MILLFIELD HOUSE, BARNSTON

PRELIMINARY BAT ROOST ASSESSMENT

May 2023

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Title of Report	Millfield House, Barnston: Preliminary Bat Roost Assessment
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Approved By	Pat Hatch MCIEEM, Principal Ecologist
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This report has been compiled in accordance with BS 42020:2013 Biodiversity – Code of practice for planning and development, as has the survey work to which it relates.

The information, data, advice and opinions which have been prepared and provided are true, and have been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional *bona fide* opinions.

The impact assessment and recommendations set out in this report are based on professional experience and available guidelines. While there is some interpretation of current legislation on this basis, it should be noted that the authors do not have legal training. In the case of any uncertainty, it is recommended that a specialist environmental lawyer be consulted.

The contents of this report should not be taken to indicate support of any planning application or subsequent development, on the part of EECOS or its parent company, Essex Wildlife Trust. Essex Wildlife Trust reserves the right to object to, or comment upon, any planning application that may arise on this site should any unacceptable wildlife impacts remain unresolved or should any relevant planning policies be compromised.

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1. INTRODUCTION

1.1 General Introduction

This report has been prepared by Essex Ecology Ltd., the ecological consultancy of Essex Wildlife Trust, for Liz Eldon. It comprises the results of an assessment of a residential property for its suitability and likelihood to be used by roosting bats, following plans for a single-storey extension to the house.

1.2 Site Location

The location is Millfield House (grid reference TL644200), Barnston, near Great Dunmow, Essex CM6 1LH. The property is a 17th century thatched cottage with multiple modern extensions; the extension due to be replaced is situated on the north eastern side of the house. The property is situated in a residential area backing onto arable fields.

1.3 Legislation

Under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended) all species of bats receive full protection such that it is an offence, amongst other things to:

- Deliberately capture, kill or injure any bat;
- Damage or destroy a breeding site or resting place used by bats (whether bats are in it at the time or not);
- Deliberately disturb bats in a way that is likely to impair their ability to migrate, hibernate, survive or reproduce, or in a way that is likely to significantly affect their local distribution or abundance;
- Intentionally or recklessly disturb bats occupying a place of shelter or protection, or attempt to do so;
- Intentionally or recklessly obstruct access to any place of shelter or protection, or attempt to do so.

1.4 Work Proposals

A single-storey extension is planned to replace the existing extension on the north east side of the house.

1.5 Survey Objectives

The aim of the assessment was to determine the likelihood of the presence of bat roosts within the property.

1.6 Survey Methodology

The assessment was carried out during a site visit on 27th April 2023 by Abigail Hunns, Assistant Ecologist, and Annie Northfield, Assistant Ecologist. The exteriors of all buildings were thoroughly searched for potential bat roost features, roost access points and evidence of bats (droppings, staining, scratch marks).

Collins (2016) includes a system for categorising buildings and other structures based upon their potential to support bat roosts:

- Negligible: negligible habitat features on site likely to be used by roosting bats;

- Low: structures with some potential for use by single bats, although not necessarily on a regular basis;

- Moderate: a structure with one or more potential roost sites in more regular use, but unlikely to support a roost of high conservation status;

- High: a structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time, including maternity roosts.

1.7 Competence

Abigail Hunns is an Assistant Ecologist at EECOS. She holds an MSc in Ecology and Conservation and a BSc in Ecology. She has experience carrying out a range of protected species surveys including reptile, bird, invertebrate, bat, Dormouse, Water Vole and other mammal surveys as well as a growing knowledge of botanical identification. She was a research intern for the Bats of Malawi Research Project, where she carried out numerous surveys and handled a variety of bat species.

Annie Northfield is an Assistant Ecologist at EECOS. She holds a BSc in Zoology with Herpetology, and an MScRes in Biological Sciences. She has undertaken reptile and amphibian surveys, reptile translocations, bat and invertebrate surveys, and has a particular interest in entomology.

2. RESULTS

The exteriors of all buildings, including the existing extension which is due to be replaced, were thoroughly searched.

The exterior of the existing extension was comprised of plaster-covered brick in the same style as the main cottage, with a slate-tiled double pitched roof (Photo 7, Appendix 1) and an interior ceiling. While there is almost definitely some sort of internal space between the ceiling and the apex of the roofs, there is no access into this space and as such it was not able to be inspected.

On the exterior, the slate tiles were laid flat over the top of one another and there were no gaps sufficient for bats to use. There were no gaps seen under the guttering (Photo 5, Appendix 1). Under the eaves on the side facing the pond, there were several 4-5 centimetre gaps between projecting wooden timbers; all of these except one were superficial and did not lead anywhere. A single gap on the corner of the building (Photo 6, Appendix 1) went at least 5 centimetres back, probably more, perhaps leading into the internal roof space. The area around and below this gap was searched thoroughly for signs of bat activity without success, and it can be asserted that during the time of survey there were no signs of current or previous activity around both the gap in question, or the extension as a whole.

The main cottage roof is thatched; this thatching was replaced sometime around 2016, and is well-sealed with narrow mesh, including around the eaves of the roof on all sides. Although gaps in the mesh itself are just over a centimetre in diameter, there were no outfolds or breaks that could be seen around the eaves of the roof where bats could access any part of the building.

Two other buildings at the site were also searched for evidence of bat activity. Both buildings were relatively new and well sealed. There were small gaps under one or two tiles, but these did not lead anywhere.

The surrounding area to the south is residential, and to the north behind the garden is arable farmland with areas of hedgerow and woodland, which looks to be suitable foraging and commuting habitat for bats.

3. CONCLUSIONS AND RECOMMENDATIONS

The surveyed building is considered unlikely to support bat roosts and was assessed as having a negligible bat roost potential. Therefore, no further bat surveys are recommended. The gap which may have provided access to an internal space on the extension did not show any signs of bat activity (droppings, lack of cobwebs, staining, scratching or insect remains), and there were no other suitable access areas or bat evidence on or around any of the other buildings.

The surrounding area, or the building itself, could be enhanced for bats via the installation of a bat box. See Appendix 2 for two recommended bat box designs. Essex Ecology is happy to be contacted regarding the installation or design of bat boxes, as well as any other queries regarding enhancing the property for bats.

If bats, or evidence of the presence of bats (e.g., bat droppings) are discovered during the course of the works, work in that vicinity must be halted and Essex Ecology should be contacted to provide advice as to how to proceed. It may then be necessary to obtain a Natural England mitigation licence in order to allow the works to proceed, depending upon whether bats and their roosts are likely to be affected.

The advice given in this report is valid for 24 months. If, after this time, the proposed work has not been undertaken, the plans have been altered, or there has been an obvious change in the ecological condition of the site, the advice of an ecologist should be sought as to the possible need for a new survey prior to submitting a planning application or implementing the scheme.

Appendix 1: Site Photographs

Photo 1: The cottage

Photo 2: The cottage extension

Photo 3: The largest gap under the extension eaves

Appendix 2: Bat Box designs

Bat boxes are available in a variety of designs and can be fitted on buildings, trees and other features of appropriate height. Both of the below designs are suitable, with the flat back of the second allowing for easier installation on flat walls or underneath the eaves of buildings. These designs are not exhaustive, and other styles of box are available. Any further questions regarding the style and use of the bat boxes can be directed to Essex Ecology, who are happy to offer advice.

Images above from NHBS:
[General Purpose Bat Box | NHBS Practical Conservation Equipment]
https://www.nhbs.com/improved-crevice-bat-box