

# Southern Scientific Services Ltd

#### **Bat & Ecological Survey**

At Milk Market Lane, Tralee, County Kerry

Requested By: Rob Durran

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Prepared By: Southern Scientific Services Ltd.

Our Reference: 23P -105

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#### 1 Introduction

Southern Scientific Services Ltd was commissioned by Rob Durran to carry out a bat and ecological survey on an old mill located in Tralee town centre County Kerry.

Rob Durran intends to apply for planning permission to renovate the existing building. Therefore, he requested this survey be carried out prior to the planning permission application process taking place. The Survey took place over 2 nights and was undertaken by Diarmuid O'Leary, Brendan O'Connor and Laura Dempsey Diggins, Ecologists with Southern Scientific Services.

Ireland's nine species of bats are all Red Data listed and receive protection through the Wildlife Act (1976 & 2000) and Annex IV of the EU Habitats Directive, under which it is an offence to intentionally disturb, kill or injure a bat or damage its resting place. This protection, therefore, encompasses the protection of bat habitats (Marnell, Kingston and Looney, 2009) This includes roost sites such as cavities in trees, and cracks and crevices in buildings, both derelict and in use.

A visual and photographic survey of the site was undertaken on the 19<sup>th</sup> of July 2023. During this, the building was thoroughly inspected for any signs of use by bats or other wildlife. Suitable roosting sites throughout the building were inspected for the presence of bats.

The building was also assessed for suitability for other wildlife such as nesting birds or other mammals. Due to the time of the year, it was possible to carry out an external bat emergence survey. This was done on the 19<sup>th</sup> and 20<sup>th</sup> of July.

### 2 Methodology

The Landscape Conservation for Irish Bats dataset was accessed via the online National Biodiversity Data Centre live mapping interface on the 7<sup>th</sup> of April 2025. (https://maps.biodiversityireland.ie/Map) to obtain background information on the suitability of the area for all of the Irish bat species.

The basic methodology was that described by Kelleher & Marnell (2006) and Collins (2016).

The site was the subject of a visual survey. This involved identification of potential roost sites, such as spaces and cavities, along with stains, scratch marks around entrance and exit sites, and the presence of droppings under possible roosts. Sites identified as potential roosts were then each examined individually to determine whether bats were present.

Due to the timing of the survey in the middle of July, it was possible to survey the grounds for bats foraging and commuting as well as any bats exiting the building.

#### 3 Desktop Assessment

An ecological desktop assessment was undertaken on the 7<sup>th</sup> of April 2025. The aim of this was to investigate existing documentation and data containing information on previous bat sightings, protected sites for bat species, and the Bat Habitat Suitability Index. Information was sourced from several online sources which included:

- National Parks and Wildlife Service Maps & Databases (www.npws.ie);
- National Biodiversity Data Centre (<a href="https://maps.biodiversityireland.ie">https://maps.biodiversityireland.ie</a>);
- Bat Habitat Suitability Index Maps (Lundy et al., 2011);
- Arial photography and 1:50000 mapping.

The Bat Habitat Suitability Index provides maps that detail the suitability of habitats in Ireland for bats. It helps to predict where bat species might occur (Lundy et al., 2011). The maps are constructed using 5km grid squares from the OSI National Grid and these grid squares are given a Bat Habitat Suitability Index. This index ranges from 0 - least suitable and 100 - most suitable for bat species.

The area around the proposed development at Milk Market Lane, Tralee, County Kerry, has an overall Bat Suitability Index of 34.11 for all bat species. This score indicates a medium suitability for bats in the general area.

The Habitat Suitability Indices score for each of these species is shown below:

Common Name	Scientific Name	Habitat Suitability Index	
Soprano pipistrelle Pipistrellus pygmaeus		42	
Brown long-eared bat	Plecotus auritus	52	
Common pipistrelle	Pipistrellus pipistrellus	40	
Lesser horseshoe bat	Rhinolophus hipposideros	27	
Lesser noctule	Nyctalus leisleri	41	
Whiskered bat	Myotis mystacinus	30	
Daubenton's bat	Myotis daubentonii	37	
Nathusius's pipistrelle	Pipistrellus nathusii	2	
Natterer's bat	Myotis nattereri	36	

In addition, records from the National Biodiversity Data Centre (NBDC) were assessed for the 1km and 2km grid square that contains the proposed development site. Protected species recorded within these grid squares are listed below.

Species name	Square size	Designation	Last record
Common Frog (Rana	1 km & 2km	EU Habitats Directive	22/02/1997
temporaria)		Annex V & Wildlife Act	
		1976	
Barn Swallow (Hirundo	1km	Wildlife Act 1976	23/05/2023
rustica)			
Common Kingfisher	1km	Wildlife Act 1976 & EU	07/01/2018
(Alcedo atthis)		Birds Directive Annex 1	
Common Linnet	1km	Wildlife Act 1976	30/01/2015
(Carduelis cannabina)			
Common Starling	1km	Wildlife Act 1976	16/04/2021
(Sturnus vulgaris)			
Common Swift (Apus	1km	Wildlife Act 1976	11/05/2024
apus)			
Common Wood Pigeon	1km	Wildlife Act 1976 & EU	24/05/2023
(Columba palumbus)		Birds Directive Annex II	
Eurasian Oystercatcher	1km	Wildlife Act 1976	21/01/2016
(Haematopus ostralegus)			
Herring Gull (Larus	1km	Wildlife Act 1976	23/05/2023
argentatus)			
House Martin (Delichon	1km	Wildlife Act 1976	07/08/2016
urbicum)			
House Sparrow (Passer	1km	Wildlife Act 1976	26/05/2023
domesticus)			
Peregrine Falcon (Falco	1km	Wildlife Act 1976 & EU	28/02/2018
peregrinus)		Birds Directive Annex I	
Rock Pigeon (Columba	1km	Wildlife Act 1976	08/07/2022
livia)			
Stock Pigeon (Columba	1km	Wildlife Act 1976	24/05/2023
oenas)			
Pipistrelle (Pipistrellus	1km	Wildlife Acti 1976	19/07/2016
pipistrellus sensu lato)			
Hedgehog ( <i>Erinaceus</i>	1km	Wildlife Act 1976	02/10/2021
europaeus)			

Balearic Shearwater	2km	Wildlife Act 1976	15/01/2018
(Puffinus mauretanicus)			
Barn Owl (Tyto alba)	2km	Wildlife Act 1976	28/03/2020
Black-headed Gull	2km	Wildlife Act 1976	07/07/2021
(Larus ridibundus)			
Common Kestrel (Falco	2km	Wildlife Act 1976	07/01/2019
tinnunculus)			
Common Pheasant	2km	Wildlife Act 1976 & EU	30/01/2016
(Phasianus colchicus)		Birds Directive Annex II	
Common Snipe	2km	Wildlife Act 1976 & EU	01/02/2019
(Gallinago gallinago)		Birds Directive Annex II	
Eurasian Curlew	2km	Wildlife Act 1976 & EU	07/01/2018
(Numenius arquata)		Birds Directive Annex II	
Lesser Black-backed	2km	Wildlife Act 1976	20/04/2021
Gull (Larus fuscus)			
Northern Lapwing	2km	Wildlife Act 1976 & EU	03/03/2018
(Vanellus vanellus)		Birds Directive Annex II	
Yellowhammer	2km	Wildlife Act 1976	04/02/2019
(Emberiza citronella)			
Grey Seal (Halichoerus	2km	Wildlife Act 1976 & EU	29/10/2016
grypus)		Birds Directive Annex II	
Leisler Bat (Nyctalus	2km	Wildlife Act 1976 & EU	01/07/1989
leisleri)		Birds Directive Annex II	
Red Deer (Cervus	2km	Wildlife Act 1976	23/10/2016
elaphus)			

This search revealed that Pipistrelle bats (*Pipistrellus pipistrellus sensu lato*) were identified within the 1km grid square, but the exact species was not identified. Leisler bat (*Nyctalus Leisleri*) had been identified within the 2km grid square however the most recent record was on 01/07/1989.

#### 4 Results and Discussion

The Landscape Conservation for Irish Bats dataset (accessed 07/04/2025) indicated that the area around this site was of medium favourability to most of the resident bat species. The area was considered generally favourable for Brown long-eared bat (*Plecotus auritus*).

The survey site consisted of a five-story disused Mill (Figure 1), located in a residential area in Tralee town centre at Milk Market Lane, Tralee, County Kerry. The building is currently unoccupied. While the majority of the windows are boarded up, some are open. These provide access points into the building for birds and other species. There are also a number of crevices and small openings which are potential access points for bats and other small species. There is ivy on the north side of the building which has the potential to be used for roosting bat species. The roof is intact.

July is an optimal time of the year to carry out an external emergence survey. It was carried out at sunset for signs of bats foraging in the surrounding area or potentially exiting the building. During the visual survey, emphasis was placed on locating signs of current or previous bat occupation, of which none were found. These would include droppings, urine stains and scratch marks around entry and exit points. However, it should be noted that some individual male bats could be tucked in small spaces, using temporary roosts. These male bats are more mobile and could relocate to new roosts if they were unintentionally disturbed.

A small number of bats were recorded emerging from the building at sunset. 7 were recorded on the 19<sup>th</sup> of July and 3 on the 20<sup>th</sup> of July. These were identified as being Common Pipistrelle (*Pipistrellus pipistrellus*) using bat detectors. Due to the low numbers of bats, this is most likely a small number of male bats roosting rather than a maternity roost.

In addition, it does not appear to be suited for being a hibernation roost. Hibernating bats require a roost with a constant temperature which this building would not provide due to the number of openings and open windows it contains. The building is currently being occupied by a large number of nesting feral pigeons (*Columba livia f. domestica*). It is apparent that this has been the case for a number of years as pigeon remains, droppings and nests are common within the building.

There were a large number of swifts visible in the area on both the 19<sup>th</sup> and 20<sup>th</sup> of July. None were seen entering the building however given the level of activity in the area as well as the building structure it cannot be ruled out as a nesting site. A report on Common Swift in Tralee

produced for Kerry County Council by Lynda Huxley in 2016 found this site to contain at least one Swift nest at the time.

No other species were found to be using the site at the time of this survey.

#### 5 Considered Alternatives

This derogation licence has been south to allow for the renovation of an old mill in Tralee town, which has been identified as a potential temporary roost location for Common Pipistrelle. Any works that have the potential to interfere with bats and especially their roosts, may only be carried out under a derogation license granted by National Parks and Wildlife Service (NPWS) pursuant to Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011 (which transposed the EU Habitats Directive into Irish law). Several alternative options to derogation were considered and their viability assessed prior to applying for a derogation license.

#### 1. Leave the old mill as it currently is.

This option was considered as a potentially suitable short-term option. The building is not currently in use, a number of windows are boarded up, but there are several open windows and small openings present on all faces of the building. The roof of the building is currently intact. If the building is left to remain in its current state it is likely that it will fall into a state of dereliction, and its suitability as a bat roost location would be significantly reduced.

While this option is considered a suitable solution in the short term, it is deemed that it is not viable as a long term alternative to the proposed project as it will result in loss of roost habitat.

#### 2. Retain roosts within the building

This option was considered as a way to minimise impact on bats. As mentioned in Section 4: Results and Discussion no active bat roosts were identified during the survey, with only a small number of bats observed exiting the building. This indicates that the site is likely used as a temporary roost by male bats. As such, there are no specific roosts within the building to be retained.

While it is possible to retain specific sections of the building as potential roost locations, this is deemed a sub-optimal solution as increased disturbance from anthropogenic sources during and after construction will result in the project site being avoided by bats for use a temporary roost location.

#### 3. Renovate the mill, installing bat boxes and roosting spaces for bats

The final option considered for the project is to renovate the building and install bat boxes and roosting spaces during the development. In the planned development, it is proposed that the existing roof of the building will be raised as a way to accommodate internal developments. The top floor of the building was deemed as the most suitable location for use as a roost during the site inspection. While these works would temporarily remove suitable roosting habitat, they would also provide an opportunity for the installation of bespoke roosting spaces, incorporated as part of the building, allowing the project site to remain as a suitable bat roosting habitat once works are completed.

While the project site might become unsuitable for use as a roost during the development, it would, in the long term, provide suitable roosting habitat, offsetting the temporary loss of the non-significant roosting habitat within the building.

#### 6 Conclusion and Recommendations

Rob Durran requested that a Bat and ecological survey be undertaken on an old mill to be renovated. It was, therefore, necessary to undertake a survey of the site at Milk Market Lane, Tralee, County Kerry for evidence of bat roosts and other wildlife.

A Visual inspection of the building exterior and interior as well as the surrounding area was undertaken on the 19<sup>th</sup> of July 2023. The site was investigated for all possible roosting sites for all bat species, but no currently occupied roosts were discovered. Furthermore, no potential sites showed indications of previous occupation. There was a large amount of feral pigeon activity in the building, and it has clearly been used as a nesting site for a number of years. There was a lot of swift activity in the area and the building may be used as a nesting site.

A bat emergence survey was undertaken on the 19<sup>th</sup> and 20<sup>th</sup> of July. A small number of Common Pipistrelle bats were seen exiting the building on both evenings. These are likely male bats which can use temporary roosts rather than a maternity roost. Due to the number of openings in the building, it is not likely to be used as a hibernation roost as bats need a constant temperature in which to hibernate. The large population of Feral Pigeon will also cause a lot of noise and disturbance within the building which hibernating bats tend to avoid.

These works will require the following mitigation measures:

- Works are not to take place between March 31<sup>st</sup> and September 30<sup>th</sup>. This will allow any nesting swifts and roosting bats to have vacated the building;
- The building is a confirmed bat roost; therefore, a bat derogation license will be required from National Parks and Wildlife Services (NPWS) to allow works to take place on the site;
- A bat emergence survey will be required to confirm that bats have left the building before work starts;
- Bat boxes should be installed on the southern side of the newly refurbished building;
- Swift boxes will also be installed. These should be placed as high as possible, ideally close
  to the eaves of the building with a clear flight path as Swifts need to be able to free fall as
  they leave the nest;
- Once these boxes are installed swift calls will need to be played in order to attract swifts to the new nest sites. These should be played from early May to early August between 6:30 am and 10:00 am in the mornings and 7:00 pm to 9:00 pm in the evenings. The device playing the calls should be hung in the immediate vicinity of the entry hole of an unoccupied swift box and at a maximum distance of 20 cm from the entry hole. It is important that the

correct calls are played. These can be purchased at Genesis Nest Boxes (<u>Genesis Swift</u> <u>Products Archives : Genesis Nest Boxes</u> );

A licence will be applied for to broadcast swift calls from NPWS.

#### 7 References

- Collins, J., 2016. Bat surveys for professional ecologists: good practice guidelines.
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- Lundy, M., Montgomery, W., Roche, N. and Aughney, T., 2011. Landscape conservation for Irish bats & species-specific roosting characteristics. *Bat Conservation Ireland*. [online] Available at: <a href="http://www.batconservationireland.org/pubs/reports/Landscape\_Conservation\_Irish\_Bats.pdf">http://www.batconservationireland.org/pubs/reports/Landscape\_Conservation\_Irish\_Bats.pdf</a>
- Marnell, F., Kingston, N. and Looney, D., 2009. Ireland Red List No. 3: Terrestrial Mammals. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.
- Huxley, L., 2016. Report on Common Swift in Tralee, County Kerry produced in 2016 for Kerry County Council Biodiversity Officer, Cathy Fisher

# 8 Figures

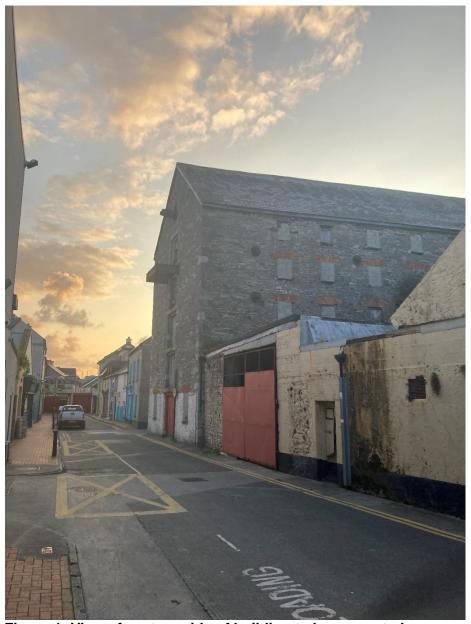


Figure 1: View of eastern side of building to be renovated.

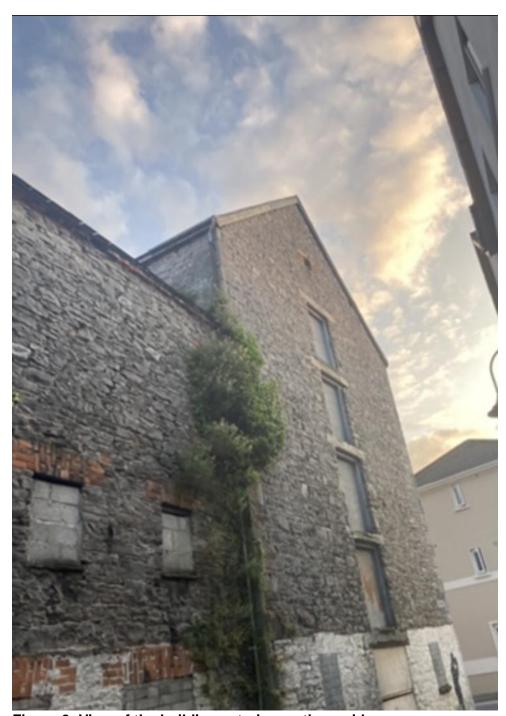


Figure 2: View of the building exterior northern side.

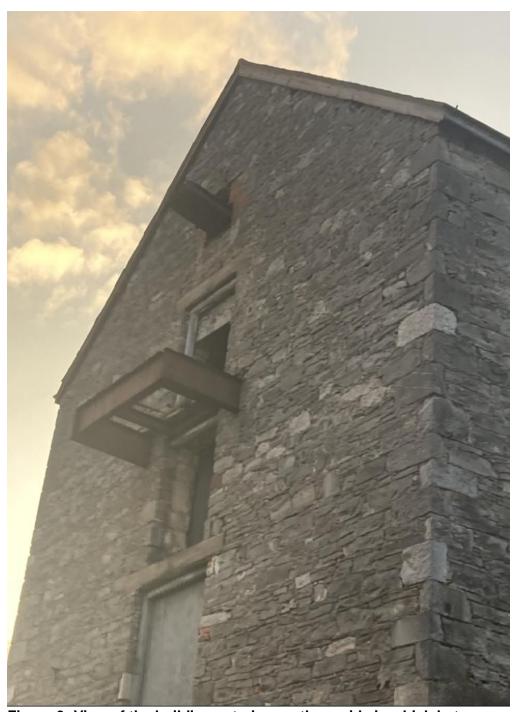


Figure 3: View of the building exterior southern side in which bats were seen exiting.



Figure 4: View of the building interior which included feral pigeon remains and nests and eggs.