



Inspection Survey for Bat Field Signs

Sheds at Mill Road, Limerick

Doherty Environmental Consultants Ltd.

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Bat Inspection Survey Report

Mill Rd., Co. Limerick

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Final	1	Pat Doherty MSc, MCIEEM

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1.0 INTRODUCTION

Doherty Environmental Consultants (DEC) Ltd. has been commissioned by Limerick City & county County Council to undertake an inspection survey for field signs of bats at two sheds along the Moll Road, Co. Limerick. The location of the sheds are shown on Figure 1.1.

1.1 INSPECTION SURVEY AIMS & OBJECTIVES

The aim of the inspection survey was to identify field signs from last years (i.e. 2020) bat activity season that indicate the presence of bat species roosting in the sheds. The presence of field signs at the structure will indicate that the structure functions as a roost site for bat species.

1.2 LEGISLATIVE CONTEXT

All bat species occurring in Ireland are protected under both European and National legislation. All species are European Protected Species, listed on *Annex IV* of the *EU Habitats Directive (92/43/EEC)*, transposed into Irish law under the *European Communities (Birds and Natural Habitats) Regulations 2011*. Lesser horseshoe (*Rhinolophus hipposideros*) bats are afforded special protection as an *Annex II* listed species. At the national level all species are protected under the *Wildlife Acts, as amended (1976 and 2000)*.

Swift are a protected species in Ireland under the *Wildlife Acts, as amended (1976 and 2000)*.

1.3 CONSERVATION STATUS

Swift is an amber-listed species being of medium conservation concern in Ireland.

A total of 9 species of bats are resident in Ireland. The overall conservation status of each of these species, as assigned by the NPWS (2019) is as follows:

Lesser horseshoe bats is inadequate and deteriorating;

Common pipistrelle is favourable and improving

Soprano pipistrelle is favourable and improving

Nathusius pipistrelle is unknown

Natterer's bat is favourable and stable

Daubenton's bat is favourable and improving

Whiskered bat is favourable and stable

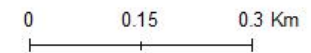
Brown long-eared bat is favourable and improving

Leisler's bat is favourable and improving.



Mill Road, Corbally

Figure 1.1
Site Location



Drawn By	PD
Date	08/04/2021
Data Source	Bing



Mill Road, Corbally

Figure 1.2
Site Location
Aerial View

0 0.02 0.04 Km



Drawn By	PD
Date	08/04/2021
Data Source	Bing

2.0 METHODOLOGY

2.1 BAT ROOST POTENTIAL OF EXISTING DWELLING

Kelleher & Marnell (2006) provide guidance on assessing the potential for structures to support roosting bats. This guidance identifies a variety of factors that increase or decrease the potential of a structure to function as a bat roost. These factors are outlined in Table 3.1 below.

Table 2.1: Factors Affecting the potential of a building to support a bat roosts, as described by Kelleher & Marnell (2006)

Increase Potential	<ul style="list-style-type: none"> Disused or little used; largely undisturbed Large roof void with unobstructed flying spaces Large dimension roof timbers with cracks, joints and holes Uneven roof covering with gaps, though not too draughty Entrances that bats can fly in through Hanging tiles or wood cladding, especially on south-facing walls Rural setting Close to woodland and/or water Pre-20th century or early 20th century construction Roof warmed by the sun
Decrease Potential	<ul style="list-style-type: none"> Urban setting or highly urbanised area with few feeding places Small or cluttered roof void Heavily disturbed Modern construction with few gaps around soffits or eaves Prefabricated with steel sheet materials Active industrial premises Roof shaded from the sun High internal day time light levels

The shed structure was assessed against these factors to establish the bat roost potential of the structure.

2.2 DAYTIME INSPECTION

The daytime inspection survey was undertaken on the 2nd March 2021. The daytime inspection involving searching the sheds for any evidence indicating the presence of bats field signs such as droppings, brown staining from urine, feeding remains and surfaces smoothed around entrance holes.

The inspection survey also focused on identifying suitable access and egress points for bats into the sheds. The inspection surveys consisted of a thorough search of all exterior areas of the sheds occurring on site. A internal inspection of the sheds was also completed. The loft space of one shed was inaccessible and could not be surveyed during the site inspection survey.

The following equipment was used during the inspection and activity surveys:

Echo Meter Touch Pro bat detector: and

High-powered mag-lite hand torches and LED head torches.

3.0 LIMITATIONS

It is noted that the inspection survey was completed outside the time of year that the structure would be occupied by bats and the presence of individuals was not expected during the inspection survey. Nevertheless, it is considered that the presence or absence of field signs provides an indication of the likely use of the structure by bat species. The inaccessible loft on one shed prevented an inspection of this loft space for field signs indicating its use as a bat roost.

4.0 RESULTS

4.1 DESK TOP REVIEW

A review of National Biodiversity Data Centre (NBDC) revealed historical records for three bat species in the area: Leisler's bat, Common pipistrelle and Soprano pipistrelle. The structure is located in an area that has been identified as being of medium to high potential for bats at the landscape level.

There are no records for swift from either of the 2 1km square grids searched during the desk top review.

4.2 BAT ROOST POTENTIAL

Based on the Kelleher & Marnell (2006) roost potential assessment criteria, Table 4.1 describes the structural features associated with shed buildings that are listed as factors influencing roost potential.

Table 4.1: Roost Potential Factors identified at the Existing Dwelling

Factor	Factors Influence on Roost Potential
Urban setting	Decreased Potential

High internal day time light levels	The southern shed does not contain a loft space. There are numerous windows and there are high internal light levels. The ground floor of the northern shed supports windows and has high internal light levels.
Internal structure kept dark	There are no obvious points for light to access the loft of the northern shed.
Small roof void	Decreased Potential
Entrances that bats can fly in through	Increased Potential
Roof is warmed by the sun	Increased Potential
Heavily disturbed	Decreased Potential. Site management noted that the sheds are well used.
Pre-20 th century or early 20 th century construction	Increased Potential

Overall the ground floor of both sheds are of decreased potential for supporting bats. The loft of the northern shed may have some potential to support bats based on low light levels and undisturbed conditions.

4.3 INSPECTION SURVEY RESULTS

No bats field signs indicating their presence was recorded the loft space.

4.4 CONCLUSION & RECOMMENDATIONS

During the inspection survey unsuitable conditions for roosting bats were identified in the the southern shed and the ground floor of the northern shed. The loft space of the northern shed has some potential to function as a roost for bats.

No field signs indicating the presence of bats was found in the southern shed and the ground floor of the northern shed and there was no indication that these areas are relied upon by bats for roosting.

It is recommended that the loft space of the northern shed is subject to a bat emergence survey during the bat activity season to determine whether or not it functions as a bat roost.

REFERENCE

Kelleher, C & Marnell, F. (2006). Bat Mitigation Guidelines for Ireland. Irish Wildlife Manuals, No. 25. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

APPENDIX 1: PLATES



Plate 1: Internal view of southern shed and corrugated roof



Plate 2: View of internal space of southern shed



Plate 3: View of window openings in southern shed



Plate 4: External view of southern shed



Plate 5: View of window opening of northern shed on north elevation



Plate 6: View of northern shed southern elevation. Note shallow loft space that was inaccessible

