

BAT EMERGENCE SURVEYS AT ALLINGTON FARM, ROSSETT, WREXHAM

2018



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1.0 INTRODUCTION

- 1.1 Rachel Hacking Ecology Limited was commissioned in 2018 by Mr. Nulty & Ms. Pearson, via David Norris Associates, to undertake a bat emergence surveys of the farmhouse at Allington Farm, Rossett, Wrexham. The site is the subject of a Householder & Listed Building application, with Wrexham County Borough Council, to include renovation of the farmhouse.
- 1.2 Allington Farm is located on Cox Lane, south of Rossett, Wrexham (O.S. grid reference: SJ367557). The development site comprises a two-storey brick-built farmhouse, which is currently unoccupied, with numerous single-storey and double-storey extensions, also brick-built. The farmhouse has pitched, tiled roofs. Renovation has started on the farmhouse.
- 1.3 A daytime bat survey was undertaken in June 2018 (see *Daytime Bat Survey at Allington Farm, Rossett, Wrexham 2018 – Rachel Hacking Ecology Ltd.*). Scattered bat droppings and feeding remains were found within the first floor bedrooms of the farmhouse. The building has numerous potential entry and exit points for bats due to the renovation work. Recommendations were made to undertake bat emergence surveys, to determine the type and size of roosts present.
- 1.4 All bat species are protected under the Conservation of Habitats and Species Regulations 2017, the Wildlife and Countryside Act 1981 (as amended), the Natural Environment and Rural Communities Act 2006 and the Environmental Damage Regulations 2009. It is illegal to disturb or damage a bat roost.

2.0 METHODOLOGY

- 2.1 Two emergence surveys were conducted on the site, in accordance with the Bat Conservation Trusts 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' 2016 (3rd Edition).
- 2.2 For each survey, three surveyors and an infra-red camera monitored the farmhouse, to ensure full coverage of the buildings for any emerging bats. The emergence surveys began 15 minutes before sunset and continued for 90 minutes after sunset. The surveyors used Anabat Walkabout & Echometer Touch Pro bat detectors to record the echolocation calls of emerging and foraging bats.

Timing and Personnel

- 2.3 The dusk emergence surveys were undertaken on 1st August 2018 and 28th August 2018. August is an optimum month to undertake nocturnal bat surveys. All of the surveys were undertaken in optimum weather conditions.
- 2.4 The surveys were undertaken by Andy Harmer, Sam Harmer and an assistant. The surveyors have many years of experience in bat surveys and are all fully trained.

3.0 RESULTS

- 3.1 Figure 1 shows the approximate locations of the bat surveyors during the surveys.



Figure 1 showing the approximate locations of the surveyors (blue stars) and the infra-red camera (yellow star)

- 3.2 A maximum of four Soprano Pipistrelle bats *Pipistrellus pygmaeus* emerged from the farmhouse during the dusk emergence surveys. During the first emergence survey, two Soprano Pipistrelle bats emerged from beneath roof tiles, where tiles are missing, on the eastern and western-facing roofs. On the second emergence survey, three Soprano Pipistrelle bats emerged from the porch of the building (see Photograph 1) and one Soprano Pipistrelle bat emerged from a roof tile on the eastern-facing roof. The porch supports wooden beams with a crack between them, from which the bats emerged.



Photograph 1 showing the porch

- 3.3 Moderate levels of bat activity, of various species, was recorded in the locality during the surveys. The species of bat were Soprano Pipistrelle, Common Pipistrelle *Pipistrellus pipistrellus* and Noctule *Nyctalus noctula*, all recorded foraging and feeding across the site. Tables 1 and 2, below, detail the results and weather conditions of each of the survey visits.

Table 1. Results from first emergence survey				
Survey	Date	Average Temp (°C)	Sunset/Sunrise	Weather
Emergence	01/08/2018	18°C	21:09	Overcast, dry, warm
Results				
Small amounts of foraging activity recorded across the site between 21.22 – 22:45. Abundant species recorded were Common Pipistrelle and Soprano Pipistrelle.				
Soprano Pipistrelle emerged from gap in roof at western elevation at 21.24				
Soprano Pipistrelle emerged from gap in roof at eastern elevation at 21.36				

Table 2. Results from second emergence survey				
Survey	Date	Average Temp (°C)	Sunset/ Sunrise	Weather
Emergence	28/08/2018	17°C	20:13	Overcast, dry, mild
Results				
Moderate amounts of foraging activity recorded across the site between 20.22-21.54. Abundant species recorded were Common Pipistrelle and Soprano Pipistrelle. Noctule bat recorded commuting at 21.11				
3 x Soprano Pipistrelle emerged from the wooden porch at the front of the farmhouse at 20.36				
Soprano Pipistrelle emerged from gap in roof at eastern elevation at 20.48				

4.0 SUMMARY AND RECOMMENDATIONS

- 4.1 During a daytime bat survey of the farmhouse at Allington Farm, Rossett, scattered bat droppings and feeding remains were found throughout the upper floor. Two bat activity surveys were undertaken in August 2018, during suitable weather conditions and temperatures. A maximum of four Soprano Pipistrelle bats emerged from the farmhouse during the dusk emergence surveys. Bats emerged from gaps in the roof and from the wooden porch. It is therefore considered that the farmhouse supports day roosts for small numbers of Soprano Pipistrelle bats.
- 4.2 The surveys were undertaken during optimum weather conditions with no impediment to any of the visits. The temperatures were optimum prior to and during the surveys. Given the results of the two dusk surveys, it is considered that reasonable survey effort has been made to determine the roost type (Natural England Standing Advice – NLP4) and that no further emergence or re-entry survey is required.
- 4.3 A European Protected Species Licence for bats from Natural Resources Wales will be required before any work can proceed on the farmhouse.
- 4.4 Given the fact that a maximum of four Soprano Pipistrelle bats emerged from the farmhouse (which are crevice-dwelling species), it is considered that appropriate habitat compensation for this would be two bat boxes erected onto the site. Therefore, the mitigation will include:
- 2 x 2F Schwegler Crevice Bat Boxes to be erected onto retained mature trees prior to work commencing. These will be erected more than 3 metres above ground, facing south, south-west or south-east.
- 4.5 The EPS bat licence will include a method statement, excluding the bats prior to work commencing on the property and using methodologies such as soft-stripping under ecological supervision. There is no restriction on the timing of the works, given that the roost is a day roost.

REFERENCES

Collins, J. (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, 3rd Edition. Bat Conservation Trust.

Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature.