

Bat Activity Survey
High Street, Hanging Heaton

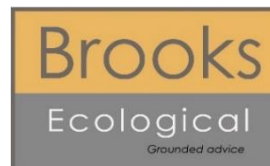
Vistry Partnerships Yorkshire

Report Reference: ER-4880-01

10/12/2020

Report Title:	Bat Activity Survey High Street, Hanging Heaton
Report Reference:	ER-4880-01
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Summary Statement

Survey carried out in Autumn 2020 has demonstrated very low levels of activity on-site, associated with a common and widespread species of bat.

Based on information gathered, proposals will have negligible impact on local bat populations.

Introduction

1. Brooks Ecological was commissioned by Vistry Partnerships Yorkshire to carry out detailed Bat Activity Survey at the proposed development Site off High Street, Hanging Heaton
2. These surveys are required to provide evidence of the baseline use of the Site by the local bat population, which in turn will then enable mitigation and enhancement strategies to be devised to support a planning application.
3. The scope of the survey has been devised based on an assessment of the habitats present, the results of previous activity surveys and in accordance with current best practice guidelines (Bat Conservation Trust, 2016).

Figure 1 Site location plan



Method

4. Survey and assessment was directed by Kate Wright BSc (Hons) MSc ACIEEM. Kate has 5 years' experience of carrying out bat surveys in a professional capacity and is registered to use the Class Survey Licence CL17 (Bat Survey Level 1). She is an active member of the West Yorkshire Bat Group and the national bat care network.
5. The objective of the survey was to collect up to date information on the Site's use by local bat populations, so that an accurate assessment of the potential impacts of development could be made. A transect and remote monitoring survey was carried out to collect the following data, in line with Bat Conservation Trust Survey Guidelines:
 - The assemblage of bat species using the site;
 - The relative frequency with which the site is used by different species;
 - The nature of activity for different bat species, for example foraging, commuting and roosting.

Survey Conditions

6. The walked transect was undertaken in October. Survey conditions are summarised below:

Table 1 Survey Conditions

Survey	Date	Sunset	Weather	Invertebrate Activity
Autumn	26.10.2020	16:44	Heavy rain at sunset, clearing with 80% cloud through survey. Very light wind (B1). 10°C at start, reducing to 8°C.	Low

Transect

7. The transect began shortly after sunset and continued for up to two hours after when all bats were thought to have emerged, and thus were actively foraging and commuting.
8. The transect was walked by a surveyor, equipped with a heterodyne detector as well as a Titley Scientific Anabat Express, used to track the transect route and aid species identification.
9. Where relevant, notes taken during the survey are then used to produce the activity 'heat map' seen in the below figure.

Remote Monitoring

10. To supplement data collected during the walked transect, a static monitoring device (Wildlife Acoustic SM4) was deployed in a strategic location within the centre of the Site prior to the start of the walked transect.
11. Data collected during the period of remote monitoring has been run through Kaleidoscope Pro software, which can identify bat calls down to species level (except for *Myotis*). Identification is generally correct when using this software, however, results are double checked to ensure accurate data analysis.
12. Every effort is made to split up *Myotis* calls down to species level. This is done by analysing calls on Analook software and looking at parameters such as inter-pulse interval, call duration, slope and maximum / minimum / peak call frequency. However, this can often be difficult when registrations are short in duration, faint or distorted by cluttered environments.

Limitations

13. Static monitoring can only reliably provide information on what species of bat are regularly making use of a site. More detailed information on bat activity, such as frequency of bats, nature of activity (foraging, commuting, flight path), etc. can only be gleaned through walked transects.
14. The frequency of calls recorded can, to some extent, suggest whether activity on site is low, moderate or high, by comparing data collected with that of similar sites that have been surveyed.
15. A single registration can account for up to 15 seconds of continuous bat call. Large batches of registrations can be interpreted in several different ways, i.e. a single bat foraging continuously for only an hour can result in many hundreds of registrations being logged; similarly, many hundreds of bats commuting quickly past the detector can result in the same number of registrations.

Autumn Results

Walkover Transect

16. The transect started at the north-west of the Site, accessed via the public footpath off High Street.
17. The walked route took in boundary features and the central hedgerow, making sure that all habitats on-site were represented.
18. The route was walked twice.
19. No bats were heard or seen throughout the survey.

Figure 2 Showing route of walked transect (dotted line) and monitoring equipment (red dot).



Autumn Results

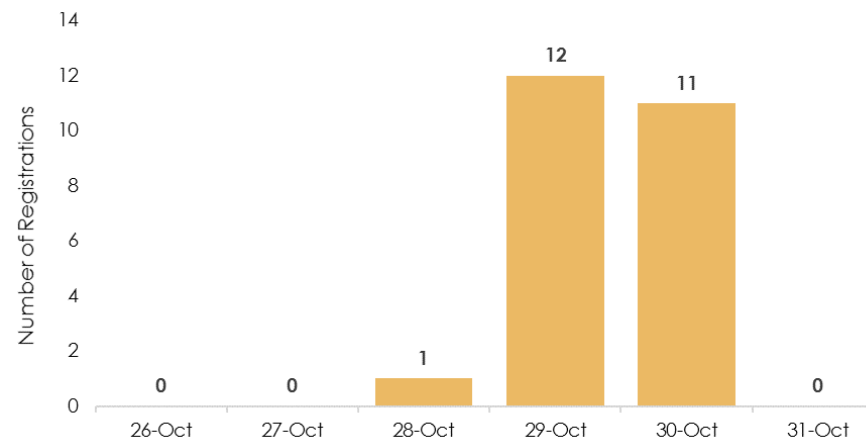
Remote Monitoring

20. A single remote detector (Song Meter SM4BAT FS) was deployed in the location shown in Figure 2. This was left to run for 6 consecutive nights, from the 26th to 31st October to 2020.
21. During this time, only extremely low levels of bat activity were recorded, with common pipistrelle being the only species present on-site.
22. This activity likely represents a single or very low numbers of bats using the Site for occasional foraging.

Table 2 Total number of registrations logged for each bat species, per day (Autumn 2020).

Species	26 th	27 th	28 th	29 th	30 th	31 st
Common Pipistrelle	0	0	1	12	11	0

Figure 3 Total number of registrations per night (Autumn 2020).



Conclusions & Recommendations

23. A single bat survey carried out during the Autumn 2020 season has corroborated the assertion made in the Preliminary Ecological Appraisal report (ER-4880-01), demonstrating very low levels of bat activity on the Site.
24. No activity was noted throughout the walked transects, and only occasional registrations by common pipistrelle bats were recorded during the remote monitoring period.
25. This indicates that the Site is likely used for very low level irregular foraging by a common and widespread species of bat.
26. The data collected does not point to the Site being of any significant importance to any particular local bat populations.
27. Proposals show development will be confined to the field interiors, with hedgerow boundaries being largely retained. The areas generally considered to be of greatest value to bats (hedgerows and woodland edge habitat) will be retained, with additional tree and shrub planting planned on-site.
28. Based on the information collected and the sensitive design of the masterplan, the proposed development is unlikely to impact significantly on the local bat populations.
29. To minimise the impact of development of this group further, the following mitigation is recommended as standard:
 - A sensitive lighting plan should be designed to show how light spill will be minimised/ avoided on habitats favoured by bats.
 - Existing hedgerows should be enhanced to maximise their value to bats and other local wildlife.
 - Bat boxes should be installed within a number of suitable properties, i.e. those positioned along the north and eastern boundaries.

References

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