



Wildwood Ecology Ltd

MR & MRS LEWIS

TY MAEN FARM

BAT WINTER SCOPING SURVEY

06 JANUARY 2011

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Mr & Mrs Lewis
Ty Maen Farm - Bat Winter Scoping Survey

Document ref. WWE101105

Client:	Mr & Mrs Lewis
Grid Reference:	SJ290411
Report:	Bat Winter Scoping Survey
Report ref:	WWE101105
Planning ref:	P/2010/0959, Wrexham County Borough Council
Date of survey:	9 th December 2010
Surveyed by:	Esther Thomas, B.Sc. (Hons.), CCW licence 23443:OTH:CSAB:2 010
Architect/Agent:	Katherine Jones, KBJ Architects

Issue:	Revision:	Stage:	Date:	Prepared by:	Approved by:
0			15/12/2010	Esther Thomas	
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Report Summary

- A daytime scoping survey of a barn at Ty Maen Farm, Pentre, Wrexham, found evidence of use by brown long-eared bats within the first floor hay loft. The building is the subject of plans for its conversion into living accommodation.
- As the barn was found to be a bat roost a European Protected Species licence must be obtained in order for the works to be lawfully completed. A winter scoping survey alone cannot provide sufficient information on the bat population using the barn to apply for a licence, and further surveys will be required during the bat's active season, May to September.

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1.0 INTRODUCTION

- 1.1 A barn at Ty Maen Farm, Pentre, Wrexham, is the subject of plans for its conversion into living accommodation.
- 1.2 Wildwood Ecology Limited were contracted to undertake an initial daytime winter scoping survey of the building. This report confirms the findings of that survey undertaken by a licensed bat ecologist.

2.0 METHODOLOGY

Daytime survey

- 2.1 The building was externally and internally inspected for bats with the aid of high-powered lamps and close focussing binoculars on 9th December 2010. The potential of the building to accommodate bats was assessed, along with a search for signs of bats (for example droppings, moth wings, scratch marks, staining, etc.) or actual bats that were present. Particular attention was paid to any crevices or gaps in walls, lintels, gaps between beams and joists and to the possibility of finding droppings stuck to the walls, floors or other surfaces, or insect remains below beams, among a number of other factors and signs indicative of a bat roost. A fibre scope was available but not required.
- 2.2 A building plan and survey images are presented in Appendix I and II respectively.

Survey limitations

- 2.3 Bats are a difficult group to survey for and it is usually signs of their activity rather than actual presence that indicates the existence of a bat roost. A daytime survey for bats is primarily used to assess whether bats are present and whether a more detailed survey is required in preparation for a protected species licence application. Many species of bat in the UK are crevice dwelling, and signs of bats and the bats themselves can be difficult to find within a building. Therefore, an assessment of the 'potential' of a building as a roost for bats can be important in determining the level of survey required in order to confirm the presence of bats.
- 2.4 Winter surveys – surveys undertaken during the colder winter months are less likely to identify the actual presence of bats as bat activity reduces during this time, although signs of previous activity will still be present. A winter survey can provide a useful assessment of the potential and likelihood of a building to support bats, and it is possible to advise if a survey is not conclusive. In this situation the report will advise that further survey(s) are required, usually to be undertaken during the following May to September. Alternatively, following a winter visit it may be possible to assess that the proposed scheme will have minimal impact on bats even if they were present at other times of year.
- 2.5 No other limitations were noted.

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3.0 RESULTS

- 3.1 The barn due for development is a large, two-storey, stone building, with slate and corrugated metal roof coverings (and ridge tiles). Currently, only the ground floor of the barn is used to house livestock and for storage. Internally, the barn is divided in to roughly equal sections by a brick wall that reaches the apex. Section A (western end of the barn): roof is unlined slates on the south side, with remains of lime mortar clinging to some of the tiles and unlined corrugated metal sheets on much of the north side. Section B (eastern end of barn and adjoining another large section of barn not part of this planning application): roof is unlined slates on the north side, and roofing felt lined (recently reroofed?) slates on the south side.

Daytime Survey

- 3.2 On the ground floor, sections A and B are divided in to a number of livestock pens – no signs of bats were found here.
- 3.3 On the first floor in section A, there is what appears to be a former hay loft, accessed via an external door and timber steps – signs of bats were found here. Specifically, medium/large bat droppings, varied in age, were found concentrated in three locations on the floor (see diagram in appendix). Most of the droppings were accumulated underneath the roof apex. This, along with the size of the droppings, suggests that they are most likely to be those of a small number of brown long-eared bats. Possible roosting locations include the wall plate of the west-facing gable end, or perhaps above the ridge beam (beneath the ridge tiles). Gaps at the remaining wall plates appeared to be too large for crevice dwelling bats. Other roosting locations may be used but there were no large accumulations of droppings to confirm a roosting location.
- 3.4 On the first floor in section B, accessed via a loft ladder from the ground floor, there were also signs of bats (see diagram above). The droppings were the same as those in section A, also under the apex. Some of the droppings looked very fresh (in the last few days perhaps). At the far end of the first floor, there is a large opening to the adjoining section of barn (not part of the planning application).
- 3.5 There are arrow slit windows and larger openings (with doors but with large gaps at the top) throughout both sections of the barn (A & B) allowing unimpeded access for bats.

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4.0 INTERPRETATION AND ASSESSMENT

- 4.1 The first floor of the barn currently offers cool but undisturbed roosting opportunities for bats. There is no evidence to suggest that the top floor of the barn is used as a maternity roost, and the number of droppings found suggests use by a small number of bats, probably throughout the year depending on the species present. The droppings looked to be larger than would normally be expected for brown long-eared bats, but could have been enlarged through absorption of moisture and through the freezing/thawing process (the survey was conducted during a period of extreme cold).
- 4.2 The owner intends to convert the barn in to living accommodation – the effect on any bats present could be severe unless suitable mitigation measures are used. Bats will need to be excluded during development works and suitable alternative roosting opportunities must be available to them. It is likely that the adjoining barn – of similar construction, easily accessible to bats and not currently intended for development – already supports roosting bats. This could be used as alternative roosting accommodation either during development of the other barn, or as a permanent alternative.
- 4.3 The owner is hoping to begin conversion works in January 2011. It was explained that additional survey work during the active season may be required to establish the extent to which the barn is currently used by bats. The owner emphasised that the development was urgent.

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5.0 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 The barn at Ty Maen Farm was found to be a bat roost, at this stage for brown long-eared bats, although other species may also be present. All bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2010, and as the proposed conversion will result in the loss of roosting space a European Protected Species (EPS) licence will need to be obtained from the Welsh Assembly Government in order for the building to be lawfully converted.
- 5.2 As originally advised if a winter survey is inconclusive, particularly where an indication of bat activity is found, it is necessary to undertake further surveys in order to ascertain the species present, numbers, and the status of the roost (to confirm/refute whether it is a breeding site) in order to fully inform the planning application and subsequent licence application.
- 5.3 It is therefore recommended that further surveys (dusk/dawn) are conducted within the bat's active season, between May 2011 and September 2011; the Wrexham CBC Biodiversity Officer (Emma Broad, *pers comm. December 2010*) has confirmed that up to three surveys will be required in order to progress the application.
- 5.4 At a time when the conversion of the barn is able to proceed, there exists more than adequate space within the adjoining barn to provide sufficient mitigation to suit the species known to be present and any others that may be using the site. This would likely be by way of a dedicated bat loft of an appropriate size to suit brown long-eared bats, as well as provision around the buildings for other crevice dwelling species.

APPENDIX I - Site plans

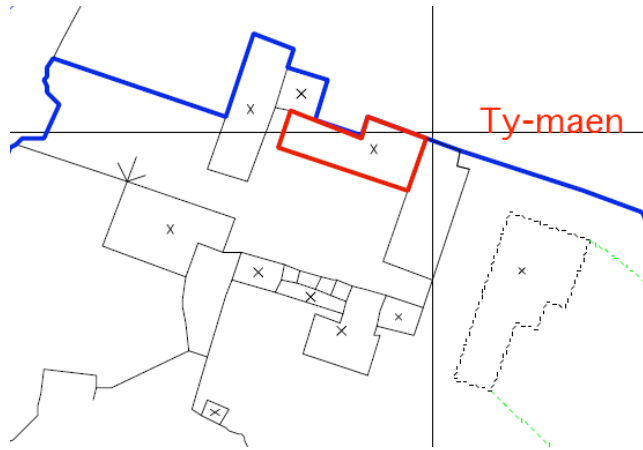


Figure 1 - location plan (from architect's plans)

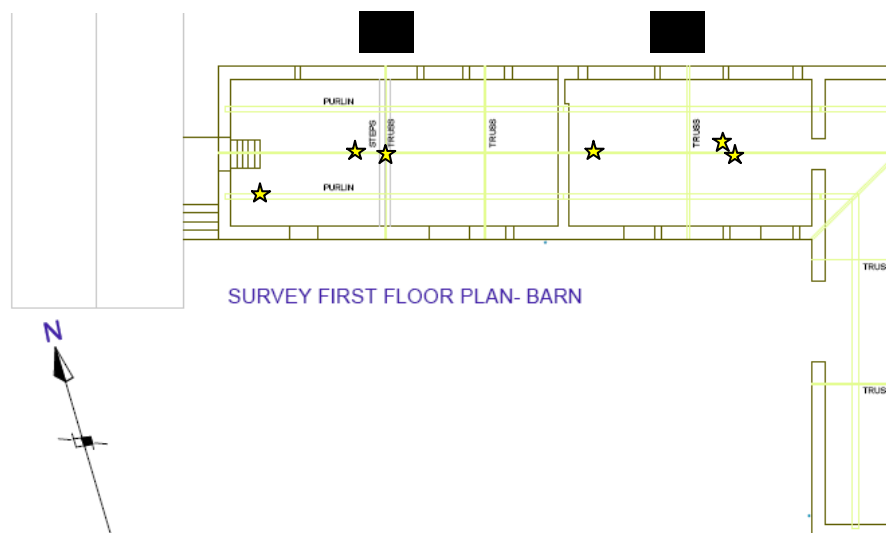


Figure 2 - location of bat signs found (★ = ~10 bat droppings)

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APPENDIX II - Survey images



Figure 3 - barn, looking northeast



Figure 4 - first floor, section A, looking east



Figure 5 - section A western gable end wall



Figure 6 - first floor, section B, looking west



Figure 7 - section B, end wall (east) and adjoining barn



Figure 8 - example of bat droppings found on first floor

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APPENDIX III - Species list

To be submitted to the appropriate Local Records Centre

Site Name: Ty Maen Farm

Grid ref: SJ290411

Provided by: **Wildwood Ecology**

Verified by: **Esther Thomas**

Scientific Name (if known)	Common name	Number	Comment
<i>Plecotus auritus</i>	Brown long-earedbat		Presence ascertained from droppingsonly