed within the context of this report).
Daytime Summer Roost	Used by males and/or non-breeding females (Seasonal limitations prevent robust analysis of this).
Night Roost	Where bats rest between feeding bouts during the night but are rarely present during the day.
Feeding Roost	Where bats temporarily utilize feeding perches and stations to eat an item of prey.
Transitional (or Swarming) Site	Where bats may be present during the spring or autumn (This cannot be assessed within the context of this report).

Summary of legislation and National Planning Policy that protects bats in England:

- Conservation of Habitats and Species Regulations 2017.
- Wildlife and Countryside Act 1981 as amended.
- Countrywide and Rights of Way Act 2000.
- Natural Environment and Rural Communities Act 2006.
- National Planning Policy Framework (“NPPF”).
- Circular 06/05.

This legislation makes it illegal to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport a bat or any part of a bat, unless acquired legally.
- Sell, barter or exchange bats, or any part of a bat.

A bat roost is well-defined by the legislation as the ‘resting place’ of a bat. However, the word roost is used to describe this resting place and is generally accepted as the word describing where a bat (or bats) rest, feed or sleep.

2.0 Method

The survey follows Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).

Surveyors are positioned around the building(s), tree or structure in order to cover all elevations. The survey then observes for emerging or re-entering bats from suitable features such as holes, cracks and crevices. Notes on commuting and foraging bats are also made in the surrounds.

If a deviation from the guidelines has been made the reason and justification will be explained below: -

No deviation from the standard guidelines has been made for this survey.

Table 2: Habitat value (likelihood) of bat presence assessed against Collins (2016) guidelines Source: Adapted from Collins (2016) pp 35, Table 4.1.

Likelihood of bat presence (Habitat Value)	Features that bats can and will use, regardless of evidence being present.
Confirmed Bat Presence	Bats are found to be present during the survey. Evidence of bats is found to be present during the survey.
Higher likelihood of bat presence.	Pre-20th century or early 20th century construction. Agricultural buildings of traditional brick, stone or timber construction. Large and complicated roof void with unobstructed flying spaces. Large (>20 cm) roof timbers with mortice joints, cracks and holes. Entrances for bats to fly through. Poorly maintained fabric providing ready access points for bats into roofs, walls, bridges, but at the same time not too draughty and cool. Roof warmed by the sun, in particular south facing roofs. Weatherboarding and/or hanging tiles with gaps. Low level of disturbance by humans. Bridge structures, follies, aqueducts and viaducts over water and/or wet ground.
Lower likelihood of bat presence.	Modern, well-maintained buildings or built structures that provide few opportunities for access by bats. Small, cluttered roof space. Buildings and built structures comprised primarily of prefabricated steel and sheet materials.

	<p>Cool, shaded, light or draughty roof voids.</p> <p>Roof voids with a dense cover of cobwebs and no sections of clean ridge board.</p> <p>High level of regular disturbance.</p> <p>Highly urbanised location with few or no mature trees, parkland, woodland or wetland.</p> <p>High levels of external lighting.</p>
Negligible likelihood of bat presence.	No features suitable for roosting, minor foraging or commuting.

Notes on using this table

- 1 The features listed here may not be indicative of use of the site by bats during winter or spring.
- 2 Pre-1914 buildings may present the greatest likelihood of providing roost space for bats due to their design, materials used and age. Pre-1990 buildings, especially when close to good foraging habitat, and with favoured features such as cavity walls and soffits, also have a high likelihood of providing roost sites for some bat species.
- 3 Post-1990 buildings are generally less likely than older buildings to house roosts; however, some modern designs provide access to suitable roosting spaces for bats. Pipistrelles in particular occupy modern buildings and built structures providing that there are suitable access gaps (> 8mm) and provided the structure has appropriate characteristics for roosting.

3.0 Results

The following section details the results of the desk study, inspection and survey. The desk-study includes information from the magic.defra.gov.uk database, other online information sources, and map/aerial photo information. The field surveys section details the building, structure or tree (numbered for reference), description of any evidence found and habitat value if no evidence has been located.

3.1 Desk Study

The desk study is centred on postcode LE9 7QH.

3.1.1 Designated sites

There are no statutory designated sites within 1km of the site.

3.1.2 Landscape

A site check for habitats & species of conservation importance within a 1km radius revealed that there is deciduous woodland within 1km of the site. This can support the ecological requirements of bats and other protected species & conservation priority species such as badgers and hedgehogs.

A review of aerial photographs (Figure 1) and OS maps shows the site is in a sub-urban area with agricultural fields, residential housing and gardens in proximity. Commuting routes are around with lines of trees in proximity to the site.



Figure 1: Aerial photo of site, showing landscape structure © Google 2023

3.1.3 Historical records

A search of the Magic.defra.gov.uk database shows no European Protected Species Mitigation Licences (EPSML) that have been granted for bats within 2km of site.

3.2 Field Surveys

The following section details the structures reference, bats located, evidence located and observed emergence/re-entry.

Table 3: Survey conditions

Date	Timings Start/end sunset/ sunrise	Structure reference/ location	Equipment Used	Weather: Start	Weather: Finish
23/08/2023	19:45 – 22:00 Sunset: 20:15	B1 - House	Batlogger M x 1 Peersonic x1	Temp: 20°C Dry/Mild Cloud: 95% Wind: f0 Rain: None	Temp: 17°C Dry/Mild Cloud: 40% Wind: f0 Rain: None
Comments (to include # of surveyors used for each visit): Two surveyors were positioned around the building (Appendix 1).					

Table 4: Results and observations of the surveyors located around B1. Surveyor locations, bat activity and emergence/re-entry points are shown on maps in appendix 1 of this report.

Surveyor Location	Dates and Times	Bat Activity Observed
A	23/08/2023 19:45 – 22:00	<p>20:31 – Common noctule (N) <i>Nyctalus noctula</i> seen flying south to the west of B1.</p> <p>20:38 - Common pipistrelle (CP) <i>Pipistrellus pipistrellus</i> heard (not seen).</p> <p>20:34, 20:43 – CP seen foraging/commuting south to north, to the east side of B1.</p> <p>20:36 – CP seen foraging, heading north along the east edge of B1.</p> <p>20:37, 20:38, 21:14 – CP seen foraging, heading south along hedge.</p> <p>20:39, 20:50, 20:56, 21:03, 21:10, 21:21, 21:36, 21:42, 21:51 – CP heard (not seen) foraging/commuting.</p> <p>20:41 - Soprano pipistrelle <i>Pipistrellus pygmaeus</i> seen foraging, heading south along hedge.</p> <p>21:32 heard (not seen) foraging/commuting.</p>

B	As above	<p>20:24, 20:29, 20:32, 20:33, 20:35, 20:36, 20:37 – CP heard (not seen) commuting. Intermittent recordings until 21:47.</p> <p>20:31 - Noctule <i>Nyctalus noctula</i> seen commuting heading west.</p> <p>20:31, 20:40, 20:55 – CP seen foraging, heading SW.</p> <p>20:34, 20:56, 21:01 – CP seen commuting, heading NE.</p> <p>20:38 – CP seen foraging in a circular motion around north end of B1.</p> <p>20:39, 20:41 – CP seen foraging in a circular motion around south end of B1.</p> <p>21:06, 21:34 – Myotis sp. Heard (not seen).</p> <p>21:40 - Soprano pipistrelle (SP) <i>Pipistrellus pygmaeus</i> heard not seen.</p>
Conclusion: No observations associated with the building. Lots of foraging activity in garden and trees behind surveyor B, but no use of any specific linear features to indicate an important commuting route.		

4.0 Conclusions, Discussion and Recommendations

The following section details the conclusions, discussion and recommendations in the context of the proposed works.

Conclusion and Discussion

No bat activity was observed associated with the building during the survey visit; although commuting and foraging bats were observed both on and adjacent to site.

The findings suggest the likely-absence of roosting bats within the building.

Bat activity levels on site were found to be moderate, with no heavy use of any specific features identified.

Potential Impact

As the likely-absence of roosting bats within the building has been established, and no significant commuting or foraging routes observed; no impacts on bats are anticipated from the proposed works.

Recommendations

This survey result is valid for a period of 24 months from the final survey date. Should works not take place within that time period, then an update survey may be required.

5.0 References

- Collins, J. (ed), (2016), Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition, BCT.
- Mitchell-Jones, A.J. (2004), Bat Mitigation Guidelines, English Nature, Peterborough
- National Planning Policy Framework, 2012
<http://www.communities.gov.uk/publications/planningandbuilding/nppf>
- Office of the Deputy Prime Minister (2005). Circular 06/2005: Biodiversity and Geological Conservation. Para.99
<http://www.communities.gov.uk/documents/planningandbuilding/pdf/147570.pdf>

Appendix 1: Activity Maps

23/08/2023 - Dusk emergence

