



Environmental Consultants

Bat Survey Report

Loughrea Townhall Redevelopment
Barracks Street, Loughrea, Co. Galway

DOCUMENT DETAILS

Client: Galway County Council

Project Title: Renovation and restoration of townhall building

Document Title: Bat Survey Report

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Date: 21/10/2021

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1 INTRODUCTION

This report details the findings of a bat survey completed as part of a planning application for the renovation of the town hall building in the town of Loughrea.

This report aims to;

- Identify species of bats using the site.
- Examine building for roosting potential.
- Examine potential feeding and commuting routes.
- Potential impacts of bats by the proposed development.

The surveys undertaken are in line with recommendations in Chapter 11 of the Bat Conservation Trust 'Good Practice Guidelines, 3rd edition, 2016' (BCT, 2016) and The Irish Wildlife Manual No. 25' (Kelleher, 2006). The survey was designed and carried out by John Curtin B.Sc. (Env.). John has been carrying out bat surveys since 2012 and has completed over 100 surveys during this time. John has also completed the Bat Conservation Ireland, Bat Detector Workshop and Bat Handling Workshop which are the standard training for the carrying out of bat surveys in Ireland. He follows the Bat Conservation Ireland 'Good Practice Guidelines' (Aughney *et al.*, 2008). In addition, John is an active member of Bat Conservation Ireland, which monitor bat populations in Ireland, and facilitate the education of bat communities to the public.

The site in question refers to a two-storey stone and slated building.

John holds the following licences.

Description	Licence No
Licence to capture protected wild animals for educational, scientific or other purposes (bats)	C231/2020
Roost disturbance (bats)	Der/Bat 2020-114
Licence to photograph / film wild animals (bats)	06/2021

In order to assess the presence and activity of bats within the proposed development grounds, a preliminary daylight site inspection was conducted on the 06th of July 2021. A full night-time detector survey was carried out on the same date consisting of a three hour dusk and two hour dawn survey.

Although a thorough examination of the building using ladder, high powered torch, a Seek Reveal XR FF thermal imaging device and an Ridgid CA-300 Inspection Camera revealed some roosting potential for bats, the site showed no signs of bat occupancy. The building is a plastered stone building with a slate roof. This roof space is suitable for roosting bats however the abundance of street lighting on two sides of the building and lack of good connective features reduces the potential of the site considerably.

2 DESKTOP STUDY

2.1 BATS IN IRELAND – LEGISLATIVE PROTECTION

There are two main pieces of legislation which cover wildlife protection in Ireland – the Wildlife Act and the Habitats Regulations. These are outlined below, with particular reference to the protection afforded to bat species in Ireland.

The Wildlife Acts 1976 and 2000

The primary pieces of national legislation for the protection of wildlife in Ireland are the Wildlife Act (1976) and the Wildlife [Amendment] Act (2000). All species of bats in Ireland are listed on Schedule 5 of the 1976 Act, and are therefore subject to the provisions of Section 23, which make it an offence to:

- Intentionally kill, injure or take a bat
- Possess or control any live or dead specimen or anything derived from a bat
- Wilfully interfere with any structure or place used for breeding or resting by a bat
- Wilfully interfere with a bat while it is occupying a structure or place which it uses for that purpose

The Habitats Regulations 1997-2005

The EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive 1992) seeks to protect rare and vulnerable species and the habitats in which they are commonly found, and requires that appropriate monitoring of populations be undertaken. All bat species found in Ireland are listed under Annex IV of the Directive, while the lesser horseshoe bat is afforded further protection under Annex II. The Habitats Directive has been transposed into Irish law by the European Communities (Natural Habitats) Regulations 1997. All bat species are listed on the First Schedule and Section 23 of the regulations makes it an offence to:

- Deliberately capture or kill a bat
- Deliberately disturb a bat

- Damage or destroy a breeding site or resting place of a bat

Provision is made in the Regulations for the Environment Minister to grant, in strictly specified circumstances set out in that Regulation, a derogation license permitting any of the above activities “where there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species to which the Habitats Directive relates at a favourable conservation status in their natural range”.

2.2 SITE LOCATION

The proposed site lies in the town of Loughrea (Grid Ref. 162109 216461). The site for the proposed development does not lie within a Lesser Horseshoe territory.



Figure 2-1: Location of proposed development



Figure 2-2: Aerial of site and surroundings

2.3 BAT SPECIES RECORDED IN THE SURROUNDING AREA

The NBDC database was consulted for details on bat records held for the site and the surroundings. The database was consulted on the 28/10/2021 for details on historical records from the site, the surrounding 2km (M61L) and the 10km hectad; M61. Results are outlined in Table 2-2. While no species of bat has been recorded from the site or the surrounding 2km square four have been recorded from within the M61 10km hectad all recorded during the 2010 Batlas and recorded by Ruth Carden.

A report completed for the Loughrea Council during 2018 for the erection of lighting by Corry’s field found five species present; Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Leisler’s bat (*Nyctalus leisleri*), Brown Long-eared Bat (*Plecotus auritus*) and Daubenton’s Bat (*Myotis daubentonii*).

An additional bat survey completed as part of a planning application found a bat roost c1.5km to the south-east where both Whiskered bats (*Myotis mystacinus*) and Soprano Pipistrelle were present.

Table 2-1: Irish bat species recorded in the M61 10km grid

Scientific name	Common name	Date of last record	Designation	Location
<i>Nyctalus leisleri</i>	Leisler’s Bat	27/09/2009	EU Habitats Directive >> Annex IV Wildlife Acts	7.2 km to the north-east
<i>Pipistrellus pipistrellus sensu lato</i>	Pipistrelle	27/09/2009	EU Habitats Directive >> Annex IV Wildlife Acts	7.2 km to the north-east
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	27/09/2009	EU Habitats Directive >> Annex IV Wildlife Acts	Closest record located 3.9km to the west
<i>Plecotus auritus</i>	Brown Long-eared Bat	27/09/2009	EU Habitats Directive >> Annex IV Wildlife Acts	Vague 1km square 6.2 km to the north-east

3 SURVEY FINDINGS

3.1 SURVEY METHODOLOGY

A detailed inspection of the building was undertaken during daylight hours on the 06th of July 2021. The aim was to compile information on actual and potential access points and roosting locations. This was done by searching for evidence of bats including live and dead specimens, droppings, feeding remains, urine splashes, fur oil staining and noises.

The exterior of the buildings were inspected first from ground level, with the aid of binoculars. The search included the ground, accessible windowsills, walls, eaves, roof slates, gutters, downspouts and the roof ridge. A systematic search of all accessible interiors was also undertaken. Searches were carried out with the aid of binoculars, torches, an endoscope, thermal imaging device and a ladder and focused on walls, floors, roof beams, windowsills, lintels, shelves, tops of large equipment and furniture, etc.

3.2 SURVEY CONSTRAINTS

The bat survey was undertaken in July within the main bat active season. All surveys were carried out during good weather conditions.

3.2.1 Habitats on site

The building is situated on Barracks Street which contains a mixture of residential and retail buildings. Street lighting can be found along Barrack Street and Church Street. Although a small section of bramble can be found by the short lane to the rear this does not provide much connectivity or potential feeding grounds of use for bats.



Plate 3-1: Front face of building



Plate 3-2: Side of building



Plate 3-3: Lane to rear

3.2.2 Daylight inspection

Searches were completed using ladder, high powered torch and endoscope. The building was found to consist of stone walls with plastered finish and slated roof (See **Plate 3-1**). The inside rooms had cloth curtains on several walls. These are suitable for wintering bats. Droppings on these would indicate a bat roost. All were examined however no evidence of previous bat occupancy was found.

The attic was found to contain slates with no bitumen / breather membrane layer. A circular window / vent found in the eastern gable was partially covered in mesh. Enough holes could be found to potentially allow access into the space.



Plate 3-4: Main first floor room



Plate 3-5: Attic space



Plate 3-6: Potential entrance point to attic

3.1 BAT DETECTOR SURVEYS

A dusk-dawn mobile detector survey was carried out both within and outside the building. Scaffolding had been set up to the rear of the build to allow the surveyor to inspect the roof for potential bat exit points. Towards sunset the surveyor focused within the building in order to find bats exiting from roost spaces within the building and potentially find bats flying within attic spaces. Surveys commenced at 21:33; half an hour before sunset and continued until 00:03. The survey then recommenced two hours before sunrise at 03:18 and continued until

sunrise. Each contact with a bat was recorded. Where possible, a positive identification to species level was made. Information on the behavior was also recorded where available.

The bat detector used during the walked surveys was a Wildlife Acoustics Inc. (Massachusetts, USA) Echo Meter Touch Pro 2 bat detector which is triggered to record when a bat call is emitted louder than 18dB for 1sec. This detector uses full spectrum sampling; detecting all frequencies simultaneously, meaning that multiple bat calls can be recorded at the same time.

A contact as shown below describes a bat observed by the surveyor. This contact can range from a commuter passing quickly to a foraging bat circling a feature lasting for several minutes. Some observations contain multiple bats. When several bats of the same species are encountered together they are recorded under the one contact. A separate contact is recorded for each species. A contact finishes when the recorder assumes the bat is no longer present. It is likely that the same bat is recorded in several contacts throughout the night. This survey type cannot estimate abundance of bats, rather activity; the amount of use bats make of an area / feature. The survey followed the guidelines as set out in bat conservation Ireland's 'Bat Survey Guidelines'.

Sunset on the 06th of July occurred at 22:03 and sunrise on the 07th was at 05:18. Wind speed was still throughout the survey. The air temperature varied during the night of the survey between 13 degrees at 21:30 to 12.5 degrees Celsius at 00:08. Temperatures during the dawn survey ranged from 13 degrees at 03:15 to 12 degrees at 05:30. Overall, these conditions were good for bat survey work.

3.1.1 Results of dusk and dawn surveys

During the survey, no bats were recorded. For the emergence period of the dusk survey the surveyor was positioned within the building looking for bats flying within the attic. None were noted. At other times the surveyor completed loops at the sites perimeter.

4 DISCUSSION

No bats were found during any of the surveys. Although the attic space provides some potential roosting spaces for bats it is the surveyors opinion that the abundance of street lighting and the lack of suitable dark zones or bat friendly landscape features (such as unlit treelines) lowers the potential of the site for these species.

5 POTENTIAL IMPACTS

Given the lack of evidence of bats no impacts are expected by the proposed development.

6 CONCLUSION

This report details the findings of a bat survey completed as part of a planned renovation of the Loughrea town hall.

The results of the surveys presented above show no evidence of bats within the town hall. No impacts on the local bat population is expected by the proposed development.