Brooks Ecological
Grounded advice

Bat Survey
Kingsley Farm,
Harrogate

Report reference: R-1543-02
June 2014

Report Title:	Bat Survey Kingsley Farm, Harrogate
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Summary Statement

A single solitary common pipistrelle roost has been found within a masonry gap on a southern elevation of the stone office building.

Given the current proposals this roost can be easily retained without the need for licensing - a suitable method is proposed.

However, if the proposals change and this is no-longer achievable then a European Protected Species Mitigation Licence will be required from Natural England.

Introduction

1. Subsequent to the recommendations made in Brooks Ecological's Bat Roost Potential Survey (R-1543-01) and comments made by Dan McAndrew at Harrogate Borough Council, detailed bat survey of buildings with bat roost potential and trees set to be impacted upon by the proposals has been commissioned at Kingsley Farm, Kingsley Road, Harrogate, North Yorkshire (SE 320 563).

2. Information relating to local and legal status is provided in report R-1543-01 and is not repeated here. However these two reports should be read in conjunction with each other for full context. Buildings covered by the survey and affected by the proposals are shown in Figure 1 below.

Figure 1 Site boundary (dash red line) and revised application site boundary (solid red line)

Proposals

3. The proposals are for low density residential development to occupy the site, including a mix of detached, semi-detached and terrace properties, with associated garden spaces, car parks and access roads. This picture is summarised in Figure 2 below.

Figure 2 Proposals Plan

4. A thorough daytime inspection of the site was made in May 2014 in order to look for evidence of bats and assess bat roosting potential. Evidence of bats may take the form of droppings, feeding remains, live bats, dead bats, stains from the oils in bats' fur and claw marks made by bats regularly roosting in the same location.

5. Bat roost potential of these buildings is discussed in our previous report: R-1543-01. Roosting potential of the trees was classified according to the following criteria set out in Table 1, developed with reference to the Bat Mitigation Guidelines (2004), Bat Workers Manual (2004) and the Bat Conservation Trust Good Practice Guidelines (2012).

Table 1: Bat roosting potential in trees

Roosting potential	Criteria
Good	Trees that have many areas suitable for roosting with a large number of potential roosting features such as fissures, holes and flaking bark. These are normally in areas of good habitat such as close to water or in a landscape with well connected linear features. Trees with good potential could be used for a whole range of roosts including maternity and hibernation roosts.
Moderate	Trees with a smaller range of features suited to roosting in less valuable habitat, but still supporting features that could be attractive to bats and potentially support maternity roosts.
Limited	Trees with limited range or quality of roosting features in poor habitat. They could be used as occasional or transient roosts, but are unsuitable for maternity roosts.
Very Limited	Trees that have few places for bats to roost located in poor foraging habitat, but due to superficial features such as flaked bark etc. could be used on an occasional basis for solitary or small groups of bats.
None	Trees which appear unsuitable for roosting bats due to clear lack of roosting spaces such as voids etc and/or absence of suitable access points.

6. Survey and assessment was directed by Christopher Shaw BSc (Hons) ACIEEM. Chris has over 4 years experience of carrying out bat surveys in a professional capacity and is registered to use the new Class Survey Licence WML CL18 (Bat Survey Level 2). He is an active member of the West Yorkshire Bat Group and West Yorkshire Bat Care Scheme.

Results

7. The application site comprises a mix of hay fields and rough grassland with occasional patches of scrub and tall ruderal vegetation. The farm complex is found within the centre of the site and includes a large house and established gardens. The site is bound by a mix of hedgerows, containing a number of mature standards, dry stone walls and post and wire fencing. The site lies between open agricultural land to the north and urban development to the south. A number of small areas of

woodland and Bilton Beck are found to the north providing areas of good bat habitat.

8. All trees present on site were surveyed for bat roost potential; details of these trees can be found in the tree survey report (JCA ref – 11042/SR 2013). The majority of these trees are found outside the application site boundary, but within the wider survey site.

9. Trees found within the application site boundary include a number of ornamental and horticultural specimens such as silver birch, blue atlas cedar, hawthorn, sycamore, Norway and field maple, beech, lilac, and apple. All these trees will be retained through development.

10. None of these trees possess any features of bat roost potential with only minimal areas of occluded bark surrounding pruning scars - these features do not lead to cavities suitable for use by roosting bats. Isolated areas of livestock damage are found at the base of a number of these trees. These areas of damage are too low to be of use by roosting bats and have been covered by chicken wire.

Figure 3

Example of specimen trees within established garden.

11. Standard trees of greater maturity are found around the sites boundary and forming two lines to the south of the site, presumably along former boundaries. These are predominantly ash and oak but include some sycamore and hawthorn. A small group of sycamore, is found adjacent to one of the tree lines to the south. Three mature ash trees are scheduled for removal due to their condition; all other trees will be retained.

12. During the survey it was possible to highlight a number of features of bat roost potential within the mature oak and ash trees around the sites boundary. Features encountered include rot holes, branch scars, peeling bark and split limbs. On

occasion, rot holes were found to lead to larger cavities within the trees providing a good level of bat roost potential.

13. Survey carried out by JCA highlighted three trees with areas of brown staining possibly caused by bats. Where possible, these features were closely inspected with a high powered torch and endoscope, using ladders for access. On closer inspection no evidence of bats could be found, with staining attributed to water pooling within crevices and overtopping.

14. Despite possessing features of bat roost potential the majority of these boundary trees will be retained and are sufficiently distant from the development site to be unaffected by disturbance should roosts be present. For this reason it was deemed unnecessary to survey all trees with bat roost potential. Three trees scheduled for removal were incorporated into the emergence survey, as was a single early mature oak which is found within the application boundary to the south west.

Figure 4

Example of feature of good bat roost potential within early mature oak.

Emergence Survey

15. Subsequent to the recommendations made in Brooks Ecological's Bat Roost Potential Survey (R-1543-01), a detailed bat survey of two stone buildings (highlighted in below figure) has been carried out.

16. In addition to this, four trees identified as presenting bat roost potential and situated within influencing distance of the development have also been covered by emergence survey.

Figure 5 Buildings surveyed (red shading) & approximate surveyor locations (red blobs).

Method

17. 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.

18. Three survey visits were carried out on 23rd September 2013 and the 14th and 29th May 2014. A team of up to 7 surveyors were used on each visit, with surveyors being positioned around the buildings and trees to cover all aspects where bats could potentially emerge, and to establish activity levels around the site.

19. 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 2 below:

Table 2: Survey summary

Date of Survey	Temperature	Weather	Invertebrate activity
23.09.13	16˚C	Complete cloud cover, calm, dry	Low
14.05.14	15˚C	10% cloud, calm, no rain	Moderate
29.05.14	12˚C	Complete cloud cover, calm, dry	Moderate

20. Survey and assessment was directed by Christopher Shaw BSc (Hons) ACIEEM. Chris has over 4 years experience of carrying out bat surveys in a professional capacity and is registered to use the new Class Survey Licence WML CL18 (Bat Survey Level 2). He is an active member of the West Yorkshire Bat Group and West Yorkshire Bat Care Scheme.

Results

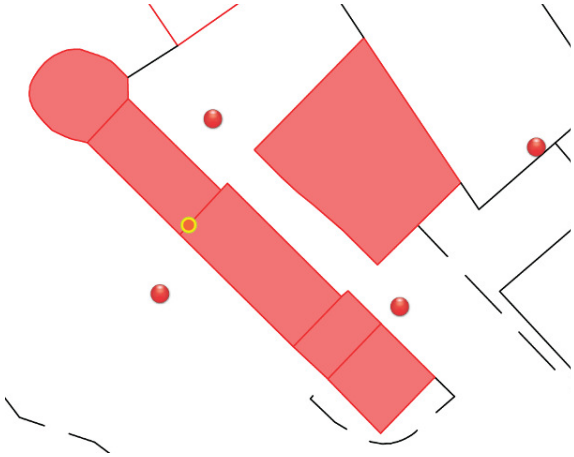
Survey 1 – 23rd September 2013 Sunset - 19:03

21. The first bat seen was a common pipistrelle at 19:15, 12 minutes after sunset. This bat was seen to fly from the direction of the stone farm house, from the eastern end of the northern elevation. It is suspected that a roost is present somewhere on this elevation of the stone farm house. This bat then flew around to the southern elevation of the farm house and foraged for around 5 minutes before leaving the site to the northeast.

22. The second bat was again a common pipistrelle, this time clearly seen to emerge from a masonry gap in a south facing gable end wall, towards the centre of the long stone office building (see Figure 6). This bat then flew out of the site in a south-easterly direction.

23. From this point onwards a total of 6 common pipistrelle bats were recorded commuting across the site from southwest to northeast (4 bats between 19:20 - 19:50), west to east (19:25) and north to south (19:30). All of these bats were clearly seen to enter the site and were not suspected to have emerged from any of the buildings on site.

Figure 6 Roost location within cavity wall space of long stone office building.



Survey 2 – 14th May 2014 Sunset – 20:55

24. The first bat seen was a common pipistrelle at 21:24, 29 minutes after sunset. This bat was seen to commute through the survey area from north – south, entering the survey area from the northeast along the east facing wall of the large farm house building. Ten minutes later, a second bat was seen to enter the site from the same direction, this time flying into the courtyard between the three stone buildings where it then foraged intermittently throughout the evening.

25. Two further bats were seen to enter the site from an off-site location later in the evening; both flying in a west – east direction from the northwest boundary. These bats then remained on site for the remainder of the survey, foraging within the courtyard and garden to the east.

26. No bats were seen to emerge from either of the buildings surveyed. A small roost of common pipistrelle is suspected in the adjacent stone farm house building, likely within the north or east facing elevation; however, this roost will not be impacted upon by the current proposals.

Survey 3 – 29th May 2014 Sunset – 21:22

27. Activity was very similar to that recorded during survey 2. The first bat to be seen was a common pipistrelle at 21.24, 2 minutes after sunset. As before, this bat was seen to commute through the survey area from north – south, entering the survey area from the northeast along the east facing wall of the large farm house building. A minute later, a second bat was seen to enter the site from the same direction, this time flying into the courtyard between the three stone buildings where it then foraged intermittently throughout the evening.

28. Low level foraging activity was also recorded within the garden to the east and along the hedge line to the south of the site.

29. Again no bats were seen to emerge from either of the buildings surveyed.

Evaluation and recommendations

30. A single solitary common pipistrelle roost, used during late summer, has been discovered within the cavity wall space of the stone office building. This office building is scheduled to be retained and converted into residential use and so the roost can be easily retained in situ.

31. It would however appear that the proposals for the site *can* easily accommodate the retention of crevices in the potential roost areas shown in Figures 1 and 2, and it is felt that as long as direct / significant impacts to individual bats can be avoided during works and the roosts can be safeguarded in the long term, that the licensing of works should not be required. A suitable method for achieving this situation is provided below and it is anticipated that the planning authority will be able to grant planning permission with a condition securing this method.

32. Should the situation change in the interim making licensing necessary, the office (which will be retained in the development) provides ample scope for any mitigation required to secure any EPSM license required.

33. No roosts have been discovered within any of the trees highlighted as presenting bat roost potential and situated within influencing distance of the proposals.

34. A second small common pipistrelle roost is also suspected within the north east elevation of the stone farm house (see figure 7below). The current masterplan will see this building remain as a farm house and left unaffected by the proposals; as such, no further survey or NE Licence will be required. If this situation changes, further survey and a EPSM Licence is likely to be required.

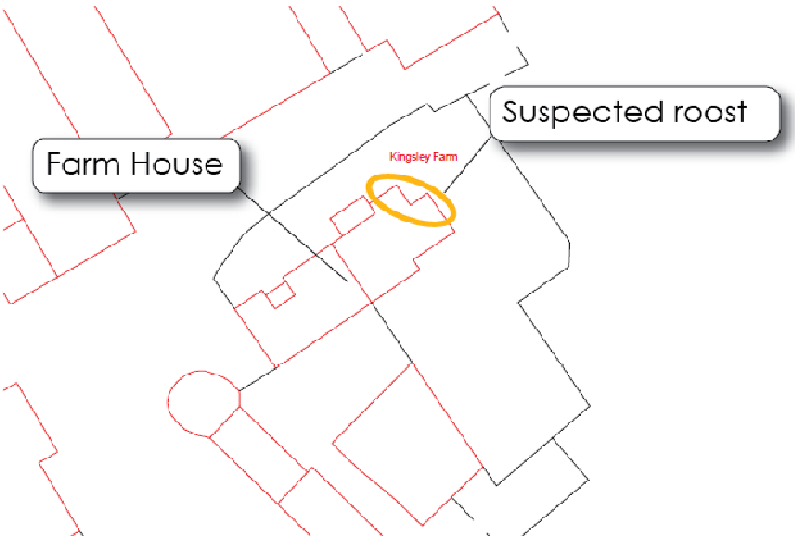


Figure 7

Approximate location of suspected bat roost

35. Any works to the external stonework around the identified bat roost (see Figure 6) should take place during the period October – March when bats are least likely to be present.

36. The roost entrance should be left un-pointed (unobstructed). To ensure this is achieved, once scaffold is in place around this elevation of the office, the ecologist will carry out endoscopic inspection of the identified roost and other crevices to confirm the absence of bats. They will mark up and advise contractors of the crevices which are to be retained.

37. Site inspection reports detailing these works will be submitted to Harrogate Borough Council.

38. Lighting will not be directed onto or near to any retained roosting.

General advice

39. Even where surveys have been carried out which demonstrate absence of roosting, site workers should always be aware that bats can move into buildings previously found not to support them. On this basis work should proceed with care and if a bat is found during the proposed demolition, works should stop immediately and a professional ecologist and/or the bat helpline (on 0845 1300 228 Bat Conservation Trust) should be contacted. The local office of Natural England should also be contacted to seek advice.

40. The UK government's latest guidance on nature conservation in relation to development (NPPF) makes it clear that opportunities should be sought through their planning system to use development as an opportunity to enhance sites for wildlife where possible. Proposals for the renovation of the stone shed could easily include features to attract roosting and this can be designed without creating conflicts with the home owner. Roosting features could be bespoke and designed in by the architect in cooperation with an ecologist or 'off the peg' bat boxes could be erected.

References

Bat Conservation Trust (2012) Bat Surveys – 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 http://www.communities.gov.uk/publications/planningandbuilding/circularbiodiversity

Conservation of Habitats and Species Regulations 2010 http://www.legislation.gov.uk/uksi/2010/490/contents/made