



Bat Emergence & Roost Categorisation surveys

Site: Barn at Spring Head Farm, Bolton by Bolton.

25th November 2025

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Summary

- This report presents the results of dusk bat emergence surveys of 1 building at Poor Parts barn, Spring Head Farm, Bolton by Bowland between June and September 2025.
- The report is required to accompany a planning application for the proposed renovation of the buildings.
- The aim of the assessment was to determine the current use by bats or presence of bats on all survey features and characterise any bat roosts if present. This includes providing evidence for species, numbers and levels of activity, to identify any entrance and egress points, and to gain an understanding of the activity of bats using the site in the local landscape.
- Further to the daylight inspection survey (PRA) report (*ARK, February 2025*), two further surveys were recommended, and a third survey was commissioned to meet the BTC & planning guidelines, once bat roosts were confirmed in the building.
- Low numbers of common bat species were recorded emerging from the building at similar locations on each survey, however not sufficient numbers to suggest a maternity roost.
- A Natural England Protected Species Mitigation Licence application to destroy a resting place (day roost) will need to be submitted once planning permission has been obtained.
- See the recommendations below for further actions.

Recommendations

- **A Natural England Protected Species Mitigation License (NEPSML) will be required once planning permission has been obtained.**
- **Work will not commence until NEPSML has been granted.**
- **Mitigation will be designed as part of the NEPSML application.**
- Lighting will be controlled across the developed site.
- Low impact lighting strategies will be adopted from the guidance outlined in the Bat Conservation Trust “Bats and Lighting” publications: http://www.bats.org.uk/pages/bats_and_lighting.html

If bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be sought for further advice.

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1.0 Introduction and Context

1.1 Background

These surveys were completed following recommendations made in the Preliminary Roost Assessment Survey report (ARK PRA February 2025). The PRA report identified the building as having moderate potential for bats and recommended two emergence surveys in line with best practice guidelines. Following the confirmation of a bat roost, a further survey was carried out on that building.

1.2 Site Context

The site is located at National Grid Reference SD 79674 50119, comprising of a traditional stone-built out-barn.

1.3 Scope of the report

This report provides a description of the bat activity observed and recorded during each survey.

The aim of the assessment was to characterise any roosts present including species, numbers and access points, roosting locations, timing of use and type of roost, and to gain an understanding of how bats use the site.

Robust data has been collected, following good practice guidelines, to inform an assessment of the potential impacts of the proposed development on bats, and inform mitigation and enhancement.

This report provides information on constraints to the proposals due to roosting bats, summarises any mitigation required to achieve planning permission and statutory consent to comply with wildlife legislation.

To achieve the aims of the assessment, the following steps have been taken:

- A field survey has been undertaken, including a daylight external survey and dusk emergence surveys. The daytime survey results are reported in the ARK PRA report February 2025.
- An outline of likely impacts on any known roosts has been provided, based on current development proposals.
- Recommendations along with advice on European Protected Species Mitigation Licensing if appropriate.

A survey plan is presented in Appendix 1 showing the location of each surveyor and any confirmed bat roosts.

2.0 Methodology

2.1 Emergence Survey Methodology

- The surveys involved personnel and night vision camera equipment positioned around the buildings ensuring that all elevations and roof sections could be clearly observed.
- Particular attention was paid to the areas of the buildings previously identified as providing suitable access points to bat roosts. The location of each surveyor during each survey is shown in Appendix 1.
- Each surveyor was assigned an area of the building to observe for the duration of the survey.
- Surveyors used bat detectors with full spectrum recording,
- Bat echolocation calls recorded during the surveys were analysed using Wildlife Acoustics sound analysis software Kaleidoscope V3.1.7.

- In line with current BCT guidance, infrared night vision cameras (NVA's) were also used to cover areas of high PRF or confirmed roost exit points, and the footage viewed following the survey at a slower rate (max. .67) to determine bat passes and/or emergences.
- Cameras used were: Canon XA30, Nightfox Whisker IR, additional infrared lighting provided by Nightfox IR torches and floodlights.
- The resulting video was subsequently viewed in full, cross-checked with survey sheets and a summary of activity collated from each camera.
- These night vision aids improve the quality of data collected on each survey, providing a visual context where surveyors can no longer see features due to low light levels.
- The camera and surveyor positions were adjusted across the survey season to focus on areas of highest activity and emergences.

2.3 Surveyors

2 surveyors were positioned around the building with NVA at each position & 1 extra NVA on each survey.

Personnel details are included in the survey summaries at Table 2 and included lead surveyor Carol Edmondson (Natural England bat licence number: 2015-12195 CLS-CLS) 12 years specific bat survey experience, Catherine Wood (Natural England Bat Licence Number: 2015-11257-CLS-CLS) 15 years of bat survey experience.

The designated position of each surveyor & NVA during each survey is detailed in the tables in Section 3.1 below and shown on the plan in Appendix 1.

2.4 Survey Timings and Weather Conditions

The dates and times of each survey are presented in Table 1, along with sunset/sunrise times as applicable and the weather conditions at the start and end of each survey.

2.5 Limitations – evaluation of the methodology

These surveys follow best practice guidance to confirm presence of roosting bats and where present characterise the roost. However, this information is collected at finite dates and times, and provides an indication of the conditions on site at that time only. Due to the transient nature of bats, the use of the building and the site as a whole by bats at all times cannot be established based on this information.

Table 1: Survey schedule and weather conditions

Survey date	Survey Start and End Times Sunset/sunrise time	Weather Conditions Start	Weather Conditions End
02/06/2025	21.15 – 23:16 Sunset: 21:31	Temp: 12°C Cloud Cover: 10% Wind: OBS Rain: Dry	Temp: 10°C Cloud Cover: 5% Wind: 4BS Rain: Dry
10/07/2025	21.20 – 23:10 Sunset: 21:37	Temp: 18°C Cloud Cover: 25% Wind: OBS Rain: Dry	Temp: 14°C Cloud Cover: 25% Wind: OBS Rain: Dry
12/09/2025	18:35 – 20:20 Sunset: 18:50	Temp: 11°C Cloud Cover: 75% Wind: 1BS Rain: Dry	Temp: 11°C Cloud Cover: 75% Wind: 1BS Rain: Dry

3.0 Results and Evaluation

3.1 Survey Results

The daylight external inspection identified several potential emergence/roosting features in the building.

3.1.1 Summary

On all surveys low numbers of common pipistrelle (*Pipistrellus pipistrellus*), myotis species, brown long-eared (*Plecotus auritus*) and Noctule bats (*Nyctalus noctula*) were recorded foraging along the hedgerow and trees on the site periphery, commuting over and around the building, and on occasion foraging inside the barn, entering and exiting through the southwest gable window opening. Up to a maximum of three bats were seen at the same time foraging around and passing over the building.

A total of two confirmed bat roosts were recorded

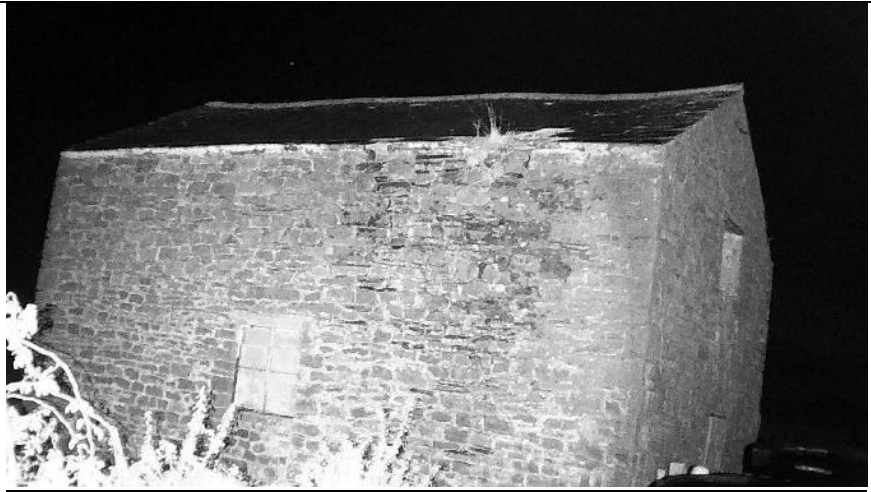
The full detailed results of the surveys are available on request with a summary of each survey in the tables below and roost, surveyor and NVA locations shown in the map at Appendix 1.

Darkest time of survey
NVA footage stills

P1



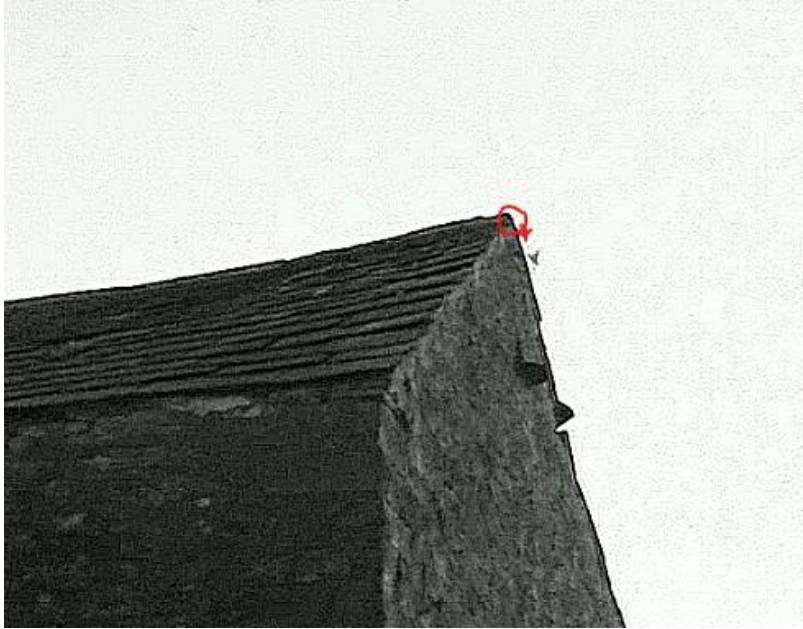

P2



P3



Bat emergence & roost location summary

Species	Roost Type	Max count.	Location & Map ref
Common Pipistrelle	Summer Day	1	Apex of northern gable end. Map ref #1 
Common Pipistrelle	Summer Day	1	Eaves at north end of western elevation. Map ref #2 

4.0 Conclusions, Impacts and Recommendations

4.1 Summary

The surveys undertaken to date, following current guidelines, provide sufficient information to conclude that this building is currently being used by fluctuating numbers of common pipistrelle bats as a day roost, in addition to foraging habitat around the building and trees on site. The bats were recorded emerging from 2 different locations, with one roost in use by a single bat on all three surveys. It can be concluded from the surveys that the area around the site is important foraging habitat locally for bats, and as such the lighting plan should follow the Bat Conservation guidelines for lighting around bat roosts.

4.2 Evaluation

Survey assessment conclusions:

Two separate locations of bat roosts have been identified in the building (all marked on photographs above). The evidence suggests that these were non-maternity permanent day roosts.

All types of bat roosts are strictly protected by law.

4.3 Recommendations:

- European protected species mitigation licence required to impact 2 Common Pipistrelle summer day roosts. The licence application will include a method statement to be followed during the works. See 4.4 *Mitigation* below.

4.4 Mitigation:

Any work which either disturbs bats whilst they are using a roost or damages/destroys/obstructs access to a bat roost will require a Protected Species Mitigation Licence from Natural England (EPSML).

An EPSML will require a detailed mitigation strategy outlining how impacts on bats will be minimised. An outline of such measures is suggested below:

- Potentially damaging activities should be restricted to periods of reduced sensitivity for bats, e.g. mid-September – November and March - April.
- Soft stripping of building materials in known bat roost locations.
- Roosting sites to be provided in the design of the building renovations to replicate the positions of recorded roosting sites: small gaps (15-20 x 200mm) in masonry and beneath stone-slates for crevice-dwelling bat species and the use of built-in bat roosts e.g
[Build-In Woodstone Bat Access \(wildcare.co.uk\)](http://www.wildcare.co.uk)
<https://www.wildcare.co.uk/soffit-bat-box.html>
- Minimisation of external artificial lighting during construction.
- Low impact lighting strategies will be adopted from the guidance outlined in the Bat Conservation Trust “Bats and Lighting” publications: http://www.bats.org.uk/pages/bats_and_lighting.html.

- Adding a further 2 bat boxes to adjacent trees would provide additional roosting places whilst the work is on-going.
- Consultation with an experienced ecologist during the design of these features will expediate the process.

Given the mitigation measures described above it is considered likely that legal compliance can be ensured, and the development will not adversely affect the favourable conservation status of bats.

If bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be contacted to seek further advice.

4.5 Enhancements

The installation of the additional 2 bat boxes on trees close to the site will provide enhanced roosting habitat for bats e.g.:

- [Build-In Woodstone Bat Access \(wildcare.co.uk\)](http://wildcare.co.uk)
- <https://www.wildcare.co.uk/soffit-bat-box.html>
- Greenwoods Ecohabitats
- <https://www.greenwoodsecohabitats.co.uk/bats>

Bat boxes should be positioned 3-5m above ground level facing in a south/south-westerly direction with a clear flight path to and from the entrance.

The enhancements for birds as recommended in the PRA & RAMS (*BEK, 2024*) should also be implemented.

BCT's book, '[*Designing for biodiversity: A technical guide for new and existing buildings*](#)' (*RIBA Publishing 2013, 2nd edition*) discusses this in detail, and is a valuable resource for designing bat & bird enhancements in a new development.

5.0 References

- Andrews & Pearson (2022) Review of empirical data in respect of emergence and return times reported for the UK’s native bat species Version 6. Available here: <https://drive.google.com/file/d/1DeGHxyr9-p5XH6R6CRismquVD188WY8/view>
- Bat Conservation Trust: (2021) Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys
- Collins (2023) Bat Surveys for Professional Ecologists Good Practice Guidelines 4th edition. Available here: <https://www.bats.org.uk/resources/guidance-for-professionals/bat-surveys-for-professional-ecologists-good-practice-guidelines-4th-edition>
- CIEEM (2021) Bat Mitigation Guidelines: A guide to impact assessment, mitigation and compensation for developments affecting bats. Beta version. Available here: <https://cieem.net/i-am/current-projects/bat-mitigation-guidance/>
- Davidson-Watts (2021) Can you see what I see? – The importance of night vision aids to conduct effective emergence surveys of tree roosting bats (presentation to UK Bat Steering Group 2021). Available here: <https://www.bats.org.uk/our-work/project-collaborations-partnerships/uk-bat-steering-group>
- Froidevaux, J. S. P., Boughey, K.L., Hawkins, C.L., Jones, G. & Collins, J. (2020) Evaluating survey methods for bat roost detection in ecological impact assessment. Animal Conservation 23 597–606. Available here: <https://zslpublications.onlinelibrary.wiley.com/doi/epdf/10.1111/acv.12574>
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?

Appendix 1: Survey Plan



Appendix 2: Method Statement for “Soft Strip” of roof materials

1. Project Overview

- **Location:** 1 Woolrow Farm, Brighthouse
- **Scope:** Soft strip of roofing materials prior to refurbishment/demolition
- **Ecological Concern:** Potential presence of bat roosts – due to the proximity of confirmed bat roosts and presence of potential bat roosting features.

2. Legislation and Licensing

- All works will comply with the Wildlife and Countryside Act 1981 and Conservation of Habitats and Species Regulations 2017.
- If bats or roosts are found at any stage, works will not proceed without a European Protected Species (EPS) license from Natural England.

3. Pre-Works Survey

- Bat Emergence Survey Report BEK October 2025.
- Installation of bat box on nearby tree or building not undergoing works.

4. Timing of Works

- Soft strip will be scheduled **outside the peak bat activity season, ideally from November to March.**

5. Precautionary Measures

- **Tool Use:** Only hand tools (e.g., crowbars, hammers) will be used initially to minimise disturbance.
- **Lighting:** Avoid bright artificial lighting near potential roost features.

6. Supervised Soft Strip

- A licensed bat ecologist will be present during removal of:
 - Roof tiles, soffits, fascia boards
- Any suspected roost features will be inspected before removal.

7. Discovery Protocol

- If bats are discovered:
 - **Stop work immediately**
 - **Secure the area**
 - **Contact the supervising ecologist**
 - Ecologist will assess and advise on next steps, including potential licensing

8. Post-Strip Monitoring

- Ecologist will conduct a follow-up inspection to confirm no roosts were disturbed.
- Findings will be documented and submitted to local planning authority if required.

9. Documentation

- All ecological surveys, licenses, and mitigation actions will be recorded.
- A final report will be produced summarising compliance and outcomes.