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**Dusk emergence survey at
Single-storey agricultural building,
Langley Lane Farm,
Langley Lane,
Middleton,
M24 5LJ**

OS grid reference:
SD 8594 0766

Commissioned-by:
Keith Broome

Survey Date: 19/6/24
Previous surveys: day-time - 16/4/24 (UES)

Report Date: 20/6/24
Previous reports: day-time - 2/5/24 (UES)

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N.b. Copywrite applies to all my reports and they must not be altered in any way whatsoever by anyone other than myself, or combined with any other report/s, irrespective of who wrote them, without the proposed changes being submitted to me in writing and agreed by me in writing.

Summary.

(This summary should be read in conjunction with the conclusions and recommendations.)

I was engaged to undertake a dusk emergence survey of this single-storey, agricultural building further to day-time survey work by UES in April 2024.

There was no roosting taking place on this occasion.

The building has low roosting potential and additional bat activity survey work isn't necessary unless work involving the building is delayed beyond April 2025. In that case update survey work should be undertaken, including a bat activity survey between the months of May and August/September inclusive.

As the common pipistrelle is very small and resourceful, it cannot be guaranteed that no roosting will ever take place.

The workforce should be aware of their legal obligation to stop work immediately if it becomes apparent a bat is present or has been disturbed, even if it has flown off. As far as practicable the feature that was sheltering the bat/s should be replaced. Further advice **must** then be sought from the bat consultant before work continues.

If the building is being retained/replaced the pro-active opportunity should be taken to instal integrated bat box/es in the external walls of the new build. This would accord with the biodiversity objectives of the National Planning Policy Framework, to maintain or enhance biodiversity where possible, and the principles of the more recent Biodiversity Net Gain initiative.

A hedgehog was recorded during the survey. The hedgehog is a biodiversity priority species. Any landscaping should be managed accordingly.

Survey.

I attended site on **19/6/24** to carry out a dusk emergence survey. I had one assistant with me.

We took up fixed positions to watch for bats leaving the building. See Fig 1 below. We both had the use of heterodyne "bat detectors" to help alert us to the presence of bats and to help us distinguish the species present, and synchronised watches to help us piece together the flight paths followed by bats.

Watches are checked as quickly as possible after sighting a bat and times are recorded to the second.

The usual aim of the survey is to position surveyors so that even if areas of roof cannot be seen directly, the building is covered well enough that, by a process of elimination, it can be worked-out whether or not bats emerged or arrived from off-site. This becomes more difficult when conditions darken as the survey progresses.

Accordingly, I employed four Canon XA10 camcorders with supplementary infra-red lighting to assist with observations in poor light conditions. See Fig. 1 below. Simple

heterodyne bat detectors were used alongside the cameras at low volume to provide basic sound recordings of bat activity.

In addition, I placed Anabat Swift x 2 and an Anabat Express detector around the building. See Fig.1 below. These record bat calls for analysis on computer later. They are extra tools for helping to confirm the species present.



Fig. 1.

Key: Approximate locations of surveyors (1 and 2) shown by red stars, approximate locations of recording devices shown by yellow crosses, approximate location of infra-red camcorders shown by orange diamonds

Findings.

The main results are shown in Table 1 below:

Table 1. Summary of surveys and significant findings

Date	Survey type	Sunset / sunrise time	Time of survey	Conditions °C/weather	Comments
19/6/24	dusk	21.41	21.20 to 23.00	15.6°C at start, clear, still, bright,	No bats emerged. All bats recorded were common pipistrelles.

				14.0°C at end	First bat recorded at 21.45 at point 2 and on AS2. See Appendix 1. Feeding activity around trees to the north, especially in the latter part of the survey period.
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Survey type key: **dusk** = dusk emergence survey, **dawn** = dawn re-entry survey

Incidentally a rabbit and a hedgehog emerged from pallets and other stored items next to the north-east corner of the building at 22.08. The adjacent fields were in the process of being cut when the survey started. These animals may have sought refuge temporarily near the building.

Conclusions/Discussion

There was no roosting taking place on this occasion.

The building has low roosting potential only and additional bat activity survey work isn't necessary unless work involving the building is delayed beyond April 2025. In that case update survey work should be undertaken, including a bat activity survey between the months of May and August/September inclusive.

As the common pipistrelle is very small and resourceful, it cannot be guaranteed that no roosting will ever take place.

The workforce should be aware of their legal obligation to stop work immediately if it becomes apparent a bat is present or has been disturbed, even if it has flown off. As far as practicable the feature that was sheltering the bat/s should be replaced. Further advice **must** then be sought from the bat consultant before work continues.

If the building is being retained/replaced the pro-active opportunity should be taken to instal integrated bat boxes in the external walls of the new build. See Appendix 2. This would accord with the biodiversity objectives of the National Planning Policy Framework to maintain or enhance biodiversity where possible, and the principles of the more recent Biodiversity Net Gain initiative.

The hedgehog is a biodiversity priority species. Its presence on site should be taken into account when managing the landscaping.

Recommendations.

These recommendations should be read in conjunction with the conclusions above.

Work can be undertaken without further bat activity survey work unless the development is delayed beyond April 2025.

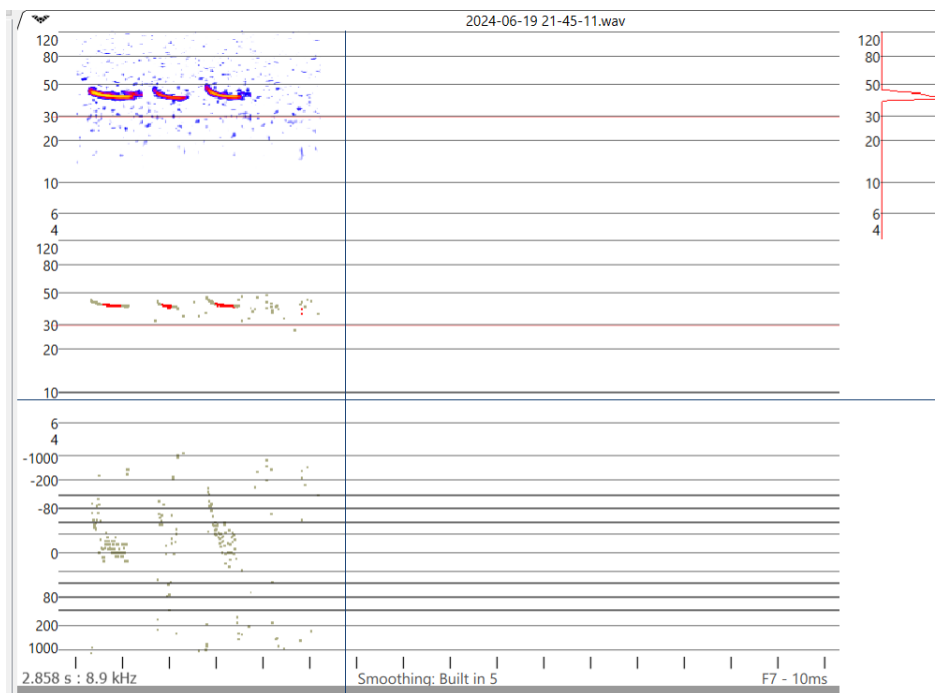
Ensure the workforce understands that if at any time a bat or droppings that may have come from a bat are found work **must** stop **immediately**. They have a legal obligation to do this. As far as practicable the feature that was sheltering the bat/s should be replaced. Further advice **must** then be sought from the bat consultant before work continues, even if the bat has flown off or droppings appear old.

If possible, as a pro-active measure, aim to make alternative provision for bats.

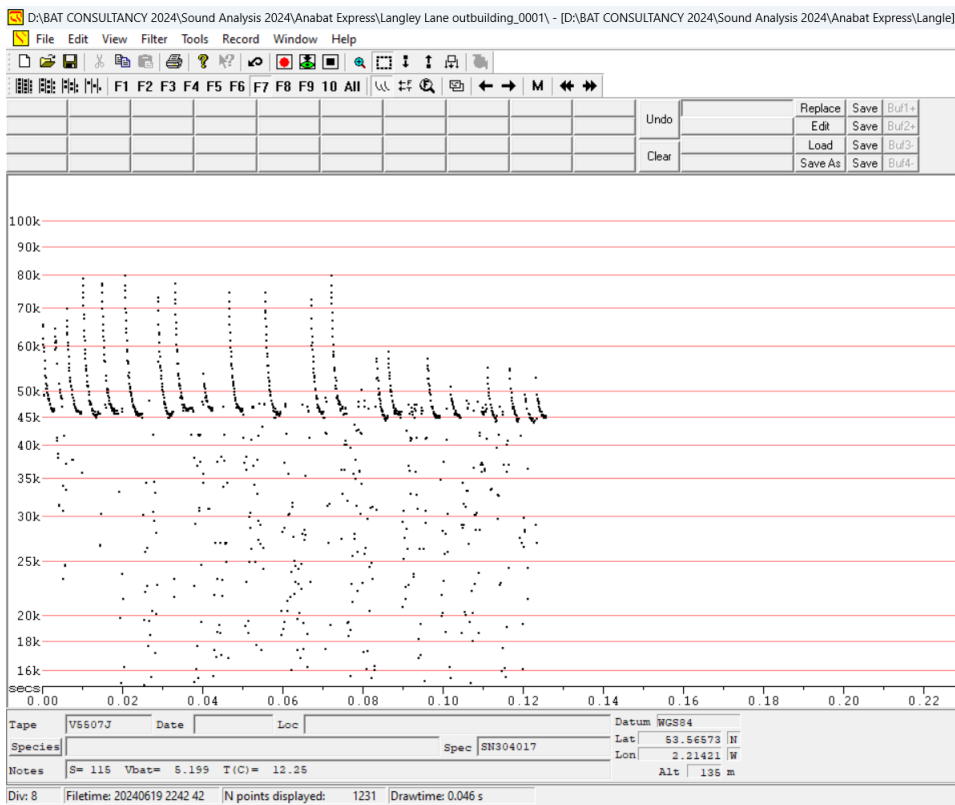
Bear-in-mind that the site supports hedgehogs. Manage landscaping accordingly.

© Angela Graham. June 2024.

Appendix 1 - Example sonogram/s recorded at dusk/dawn survey



Common pipistrelle at 21.45



Common pipistrelle x at 22.42

Appendix 2 – examples of available integrated bat boxes

N.b. An internet search for "integrated bat boxes" will bring up types and suppliers of these boxes but advice from the bat consultant should be sought before they are ordered.

EcoSurv Habibat

<http://www.habibat.co.uk/category/bat-boxes>

“Designed to be built into an exterior wall and is available in a variety of faces to match the building. Standard facings of red or blue brick - ideal for new builds - are normally available from stock, or boxes can be made to your specific requirements with a face of brick, stone, timber, or plain (for rendering). Supplied un-pointed.”



Example of Habibat boxes Can also be faced with stone.

Ibstock Ecozone

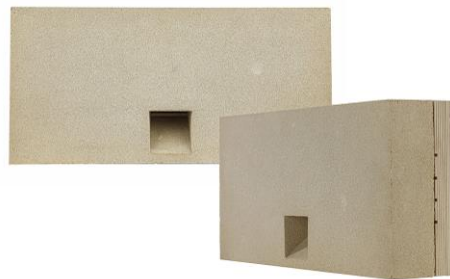
<https://www.ibstock.co.uk/product/ecohabitats/bat-box?page=1&>





Above: typical unit in situ. Photo © Angela Graham

Bat Box - Concrete



Cast Stone.

<https://www.clickcaststone.co.uk/products/cast-stone-ecohabitats/shop/cast-stone-bat-box/>



Dimensions: 440 x 100 x 215mm, with a 60 x 55mm aperture.



Above: typical unit of this design in situ. Photo © Angela Graham

Green and Blue Bat Block/Brick

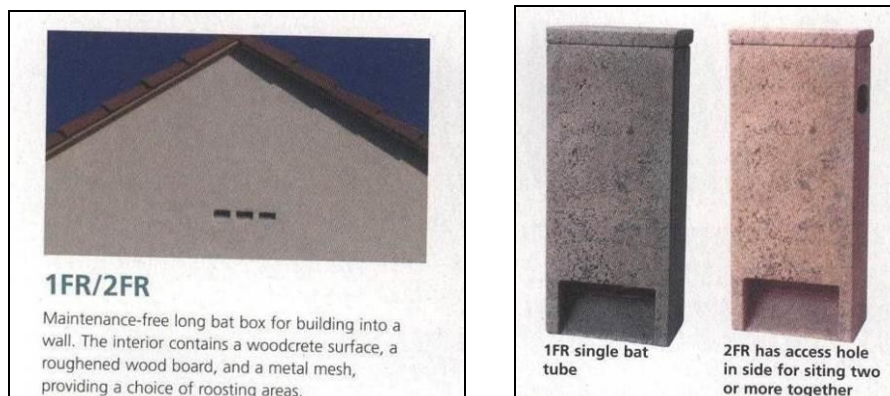
<https://www.greenandblue.co.uk/products/bat-block-bat-brick>



Green and Blue Bat Block/Brick in situ

Schwegler 1FR/2FR

An internet search for Schwegler bat boxes will readily bring up suppliers of these boxes



Schwegler 1FR/2FR