A bat assessment of Lands at Portmarnock proposed for development

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Summary

A survey carried out on the site proposed for development at Portmarnock identified three bat species using the site. Soprano pipistrelle, common pipistrelle and Leisler's bat. Low activity was recorded the first night and moderate activity was recorded the second night with a number of Leisler's bats recorded commuting across the northern regions and pipistrelles recorded feeding in the north and south.

With the below mitigation measures being implemented there should only be a slight negative long term impact on bat life, as the most affected areas have no bat roosting potential and are only being used as commuting corridors.

Bat species found feeding and commuting on the site

Common pipistrelle	*Pipistrellus pipistrellus*
Soprano pipistrelle	*Pipistrellus pygmaeus*
Leisler's bat	*Nyctalus leisleri*

Recommendations

Mitigation by remedy

(1) Three 2F and four 1FF Schwegler bat boxes with built-in timber panel bat boxes 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 and must be placed in a dark area.

(2) 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.
(3) 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);
- Bats and Lighting in the UK – Bats and the Built Environment Series (Institute of Lighting Professionals, September 2018);
- Guidance Notes for the Reduction of Obtrusive Light GN01 (Institute of Lighting Professionals, 2011).

(4) 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.

(5) 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

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)
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)

(6) 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

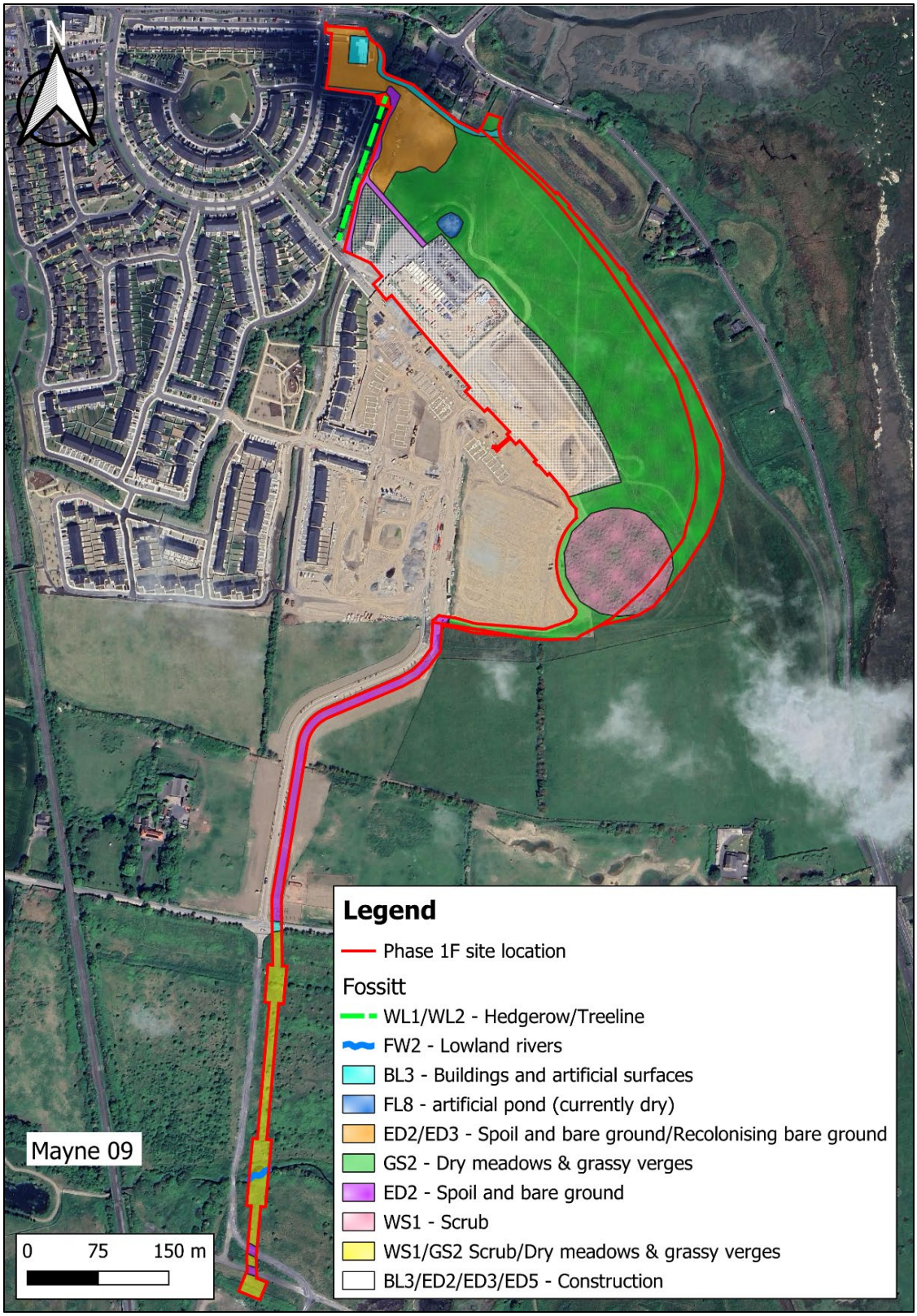
Habitat classification and descriptions (Fossitt 2000, overleaf) **available to bats:**

GS2 Dry meadows and grassy verges
This habitat is present onsite at Portmarnock.

WL1/WL2 Hedgerow/tree line
This habitat is present onsite at Portmarnock.

WS1/GS2 Scrub/Dry meadows and grassy verges
This habitat is present onsite at Portmarnock.

Wildlife Surveys Ireland



Bat Conservation Ireland data								
Search parameters: Roosts Transects Ad-hoc observation sites with observations of all species within 1000m of River Mayne								
Roosts								
Name	Grid reference	Grid ref easting	Grid ref northing	Address	Species observed			
Garage house roost	O2231541671	322315	241671	Corner of road junction R123 / R124Snugborough Portmarnock	Pipistrellus pygmaeus			
Transects								
Name	Grid reference start	Grid ref easting start	Grid ref northing start	Species observed				
Ad-hoc observations								
Survey	Grid reference	Grid ref easting	Grid ref northing	Date	Species observed			
Bat Eco Services	O2355142475	323551	242475	28/05/2021	Pipistrellus pipistrellus (45kHz)			
Bat Eco Services	O2355342474	323553	242474	28/05/2021	Nyctalus leisleri			
Bat Eco Services	O2346442448	323464	242448	03/06/2021	Pipistrellus pygmaeus			
Bat Surveys - Tina Aughney	O2266842281	322668	242281	06/05/2017	Plecotus auritus	Pipistrellus pipistrellus (45kHz)	Pipistrellus pygmaeus	Nyctalus leisleri

Date: [Monday,07/07/25]

Sunrise time: [05:07]

Lux Levels 2 lux at ground level, greenway walkway.

0 lux site wide

Temperature and weather conditions

The temperature survey was 13°C during the morning survey. Gry with a light breeze.

Date: [Thursday,10/07/25]

Sunrise time: [05:10] **Sunset time:** [21:50]

Temperature and weather conditions

The temperature during the night survey was 14°C at sunrise with lows of 12°C at dawn.

The weather at dusk was dry with a light northern breeze and still and dry at dawn with a light fog setting in.

Proposed works

The proposed development will comprise 296no. residential units consisting of 42no. duplex / apartments and 254no. houses ranging in height between 1.5 and 3 storeys; public open space including southern Monument Park which formed part of the Racecourse Park development permitted under ABP Reg. Ref. JP06F.311315; vehicular access to serve the development is proposed off Monument View; and all associated and ancillary site development, infrastructural, landscaping and boundary treatment works. The proposed development will also comprise a new (temporary) rising main to serve this phase and previous development phases (1A to 1E inclusive), c.1.7km long, running from the interim St. Marnock's Pumping Station at Station Road/The Avenue (constructed under ABP Reg. Ref. 300514-17 & upgraded under ABP Reg. Ref. 312112-21) connecting to the North Fringe Sewer in the south via Phase 1E (permitted under FCC Reg. Ref. LRD0002/S3), Racecourse Park North and South (permitted under ABP Reg. Ref. JP06F.311315) including crossing under both Mayne Road and Mayne River; upgrade of pumping station and storage as required and all associated and ancillary site development and reinstatement. The proposed rising main and interim St. Marnock's Pumping Station will be decommissioned, and these lands will then discharge by gravity to a proposed new Uisce Éireann Pumping Station adjacent to Portmarnock Bridge when same is completed.

Complexity of lands and ability to cover ground during surveys

The area of the site in the Northern region which is currently under construction was inaccessible however this had a negligible impact on the effectiveness of the survey on account of how visible this area was from its perimeter

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.

Methodology

Surveyors

Ferdia Keeley and Saoirse Keeley of Wildlife Surveys Ireland carried out this survey.

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 Portmarnock.
- 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 4th 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.

Survey

Assessment of buildings as potential roosts with photos

No trees or buildings within the perimeter of the proposed works for this phase of development bore any potential for bat roosting. All trees were too immature to support roosting.

Emergence/re-entry survey

Activity was low on the first night and moderate on the second night of survey, with more pipistrelle activity to the south and Leisler's bat activity to the north section of the site.

The Initial survey conducted at dawn July 8th 2025, commenced with Leisler's and common pipistrelle activity recorded along the northern section of the highlighted area below.

In the Northern region of the site only one common pipistrelle was recorded during this dawn survey at 03:54.

In the southern site common activity was recorded until 04:05 with a number of passes recorded until 04:14. Leisler's bat passes were recorded in this area at 04:18 and 04:25. This concluded bat activity.

Activity on the second night of survey, July 10th saw more activity throughout the night. The dusk survey was conducted in the northern area of the site where Ferdia had surveyed on the previous night of survey, while the dawn survey was conducted at the southern corridor area of the site.

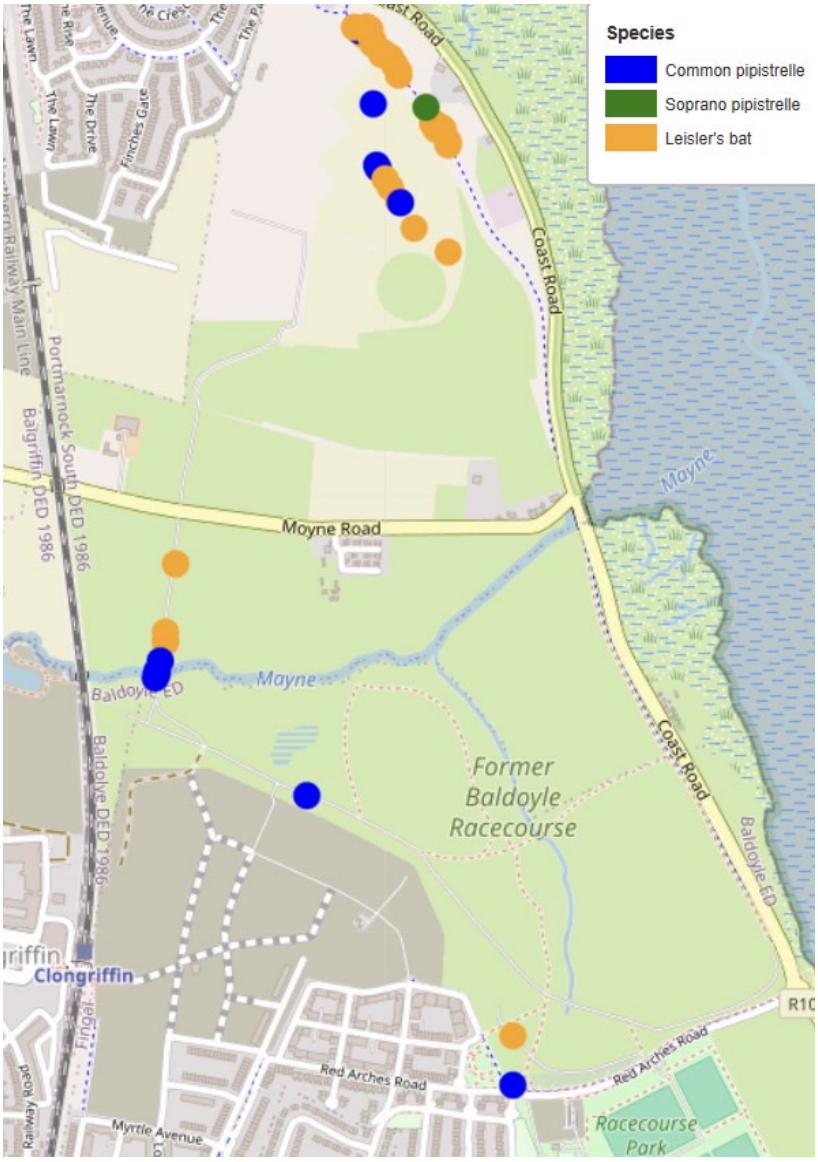
Dusk activity commenced at 22:24 with a visible bat seen flying over the cottage to the west of the site. No signal was recorded due to the bat being out of range of the bat detector.

One Leisler's pass was recorded at 22:45 with intermittent Leisler's bat passes recorded across the northern area of the site. This was followed by a soprano pipistrelle pas recorded at 23:02. Both bats commuted across the site without feeding both headed south.

More activity was observed at dawn in the southern corridor with Common pipistrelle activity commencing at 03:50 with a number of passes being recorded before the bat was seen to fly eastwards. Soprano pipistrelle activity was recorded shortly after this at 03:54. Common activity commenced again at 04:01, passing again at 04:14.

The vast majority of bat activity in the northern area of the site was commuting activity with bats passing across this area but not feeding or socialising in this exposed area of the site.

Surveyor 1 Mapped bat data

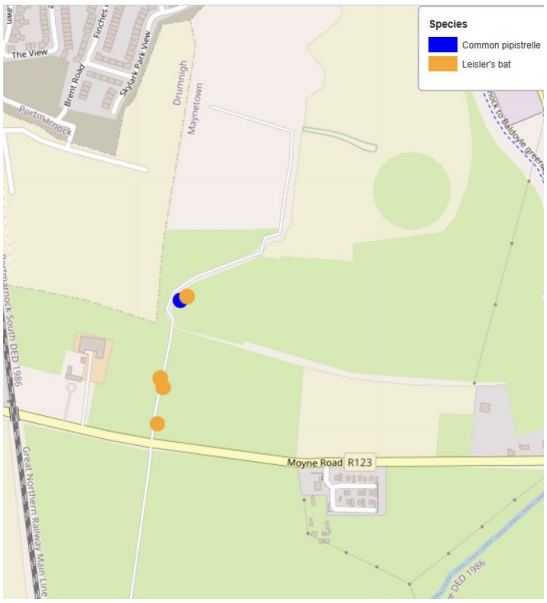


Surveyor 1 Bat Data

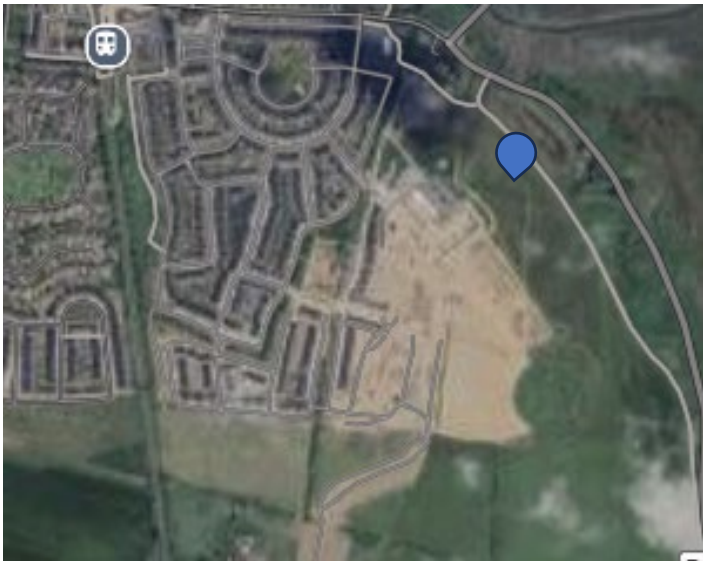
	Bat passes per hour					
Species	**9**	**10**	**11**	**3**	**4**	**Grand Total**
Leisler's Bat	7	56	3		5	71
Common Pipistrelle	1		2	4	5	12
Soprano Pipistrelle			3			3
Grand Total	**8**	**56**	**8**	**4**	**10**	**86**

Surveyor 2 Bat Data

	Bat passes per hour		
Species	**3**	**4**	**Grand Total**
Leisler's Bat	3	6	9
Common Pipistrelle	1		1
Grand Total	**4**	**6**	**10**



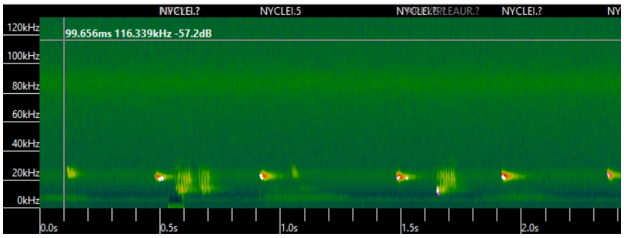
Song Meter Mini Location



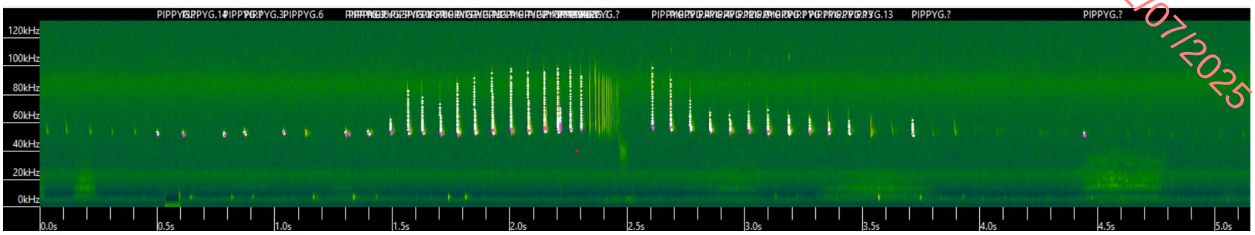
Blue Icon-Song Meter Mini location

Song Meter Mini Data

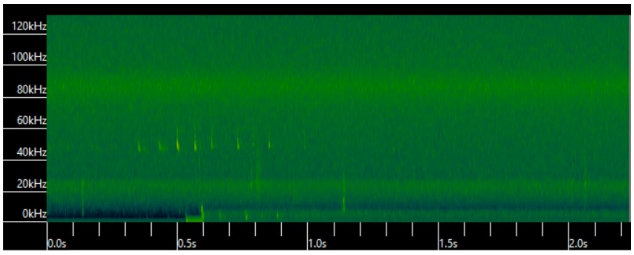
Species										
Hour	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**	**4**	**Total**
Leisler's Bat	1	1	54	11	4		3	2	16	92
Common Pipistrelle				4	3	1				8
Soprano Pipistrelle				2			1			3
Total	**1**	**1**	**54**	**17**	**7**	**1**	**4**	**2**	**16**	**103**



Leisler's bat 22:27



Soprano Pipistrelle 22:25



Common Pipistrelle 04:41

Results of survey

While reasonable bat activity was recorded site wide, the majority of activity in the northern area of the site was commuting across the site rather than feeding which indicates the proposed works will cause a minimal disturbance provided lighting is managed. More feeding and commuting was recorded in the corridor areas however little development is planned for this area.

None of the areas proposed for works contain elements with roosting potential in this phase of development.

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) Light Pollution -Lighting of the development and areas around it will have a moderate long-term impact on individual bats.

There will be a slight negative long-term impact if increased lighting associated with housing is introduced particularly in the northern region of the site.

Mitigation and recommendations

Mitigation measures should follow the hierarchy of 1) avoid the impact, 2) reduce or minimise the scale or severity of the impact and, if these are not possible, then 3) abate the impact at the source or 4) abate the impact at the receptor through provision of alternative feeding areas, roosts or flight path features (e.g. hedgerows, treelines).(*Bat Conservation Ireland Appropriate Assessment Guidelines)*

Mitigation by remedy

(1) Three 2F and four 1FF Schwegler bat boxes with built-in timber panel bat boxes 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 and must be placed in a dark area.

(2) 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:
http://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-friendly-planting-code-temporary-draft.pdf
Semi-mature and mature trees and hedgerow should be planted within the new development.

(3) 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.
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(4) 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.

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

Mitigation Options and Recommendations (Eurobats)

	Measure	Recommendations
Avoidance	*Conserve dark areas*	High priority areas that should remain dark: • protected areas, including roosting and underground hibernation sites • feeding areas (natural areas, vegetation patches) • commuting routes (forest edges, hedgerows, rivers, tree lines)
Only if lighting is necessary, and after an assessment of bat occupancy and patterns of activity within the landscape framework of functional habitats:		
Mitigation	*Part-night lighting*	Turn off public outdoor lighting within **2 hours after sunset** (civil twilight): • Especially during bat reproduction and migration periods • Particular attention within home ranges of maternity colonies
	Dimming	• Adapt dimming strategy to human activities • Keep illuminance levels as low as possible according to EU standards (not going over minimum illuminance required)
	Avoid light trespass	Avoid light trespass over 0.1 lx on surrounding surfaces: • Use fully shielded luminaires • No illumination at or above horizontal • Control street light height, especially along pedestrian pathways and tree lines • Use fewer light sources at points low to the ground • Consider the interaction between light from luminaires and reflecting structures, such as roads and walls
General lighting and not sports lighting	*Adapt lamp spectra*	Avoid lamps emitting wavelengths below **540 nm** (blue and UV ranges) and with a correlated colour temperature > 2700 K
Compensation	*Restore dark areas*	No net loss of darkness: • Restore darkness to the same extent as the proportion of dark areas lost • Enhance alternative dark corridors that connect roosts and feeding areas

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.

(5) 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.

Impacts after mitigation

1. Loss of Feeding and Commuting Habitat
   The introduction of semi-mature native trees and hedgerows will compensate for vegetation loss. These features will maintain habitat connectivity and support insect prey availability.
   This will reduce the impact to a slight long-term negative impact on individual bats.

2. Loss of Roosting Opportunities
   Although no roosts were found during the survey, the proactive installation of bat boxes will provide alternative roosting options. Monitoring will ensure effectiveness.
   This will reduce the impact to an imperceptible long-term negative impact on individual bats.

3. Light Pollution
   Implementation of dark sky corridors, cowled lighting, low-level bollards, and light-sensitive controls will limit light spill onto sensitive bat areas. Lighting design will follow best-practice ecological guidance.
   This will reduce the impact to a slight negative impact.

Appendices

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

Nathusius' pipistrelle

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.

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- 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

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

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: Near Threatened
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 briantkeeley@gmail.com or batsurveydm@gmail.com. Our phone numbers are 087 7454233 or 087 6753201.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-wriiten 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) in 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 BCIreland. 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 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.

Appendix I -Definition of Effects – EPA 2017

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

Date	Time	Pulses	Manual Id
10/07/2025	22:30:22	55	Leisler's Bat
10/07/2025	22:44:43	31	Leisler's Bat
10/07/2025	22:44:53	29	Leisler's Bat
10/07/2025	22:42:58	28	Leisler's Bat
11/07/2025	04:13:18	22	Leisler's Bat
10/07/2025	22:29:50	16	Leisler's Bat
11/07/2025	04:35:12	16	Leisler's Bat
10/07/2025	22:30:18	14	Leisler's Bat
10/07/2025	22:31:43	14	Leisler's Bat
10/07/2025	22:43:46	13	Leisler's Bat
10/07/2025	22:46:05	13	Leisler's Bat
10/07/2025	22:31:14	12	Leisler's Bat
10/07/2025	22:44:06	12	Leisler's Bat
10/07/2025	22:24:07	11	Leisler's Bat
10/07/2025	22:43:41	11	Leisler's Bat
10/07/2025	22:29:47	10	Leisler's Bat
10/07/2025	22:30:47	10	Leisler's Bat
10/07/2025	22:42:28	10	Leisler's Bat
10/07/2025	22:24:36	9	Leisler's Bat
10/07/2025	22:22:57	10	Leisler's Bat
10/07/2025	22:43:07	11	Leisler's Bat
10/07/2025	22:24:10	9	Leisler's Bat
10/07/2025	22:32:03	7	Leisler's Bat
10/07/2025	22:31:35	6	Leisler's Bat
10/07/2025	22:31:24	6	Leisler's Bat
10/07/2025	22:45:26	6	Leisler's Bat
11/07/2025	04:13:25	6	Leisler's Bat
10/07/2025	22:29:54	5	Leisler's Bat
10/07/2025	22:32:41	5	Leisler's Bat
10/07/2025	22:43:40	5	Leisler's Bat
10/07/2025	22:45:54	5	Leisler's Bat
10/07/2025	22:48:22	5	Leisler's Bat
11/07/2025	04:35:09	5	Leisler's Bat

10/07/2025	22:29:44	6	Leisler's Bat
10/07/2025	22:45:48	6	Leisler's Bat
10/07/2025	22:21:50	4	Leisler's Bat
10/07/2025	22:23:16	4	Leisler's Bat
10/07/2025	22:28:08	4	Leisler's Bat
10/07/2025	22:32:07	4	Leisler's Bat
10/07/2025	22:32:20	4	Leisler's Bat
10/07/2025	22:48:06	4	Leisler's Bat
10/07/2025	23:02:35	4	Leisler's Bat
10/07/2025	22:22:19	5	Leisler's Bat
10/07/2025	22:32:47	5	Leisler's Bat
10/07/2025	21:41:36	3	Leisler's Bat
10/07/2025	21:59:26	3	Leisler's Bat
10/07/2025	22:41:51	3	Leisler's Bat
10/07/2025	22:43:10	3	Leisler's Bat
10/07/2025	22:45:59	3	Leisler's Bat
10/07/2025	22:46:09	3	Leisler's Bat
10/07/2025	23:02:30	3	Leisler's Bat
10/07/2025	22:22:55	4	Leisler's Bat
10/07/2025	21:54:33	2	Leisler's Bat
10/07/2025	21:55:01	2	Leisler's Bat
10/07/2025	21:57:41	2	Leisler's Bat
10/07/2025	22:17:42	2	Leisler's Bat
10/07/2025	22:45:52	2	Leisler's Bat
10/07/2025	23:10:46	2	Leisler's Bat
11/07/2025	04:51:00	2	Leisler's Bat
10/07/2025	21:41:31	3	Leisler's Bat
10/07/2025	22:45:45	3	Leisler's Bat
10/07/2025	22:29:26	4	Leisler's Bat
10/07/2025	21:38:35	2	Leisler's Bat
10/07/2025	22:28:10	2	Leisler's Bat
10/07/2025	23:09:53	2	Common Pipistrelle
11/07/2025	03:50:17	22	Common Pipistrelle
10/07/2025	21:44:56		Common Pipistrelle
10/07/2025	22:42:23		Leisler's Bat
10/07/2025	22:42:55		Leisler's Bat
10/07/2025	22:43:28		Leisler's Bat
10/07/2025	22:44:38		Leisler's Bat

10/07/2025	22:44:14		Leisler's Bat
10/07/2025	22:44:34		Leisler's Bat
10/07/2025	22:44:32		Leisler's Bat
11/07/2025	04:00:57	54	Common Pipistrelle
11/07/2025	04:00:50	30	Common Pipistrelle
11/07/2025	03:53:16	41	Common Pipistrelle
11/07/2025	04:13:53	26	Common Pipistrelle
11/07/2025	03:56:06	13	Common Pipistrelle
11/07/2025	04:01:14	10	Common Pipistrelle
11/07/2025	03:45:35	8	Common Pipistrelle
11/07/2025	04:00:45	4	Common Pipistrelle
10/07/2025	23:10:01	10	Common Pipistrelle
10/07/2025	23:10:06	5	Soprano Pipistrelle
10/07/2025	23:09:39	4	Soprano Pipistrelle
10/07/2025	23:09:57	3	Soprano Pipistrelle

Bat data Bat Conservation Ireland database within 10 km of the site

Roosts			
Name	Grid reference	Species observed	
139 Stillorgan Rd	O1830	Unidentified bat	
153 Ard na Mara	O2145	Unidentified bat	
15DITA10WC	O2550		
15DITA11WC	O2550		
15DITA12WC	O2550	Nyctalus leisleri	
15DITA13WC	O2450		
15DITA14WC	O2450		
15DITA15WC	O2450		
15DITA16WC	O2450		
15DITA17WC	O2450		
15DITA18WC	O2450		
15DITA19WC	O2450		
15DITA1WC	O2549		
15DITA20WC	O2450		
15DITA21WC	O2450		
15DITA22WC	O2450		
15DITA23WC	O2450		

15DITA24WC	O2450		
15DITA25WC	O2450		
15DITA26WC	O2450		
15DITA27WC	O2450		
15DITA28WC	O2450		
15DITA29WC	O2550		
15DITA2WC	O2549		
15DITA30WC	O2550		
15DITA3WC	O2549		
15DITA4WC	O2550		
15DITA5WC	O2550		
15DITA6WC	O2550		
15DITA7WC	O2550		
15DITA8WC	O2550	Pipistrellus spp. (45kHz/55kHz)	
15DITA9WC	O2550	Pipistrellus spp. (45kHz/55kHz)	
52 River Valley Grove	O1745	Pipistrellus spp. (45kHz/55kHz)	
7 Stirling Park	O1530	Unidentified bat	
Agricultural Buildings, St. Itas	O2550	Pipistrellus pygmaeus, Plecotus auritus	
Boland\\\'s Mill	O1733	Pipistrellus pipistrellus (45kHz),Nyctalus leisleri	
Dublin Electricity Generating Station building	O2033	Pipistrellus pipistrellus (45kHz)	
Flatroof Building, St. Itas	O2450	Plecotus auritus, Pipistrellus pygmaeus,Pipistrellus pipistrellus (45kHz)	
Former Pathology Building	O1533	Pipistrellus pygmaeus	
Garage house roost	O2241	Pipistrellus pygmaeus	
Haybarn, Fingal Co. Council Depot	O2050	Pipistrellus spp. (45kHz/55kHz)	
Kinsaley House	O2142	Pipistrellus spp. (45kHz/55kHz),Plecotus auritus	
Martin Residence	O2350	Unidentified bat	
Mc Kee Barracks	O1335	Myotis mystacinus	
National Concert Hall	O1532	Pipistrellus pygmaeus	
Old Industrial Site	O1434	Pipistrellus pipistrellus (45kHz)	
Santry, Tree Roost	O1640	Unidentified bat	
Seamount House	O2345	Pipistrellus pipistrellus (45kHz)	
Seamount Lodge	O2345	Plecotus auritus	
Skidoo House	O1550	Pipistrellus pygmaeus	
Skidoo House stable	O1550	Pipistrellus pygmaeus	
St Marys	O1533	Nyctalus leisleri	

St Marys	O1335	Nyctalus leisleri
St Marys Howth	O2739	Plecotus auritus
St Pius	O1533	Unidentified bat
Stone walled storage shed, Lambay Island	O3050	Plecotus auritus
Unused Building, Fingal Council Depot	O2050	Pipistrellus spp. (45kHz/55kHz)
Viking Components Europe	O1533	Unidentified bat
Transects		
Name	Grid reference start	Species observed
Bridge North of Killeek Transect spot 1	O1446	Myotis daubentonii
Bridge North of Killeek Transect spot 10	O1446	Myotis daubentonii
Bridge North of Killeek Transect spot 2	O1446	Myotis daubentonii
Bridge North of Killeek Transect spot 3	O1446	Myotis daubentonii
Bridge North of Killeek Transect spot 4	O1446	Myotis daubentonii
Bridge North of Killeek Transect spot 5	O1446	Myotis daubentonii
Bridge North of Killeek Transect spot 6	O1446	Myotis daubentonii, Unidentified bat
Bridge North of Killeek Transect spot 7	O1446	Myotis daubentonii, Unidentified bat
Bridge North of Killeek Transect spot 8	O1446	Myotis daubentonii
Bridge North of Killeek Transect spot 9	O1446	Myotis daubentonii
Griffth Park to Drumcondra Park Transect	O1636	Pipistrellus spp. (45kHz/55kHz),Myotis daubentonii, Unidentified bat
Herbert Park (Ballsbridge) Transect	O1732	Myotis daubentonii, Unidentified bat
O04 (19) 2004-2008	O1650	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus, Nyctalus leisleri,Pipistrellus spp. (45kHz/55kHz)
Phibsborough	O1536	Unidentified bat
Portobello Grove Rd Transect	O1532	Myotis daubentonii, Unidentified bat
Swords Golf Club Transect	O1450	Unidentified bat, Pipistrellus pygmaeus,Nyctalus leisleri,Myotis daubentonii
Violet Hill Drive Transect, Spot 1	O1437	
Violet Hill Drive Transect, Spot 2	O1435	

Violet Hill Drive Transect, Spot 3	O1437		
Violet Hill Drive Transect, Spot 4	O1437	Pipistrellus pipistrellus (45kHz)	
Violet Hill Drive Transect, Spot 5	O1437	Myotis daubentonii	
Violet Hill Drive Transect, Spot 6	O1437	Myotis daubentonii	
Violet Hill Drive Transect, Spot 7	O1437	Pipistrellus pipistrellus (45kHz),Unidentified bat, Myotis daubentonii	
Violet Hill Drive Transect, Spot 8	O1437	Unidentified bat	
Ward River Valley Park Transect, Swords	O1746	Unidentified bat, Myotis daubentonii	
Ad-hoc observations			
Survey	Grid reference	Date	Species observed
Bat Eco Services	O1931	04/06/2020	Pipistrellus pipistrellus (45kHz)
Bat Eco Services	O1933	04/06/2020	Pipistrellus pipistrellus (45kHz)
Bat Eco Services	O1833	04/06/2020	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus, Nyctalus leisleri,Myotis spp.
Bat Eco Services	O1933	04/06/2020	Pipistrellus pipistrellus (45kHz)
Bat Eco Services	O2033	05/06/2020	Pipistrellus pipistrellus (45kHz)
Bat Eco Services	O2133	20/09/2020	Pipistrellus pipistrellus (45kHz)
Bat Eco Services	O2033	20/09/2020	Pipistrellus pipistrellus (45kHz)
Bat Eco Services	O1931	27/09/2020	Pipistrellus pipistrellus (45kHz)
Bat Eco Services	O1933	04/06/2020	Nyctalus leisleri
Bat Eco Services	O1931	30/06/2020	Nyctalus leisleri
Bat Eco Services	O1930	01/07/2020	Nyctalus leisleri
Bat Eco Services	O1932	05/08/2020	Nyctalus leisleri
Bat Eco Services	O1933	05/06/2020	Myotis spp.
Bat Eco Services	O1931	05/08/2020	Pipistrellus pygmaeus
Bat Eco Services	O2033	04/06/2020	Pipistrellus pipistrellus, Nyctalus leisleri
Bat Eco Services	O1933	04/06/2020	Pipistrellus pygmaeus, Pipistrellus pipistrellus,Nyctalus leisleri
Bat Eco Services	O1931	04/06/2020	Pipistrellus pipistrellus, Nyctalus leisleri
Bat Eco Services	O1931	05/08/2020	Pipistrellus nathusii
Bat Eco Services	O1933	15/09/2020	Pipistrellus nathusii
Bat Eco Services	O1833	15/09/2020	Pipistrellus nathusii, Myotis spp.
Bat Eco Services	O1931	15/09/2020	Pipistrellus nathusii
Bat Eco Services	O2342	28/05/2021	Pipistrellus pipistrellus
Bat Eco Services	O2342	03/06/2021	Pipistrellus pipistrellus, Pipistrellus pygmaeus
Bat Eco Services	O2342	28/05/2021	Nyctalus leisleri

Bat Eco Services	O2343	28/05/2021	Nyctalus leisleri
Bat Eco Services	O2342	28/05/2021	Nyctalus leisleri
Bat Eco Services	O2342	28/05/2021	Pipistrellus pygmaeus
Bat Eco Services	O2343	28/05/2021	Pipistrellus pygmaeus
Bat Eco Services	O2839	12/08/2021	Nyctalus leisleri
Bat Eco Services	O2839	12/08/2021	Nyctalus leisleri
Bat Eco Services	O2839	12/08/2021	Pipistrellus pipistrellus (45kHz)
Bat Eco Services	O2839	12/08/2021	Pipistrellus pygmaeus
Bat Eco Services	O2839	24/08/2021	Nyctalus leisleri
Bat Eco Services	O2839	24/08/2021	Pipistrellus pipistrellus (45kHz)
Bat Eco Services	O2938	24/08/2021	Pipistrellus pygmaeus, Plecotus auritus
Bat Eco Services	O2839	26/08/2021	Plecotus auritus, Nyctalus leisleri,Pipistrellus pygmaeus,Pipistrellus pipistrellus
Bat Survey - Scott Cawley	O1733	07/06/2006	Pipistrellus pygmaeus, Nyctalus leisleri,Pipistrellus pipistrellus
Bat Survey - Scott Cawley	O1733	12/05/2005	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus, Nyctalus leisleri
Bat Survey - Scott Cawley	O1534	25/07/2005	Nyctalus leisleri
Bat Survey - Scott Cawley	O1433	2006-07-00	Pipistrellus pipistrellus (45kHz)
Bat Survey - Scott Cawley	O1734	18/05/2006	Nyctalus leisleri, Pipistrellus pipistrellus,Pipistrellus pygmaeus
Bat Survey - Scott Cawley	O1732	19/06/2008	Nyctalus leisleri, Pipistrellus pipistrellus, Pipistrellus pygmaeus,Myotis daubentonii
Bat Survey - Scott Cawley	O1533	2009-05-00	Nyctalus leisleri, Pipistrellus pygmaeus,Pipistrellus pipistrellus (45kHz)
Bat Survey - Scott Cawley	O1842	2010-10-00	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus, Nyctalus leisleri
Bat Survey - Scott Cawley	O1731	11/05/2010	Pipistrellus spp. (45kHz/55kHz)
Bat Survey - Scott Cawley	O1531	27/08/2010	Nyctalus leisleri, Pipistrellus spp. (45kHz/55kHz)
Bat Survey - Scott Cawley	O1440	07/09/2010	Pipistrellus pipistrellus (45kHz),Nyctalus leisleri, Pipistrellus spp. (45kHz/55kHz)
Bat Survey - Scott Cawley	O1634	15/09/2010	Nyctalus leisleri, Pipistrellus pipistrellus (45kHz),Pipistrellus nathusii
Bat Survey - Scott Cawley	O1741	31/05/2011	Pipistrellus pygmaeus, Pipistrellus pipistrellus,Pipistrellus spp. (45kHz/55kHz),Nyctalus leisleri, Unidentified bat
Bat Survey - Scott Cawley	O1648	13/09/2011	Nyctalus leisleri, Myotis spp.,Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus
Bat Survey - Scott Cawley	O1440	30/08/2011	Pipistrellus pipistrellus, Pipistrellus pygmaeus,Nyctalus leisleri,Unidentified bat,Pipistrellus spp. (45kHz/55kHz)
Bat Survey - Scott Cawley	O1733	25/07/2013	Pipistrellus pipistrellus, Nyctalus leisleri, Pipistrellus spp. (45kHz/55kHz),Plecotus auritus

Bat Survey - Scott Cawley	o1932	29/06/2017	Nyctalus leisleri
Bat Survey - Scott Cawley	o1540	30/08/2016	Nyctalus leisleri
Bat Survey - Scott Cawley	o1540	31/08/2016	Nyctalus leisleri
Bat Survey - Scott Cawley	o1540	06/09/2016	Nyctalus leisleri, Pipistrellus pipistrellus (45kHz)
Bat Survey - Scott Cawley	o1539	30/08/2016	Nyctalus leisleri
Bat Survey - Scott Cawley	o1540	06/09/2016	Nyctalus leisleri, Pipistrellus pipistrellus (45kHz)
Bat Survey - Scott Cawley	o1539	06/09/2016	Unidentified bat, Pipistrellus pipistrellus (45kHz)
Bat Survey - Scott Cawley	o1440	31/08/2016	Pipistrellus pipistrellus (45kHz),Nyctalus leisleri, Pipistrellus pygmaeus
Bat Survey - Scott Cawley	O1435	10/10/2016	Pipistrellus pipistrellus (45kHz)
Bat Survey - Scott Cawley	O1532	29/09/2016	Nyctalus leisleri, Pipistrellus pygmaeus
Bat Survey - Scott Cawley	O1532	05/10/2016	Nyctalus leisleri, Pipistrellus pygmaeus
Bat Survey - Scott Cawley	O1931	11/05/2017	Nyctalus leisleri, Pipistrellus pygmaeus
Bat Survey - Scott Cawley	O1931	15/05/2017	Nyctalus leisleri
Bat Survey - Scott Cawley	O1539	30/08/2016	Pipistrellus pygmaeus, Pipistrellus pipistrellus (45kHz),Nyctalus leisleri
Bat Survey - Scott Cawley	O1550	13/06/2017	Pipistrellus pygmaeus, Pipistrellus pipistrellus (45kHz),Nyctalus leisleri,Myotis spp.
Bat Survey - Scott Cawley	O1334	16/09/2015	Nyctalus leisleri
Bat Surveys - Tina Aughney	O1546	31/08/2006	Myotis natterreri,Nyctalus leisleri,Pipistrellus pipistrellus (45kHz)
Bat Surveys - Tina Aughney	O1632	07/09/2007	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
Bat Surveys - Tina Aughney	O1731	19/07/2007	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Pipistrellus spp. (45kHz/55kHz),Nyctalus leisleri,Myotis spp.,Myotis daubentonii
Bat Surveys - Tina Aughney	O1733	30/06/2006	Pipistrellus pipistrellus (45kHz),Nyctalus leisleri
Bat Surveys - Tina Aughney	O1731	26/10/2007	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
Bat Surveys - Tina Aughney	O1546	30/08/2006	Pipistrellus pipistrellus (45kHz),Nyctalus leisleri,Myotis natterreri
Bat Surveys - Tina Aughney	O2242	06/05/2017	Plecotus auritus,Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
Bat Surveys - Tina Aughney	O1748	11/08/2017	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri,Myotis daubentonii,Plecotus auritus
Bat Surveys - Tina Aughney	O1737	11/08/2017	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri,Plecotus auritus
Bat Surveys - Tina Aughney	O1831	23/04/2017	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
Bat Surveys - Tina Aughney	O1435	23/06/2018	Nyctalus leisleri,Pipistrellus pipistrellus (45kHz)

BATLAS 2010	O1540	01/08/2008	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
BATLAS 2010	O1640	01/08/2008	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
BATLAS 2010	O1538	01/08/2008	Pipistrellus pipistrellus (45kHz)
BATLAS 2010	O1744	30/07/2008	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
BATLAS 2010	O1542	31/07/2008	Pipistrellus pipistrellus (45kHz),Nyctalus leisleri
BATLAS 2010	O1850	29/07/2008	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus
BATLAS 2010	O1848	30/07/2008	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Myotis daubentonii
BATLAS 2010	O1442	16/07/2008	Nyctalus leisleri
BATLAS 2010	O1542	16/07/2008	Nyctalus leisleri
BATLAS 2010	O1543	16/07/2008	Nyctalus leisleri
BATLAS 2010	O1642	16/07/2008	Nyctalus leisleri
BATLAS 2010	O1643	16/07/2008	Nyctalus leisleri
BATLAS 2010	O1533	16/06/2008	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
BATLAS 2010	O1633	16/06/2008	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
BATLAS 2010	O1834	01/06/2008	Unidentified bat
BATLAS 2020	O3150	24/06/2019	Nyctalus leisleri
Bats in Dublin's City Centre Parks and Waterways	O1633	05/07/2000	Myotis mystacinus/brandtii
Bats in Dublin's City Centre Parks and Waterways	O1535	22/05/2000	Nyctalus leisleri,Pipistrellus pipistrellus (45kHz)
Bats in Dublin's City Centre Parks and Waterways	O1632	13/05/2000	Pipistrellus pipistrellus (45kHz)
Bats in Dublin's City Centre Parks and Waterways	O1633	10/05/2000	Pipistrellus pygmaeus
Dublin Bat Group surveys	O1633	10/05/2000	Nyctalus leisleri,Pipistrellus pipistrellus (45kHz)
Dublin Bat Group surveys	O1633	05/07/2000	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus
EIS and Road Surveys - Conor Kelleher	O1931	22/06/2005	Nyctalus leisleri
EIS and Road Surveys - Conor Kelleher	O1640	22/06/2005	Pipistrellus pygmaeus,Nyctalus leisleri,Pipistrellus pipistrellus (45kHz)
EIS and Road Surveys - Conor Kelleher	O1444	14/09/2002	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Plecotus auritus,Nyctalus leisleri
EIS and Road Surveys - Conor Kelleher	O1544	14/09/2002	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Plecotus auritus,Nyctalus leisleri

EIS surveys - Brian Keeley	O2043	09/07/2004	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri,Myotis mystacinus/brandtii,Plecotus auritus
EIS surveys - Brian Keeley	O2041	20/09/2005	Pipistrellus pygmaeus
EIS surveys - Brian Keeley	O2150	08/09/2005	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri,Plecotus auritus
EIS surveys - Brian Keeley	O2145	05/07/2006	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri,Plecotus auritus
EIS surveys - Brian Keeley	O2739	23/05/2006	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri,Plecotus auritus
EIS surveys - Brian Keeley	O1641	02/06/2006	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
EIS surveys - Brian Keeley	O2343	10/07/2007	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
EIS surveys - Brian Keeley	O1833	24/05/2011	Pipistrellus pygmaeus,Nyctalus leisleri,Pipistrellus pipistrellus (45kHz),Myotis daubentonii
EIS surveys - Brian Keeley	O1833	12/07/2010	Nyctalus leisleri,Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus
EIS surveys - Brian Keeley	O1831	04/06/2010	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
EIS surveys - Brian Keeley	O2345	19/05/2009	Nyctalus leisleri,Pipistrellus pipistrellus (45kHz)
EIS surveys - Brian Keeley	O1733	08/10/2009	Pipistrellus nathusii,Pipistrellus pygmaeus,Nyctalus leisleri
EIS surveys - Brian Keeley	O1842	09/08/2012	Nyctalus leisleri,Pipistrellus pygmaeus,Pipistrellus pipistrellus (45kHz)
EIS Surveys - Niamh Roche	O1744	20/09/2003	Nyctalus leisleri
EIS Surveys - Niamh Roche	O2050	21/07/2003	Nyctalus leisleri
EIS Surveys - Niamh Roche	O1833	2004-09-00	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus
EIS Surveys - Niamh Roche	O1833	2004-09-00	Nyctalus leisleri
Faith Wilson	O1632	08/10/2009	Nyctalus leisleri,Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Pipistrellus nathusii
Faith Wilson	O1433	01/08/2007	Nyctalus leisleri
Faith Wilson	O2250	24/10/2016	Unidentified bat
National Biodiversity Data Centre Bat Records	O1538	01/05/2014	Pipistrellus pygmaeus
National Biodiversity Data Centre Bat Records	O2137	07/06/2013	Nyctalus leisleri
National Biodiversity Data Centre Bat Records	O2137	07/06/2013	Pipistrellus pipistrellus (45kHz)
National Biodiversity Data Centre Bat Records	O2136	07/06/2013	Pipistrellus pygmaeus
National Biodiversity Data Centre Bat Records	O2738	23/05/2014	Plecotus auritus
National Biodiversity Data Centre Bat Records	O2838	23/05/2014	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus

National Biodiversity Data Centre Bat Records	O2245	17/06/2017	Pipistrellus spp. (45kHz/55kHz)
National Biodiversity Data Centre Bat Records	O1532	28/05/2016	Nyctalus leisleri
National Biodiversity Data Centre Bat Records	O2449	17/09/2020	Unidentified bat
National Biodiversity Data Centre Bat Records	O1438	06/06/2021	Myotis natterreri,Pipistrellus pygmaeus,Nyctalus leisleri
National Biodiversity Data Centre Bat Records	O1438	07/06/2021	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus
National Biodiversity Data Centre Bat Records	O1438	04/06/2021	Nyctalus leisleri
National Biodiversity Data Centre Bat Records	O1438	05/06/2021	Nyctalus leisleri
National Biodiversity Data Centre Bat Records	O1537	21/11/2022	Pipistrellus spp. (45kHz/55kHz)
National Biodiversity Data Centre Bat Records	O2539	07/04/2020	Pipistrellus pygmaeus
National Biodiversity Data Centre Bat Records	O2146	10/11/2021	Unidentified bat
National Biodiversity Data Centre Bat Records	O1732	25/07/2019	Unidentified bat
National Biodiversity Data Centre Bat Records	O1736	26/04/2021	Pipistrellus spp. (45kHz/55kHz)
National Biodiversity Data Centre Bat Records	O1536	04/09/2021	Pipistrellus spp. (45kHz/55kHz)
National Biodiversity Data Centre Bat Records	O1541	24/06/2022	Pipistrellus spp. (45kHz/55kHz),Nyctalus leisleri
National Biodiversity Data Centre Bat Records	O1540	24/06/2022	Pipistrellus pygmaeus
National Biodiversity Data Centre Bat Records	O1540	24/06/2022	Nyctalus leisleri
Wildlife Surveys Ireland Surveys	O1732	29/07/2024	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri