



**Bat Emergence Survey
Manor Farm, Leeds**



Report reference: R-3000-02

Report Title:	Bat Emergence Survey Manor Farm, Leeds
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Summary Statement

Two emergence surveys have confirmed the presence of two small roosts used by low numbers of common pipistrelle bat.

Demolition of the roosts will require derogation by a Natural England license.

Introduction

1. Subsequent to the recommendations made in Brooks Ecological's Preliminary Ecological Appraisal (R-3000-01), detailed bat emergence surveys were commissioned at Manor Farm, Adel (centered at grid reference SE 26869 40663).
2. Information relating to local and legal status of bats is provided in report R-3000-01 and is not repeated here. However, these two reports should be read in conjunction for full context.

Method

3. Brooks Ecological specialise in bat surveys ranging from individual buildings through to complex sites requiring numerous visits with large teams. In terms of the survey effort, number of personnel required and number of visits required to be able to properly evaluate the building(s) use by bats, we refer to the Bat Conservation Trust Survey Good Practice Guidelines (2012). However, these guidelines are not prescriptive and we approach each site individually as required using our professional judgement and significant experience base.
4. In this case, 2 visits with a team of 4 surveyors was deemed necessary to fully evaluate the potential use of the site for roosting. Emergence surveys were carried out with surveyors positioned around the building to cover all aspects where bats could potentially emerge and to establish activity levels around the site.
5. The surveyors, using heterodyne detectors, were in place at least half an hour before dusk and left once all species of bat would be expected to have left a roost and patterns of activity within the site had been appraised. Conditions and dates are summarised in Table 1 below:

Table 1: Survey Summary

Date	Survey Type	Temp. Start/End	Weather	Invertebrate Activity
07.08.17	Emergence Sunset: 20:51	14°C - 13°C	Clear and dry. Still. Wind: B0.	Moderate
21.08.17	Emergence Sunset: 20:21	17°C - 14°C	Overcast with intermittent light rain, getting heavier at the end of the survey. Wind: B1.	High

Results

Survey 1 – 7th August 2017 – Sunset 20:51

6. The first bat noted was a single noctule commuting south west over the south-eastern corner of the site at 21:02. This was repeated again at 21:15.
7. At 21:14 a single common pipistrelle commuted north through the centre of the survey area. A similar route was then followed by another individual common pipistrelle at 21:18, thought to be a separate individual coming from a nearby farmhouse off Site. It was also suspected that one may have been a soprano pipistrelle.
8. From 21:22 two common pipistrelles were noted foraging on the southern boundary of the survey area, considered likely to be the two previously observed. This activity continued for the duration of the survey.

Figure 1: Summary of Bat Survey 1.



9. At 21:25 a single common pipistrelle was seen to emerge from the verge of the outbuildings (building 3) as shown on the plan. Another single common pipistrelle emerged at 21:30 from the same location.
10. A single myotis was suspected to have commuted through the Site at 21:28 having been picked up by several surveyors. This was seen to enter from the south heading north before switching back on itself.
11. The final activity noted was another common pipistrelle entering the survey area from the south east where it foraged for the remainder of the survey.

Survey 2 – 21st August 2017 – Sunset 20:21

12. Bat activity was reduced in comparison to the first survey, with the first bat seen at 20:30 being a single common pipistrelle commuting north east across the Site. As in the previous survey this was suspected to have emerged from the nearby farmhouse off Site.

Figure 2: Summary of Bat Survey 2.



13. At 20:42 a single common pipistrelle was seen emerging from behind a barge board on building 3, near to the previous emergences noted. This quickly left Site, heading in a westerly direction.
14. A single common pipistrelle was observed foraging around the southern boundary of the survey area and courtyard intermittently from 20:55. This was thought to have entered the Site from the south.
15. Three common pipistrelles were seen commuting north over the Site at 20:34, 21:01 and 21:14.



Figure 3

Showing the roost locations identified.

Evaluation and Recommendations

16. The occasional use of two roosts by a maximum of two common pipistrelle bats has been confirmed in Building 3 as labelled in the above plans. These are located behind a wooden barge board and at the verge of the old out building as shown in figure 3.
17. Although legally protected, these roosts are assessed as being of low conservation significance. The offence relating to their loss (and potentially the disturbance of the bats using them) can be derogated either under the Bats Low Impact Class License (BLICL) or use of a standard mitigation license, which can only be achieved once planning permission has been granted. Demolition of this building cannot take place until this provision is in place.
18. The presence of larger roosts elsewhere on site is not suspected however another small common pipistrelle roost is suspected off Site in the nearby farmhouse. Impacts upon roosts in this area are considered unlikely given some standard precautions as outlined below.
19. Elsewhere only low levels of activity were noted across the Site with small numbers of bats found foraging and commuting through the Site. Commuting was not focused on any particular feature, though several bats were noted commuting centrally through the Site. Though the buildings will be lost according to the proposals, the retention of linear tree planting and hedgerows around the boundaries suggests that impacts upon commuting bats will be minimal.
20. Any post development proposed for the site should have a sympathetic lighting plan which demonstrates that light spill will be minimised since illumination of these areas could prejudice their use by bats. Impacts can be minimised by implementing the following (Stone (2013)):
 - Use of narrow spectrum lights with no UV or warm white light;
 - Direct lighting downwards;
 - Use of low level lighting (e.g. 2m high lighting columns);
 - Use of hoods and cowls to direct lighting onto required areas and not onto adjacent habitats;
 - Restrict hours of light.

References

Bat Conservation Trust (2016) Bat Surveys for Professional Ecologists – Good Practice Guidelines

English Nature (2004) Bat Mitigation Guidelines. English Nature, Peterborough.

JNCC (2004) The Bat Workers Manual. 3rd Edition.

ODPM circular 06/05 (2005) Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System
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<http://www.legislation.gov.uk/uksi/2010/490/contents/made>

Stone, E.L. (2013) Bats and Lighting. Overview of current evidence and mitigation