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17th October 2023

Bat activity surveys of old milking parlour at Billhay Farm, Semley

Background

An inspection assessment survey was previously carried out of this building by Line Andreson from Greena Ecological Consultancy in July 2023. Limited signs of bats were found in the attic which was assessed to have moderate bat roost potential. Two bat activity surveys were completed in August & September 2023 to complete assessment.

Methods

These bat activity surveys were carried out by Line Andreson assisted by three Anran CCTV 5MP HD with built in infrared illumination. The cameras were used with a time-synchronized EcoObs Batcorder bat detectors containing recorders.
The manufacturer's specifications of the high-definition cameras lists its range for both, colour (daytime, dusk) and black&white (post-dusk to complete darkness) during infrared illumination as 100ft (30.48metres). The cameras are fitted with a varifocal (adjustable) 2.8-12mm lens covering the field view from very wide (up to 100 degrees) to narrow and zoomed in. The setting is manual, and a maximum possible view of the surveyed structure is always ensured prior to the start of the survey. The smart IR technology enables the cameras to automatically adjust the intensity of the infrared lighting based on the distance objects are located from the camera (wide dynamic range enhancement). The recording from each night is subsequently viewed by an experienced licensed bat ecologist (Geoff Billington) with the possibility to rewind and view segments repeatedly, providing much higher accuracy of the assessment than the traditional in-field survey method alone.

All elevations of the building were observed on the surveys.

Results

21st August 2023

The survey started at 20:10 and ended at 21:23. Sunset was at 20:18. Weather conditions on the survey were highly suitable for bats to be active and complied with BCT Survey Guidelines on seasonal timings and weather suitability.

	Temp (°C)	Cloud (%)	Rainfall	Wind (MPH)
Start	18	20	0	0
End	17	10	0	0

South Elevation

Line Andreson Results –

Time	Species	Notes
20:57	45P N-S	
21:02	45P	Heard
21:11	45P	Heard

45P – Common Pipistrelle

No bats emerged

East Elevation

Bat Detector Results –

Time	Species
21:14 - 21:19	9x 55P + 1x 45P
21:21 - 21:22	9x 55P + 3x 45P

55P – Soprano Pipistrelle, 45P – Common Pipistrelle

Video Results –

No bats emerged

West Elevation

Bat Detector Results –

No bats recorded

Video Results –

No bats emerged

North Elevation

Bat Detector Results –

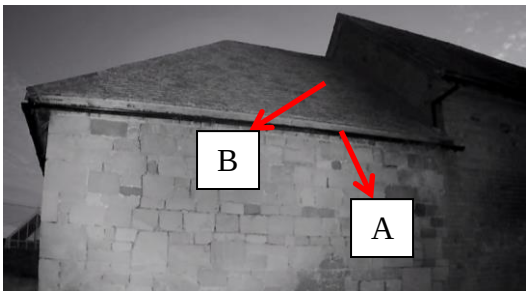
Time	Species
20:52	1x 45P
21:02	3x 55P
21:03 – 21:04	7x LE
21:04 – 21:11	7x 55P + 1x 45P
21:12 – 21:14	16x LE + 6x 55P + 1x LE
21:15 – 21:21	61x 55P + 12x 45P
21:22	6x 55P
21:23	2x 45P + 8x 55P

55P – Soprano Pipistrelle, 45P – Common Pipistrelle, LE – Long eared

Video Results –

Time	Notes
21:03	Long eared out of eaves ‘A’
21:09	2x 55P out of roof ‘B’

One Long eared & two Soprano pipistrelle bats emerged



12th September 2023

The survey started at 19:15 and ended at 20:30. Sunset was at 19:30. Weather conditions on the survey were highly suitable for bats to be active and complied with BCT Survey Guidelines on seasonal timings and weather suitability.

	Temp (°C)	Cloud (%)	Rainfall	Wind (MPH)
Start	18	80	0	0
End	17	90	1	0

South Elevation

Line Andreson Results –
No bats recorded or emerged

East Elevation

Bat Detector Results –

Time	Species
19:49 – 20:10	8x Noc
20:12	55P
20:17	Sert
20:19 – 20:27	3x 45P + 2x 55P

55P – Soprano Pipistrelle, 45P – Common Pipistrelle, Sert – Serotine, Noc - Noctule

Video Results –
No bats emerged

West Elevation

Bat Detector Results –

Time	Species
19:37 – 20:08	9x Noc

Noc - Noctule

Video Results –
No bats emerged

North Elevation

Bat Detector Results –

Time	Species
19:49	1x Noc
20:05 + 20:09	2x 55P + 1x 45P
20:10	3x Noc
20:13	55P
20:17	Sert
20:18	55P
20:25	Sert
20:26	55P

Video Results –
No bats emerged

CONCLUSIONS

Individual day roosting bats were seen to emerge from the building in August (i.e. single Long eared and two Soprano pipistrelle bats) but not in September.

For major works to the old milking parlour roof an EPS low impact bat licence should be obtained for this the following are required:

- Full planning consent
- DNA analysis of bat droppings (to try to determine Long eared species)
- Obtain EPS bat licence, low impact if Brown long eared, full licence if Grey long eared (very unlikely)
- Install two bat boxes to trees
- Licensed watching brief attend to give toolbox talk and attend during roof removal/major works starting
- Retain gaps 75mmW x 18mmH (2x) into the northern roof
- Plan to be sent to LPA showing bat boxes and north roof gaps as well as any enhancements
- Licence report to Natural England

No restriction on timing of when works are carried out.

Post works monitoring only required if a full licence.

Geoff Billington