

**Bat Survey Report and Method Statement
European Protected Species (Bats)**

Reasonable Avoidance and Mitigation Measures

**Clitheroe Castle Museum,
Castle Hill,
Clitheroe,
BB7 1BA**

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**Report prepared by:
Dave Anderson
Batworker.com
dave@batworker.com
07894 338290**

Executive summary

In August 2021 Batworker consultancy was commissioned to undertake a survey of Clitheroe Castle Museum, Castle Hill, Clitheroe, BB7 1BA to assess the potential for impact on protected species.

A daytime survey was carried out on 23rd August 2021 in order to support plans to carry out works to strip back the castellations to inspect the lead trays and flashings. The building, when assessed in combination with its location and surrounding habitat, was observed to have moderate level of bat roost potential.

Follow up surveys have been carried out in the form of two emergence/dawn surveys to confirm presence/absence of bats and identify any potential roost entrances used by bats.

No bats were observed using areas of the building likely to be affected by proposed plans, however Soprano pipistrelle bats were confirmed to be using the castle keep to roost. Given the close proximity to the castle museum combined with the opportunistic roosting nature of pipistrelle bats it is considered that reasonable avoidance measures are an appropriate approach to carry out works. The roost is unlikely to be a maternity roost.

"The presence of a significant bat roost (invariably a maternity roost) can normally be determined on a single visit at any time of year, provided that the entire structure is accessible and that any signs of bats have not been removed by others". - Mitchell-Jones, A (2004) Bat mitigation guidelines. English Nature.

It is considered that a precautionary approach to development with suitable reasonable avoidance measures with mitigation in the form of timing of works and compensatory bat boxes would be an appropriate approach to roost compensation commensurate with that expected by Natural England for the purposes of licencing should it be necessary.

Compensatory bat boxes (two Greenwood Eco Habitats two crevice boxes) will be placed on site prior to work commencing and will form suitable commensurate mitigation in the unlikely event that an EPS licence application is necessary.

The overall purpose of the Method Statement is to ensure that bats and their roosts are fully protected to ensure the 'favourable conservation status of the species'.

This method statement is designed to minimise or remove any potential disturbance to bats. By following the Reasonable Avoidance Measures and mitigation included in this document the work can take place, ensuring the Continued Ecological Functionality of the site.

Site Location

Clitheroe Castle Museum, Castle Hill, Clitheroe, BB7 1BA
NGR: SD7424741617



Surrounding Habitat



The property is located in the urban centre of Clitheroe with surrounding habitat dominated by amenity grass, parkland, and semi natural deciduous woodland cover. Connectivity to the wider landscape is moderate.

Overall foraging potential for bats can be considered moderate.

Survey summary and site assessment

Pre-existing information on the bat species present at this site.

A search of the MAGIC website revealed no EPS licence applications within a 1km radius.

The surveyor holds records of soprano pipistrelle and noctule bat roosts within 1km of the site.

From personal experience of surveying for and researching bats in Lancashire, Yorkshire and Cumbria, the following species were considered.

Common Pipistrelle – known to roost on sites where suitable foraging habitat is available.

Soprano Pipistrelle – known to roost on sites where suitable foraging habitat is available.

Whiskered/Brandt's – species often found roosting in buildings close to woodland.

Natterer's – a typical upland bat with foraging bats being recorded high on heather moorland. Often roosting in barns.

Daubenton's – a species commonly associated with aquatic habitats.

Long Eared bat – a woodland species which has been recorded foraging over in bye meadows and rough grassland sites. Often roosting in barns.

Survey Personnel.

Personnel on surveys included: David Anderson, an experienced ecologist and bat researcher with 25 years experience of fieldwork and bat ecology, a founder member of the East Lancashire Bat Group and 'Batworker.com', formerly a Natural History Curator and manager of the East Lancashire Biological Records Centre. (Natural England licence No:2015-15784-CLS-CLS, Conservation, Science and Education).

Survey Summary

Survey	Date	Timings
Visual	23.08.2021	1 Hour
Emergence Survey	28.08.2021	3 Hours
Dawn Survey	11.09.2021	3 Hours

Survey constraints

Access to all areas of the exterior of the building was possible and good visual inspection at ground level was possible. Evidence of bat activity such as bat droppings or staining on external walls and surfaces is frequently removed by the action of wind and rain; apparent absence of evidence is therefore evaluated with caution.

In many situations it is not possible to inspect every locations where bats are present therefore it should be assumed that an absence of bat evidence does not necessarily equate to evidence that bats are absent. Some species such as pipistrelle sp bats are opportunistic and it is possible for individuals to be found during works, even where surveys have had negative results during preliminary and activity surveys.

Survey Results

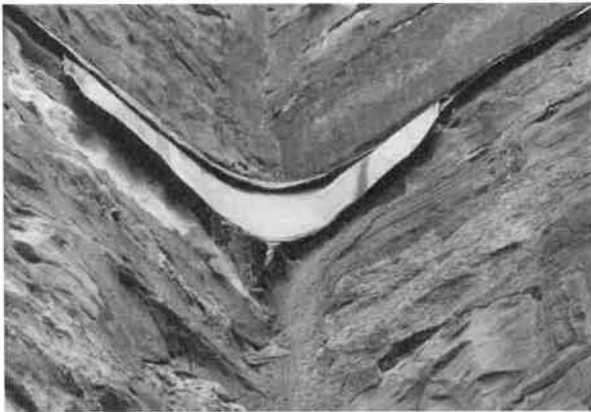
Visual Survey



The property consists of a stone built former stewards house, dating back to 1720's, with a castellated roof. The property has flat roofed extensions present on the northern facade.

External walls are generally well pointed and well sealed, however the building has areas of lifted lead flashing present on most facades.

Visual Inspection.



Areas of lifted lead and copper flashing were recorded on all facades of the building which have potential to offer roosting opportunities for single bats.



Emergence Survey - 28th August 2021

Start: 19.55 Sunset: 20.12 Finish: 21.45

Start temp – 17.2c / Wind Bft0 / 50% clear sky

An emergence survey on 28th August 2021 was carried out with surveyors using a combination of Anabat Walkabout, Anabat Scout and Canon XA25 nightshot video camera with Infrared illuminators. Calls were analysed post survey using Anabat Insight software.

Soprano pipistrelle bats were observed to emerge from the direction of the castle keep and disperse into parkland and deciduous tree cover to the south of the building. Myotis bat foraging activity, characteristic of Whiskered/Brandts was recorded later in the survey with bats foraging along tree lines. 11 bats in total were recorded, with bats heading south to forage along the edge of tree lines into the wider parkland area.

No bats were recorded emerging from the castle museum building.

Dawn Survey - 11th September 2021

Start: 05.00 Sunrise:06.36 Finish:06.55

Start temp – 13.2c / Wind Bft1 westerly / 100% clear sky

An dawn re-entry survey on 11th September 2021 was carried out with surveyors using a combination of Anabat Walkabout, Anabat Scout and Canon XA25 nightshot video camera with Infrared illuminators. Calls were analysed post survey using Anabat Insight software.

Soprano pipistrelle bats were observed foraging along tree lines to the south of the building throughout the survey period, two myotis passes, characteristic of Whiskered/Brandt's bats, were recorded along the treeline.

Bats were observed to head in the direction of the castle keep, with activity to suggest dawn swarming being recorded from 06.00 – 06.30.

No bats were recorded entering the castle museum building.

Interpretation of results

Soprano pipistrelle bats were observed to be using the castle keep to roost in low numbers. The roost is unlikely to be a maternity roost. The proposed development does not directly affect the roost or roost entrances.

"The presence of a significant bat roost (invariably a maternity roost) can normally be determined on a single visit at any time of year, provided that the entire structure is accessible and that any signs of bats have not been removed by others". - Mitchell-Jones, A (2004) Bat mitigation guidelines. English Nature.

No bats were observed using areas of the building likely to be affected by proposed plans. Given the close proximity to the castle museum, combined with the opportunistic roosting nature of pipistrelle bats it is considered that reasonable avoidance measures are an appropriate approach to carry out works.

It is considered that a precautionary approach to development with suitable reasonable avoidance measures with mitigation in the form of timing of works and compensatory bat boxes would be an appropriate approach to roost compensation commensurate with that expected by Natural England for the purposes of licencing should it be necessary.

Compensatory bat boxes (two Greenwood Eco Habitats two crevice boxes) will be placed on site prior to work commencing and will form suitable commensurate mitigation in the unlikely event that an EPS licence application is necessary.

Impact Assessment

Short-term impacts – disturbance Low risk:

Roof stripping where necessary will be undertaken by hand and under supervision.

Long-term impacts - Roost loss: No impact on a local bat population.

Long-term impacts - Fragmentation and isolation:

Minimal risk, the impact of the proposed development on local bat species will be insignificant.

Predicted scale of impact: No loss of roosting sites of a common and relatively widespread species.

Method Statement and Reasonable Avoidance Measures

The overall purpose of the Method Statement is to ensure that bats and their roosts are fully protected to ensure the 'favourable conservation status of the species'. The Method statement is designed to minimise or remove any potential disturbance to roosting bats.

A Method Statement is normally required by the local planning authority to ensure that procedures are in place before the development works are carried out and will form part of the EPS Licence application where necessary.

No work should commence without contractors receiving a toolbox talk.

All contractors will be made aware of the legal protection afforded all species of bats in the UK and procedures will be in place to mitigate for the potential impact on bats before any building work is undertaken.

Compensatory bat boxes (Two Greenwood Eco Habitats two crevice boxes) will be placed on site prior to work commencing and will be used to house any bats found during works. Bat boxes will remain on site as part of proposed biodiversity enhancement.

Timing of works - Roof works should take place between October and May.

Roof work will take place following an evening temperature of +5c.

Work to affected roof areas will take place under supervision of the batworker.

Removal of lead flashing and rain water goods will be carried out with care, by hand, and under supervision where necessary.

Lead flashing should be lifted and checked for the presence of bats prior to removal.

A copy of the Method Statement should be available to site / project managers in advance of any works being carried out.

The existence of a Method Statement helps to establish a defence against prosecution for intentional (WCA), deliberate (Habitat Regulations.) or reckless (WCA) disturbance of bats or damage to roosts. All work should take place under the supervision of the ecologist.

Accidental exposure of bats - EMERGENCY ADVICE

In the unlikely event of bats or their roosts being exposed or vulnerable to harm, suspend further work in that area. Cover the exposed bats to reduce any further risk of harm and seek advice immediately. Call Dave Anderson (Batworker) on 07894 338290 (mobile); a site visit will be arranged to assess the situation and recover any bats / safely remove them from site.