



Wildlife  
Surveys  
Ireland



A bat assessment of the Eir site  
Templemichael Business Park,  
Ballinalee Road, Longford N39 F295

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For Technimark Ireland

14/10/2025



## **Summary**

The results of two surveys undertaken on July 10<sup>th</sup> -11<sup>th</sup> and 21<sup>st</sup> – 22<sup>nd</sup> 2025, (up to dawn of the following day of each survey) concluded that the site is used for feeding and commuting by a small number of bat species including Leisler's bats and common pipistrelles in particular and that a roost was recorded of 12 or more common pipistrelle bats entering a small building within the yard close to the gates at dawn.

While a number of bird species were seen and recorded onsite, the only nests observed belonged to barn swallows. There are no swifts within any of the buildings. Provided works take place after the month of September this should not interfere with swallow nests. It is recommended that lean-to structures are provided to continue nesting opportunities for swallows. An ecologist must be present for all demolition works.

A derogation licence is sought to advance the planning application.

With mitigation for the removal of this roost including the addition of 9 bat boxes as a means of replacement with additional planting and altered lighting there will be a slight negative effect on bat and bird fauna as a result of this development.

The building is unused and will continue to degrade in its current location. The position of the building prevents the construction of the proposed plant, which would see a €50 million turnover annually. The proposed bat boxes will provide roosting opportunities for bats and will include tree-mounted boxes and boxes / tubes incorporated into a building. There will be no loss to the local bat population and mitigation will ensure no injury or death to any bats.

All roost demolition would be monitored by a bat specialist, and any bats present would be held briefly onsite until the risk of injury or death has been averted by demolition of the roost. NPWS would be advised of all stages of the implementation of the exclusion and demolition. Work would be outside of the maternity period and all bats would be capable of flight at this time.

### **Bat species found roosting**

Common pipistrelle                      *Pipistrellus pipistrellus*

### **Bat species found feeding and commuting on the site**

Common pipistrelle                      *Pipistrellus pipistrellus*

Soprano pipistrelle                      *Pipistrellus pygmaeus*



Leisler's bat                      *Nyctalus leisleri*  
Brown long-eared bat        *Plecotus auritus*

## **Mitigation**

- (1) A derogation licence must be sought from NPWS prior to any work commencing.
- (2) No work can take place on the roost building from May to September as bats may be breeding.
- (3) Ivy and fascia on all buildings (if present) must be removed by hand.
- (4) 6 Schwegler 2F with front panels and 3 Schwegler 2FR Schwegler bat boxes must be put in place. 2F Schwegler's bat boxes should be placed on trees or posts, at least 3m high, with a clear drop below in the northeastern edge of the site (as bats need to drop to start their flight). The 2FR bat tubes are built into walls and these shall be built into the ESB substation building wall. These can be purchased from a number of sources including [www.nhbs.com](http://www.nhbs.com) and must be placed in a dark area

### **Yellow-Recommended 2FR box placement ; Blue Box-Recommended 2F placement**

Alternative bat boxes may be used if availability is a major complication, provided they are of a design approved by a member of the Wildlife Surveys Ireland team.

- (5) Bats will suffer a loss of feeding. Native shrubs and trees must be used within the new development. Where other climbers and shrubs are required, they should be taken from the approved list from the All-Ireland Pollinator Plan:

<https://pollinators.ie/wp-content/uploads/2023/04/Top-Ten-pollinator-plants-Guide-WEB.pdf>

Semi-mature and mature trees and hedgerow should be planted within the new development.

- (6) If bats are discovered at any stage of the development, building work must cease and both myself and the Conservation Ranger must be contacted.

- (7) A dark sky area must be designated within the development to provide commuting and feeding corridors, and light spillage and pollution must be kept to a minimum with the use of cowls, caps, and low-level bollard lighting where possible.

**Lighting design will be in accordance with documents listed within the report**



(8) Monitoring of the bat boxes should take place within a year of the development being built, and the location of the bat boxes should be changed if they are unused and their site is unsuitable.



## **Preliminary survey details**

### **Desktop survey of the existing environment**

Thanks to Bat Conservation Ireland for their data. All data from this report will be placed on their database.

Bat data from within 1km of the site:

Survey	Grid reference	Date	Species observed
BATLAS 2010	N1474	26/08/2009	Unidentified, Pipistrellus pygmaeus

### **Habitat classification and descriptions (Fossitt 2000)**

#### **BL3 Buildings and artificial surfaces**

This broad category incorporates areas of built land that do not fit elsewhere in the classification. It includes all buildings (domestic, agricultural, industrial and community) other than derelict stone buildings and ruins (see stone walls and other stonework - BL1). It also includes areas of land that are covered with artificial surfaces of tarmac, cement, paving stones, bricks, blocks or astroturf (e.g. roads, car parks, pavements, runways, yards, and some tracks, paths, driveways and sports grounds). Unpaved areas are excluded (see spoil and bare ground - ED2). Any other built structures that are not made of natural stone, including walls made of bricks, cement blocks and mass concrete, should be considered here. Note that greenhouses and polythene tunnels are excluded (see horticultural land - BC2), as are refuse dumps (see refuse and other waste - ED5). Plant cover should not exceed 50%.

This habitat is present onsite at the proposed Technimark Ireland site.

**Date:** Thursday 10<sup>th</sup> and Monday 21<sup>st</sup> July 2025



**Sunrise time:** [05:30      **Sunset time:** [21.59 and 21:46]

**Lux Levels** 26 lux southern border.      6 Lux building entrance

### Temperature and weather conditions

Temperature during the evening survey was 18°C on the first night and 16°C, with a temperature of 13°C during the morning survey. Conditions were dry and calm, appropriate for bat activity.

### Proposed works

Proposed Factory for Technimark Ireland, Building Project at: Templemichael Business Park, Ballinalee Road, Longford N39 F295



**Complexity of lands and ability to cover ground during surveys**



Not all rooms in the building surveyed were accessible at the time of the survey however they were able to be inspected through glass doors.

While it was possible to view the attic, certain areas were not accessible which would impede the surveyors ability to inspect for droppings.

### **Survey constraints**

(1) Mobility of bats: Bat species are mobile and can move from roost to roost, depending on roost availability, feeding availability and weather conditions. They may move to roosts which have not been identified in this report in order to hibernate or create mating or feeding perches. A bat survey is a snapshot of bat activity over the survey time.

(2) Identification of bats: It can be difficult to differentiate *Myotis* species. For this reason, sound files are included within the report. Brown long eared bats are very quiet, and their presence can be overlooked in bat surveys as they may not register on bat detectors.

(3) Timing of survey: Bat surveys generally take place when the bats are active – May – September. A bat survey which takes place outside these dates may miss roosting activity. Because of this the precautionary principle is applied and trees will be checked manually for roosting bats prior to any felling.

(4) The first survey date was restricted to an external assessment of the site and this limited visibility of the entirety of each building. The survey provided information on the presence / absence of swifts, the species of bat present, the activity levels present and feeding and commuting from the site. Conclusions on the presence of roosts could only deal with all external walls and any buildings easily visible from the entry gates.



## **Methodology**

### **Surveyors**

Brian Keeley and Ferdia Keeley of Wildlife Surveys Ireland carried out this survey over 2 separate visits.

### **Equipment**

- Exide Lamps (one per surveyor)
- Petzl Tikka Head torches (one per surveyor)
- BatLogger M2 time expansion detectors and Kaleidoscope Pro sound analysis software with GPS (one per surveyor)
- One thermal imager per surveyor
- One Songmeter Mini Bat detector placed overnight at the proposed Technimark Ireland site on each survey date.
- Mobile phones for communication during the survey (one per surveyor)
- One lux meter per surveyor

### **Survey procedure**

Surveyors arrive on site shortly before sunset. All lands, trees, buildings and hedgerows are assessed for suitability for bats, including their suitability as feeding habitat and/or suitability as bat roosts. Areas and features with high potential are identified throughout the site and used as points of interest during the active survey. Survey routes are planned so that a surveyor can efficiently cover as much land as possible while maintaining a focus on these key points of interest. Larger sites are divided up into sections to be covered across multiple nights. Static bat monitoring devices are placed near areas and features of especially high interest, particularly features that bats may be using as roosts, in order to provide a timeline of bat activity throughout the night.

Over the next 90 minutes, surveyors cover the walkable area of the site along their planned routes, with adjustments being made to account for especially high or low bat



activity in an area – for example, a surveyor may examine a tree associated with a high level of bat activity, as it may be a bat roost. After the 90 minutes have elapsed, most bats will already have emerged from their roosts in order to feed for the night, making the period shortly after sunset one of the best times to identify roosts and feeding habitats.

Surveyors return to a site approximately 90 minutes before sunrise the next morning. At this time, any changes in temperature and weather conditions are noted, as well as any other factors (e.g. street lighting) that may have impacted bat activity during the night. Surveyors cover the site area again, this time with particular attention paid to possible roosts, as bats can be seen returning to their roosts during this time period. Any static monitors left out the previous night are collected for analysis.

#### **Surveys are conducted with reference to the following documents –**

- (1) NPWS BAT MITIGATION GUIDELINES FOR IRELAND – V2 Ferdia Marnell, Conor Kelleher & Enda Mullen
- (2) Heritage Council's Bat Survey Guidelines for the Traditional Farm Buildings Scheme
- (3) Bat Surveys for Professional Ecologists – Good Practice Guidelines 4<sup>th</sup> Edition, 2024. Developed on behalf of the Bat Conservation Trust
- (4) C.I.E.E.M Bat Mitigation Guidelines 2023

We feel that both emergence and return surveys are necessary on most occasions and go beyond these guidelines to ensure dawn roosts are located.

#### **Birds**

The buildings were examined over the following dates in July 2025: 10<sup>th</sup>, 11<sup>th</sup>, 21<sup>st</sup> and 22<sup>nd</sup>. The main consideration was the potential for nesting swifts as requested but all nesting birds were considered. All buildings were entered on 21<sup>st</sup> July in daylight and all sheds were also checked at night for any nests, eggs, chicks or fledglings. Birds within the site were identified in flight, perched or by their calls or song.



**Survey:**

**Assessment of buildings as potential roosts with photos**



*Asbestos roofed sheds suitable for bat roosting.*



*Main building with corrugated roof, potential for bat roosting.*



*Asbestos roofed shed suitable for roosting.*



*Asbestos roofed shed line-suitable for bat roosting.*



The main attic of the largest building was accessible to surveyors but not however in its entirety. From what the surveyor could observe there was no bat roosting taking place in the building due to the absence of bat droppings or smear marks which would generally indicate bat roosting.

The attic of the security hut near the gate was inaccessible.

### **Tree assessment**



*Description 4 treelines*



*Description 3 trees*

*Description 3 trees (illuminated)*

While a number of trees onsite had the maturity to be potential bat roosts, the northern trees were close to flood lighting which caused light pollution making it unfavourable to bat roosting.

This low potential of tree usability does not rule out the potential for individual bats to roost in any tree onsite.

**Description 1** Trees with multiple, highly suitable features (Potential Roosting Features = PRFs) capable of supporting larger roosts;

**Description 2** Trees with definite bat potential but supporting features (PRFs) suitable for use by individual bats;

**Description 3** Trees have no obvious potential although the tree is of a size and age that elevated surveys may result in cracks or crevices being found or the tree supports some features (PRFs) which may have limited potential to support bats;

**Description 4** Trees have no potential.

The majority of trees onsite were Description 4 with no bat roosting potential on account of their immaturity.

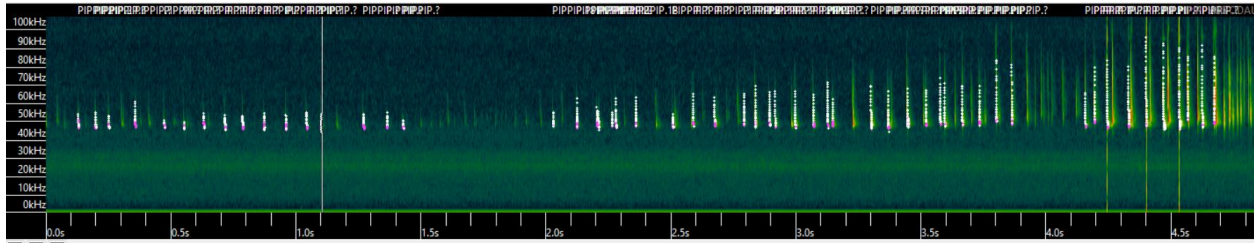
### **Emergence/re-entry survey**

On the second night of survey, at around 04:46 hours, a number of common pipistrelle bats were seen to begin swarming, indicating intention to enter the small gate side shed. This behaviour continued for a number of minutes as several more common pipistrelles joined these bats and began to swarm. A number of common pipistrelle bats were seen to touch against the wall at a height of just over 2m entering where the tiles began, just beside the doorframe.

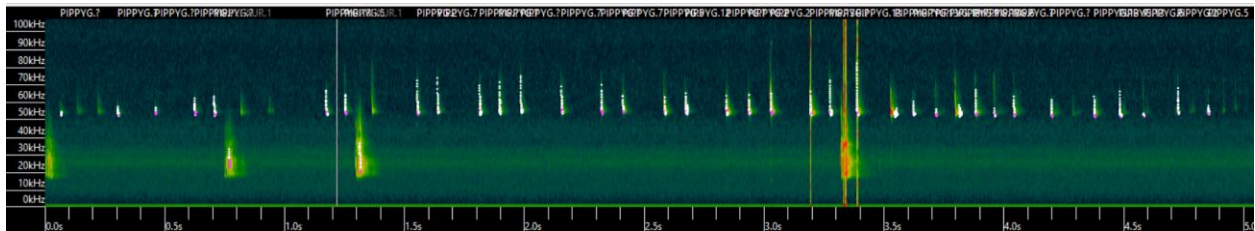
Over the next 15 minutes, between 8-12 bats were seen to enter this building, confirming that it is a roost site of significance to common pipistrelles.



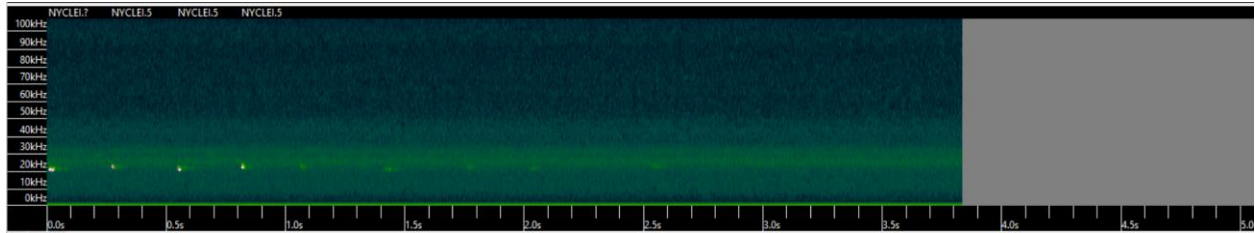
*Yellow box-Point of entry*



*Common Pipistrelle 23:54*



*Soprano Pipistrelle including social call 04:08*

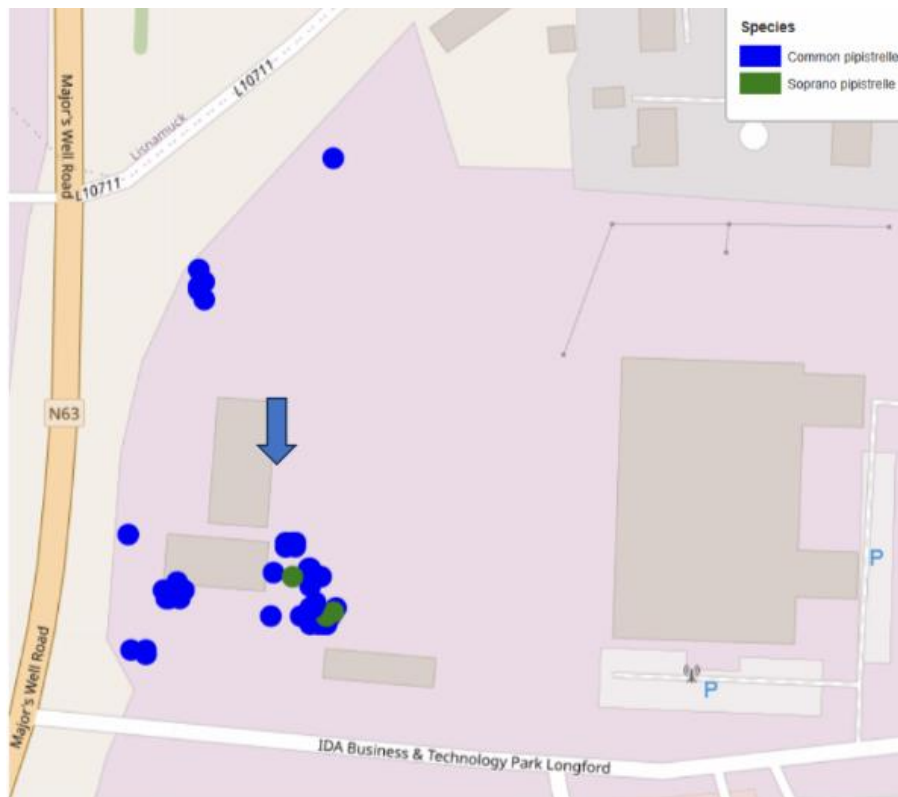


*Leisler's bat 03:17*



### July 21<sup>st</sup> Batlogger data

Species	Hour			
	10	4	5	Grand Total
Common Pipistrelle	12	67	9	88
Soprano Pipistrelle		7	4	11
<b>Grand Total</b>	<b>12</b>	<b>74</b>	<b>13</b>	<b>99</b>



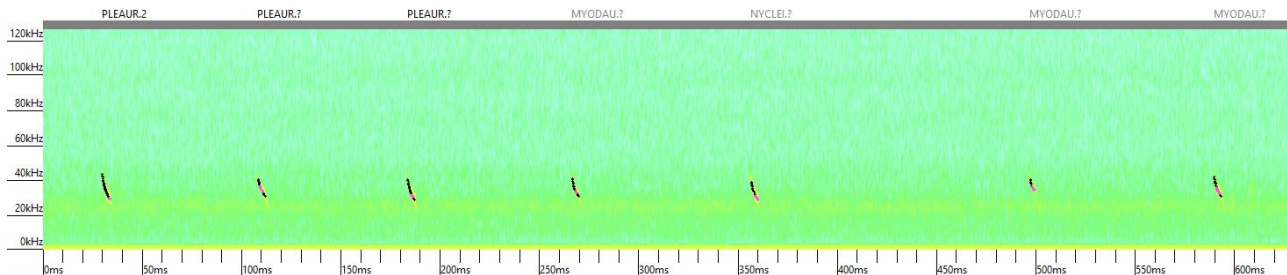
*Arrow-Song Meter Mini location*



### Song Meter Mini Bat Data 21<sup>st</sup> July 2025

Species								
Hour	10	11	12	1	2	3	4	Grand Total
Leisler's Bat	3		5			11	2	21
Common Pipistrelle	4	8	32	14	19	19	7	103
Soprano Pipistrelle			2	1	5	2	5	15
<b>Grand Total</b>	<b>7</b>	<b>8</b>	<b>39</b>	<b>15</b>	<b>24</b>	<b>32</b>	<b>14</b>	<b>139</b>

Bat activity within the site included high Leisler's bat activity on July 10<sup>th</sup> but low activity on July 21<sup>st</sup>, high common pipistrelle activity (due to the presence of the roost in addition to feeding, low soprano pipistrelle presence and a single brown long-eared bat signal on the night of July 10<sup>th</sup>, 2025.



**Brown long-eared bat spectrogram from 02.59 hours on July 11<sup>th</sup> 2025 at the main gates to the yard.**



## **Bird survey**

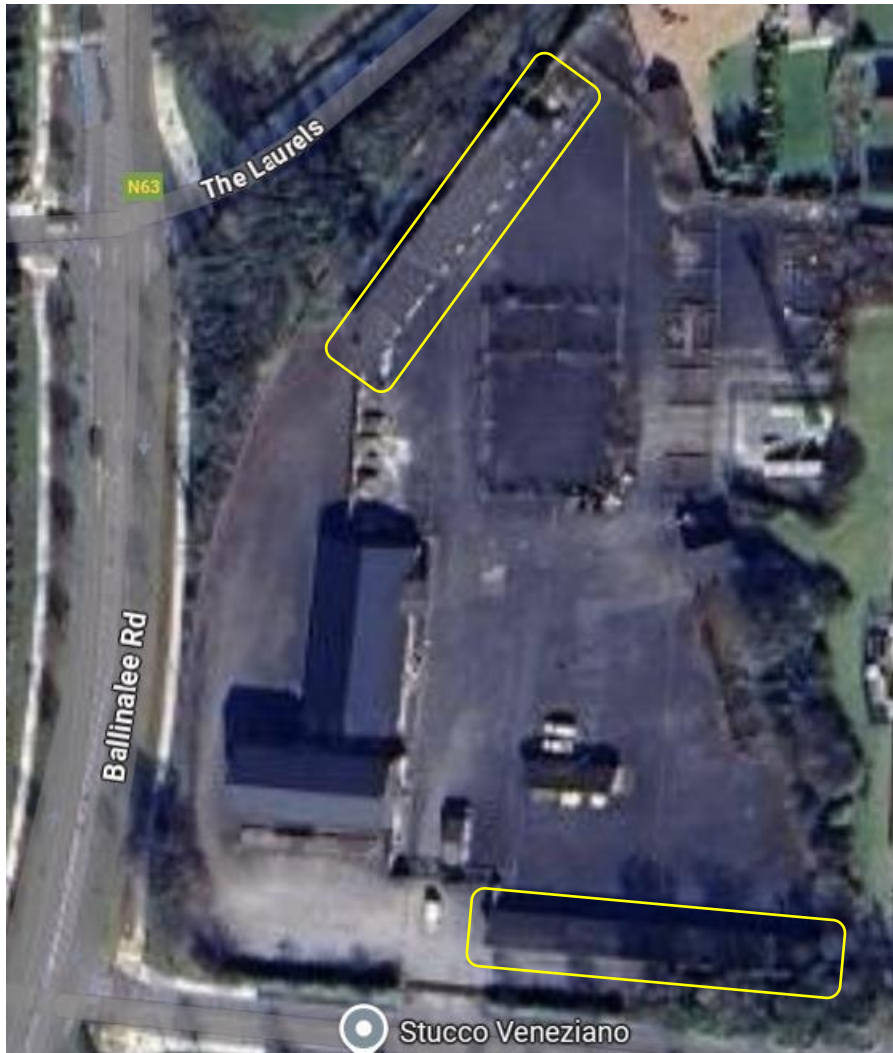
There are no swifts in any of the buildings. The only nests found onsite were a number of swallow nests located in almost every shed onsite. Several of these barns contained swallow chicks.

No swifts were observed onsite, and no swifts entered or emerged from any building. The bird species observed were the following:

Barn swallow, Eurasian Jackdaw, Hooded Crow, Eurasian Wren, Blackbird, Pied wagtail, Starlings and Herring gull and Lesser black-backed gull were all heard of observed on or above the site. There was a large aggregation of house martins prior to sunset on July 10<sup>th</sup> 2025 but they were not nesting within the site but fed within it.



*Swallows nest in northern shed line*



*Yellow box-Location of swallow nests*

### **Results of survey**

While the site was not particularly active throughout the night of July 21<sup>st</sup> to 22<sup>nd</sup> 2025, one common pipistrelle roost containing upwards of 12 bats was found in one of the sheds beside the building.

This shed is scheduled for removal as part of the project proposed.

### **Potential impacts**



## **Predicted Impacts Before Mitigation**

- (1) Loss of feeding and commuting habitat. Three species of bat are feeding and commuting along and within the grassland and hedgerow which may be removed in this development. There will be a loss of feeding for birds in the existing lawns. This will not affect the conservation status of any species present even in the absence of mitigation. This will have a moderate long-term impact on individuals within these species.
- (2) Loss of roosting habitat. The removal of the building identified as a roost onsite will mean a loss of roosting areas for upwards of 12 common pipistrelles. This will mean a moderate long term negative impact on the bat fauna of the immediate area.
- (3) Light Pollution -Lighting of the development and areas around it will have a moderate long-term impact on individual bats.

## **Mitigation and recommendations**

### **Mitigation by remedy**

- (1) A derogation licence must be sought from NPWS prior to any work commencing.
- (2) No work can take place on the buildings from May to September as bats may be breeding.
- (3) Ivy and fascia on all buildings (if present) must be removed by hand.
- (4) 6 Schwegler 2F and 3 Schwegler 2FR Schwegler bat boxes with front panels must be put in place. These should be placed on trees or posts, at least 3m high, with a clear drop below (as bats need to drop to start their flight). These can be purchased from [www.nhbs.com](http://www.nhbs.com) (or other suppliers) and must be placed in a dark area.



**Bat box placements**

*Yellow-Recommended 2FR box placement*

*Dark Blue Box-Recommended 2F placement*



Alternative bat boxes may be used only if the bat boxes proposed are unavailable, and any other design shall be approved by a member of the Wildlife Surveys Ireland team.

(5) Bats will suffer a loss of feeding. Native shrubs and trees must be used within the new development. Where other climbers and shrubs are required, they should be taken from the approved list from the All-Ireland Pollinator Plan:

<https://pollinators.ie/wp-content/uploads/2023/04/Top-Ten-pollinator-plants-Guide-WEB.pdf>

Semi-mature and mature trees and hedgerow should be planted within the new development.

(6) If bats are discovered at any stage of the development, building work must cease and both myself and the Conservation Ranger must be contacted.

(7) A dark sky area must be designated within the development to provide commuting and feeding corridors, and light spillage and pollution must be kept to a minimum with the use of cowls, caps, and low-level bollard lighting where possible.

**Lighting design will be in accordance with:**

Bats and Lighting – Guidance Notes for Planners, Engineers, Architects and Developers (Bat Conservation Ireland, 2010) [https://www.batconservationireland.org/wp-content/uploads/2013/09/BCIrelandGuidelines\\_Lighting.pdf](https://www.batconservationireland.org/wp-content/uploads/2013/09/BCIrelandGuidelines_Lighting.pdf)

Bats and Artificial Lighting at Night, Institute of Lighting Professionals, 2023  
<https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

Guidance Notes for the Reduction of Obtrusive Light GN01-21 (Institute of Lighting Professionals, 2021) <https://theilp.org.uk/publication/guidance-note-1-for-the-reduction-of-obtrusive-light-2021/>

Dark Sky Ireland's Environmentally Friendly Lighting Guide  
<https://www.darksky.ie/lighting-documents/#guidelines>

### **Mitigation Options and Recommendations (Eurobats)**

	Measure	Recommendations
<b>Avoidance</b>	<i>Conserve dark areas</i>	High priority areas that should remain dark: <ul style="list-style-type: none"> <li>• protected areas, including roosting and underground hibernation sites</li> <li>• feeding areas (natural areas, vegetation patches)</li> <li>• commuting routes (forest edges, hedgerows, rivers, tree lines)</li> </ul>
<b>Only if lighting is necessary, and after an assessment of bat occupancy and patterns of activity within the landscape framework of functional habitats:</b>		
<b>Mitigation</b>	<i>Part-night lighting</i>	Turn off public outdoor lighting within <b>2 hours after sunset</b> (civil twilight): <ul style="list-style-type: none"> <li>• Especially during bat reproduction and migration periods</li> <li>• Particular attention within home ranges of maternity colonies</li> </ul>
	<i>Dimming</i>	<ul style="list-style-type: none"> <li>• Adapt dimming strategy to human activities</li> <li>• Keep illuminance levels as low as possible according to EU standards (not going over minimum illuminance required)</li> </ul>
	<i>Avoid light trespass</i>	Avoid light trespass over 0.1 lx on surrounding surfaces: <ul style="list-style-type: none"> <li>• Use fully shielded luminaires</li> <li>• No illumination at or above horizontal</li> <li>• Control street light height, especially along pedestrian pathways and tree lines</li> <li>• Use fewer light sources at points low to the ground</li> <li>• Consider the interaction between light from luminaires and reflecting structures, such as roads and walls</li> </ul>
	<i>General lighting and not sports lighting</i>	<i>Adapt lamp spectra</i>
<b>Compensation</b>	<i>Restore dark areas</i>	No net loss of darkness: <ul style="list-style-type: none"> <li>• Restore darkness to the same extent as the proportion of dark areas lost</li> <li>• Enhance alternative dark corridors that connect roosts and feeding areas</li> </ul>

The Eurobats guidelines (Voigt et al. 2018) for lighting at night and bat conservation considerations include:

- **Limiting the duration of night-time lighting**
- **Dimming illuminance and limiting light trespass**
- **Limiting the short wavelength (UV and blue) content of the light spectrum** (wavelengths in the UV range can be filtered without any decrease in *illuminance* level)

There are several ways of lessening the impact of lighting upon bats. A number of these are given here:

1. **Lighting must be cowled if required to prevent light overspill on to surrounding trees**



Light modelling would provide appropriate information on how light will be restricted from the trees while providing illumination for pedestrians and cyclists. Internal louvres are the most efficient means of controlling light overspill / pollution.

**2. Lighting operation should be based on levels of activity**

This should mirror the levels of use of the infield area. Lighting is unnecessary except at times of darkness and when games or training is under way.

**3. Lighting should be sufficiently controlled to provide for low levels at ground level.** The design should strive to achieve 3 lux at ground level in the case where bats are found to be present, through landscaping or similar, to control spill as required. It is easier to control light overspill from shorter columns, but this is not possible for sports lighting. The measures below may assist in creating darker areas for bats that would in some areas be less than 3 lux.

**4. LED lights should be considered as the option for the lighting**

LED lights are an energy efficient and highly controllable light source, are highly adaptable in terms of direction and strength and can be timed to switch on and off as they light quickly to the level required. These should ensure energy efficiency and money-saving as well as ecological advantages.

**5. Planting should be used to reduce / prevent light overspill and create commuting corridors**

Planting of treelines and hedgerow can prevent lighting from creating a barrier to movement and provide feeding for birds and mammals lost by the removal of vegetation. This should include species that will grow to tree height rather than low shrubs.

(8) Monitoring of the bat boxes should take place within a year of the development being built, and the location of the bat boxes should be changed if they are unused and their site is unsuitable.

(9) Lean-to sheds shall be provided (or other roofed areas) where swallows may nest. Any structure proposed for nesting must be no less than 2.2 metres in height to protect nests and the young from cats or other hunters. There must be a ledge or shelf close to ceiling level to which swallows may attach their nests.



### **Impacts after mitigation**

- (1) Loss of feeding and commuting habitat. The addition of semi mature trees and hedgerow will change the impact to a slight long-term impact on individuals as it will take time for shrubs to reach maturity.
- (2) Loss of roosting habitat. The addition of bat boxes will reduce the loss of this roost and other buildings suitable for roosting to a slight negative long-term effect, However, this may take some time for bats to adjust to.

Swallows adjust quickly to new nest sites and there should be no loss to swallow conservation once new nest site opportunities are provided.

- (3) Light Pollution – There will be light pollution with this development as additional lighting for the scale of the project. Following the recommended lighting guidelines and removing the light pollution throughout the night that is currently in place will reduce this to a slight negative long-term effect.

This will result in a slight long-term negative impact on local bat populations, with proper implementation of the above measures. There will be no impact upon swallows with the provision of new nest sites.



## **Bat Biology**

Female bats gather in groups known as maternity roosts in summer to have their young. They generally have one baby each year, so are slow to reproduce, and disturbance of a maternity roost can be catastrophic.

In winter bats move to old stonework, trees and caves to hibernate. They are especially vulnerable here as they are slow to awaken, and if tree felling is carried out, they can easily be killed.

Species descriptions from Bat Conservation Ireland (2025), Biodiversity Ireland (2025) and further as listed below:

### **Common Pipistrelle and Soprano Pipistrelle**

*Pipistrellus pipistrellus* and *Pipistrellus pygmaeus*

Ireland's two smallest bat species, and also the commonest, the common and soprano pipistrelles are the bats most likely to be seen flying around soon after dusk in both urban and rural areas. Both have a rapid, twisting flight as they pursue tiny prey of midges, mosquitoes and small moths. A single pipistrelle (weighing no more than 5-6g, the weight of a 1-euro piece) may consume as many as 3,000 of these insects in one night. Pipistrelles are frequently found roosting in houses, although they also roost in other locations such as tree holes. In houses they prefer to occupy confined spaces such as behind hanging tiles and soffit boards or between roofing felt and roof tiles, rather than the main attic space.

The two are called common and soprano because the latter echolocates at a higher frequency peaking at 55kHz, compared with the former which echolocates at a peak frequency of 46kHz. The soprano pipistrelle tends to form nursery (or maternity) roosts with larger numbers of individuals (up to 1,500) compared with the common pipistrelle which would typically have a much smaller nursery roost size.

Trends in these species are monitored annually using the [Car-based Bat Monitoring Scheme](#). Results from this scheme indicate that since 2003 the soprano pipistrelle has increased significantly while the common pipistrelle has



also increased, albeit more slowly. The reasons for these increases are poorly understood but both species may be recovering from past declines, or responding to increased woodland cover and/or climate change.

### **Conservation status**

#### HABITATS DIRECTIVE ARTICLE 17 REPORTING

Range: Favourable

Population: Favourable

Habitat: Favourable

Future Prospects: Favourable

Overall Assessment of Conservation Status: Favourable

Overall Trend in Conservation Status: N/A

Source: NPWS 2013.

#### IUCN Conservation Status

Ireland: Least Concern

Europe: Least Concern

Global: Least Concern

Sources: (1) Marnell, F. et al 2009; (2) Hutson T., et al 2007 (3) Hutson, A.M. et al 2008

#### Legal status

Protected by the following legal instruments:

- Habitats Directive (92/43/EEC), Annex IV
- Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) Appendix II
- Agreement on the Conservation of Populations of European Bats (EUROBATS)
- Wildlife Act (1976)
- Wildlife (Amendment) Act (2000)
- Wildlife (N.I.) Order of 1985

### **Leisler's bat**



### *Nyctalus leisleri*

This is the biggest Irish bat and it is often found roosting in buildings although 13% of its roosts recorded in Ireland have been in trees. The Leisler's bat has distinctive level flight at greater heights than the other Irish species, from which it dives down after dung flies and beetles. It can be seen soon after sunset flying over open spaces such as parks and fields. Because it is one of the first bats to emerge in the evening and is quite large, the Leisler's may be confused with swifts that may also be flying around. They are best told apart by the wing shape, the swift's wings are smoothly curved and scimitar-like. Swifts also shriek, while the Leisler's bat is inaudible without a bat detector. The Leisler's bat is rare in Britain and the rest of Europe but it is relatively common here. For this reason the Irish population of Leisler's bats is considered of International Importance.

Leisler's bat is monitored by the [Car-based Bat Monitoring Scheme](#) and its annual trend has shown significant increases since 2003. The reasons for the increase is poorly understood but it may be recovering from past declines, or responding to increased woodland cover and/or climate change.

#### **Conservation status**

##### HABITATS DIRECTIVE ARTICLE 17 REPORTING

Range: Favourable

Population: Favourable

Habitat: Favourable

Future Prospects: Favourable

Overall Assessment of Conservation Status: Favourable

Overall Trend in Conservation Status: N/A

Source: NPWS 2013.

##### IUCN Conservation Status

Ireland: Near Threatened

Europe: Least Concern

Global: Least Concern

Sources: (1) Marnell, F. et al 2009; (2) Hutson T., et al 2007 (3) Hutson, A.M. et al 2008



### Legal status

Protected by the following legal instruments:

- Habitats Directive (92/43/EEC), Annex IV
- Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) Appendix II
- Agreement on the Conservation of Populations of European Bats (EUROBATS)
- Wildlife Act (1976)
- Wildlife (Amendment) Act (2000)
- Wildlife (N.I.) Order of 1985

### **Legislation**

Bats are protected under the 1996 Wildlife Act, the 2000 Wildlife (Amendment) Act, S.I. No 477 of 2011, The Habitats Directive, The Bonn and Bern Convention, and the Eurobats agreement.

The European Community (Natural Habitats) Regulations S.I. No 477 of 2011 states:

51. (1) The Minister shall take the requisite measures to establish a system of strict protection for the fauna consisting of the species referred to in Part 1 of the First Schedule. (2) Notwithstanding any consent, statutory or otherwise, given to a person by a public authority or held by a person, except in accordance with a licence granted by the Minister under Regulation 54, a person who in respect of the species referred to in Part 1 of the First Schedule— (a) deliberately captures or kills any specimen of these species in the wild, (b) deliberately disturbs these species particularly during the period of breeding, rearing, hibernation and migration, (c) deliberately takes or destroys eggs of those species from the wild, (d) damages or destroys a breeding site or resting place of such an animal, or (e) keeps, transports, sells, exchanges, offers for sale or offers for exchange any specimen of these species taken in the wild, other than those taken legally as referred to in Article 12(2) of the Habitats Directive, shall be guilty of an offence. (3) The prohibitions referred to in paragraph (2) shall apply to all stages of life of the biological cycle of fauna to which this Regulation applies. (4) The Minister shall establish a system to monitor the incidental capture and killing of fauna consisting of the animal species referred to in Part 1 of the First Schedule and, having regard to the information gathered, he or she shall conduct further research or take such



conservation measures as required to ensure that incidental capture and killing does not have a significant negative impact on the species concerned.

The EU Habitats Directive (92/43/EEC) lists all Irish bat species in Annex IV and one Irish species, the lesser horseshoe bat (*Rhinolophus hipposideros*), in Annex II. Annex II includes animal and plant species of community interest whose conservation requires the designation of Special Areas of Conservation (SACs) because they are endangered, rare, vulnerable or endemic. Annex IV includes various species that require strict protection. Article 11 of the Habitats Directive requires member states to monitor all species listed in the Habitats Directive and Article 17 requires States to report to the EU on the findings of monitoring schemes.

The Bern and Bonn Conventions:

Ireland is also a signatory to a number of conservation agreements pertaining to bats such as the Bern and Bonn Conventions. The European Bats Agreement (EUROBATS) is an agreement under the Bonn Convention. Ireland and the UK are two of the 31 signatories. The Agreement has an Action Plan with priorities for implementation. Devising strategies for monitoring of populations of selected bat species in Europe is among the resolutions of EUROBATS.

1.3.1 The Bern Convention:

Article 6 of the "Convention on the Conservation of European Wildlife and Natural Habitats" (Berne Convention) reads:

"Each Contracting Party shall take appropriate and necessary legislative and administrative measures to ensure the special protection of the wild fauna species specified in Appendix II. The following will in particular be prohibited for these species:

- a) all forms of deliberate capture and keeping and deliberate killing;
- b) the deliberate damage to or destruction of breeding or resting sites;
- c) the deliberate disturbance of wild fauna, particularly during the period of breeding, rearing and hibernation, insofar as disturbance would be significant in relation to the objectives of this Convention; ...



Appendix II lists strictly protected fauna species and this list includes “Microchiroptera, all species except *Pipistrellus pipistrelles*”.

The EUROBATS Agreement:

The ‘Agreement on the Conservation of Populations of European Bats’ (EUROBATS) was negotiated under the ‘Convention for the Conservation of Migratory Wild Species’ (Bonn Convention) and came into force in January 1994. The legal protection of bats and their habitats are given in Article III as fundamental obligations:

“1. Each Party shall prohibit the deliberate capture, keeping or killing of bats except under permit from its competent authority

2. Each Party shall identify those sites within its own area of jurisdiction which are important for the conservation status, including for the shelter and protection, of bats. It shall, taking into account as necessary economic and social considerations, protect such sites from damage or disturbance. In addition, each Party shall endeavour to identify and protect important feeding areas for bats from damage or disturbance.”

The Agreement covers all European bat species.

**Contact Details:** Our email address is [REDACTED] or [REDACTED]. Our phone numbers are [REDACTED]. Our website is <https://www.wildlifesurveys.net/>



## **About Our Team**

Wildlife Surveys Ireland Ltd. was founded by Brian Keeley and Donna Mullen. The company undertakes a variety of ecological evaluations and operations and have provided advice to County Councils, government departments, NPWS, OPW, developers, individuals applying for planning applications, local community groups, Tidy Towns organisations and many more. Brian and Donna have been engaged in bat detector surveys since the late 1980s on a voluntary basis, and were first trained by Bat Conservation Trust in 1992. They have been involved in surveying for over 30 years and have surveyed in every county on the island of Ireland.

Brian and Donna are engaged in all surveys undertaken by Wildlife Surveys Ireland and are involved in the fieldwork for all larger projects or where there is a project that requires long-term experience and expertise. All reports are co-written by either Director and the principal fieldworker, to ensure that they address the issues of bat conservation correctly and thoroughly.

We trial our mitigation at our own nature reserve in North Meath – Golashane Nature Reserve, so we have first hand knowledge of working mitigation.

Our company was a finalist in the RDS Rural Sustainability Awards in May 2022. In 2019, we achieved a Rural Inspiration Award, and presented our work on our nature reserve to Mr Phil Hogan in Brussels. A tree is planted on our reserve for each survey and 5% of our company profits are given to charities.

## **Brian Keeley BSc (Hons) zool**

### **Director**

Brian has been involved in overseas survey work in Wales, England, France, Hungary and Poland and was involved in the compilation of the NRA / TII publications on bat survey and mitigation for roads. Brian has been involved in bat conservation since 1988 and founded the Dublin Bat Group (and later Bat Conservation Group Dublin) and Bat Conservation Ireland and has served as chair of this group for much of its existence. Brian is still a Council member of BC Ireland. Brian has been vaccinated against Rabies and is licensed to disturb roosts for the purpose of survey.



## **Donna Mullen M.P.P.M D.E.N.V.S.P**

### **Director**

Donna Mullen is a founder member of Bat Conservation Ireland and the Irish Environmental Network. She was involved in drawing up the guidelines for the Heritage Council on bats and traditional farm buildings and has worked on providing new roosts and adapting old roosts to facilitate bats. This work includes surveying, advising architects, working with derogations and monitoring. She has also worked with the Irish Landmark Trust and the OPW providing advice on castles and old buildings. She has a strong interest in environmental law and worked on case 183/05 which was successful in the ECJ. She has recently published a book "Make Your Home A Nature Reserve" – O'Brien Press, and is a frequent contributor on wildlife matters with the Claire Byrne Show on RTE. Donna has been vaccinated against Rabies and is licensed to disturb roosts for the purpose of survey.

## **Ferdia Keeley BSc (Hons). Cert in Field survey techniques**

### **Field ecologist**

Ferdia Keeley has been undertaking bat surveys for seven years. During this time, he has been tutored by both Brian and Donna in bat activity survey techniques and has operated a variety of bat detectors including Echometer EM2 and EM3, Echometer Touch, Echometer Touch 2 Pro, Anabat, Batbox III, Pettersson D240X and most recently Batlogger M2. Ferdia has also installed static monitors within sites: Songmeter 2, Songmeter Mini Bat and Songmeter Mini Bat 2. Ferdia has been trained in bat tree surveys with Flight Ecology Surveying England.. He is training with Bat Conservation Ireland for trapping techniques and has been training with WSI in capturing and handling bats and identification of Irish bats. Ferdia has been vaccinated against Rabies and is licensed to disturb roosts for the purpose of survey. (Note: the welfare of bats is paramount in the survey work of WSI and once a roost has been established, no further disturbance to the roost is permitted).



## **Saoirse Keeley BCL(Hons) (Law and business, Maynooth University)**

### **Legal support**

Saoirse has a bachelor's degree in law and business, and has a particular interest in European Law and Environmental Regulation. She helps with the preparation of environmental reports and contributes to applications for derogation licences. Her understanding of legal frameworks – particularly around EU and constitutional environmental legislation – has been really useful in ensuring our work meets regulatory requirements. She also brings strong research, analytical and communication skills to the team. Saoirse has also trained with Bat Conservation Ireland and frequently leads bat walks. Saoirse is rabies vaccinated.

## **Hugh Keeley**

### **Student surveyor**

Hugh assists in surveying under instruction from a senior ecologist. Hugh has an interest in business economics and is studying for a degree in Maynooth University. Hugh assists with bat walks and talks and is particularly good in dealing with bat rehabilitation. Hugh is vaccinated against rabies.

TABLE 3. DEFINITION OF SIGNIFICANCE OF EFFECTS.

Significance of Effects	Definition
Imperceptible	An effect capable of measurement but without significant consequences.
Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.
Slight Effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Significant Effects	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment
Very Significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
Profound Effects	An effect which obliterates sensitive characteristics

### 3.5.2.3 Criteria Used to Define Duration of Effects

In line with the EPA Guidelines (EPA, 2017), the following terms are defined when quantifying duration and frequency of effects. See Table 4, below.

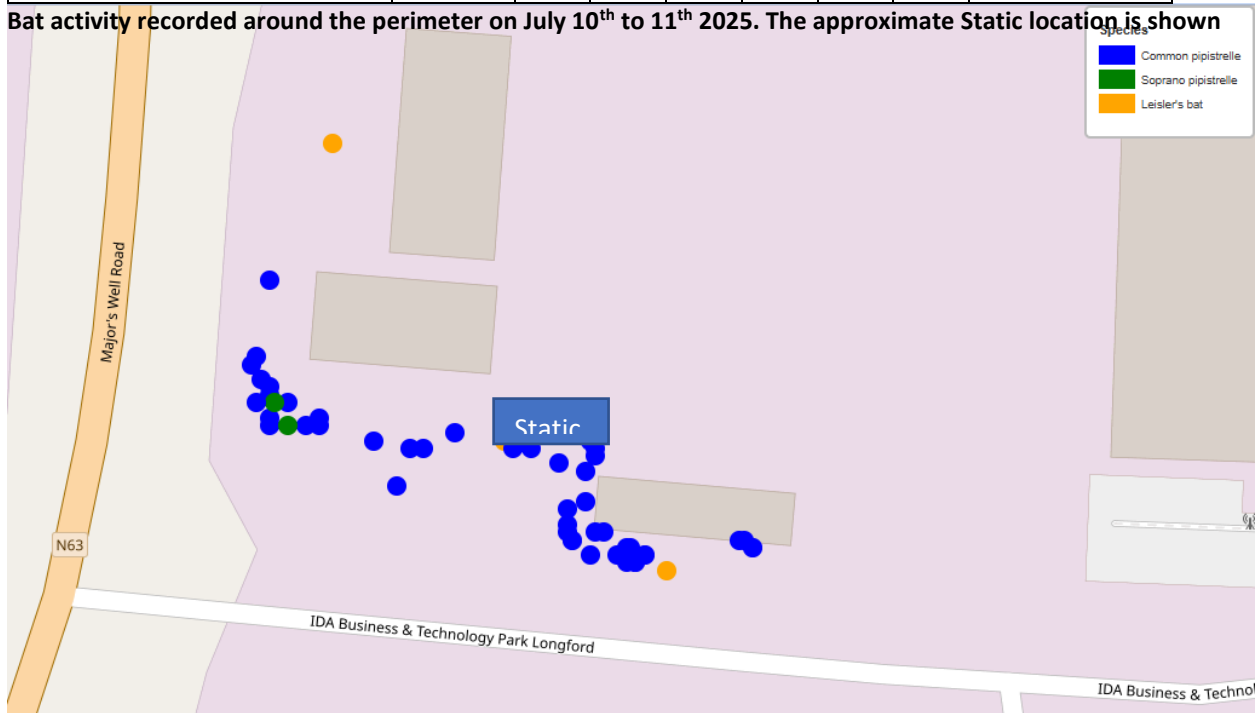
TABLE 4. DEFINITION OF DURATION OF EFFECTS.

Quality	Definition
Momentary Effects	Effects lasting from seconds to minutes
Brief Effects	Effects lasting less than a day
Temporary Effects	Effects lasting less than a year
Short-term Effects	Effects lasting one to seven years.
Medium-term Effects	Effects lasting seven to fifteen years.
Long-term Effects	Effects lasting fifteen to sixty years
Permanent Effects	Effects lasting over sixty years
Reversible Effects	Effects that can be undone, for example through remediation or restoration

## Appendix II – Bat Data July 11<sup>th</sup> 2025 recorded by static monitor at the yard gates over the entire night

Species	Bat passes per hour							Grand Total
	10	11	12	01	02	03	04	
Leisler's Bat	2	4	35	54	10	48	7	160
Common Pipistrelle	5	9	21	14	17	15	3	84
Common Pipistrelle Leisler's Bat			3	2	1	5		11
Soprano Pipistrelle		1	8	5	20	10		44
Brown long-eared bat					1			1
<b>Grand Total</b>	<b>7</b>	<b>14</b>	<b>67</b>	<b>75</b>	<b>49</b>	<b>78</b>	<b>10</b>	<b>300</b>

Bat activity recorded around the perimeter on July 10<sup>th</sup> to 11<sup>th</sup> 2025. The approximate Static location is shown





**Bat Data July 21<sup>st</sup> 2025 recorded by static monitor at the yard gates over the entire night**

<b>Date</b>	<b>Time</b>	<b>Pulses</b>	<b>Manual Id</b>
22/07/2025	03:17:22	35	Leisler's Bat
22/07/2025	03:17:53	33	Leisler's Bat
22/07/2025	03:12:46	39	Leisler's Bat
22/07/2025	04:14:05	25	Leisler's Bat
21/07/2025	22:07:14	28	Leisler's Bat
22/07/2025	00:09:10	30	Leisler's Bat
22/07/2025	03:17:37	21	Leisler's Bat
22/07/2025	00:08:15	17	Leisler's Bat
22/07/2025	03:17:32	18	Leisler's Bat
22/07/2025	03:12:24	13	Leisler's Bat
21/07/2025	22:07:24	14	Leisler's Bat
22/07/2025	03:17:47	14	Leisler's Bat
22/07/2025	03:13:55	11	Leisler's Bat
22/07/2025	00:09:27	7	Leisler's Bat
22/07/2025	03:12:56	6	Leisler's Bat
21/07/2025	22:07:29	7	Leisler's Bat
22/07/2025	00:07:07	3	Leisler's Bat
22/07/2025	04:13:58	3	Leisler's Bat
22/07/2025	00:14:30	2	Leisler's Bat
22/07/2025	03:18:47	2	Leisler's Bat
22/07/2025	03:18:03	2	Leisler's Bat
22/07/2025	00:49:01	25	Common Pipistrelle
22/07/2025	02:52:30	19	Common Pipistrelle
22/07/2025	00:48:06	121	Common Pipistrelle
21/07/2025	23:54:10	94	Common Pipistrelle
22/07/2025	00:33:56	82	Common Pipistrelle
22/07/2025	02:52:20	77	Common Pipistrelle
22/07/2025	02:48:13	76	Common Pipistrelle
22/07/2025	01:10:16	76	Common Pipistrelle
22/07/2025	01:53:20	74	Common Pipistrelle
22/07/2025	03:06:26	71	Common Pipistrelle
22/07/2025	00:48:51	107	Common Pipistrelle
22/07/2025	00:12:22	71	Common Pipistrelle
22/07/2025	02:15:51	63	Common Pipistrelle
22/07/2025	00:10:00	76	Common Pipistrelle



22/07/2025	02:52:51	57	Common Pipistrelle
22/07/2025	02:40:16	56	Common Pipistrelle
22/07/2025	00:18:44	59	Common Pipistrelle
22/07/2025	02:19:54	53	Common Pipistrelle
22/07/2025	03:40:44	53	Common Pipistrelle
22/07/2025	03:02:03	56	Common Pipistrelle
22/07/2025	03:02:16	52	Common Pipistrelle
22/07/2025	01:00:38	51	Common Pipistrelle
22/07/2025	03:55:18	50	Common Pipistrelle
22/07/2025	02:24:14	48	Common Pipistrelle
22/07/2025	00:14:59	61	Common Pipistrelle
22/07/2025	00:12:40	47	Common Pipistrelle
22/07/2025	02:52:35	59	Common Pipistrelle
22/07/2025	01:24:52	43	Common Pipistrelle
21/07/2025	22:27:02	45	Common Pipistrelle
22/07/2025	00:21:55	43	Common Pipistrelle
21/07/2025	23:51:58	40	Common Pipistrelle
22/07/2025	02:15:19	40	Common Pipistrelle
21/07/2025	23:30:06	41	Common Pipistrelle
22/07/2025	00:58:59	39	Common Pipistrelle
22/07/2025	03:49:49	43	Common Pipistrelle
22/07/2025	00:53:53	34	Common Pipistrelle
22/07/2025	03:01:12	34	Common Pipistrelle
22/07/2025	00:25:35	36	Common Pipistrelle
22/07/2025	01:24:35	32	Common Pipistrelle
22/07/2025	00:18:04	31	Common Pipistrelle
22/07/2025	04:43:47	31	Common Pipistrelle
22/07/2025	00:50:27	32	Common Pipistrelle
22/07/2025	03:03:56	40	Common Pipistrelle
22/07/2025	04:40:31	34	Common Pipistrelle
22/07/2025	01:47:45	36	Common Pipistrelle
21/07/2025	22:20:49	30	Common Pipistrelle
22/07/2025	00:11:03	36	Common Pipistrelle
22/07/2025	04:04:06	37	Common Pipistrelle
21/07/2025	23:32:26	28	Common Pipistrelle
22/07/2025	00:41:01	27	Common Pipistrelle
22/07/2025	03:48:25	28	Common Pipistrelle
22/07/2025	03:03:00	28	Common Pipistrelle
21/07/2025	22:12:43	23	Common Pipistrelle



22/07/2025	02:53:27	23	Common Pipistrelle
22/07/2025	00:49:09	28	Common Pipistrelle
21/07/2025	22:11:10	24	Common Pipistrelle
22/07/2025	00:25:56	26	Common Pipistrelle
21/07/2025	23:46:06	21	Common Pipistrelle
22/07/2025	00:34:06	22	Common Pipistrelle
22/07/2025	02:29:28	20	Common Pipistrelle
22/07/2025	04:55:23	21	Common Pipistrelle
22/07/2025	02:32:13	25	Common Pipistrelle
22/07/2025	03:31:58	18	Common Pipistrelle
22/07/2025	01:33:38	17	Common Pipistrelle
22/07/2025	03:49:35	18	Common Pipistrelle
22/07/2025	01:35:31	24	Common Pipistrelle
21/07/2025	23:54:20	15	Common Pipistrelle
22/07/2025	01:25:02	15	Common Pipistrelle
22/07/2025	00:25:42	13	Common Pipistrelle
21/07/2025	23:39:35	12	Common Pipistrelle
22/07/2025	00:19:38	12	Common Pipistrelle
22/07/2025	00:24:40	12	Common Pipistrelle
22/07/2025	00:12:32	12	Common Pipistrelle
22/07/2025	00:35:05	11	Common Pipistrelle
22/07/2025	00:38:05	11	Common Pipistrelle
22/07/2025	00:04:01	10	Common Pipistrelle
22/07/2025	01:24:45	10	Common Pipistrelle
22/07/2025	02:52:45	10	Common Pipistrelle
22/07/2025	00:20:28	9	Common Pipistrelle
22/07/2025	01:02:25	9	Common Pipistrelle
22/07/2025	01:53:30	8	Common Pipistrelle
22/07/2025	03:28:35	8	Common Pipistrelle
22/07/2025	03:40:36	8	Common Pipistrelle
22/07/2025	02:38:11	7	Common Pipistrelle
22/07/2025	02:16:01	7	Common Pipistrelle
22/07/2025	02:32:23	7	Common Pipistrelle
22/07/2025	03:35:43	7	Common Pipistrelle
22/07/2025	03:06:36	7	Common Pipistrelle
22/07/2025	04:00:01	7	Common Pipistrelle
22/07/2025	00:15:09	8	Common Pipistrelle
21/07/2025	23:30:01	6	Common Pipistrelle
22/07/2025	02:24:26	6	Common Pipistrelle



22/07/2025	02:32:09	6	Common Pipistrelle
22/07/2025	03:44:27	6	Common Pipistrelle
22/07/2025	04:00:35	6	Common Pipistrelle
22/07/2025	01:31:54	9	Common Pipistrelle
22/07/2025	04:09:32	9	Common Pipistrelle
22/07/2025	00:17:29	5	Common Pipistrelle
22/07/2025	00:09:20	5	Common Pipistrelle
22/07/2025	03:49:42	5	Common Pipistrelle
22/07/2025	00:18:54	4	Common Pipistrelle
22/07/2025	01:01:57	3	Common Pipistrelle
22/07/2025	03:25:25	3	Common Pipistrelle
22/07/2025	04:08:58	81	Soprano Pipistrelle
22/07/2025	00:33:27	64	Soprano Pipistrelle
22/07/2025	03:14:58	53	Soprano Pipistrelle
22/07/2025	02:42:21	47	Soprano Pipistrelle
22/07/2025	02:05:15	50	Soprano Pipistrelle
22/07/2025	04:08:13	39	Soprano Pipistrelle
22/07/2025	02:19:07	26	Soprano Pipistrelle
22/07/2025	04:09:08	21	Soprano Pipistrelle
22/07/2025	02:05:30	11	Soprano Pipistrelle
22/07/2025	04:24:39	9	Soprano Pipistrelle
22/07/2025	02:05:25	8	Soprano Pipistrelle
22/07/2025	04:04:39	4	Soprano Pipistrelle
22/07/2025	00:33:37	2	Soprano Pipistrelle
22/07/2025	01:25:14	7	Soprano Pipistrelle
22/07/2025	03:36:22	2	Soprano Pipistrelle



**Appendix III – Data from Bat Conservation Ireland – Records from within a 10km radius of the site**

<b>Roosts</b>				
<b>Name</b>	<b>Grid reference</b>	<b>Species observed</b>		
Ballymacormack Church of Ireland	N1171	Plecotus auritus, Nyctalus leisleri, Myotis nattereri		
Bridge over tributary to Camlin river	N2083	Myotis nattereri		
Carrickglass Demense	N1776	Myotis nattereri		
Carrickglass Demense Gate Lodge	N1677	Pipistrellus pygmaeus		
Carrickglass Demense Stable attic	N1677	Myotis nattereri		
Carrickglass Demense Stables	N1677	Pipistrellus pygmaeus		
Carrickglass Demense Stableyard House	N1677	Pipistrellus nathusii		
Carrickglass Manor	N1677	Plecotus auritus		
Cloonfiugh Mill	N0669	Plecotus auritus, Myotis nattereri		
Demolished cottage roost	N0669	Myotis nattereri		
Demolished farm shed	N0669	Pipistrellus pipistrellus (45kHz)		
Flynn Residence	N1079	Unidentified bat		
Richmond Mills Bridge Roost	N0675	Myotis daubentonii		
Richmond Mills Roost	N0675	Pipistrellus pygmaeus		
St. Paul's Church, Newtownforbes	N1079	Myotis nattereri, Pipistrellus pygmaeus		