



Bat Activity Survey Report

BE-1690-03A

Nutmeg Cottage, Thwaite Common, Erpingham,
Norwich, Norfolk, NR11 7QG

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Client	Suzanne Keki
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Executive Summary

DWA Ecology have been instructed by Suzanne Keki to carry out a Bat Activity Survey of a building (Building 1) at Nutmeg Cottage, Thwaite Common, Erpingham, Norwich, Norfolk, NR11 7QG.

A previous survey identified Building 1 as having low potential for roosting bats. The first activity survey identified three soprano pipistrelle (*Pipistrellus pygmaeus*) re-entering a gap in the brickwork on the east gable. Two subsequent activity surveys identified bats using the same feature with a peak count of three soprano pipistrelle bats. It is anticipated that a day roost of this species is present.

The cavity utilised the bats will be retained as part of the proposals. As such, derogation under a Natural England European Protected Species Mitigation Licence (EPSML) will not be required. Work must follow a method statement to ensure that bats are not inadvertently harmed during development.

1. Introduction

1.1. Instruction

DWA Ecology have been instructed by Suzanne Keki to carry out a Bat Activity Survey of the buildings at Nutmeg Cottage, Thwaite Common, Erpingham, Norwich, Norfolk, NR11 7QG, hereafter referred to as 'the site'.

1.2. Previous Report

A previous Preliminary Bat Roost Assessment (Watts, 2023) identified the building as having 'low' potential for roosting bats and a further dusk emergence survey was recommended. Information from the previous report is not reproduced within this document and therefore the findings of the report should be cross referenced with the previous scoping survey.

1.3. Aims and Objectives

The purpose of the report is to:

- Determine if bats are present or absent in the buildings on the site.
- If bats are found to be present, to estimate the size and status of the roost.
- If necessary, to identify the requirement for further surveys, and for mitigation measures including avoidance of ecological impact, compensation and ecological enhancement.

1.4. Site Details

There are two buildings on the site. Building 1 consists of a barn located within the garden to the north. Building 2 consists of the main residential building to the south. This report concerns Building 1 only, a separate report was previously issued which included a method statement for work to Building 2.

1.5. Development Proposals

The development proposals are to renovate Building 1 to form a home office/workshop. A single storey rear extension will be constructed, and the building will be re-roofed.

2. Methods

2.1. Bat Activity Surveys

An initial dusk emergence survey of the building was carried out in suitable weather conditions by Danny Cotgrove and Keith Cotgrove on 11th May 2023. Following the identification of bats roosting within the building, the roost potential of the building was revised and two further dusk emergence surveys were carried out on 3rd July 2023 and 4th August 2023.

During each survey the building was monitored from 15 minutes before sunset to 1.5 hours after sunset. Surveyors were equipped with time expansion bat detectors and infrared/thermal imaging cameras. The building was monitored throughout the duration of the survey for any signs of emerging and/or re-entering bats. Any additional bat activity, such as foraging and commuting bats, was also recorded. A summary of the survey details is shown in Table 2.1.

Table 2.1 Bat Activity survey details

Date	Sunset time	Start time	Finish time	Surveyors	Equipment	Weather (start/finish)
11/05/2023	20:46	20:35	22:05	Danny Cotgrove	Echo Meter Touch 2, Night Fox RED HD Night Vision Goggles, and Illuminator	Dry. Temp. 13°C/10°C. Wind Beaufort 0/0 Cloud Okta 8/8
				Keith Cotgrove	Echo Meter Touch 2, Night Fox RED HD Night Vision Goggles, and Illuminator	
03/07/2023	21:21	21:05	22:53	Danny Cotgrove	Echo Meter Touch 2, Night Fox RED HD Night Vision Goggles, and Illuminator	Dry. Temp. 15°C/13°C. Wind Beaufort 1/1 Cloud Okta 7/6
				Keith Cotgrove	Echo Meter Touch 2, Night Fox RED HD Night Vision Goggles, and Illuminator	
04/08/2023	20:47	20:30	22:05	Danny Cotgrove	Echo Meter Touch 2, Night Fox RED HD Night Vision Goggles, and Illuminator	Dry. Temp. 22°C/17°C. Wind Beaufort 0/0 Cloud Okta 0/4
				Keith Cotgrove	Echo Meter Touch 2, Night Fox RED HD Night Vision Goggles, and Illuminator	

2.2. Qualifications of the Surveyors

David Watts is an experienced ecologist who holds a BSc (Hons) Ecology, a PGCert Biological Recording and is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

David holds Natural England class licences to survey bats (2016-24731-CLS-CLS) and barn owls (*Tyto alba*) (CL29/00320) and has been a named ecologist on 27 bat mitigation licences.

Danny Cotgrove is an experienced ecologist who holds a BSc (Hons) Ecology and a Natural England class licence to survey bats (2022-10919-CL18-BAT).

Keith Cotgrove is an experienced bat surveyor with two years' experience of carrying out bat activity surveys.

2.3. Constraints

The site survey was constrained by the season in which it took place. Certain roost types are present at different times of the year. The surveys were however carried out within the optimal period for bat surveys.

3. Results

3.1. Bat Activity Survey Results

During the first survey no bats were observed emerging from the building, however three soprano pipistrelles (*Pipistrellus pygmaeus*) were observed returning to the building between 21:44-21:52, towards the end of the survey. All three pipistrelles re-entered a gap in the brickwork at the east gable. Bats were observed foraging over the site throughout the survey, consisting mainly of soprano pipistrelles, with several passes of common pipistrelle and a single pass of noctule.

On the second survey a single soprano pipistrelle was observed emerging from within the same gap in the brickwork on the east gable at 21:12, nine minutes before sunset. A soprano pipistrelle was observed entering the same gap at 21:31 before emergence at 21:36. Another soprano pipistrelle also emerged from the building at 22:12. All emerging bats flew to the adjacent woodland immediately after emerging. Otherwise, foraging activity during the second survey was fairly sporadic, with occasional passes of individual common and soprano pipistrelles over the site, in addition to several passes of brown long-eared bat towards the end of the survey.

During the third survey a single soprano pipistrelle was observed emerging from the same feature as the previous surveys at 21:17, shortly after sunset. Small numbers of common and soprano pipistrelles were observed foraging over the site throughout the survey, in addition to several passes of noctule.

Table 3.1 shows a summary of the survey findings. Figure 3.2 shows the bat roost entrance point on the east gable. A plan showing the location of the building and the emergence point can be viewed in *Appendix 1: Survey Plan*.

Table 3.1 Bat activity survey results

Date	Start, finish and sunset times	Species	Peak count	Roost location
11/05/2023	20:35-22:05 (sunset 20:46)	Soprano pipistrelle	3 bats	East gable
03/07/2023	21:05-22:53 (sunset 21:21)	Soprano pipistrelle	3 bats	East gable
04/08/2023	20:30-22:05 (sunset 20:47)	Soprano pipistrelle	1 bat	East gable



Figure 3.2 Bat roost entrance point

3.2. Assessment

The survey confirmed a soprano pipistrelles are roosting within the building, with a peak count of three bats. Based upon the structural features of the building and the peak count of bats recorded, it is anticipated that a day roost of soprano pipistrelle bats is present. As during the surveys bats were seen re-entering the building without having emerged, it is possible that bats are using a network of day roosts within the surrounding area and/or the roost is a satellite roost to a nearby larger roost such as a maternity roost; however, at no point during the surveys were large numbers of commuting or foraging bats observed, indicating that there is no maternity roost within the immediate vicinity of the site.

Soprano pipistrelles are common and widespread species, and day roosts of this species are considered to be of low conservation status (Mitchell-Jones, 2004). However, as with all bat species in the UK, roosts of -common pipistrelle are afforded legal protection under the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981.

Bats were observed emerging from and re-entering a single cavity on the exterior of the building. This feature will be retained throughout the proposals. As such, derogation under a Natural England European Protected Species Mitigation Licence (EPSML) will not be required, although precautionary working practices will need to be adopted to ensure that bats aren't inadvertently harmed during development works.

4. Conclusion and Recommendations

4.1. Avoidance of Ecological Impact

The building contains a day roost of soprano pipistrelle. The feature that bats are utilising, at the east gable, will be retained throughout the proposals.

In order to ensure that bats are not inadvertently impacted during the development proposals, works to Building 1 must follow a precautionary method statement, which can be viewed in *Appendix 2: Precautionary Method Statement*.

To avoid impacts to foraging and commuting bats, the use of exterior lighting as part of the proposals must be avoided.

4.2. Compensation and Ecological Enhancement




A bat box has been installed as part of a previous scheme to re-thatch the roof on Building 2. Considering the roost on Building 1 will be retained as part of the proposals, this is considered sufficient compensation and ecological enhancement for the site.

4.3. Lifespan of Report

The findings of this report are considered valid for a period of 12 months (until August 2024). Bats are highly mobile species, therefore if work has not commenced by this date, it is recommended that an update survey is carried out.

Appendix 1: Survey Plan

Key:

	Building
	Surveyor locations
	Bat roost access point

Drawing title:	Bat Survey Plan
Project:	Nutmeg Cottage
Drawn by:	David Watts
Date:	18th August 2023
Scale:	1:100 @ A4



Appendix 2: Precautionary Method Statement

To ensure that bats are not harmed or disturbed by development works, the following precautionary methods must be followed:

1. Prior to the commencement of works, contractors will be given a 'toolbox talk', to ensure they are aware of the signs of bats, and to ensure that they know how to respond if bats are encountered.
2. Prior to the commencement of works, suitable roost features will be inspected with an endoscope.
3. The ecologist will then supervise the removal of the roost features. All roof tiles and ridge tiles must be removed by hand. To enable close supervision, scaffolding should be in place during the demolition works, or the roof should be accessed using a mobile elevated working platform (MEWP). The installation of scaffolding must ensure that the roost entrance at the east gable is not blocked.
4. If any bats are encountered during the demolition, works will cease and a Natural England European Protected Species Mitigation Licence (EPSML) will be required before they may recommence. Further mitigation as part of the EPSML may be required.
5. When the ecologist is satisfied that all potential roost features have been removed safely, then work may continue unsupervised. However, in the event that a bat is encountered during this period then all work will stop and the licenced ecologist will be contacted.