



A bat assessment of the site of the Amber Women's Refuge, Carlow for Derogation application

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For OBFA

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Summary of Results and Mitigation

Results

This site contains a roost of at least 68 Leisler's bats within the large chimney, above the boiler house. They are entering and exiting through the grill. As this survey took place in May, before the young have flown, the total number of Leisler's bats could be in excess of 100. This is a locally and perhaps nationally significant roost. No other Leisler's bat roosts are recorded within a 10km radius of the site.

Bats were leaving and returning to the roost throughout the night. In addition to this, bats were using the hedgerow to feed and commute, with common and soprano pipistrelles flying throughout the night, and there is the occasional record of a myotis, probably a natterer's bat. These myotis bats are intolerant of lighting, so lighting must only be used where necessary.

A further site visit took place with the design team and the NPWS Ranger Brian O Connor on August 12th. Bats were still present and could clearly be heard in the chimney.

A hedgehog was also found on site.

Bat species found roosting.

Leisler's bat	68 bats	<i>Nyctalus leisleri</i>
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Leisler's bat roost, exit point at grille.



Entire site, with roost location in orange

Bat species found feeding and commuting on the site

Common pipistrelle	<i>Pipistrellus pipistrellus</i>
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>
Leisler's bat	<i>Nyctalus leisleri</i>
Natterer's bat	<i>Myotis nattereri</i>

Mitigation

(1) The chimney is a large maternity roost. Access through the grill must be retained and signage must be put in place to alert builders not to interfere with the grille. The NPWS ranger must be notified in advance of any works taking place. Builders must also be given a toolbox talk, and works supervised by an ecologist. A derogation licence must be sought from NPWS prior to any work commencing.

(2) No work can take place near the roost (in the roof area marked in yellow below, and the pink roost area) from May to September as bats may be breeding. Work may take place in the areas marked in green.



Groundworks should commence in April, in advance of the breeding season, to allow the bats to acclimatise to some disturbance. Access should be retained to the base of the chimney by retaining/upgrading an existing hatch to allow for cleaning if necessary.



Existing hatches at the base of the chimney

(3) 3 bat tree boxes, and 3 Schwegler 2F Schwegler bat boxes with front panels must be put in place. In addition to this a Schwegler 17A swift box shall be installed at least 4 metres above ground level on an east or north-facing wall. Bat boxes should be placed on trees, walls 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 (or using the links included below) and must be placed in a dark area.

Bat tree box - https://www.quickcrop.ie/products/bat-tree-box-vkws8.html?searchid=1989103&search_query=bat+boxes

Schwegler 2F bat box - https://www.quickcrop.ie/products/schwegler-bat-box-2f-with-double-front-panel.html?searchid=1989104&search_query=bat+boxes

(4) Bats will suffer a loss of feeding if hedgerow is removed. Native shrubs and trees must be used within the new development, if hedgerow is removed, to allow bats to continue to commute... Where other climbers and shrubs are required, they should be taken from the approved list from the All-Ireland Pollinator Plan: pollinators.ie/wp-content/uploads/2023/04/Top-Ten-pollinator-plants-Guide-WEB.pdf.

Bat Conservation Ireland recommend the following plants for nighttime insects -
Honeysuckle - *Lonicera periclymenum*, Wild roses – e.g. *Rosa canina*, *Rosa arvensis*,

Jasmine – *Jasminum officinale*, Brambles – *Rubus fruticosus*, Forget me not – *Myosotis arvensis*, White clover – *Trifolium repens*. Red clover – *Trifolium pratense*, Primroses – *Primula vulgaris*, Irish bluebells – *Hyacinthoides non-scripta*

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

(6) 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

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>

(7) Monitoring of the roost must take place for at least two years, with results sent to NPWS.

Introduction

Buildings are an essential element in the life cycle of bats. Bats are dependent upon buildings throughout the year and may give birth to their single annual young here, may hibernate here, may mate here or may be present at other times of year individually or with other bats. As bats are nocturnal and may be entirely inactive in the daytime, their ability to avoid injury during building repairs can be very limited and this places them at a high risk of injury or death should they be present when work such as slate removal, demolition etc are undertaken.

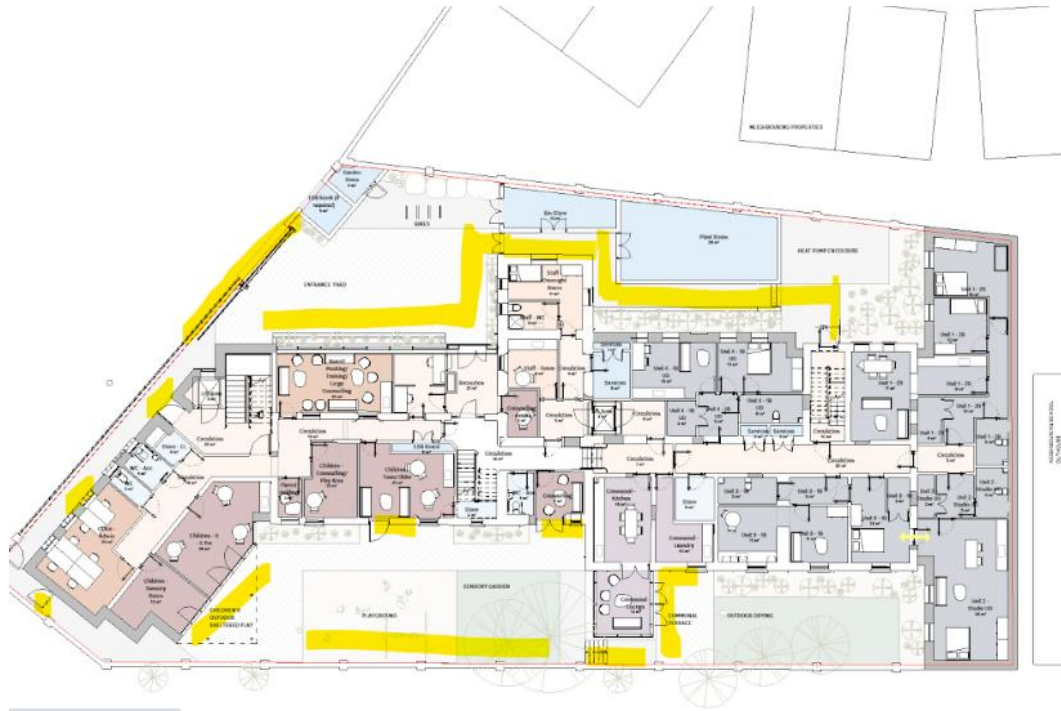
This assessment addresses the potential for bats and swifts within the former St. Vincent de Paul building as part of the proposed development of the site for the Amber Women's Refuge. Any changes to the site must take these species into account prior to work at roof level to ensure that neither of these protected groups are entombed, excluded or injured during modification or repair work.

Objective of the proposed works

Objective of proposed works: Refurbishment of the former monastery building plus a new-build extension to deliver 10 residential units of DSGBV emergency refuge accommodation with associated communal, admin and support accommodation and site work for Amber. A nationally significant Leisler's maternity roost was identified in the boiler room chimney during survey. The derogation is sought to permit construction to proceed elsewhere on the building and site while the roost remains in situ and undisturbed. We seek a licence to carry out maintenance work to the external faces of the chimney itself and to access the base of the chimney via existing access points (to enable cleaning) during construction works and in the life of the building, outside of roosting season, ensuring the entry grille is not disturbed. Given the proximity of works to the roost, the derogation will also allow any risk of incidental disturbance to be mitigated and controlled. A condition survey of the chimney will be carried out ahead of works commencing on site, to confirm the full scope of remedial works needed to maintain the structural integrity of the flue, anticipated to include repair, and possible partial reapplication of external finishes.

See attachments- Site context plan, ground floor plan, first floor plan, proposed site elevations, existing floor elevations and existing site plan.

See also the Public Interest Report to support the bat derogation application.



Name, qualifications and relevant experience of scientific staff

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.

Background to the proposed activity

- **Location:** Old Dublin Road, Carlow Town, approximately 3km north of the town centre. Site area 1,335m² / 0.33 acre / 0.14 hectares.
- **Ownership:** The site is in the ownership of Carlow County Council (CCC) and will be transferred to Amber on completion.
- **Type of and need for the proposed activity:** Refurbishment of the existing two-storey former monastery hostel building, plus a new-build extension, to deliver 10 domestic violence refuge units with associated communal, admin and support accommodation and site works. GIA approximately 1,267m². The client and future operator is Amber Women's Refuge CLG. There is currently no dedicated refuge in Carlow; Tusla's 2018 needs assessment identifies a need for 36 refuge spaces in the county against a current provision of zero.
- **Planning history:** PD2561, permission granted for change of use from monastery to hostel at Dublin Road, Carlow. The current scheme has been through informal pre-planning with Carlow County Council (October 2025, November/December 2025, March 2026); full planning permission has not yet been applied for.
- **Policy context:** The project supports Carlow County Development Plan 2022-2028 policy HR.P2, which commits the Council to encourage and support Tusla and other agencies in the provision of domestic violence accommodation in the county. It also aligns with Ireland's Third National DSGBV Strategy (Zero Tolerance), the Istanbul Convention, and Housing for All.
- **Zoning:** The site is zoned Community/Educational in the Carlow County Development Plan 2022-2028 and the Draft Carlow-Graiguecullen Joint Urban Local Area Plan 2024-2030. This zoning objective protects and provides for community, educational and civic facilities; residential institution uses are open for consideration within it. CCC has confirmed in writing that, having regard to the site's history and this zoning, the proposed refuge use is acceptable at this location.
- **Heritage status:** The building is not on the Record of Protected Structures and is not within an Architectural Conservation Area. The adjoining Bishop Foley

National School is a protected structure. Development Plan policies BH P1-P4 (built heritage) and VA P1-P9 (vernacular architecture) are relevant given the building's vernacular and historic character.

Details of proposed activity

Please see attached drawings, showing the existing site, proposed demolitions, and the proposed works.

The roost is located to the north face and to the centre of the eastern roof. Initially, it was proposed to remove this flue, but since the discovery of the roost, this has changed to retain the flue in situ and build around it.

Chimney condition and maintenance works

A structural condition survey of the chimney will be carried out ahead of works commencing on site and is required before the full scope of remedial works can be confirmed. Visible defects to date suggest the following works are likely to be needed, subject to that survey, and would be confined to the accessible external faces of the flue away from the roost entry grille:

- Replacement of chimney pots, where deteriorated or missing.
- Repair of cracked masonry, including localised repointing.
- Removal and replacement of external cement render where failed or trapping moisture (as already noted in the preliminary timber report, which records water ingress around the chimney contributing to local fabric deterioration).
- Replastering and repainting of external finishes to restore weathertightness and maintain the flue's long-term structural integrity.

These works are maintenance and stabilisation in nature, intended to keep the chimney structurally sound and weathertight for the long term, including for the benefit of the roost itself. No works are proposed to the entry grille or the section of flue face immediately surrounding it.

A contractor has not yet been appointed, so a full method statement is not yet confirmed, but we anticipate the following programme:

Early 2027 (pre-construction)

- Chimney condition survey carried out; to confirm final scope of repair works below.

April 2027

- Commence on site.
- Site set-up.

May – August 2027

- Demolition of ancillary buildings (stores/sheds).

- Erection of scaffolding.
- Removal of roofs except the roof immediately adjacent to the roost, re-installation of felt, battens, slates etc.
- Removal of external cement render from walls, except to the chimney housing the roost.
- Internal demolitions.
- Site works: clearing site vegetation, dig-out for new foundations, below-ground site services etc.
- Commencement of extension rising walls and floors.

September 2027 – April 2028

- Demolish boiler house around the base of the chimney with roost, including disconnecting the flue from the boiler to the chimney.
- Clean out base of chimney flue currently in the boiler house, block 3 no. openings to the flue and retain two with new entry hatches for future maintenance.
- Removal of roof adjacent to the roost.
- Remove external cement render to the chimney around the roost, except for the exclusion zone directly around the entry grille.
- Carry out confirmed chimney repair works (pot replacement, repointing, replastering, repainting) to accessible faces only, outside the exclusion zone.
- Progress extension construction to roof, including tie-in to existing roofs.
- Progress internal alterations and construction.
- Progress site works, including below and above ground services installations.

May – September 2028

- Complete project.

Ecological Survey and site assessment

Pre-existing information on species at location and environs

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:

BCIreland data: search results 30 May 2026	
Search parameters: Roosts Transects with observations of all species within 1000m of S7250877270	

Roosts					
Name	Grid reference	Grid ref easting	Grid ref northin g	Address	Species observed
Transects					
Name	Grid reference start	Grid ref easting start	Grid ref northin g start	Species observed	
Barrow Track, Carlow Town Transect	S7173976826	271739	176826	Unidentified bat, Myotis daubentonii	
The Millrace Transect	S7210476508	272104	176508	Myotis daubentonii, Unidentified bat, Plecotus auritus, Pipistrellus pipistrellus (45kHz)	
Ad-hoc observations					
Survey	Grid reference	Grid ref easting	Grid ref northin g	Date	Species observed

See Appendix V for bat data from within 10km of the site.

Status of the species in the local/regional area

There are no Leisler's roosts recorded within 10km of the site. However Leisler's bats have been recorded feeding/ commuting within this area – see Appendix IV.

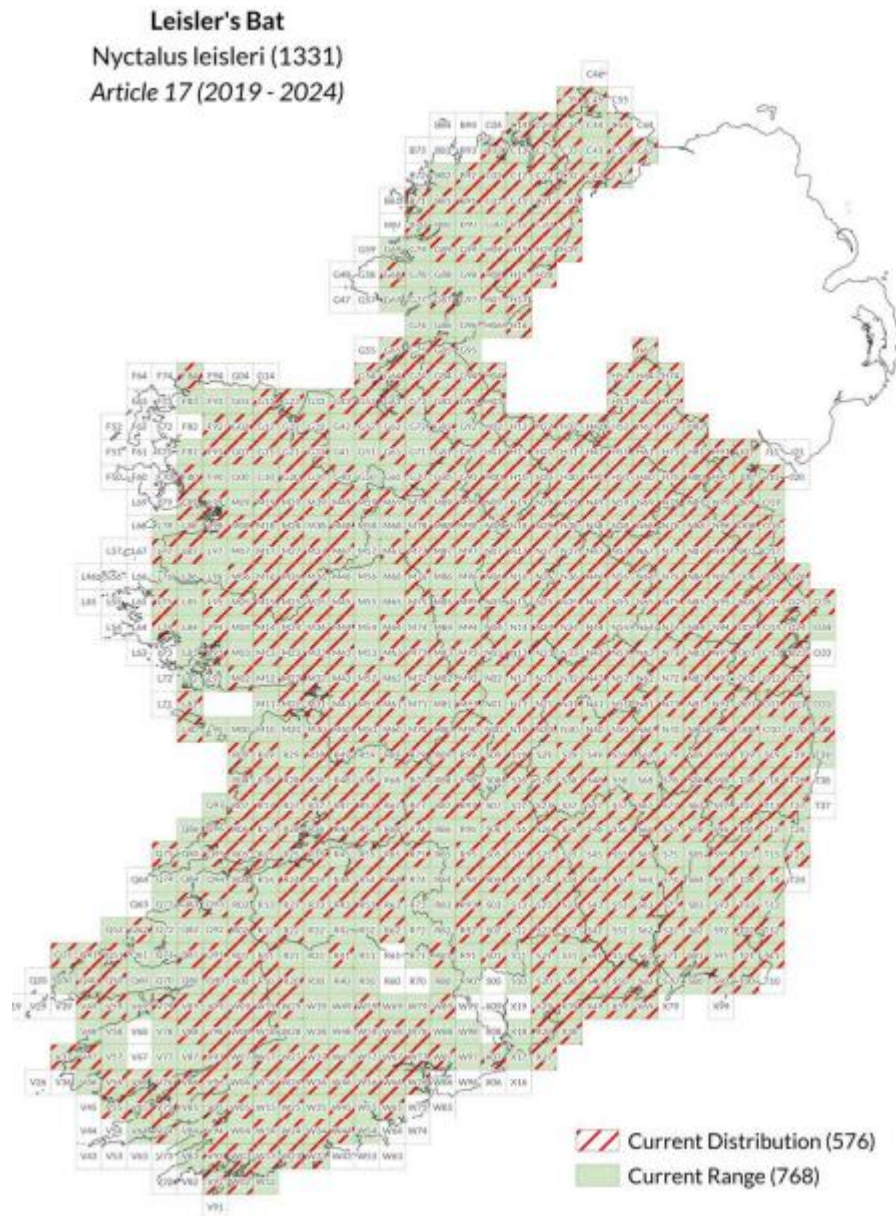
Map of Leisler bat records, Carlow, Bat Conservation Ireland 2021



Leisler bats

Data from Article 17 report 2025

Data from the Car-based Bat Monitoring Scheme (2003-2023) shows that this species experienced a significant increase from 2003 until 2014 when the trend turned downwards. The trend direction changed around 2017/2018 and began to increase again. The lower 95% confidence interval around the smoothed trend currently sits above the 2006 baseline index. In the latest 12-year period (2011-2023) this species has increased by 117% in total, equivalent to a per-annum increase of 4.05%. Since the start of the car survey scheme in 2003, the species' index has increased by 210% (see Aughney et al., 2022 and Roche & Langton, 2024 for full details) The short-term trend was based on data from 2011-2023 but it is assumed to be the same for the default trend period 2013-2024. The long-term trend was based on data from 2003-2023 as this is the full extent of the data from the national monitoring programme. The Favourable Reference Population used in 2013 and again in 2019 (~63,000 volant individuals) is considered to be large enough to allow the long-term survival of the species and is retained for the current reporting period.



11 Conclusions Assessment of conservation status at end of reporting period

11.1 Range Favourable (FV)

11.2 Population Favourable (FV)



11.3 Habitat for the species Favourable (FV)

11.5 Future prospects Favourable (FV)

11.5 Overall assessment of Conservation Status Favourable (FV)

Objective of survey

The objective of the bat survey is to assess:

- (1) The potential suitability of the existing buildings or trees for roosting bats.
- (2) The site, roost size, species and roost types within the buildings or trees.
- (3) The potential impacts of the proposed works on bats.
- (4) To provide appropriate mitigation measures.

Description of Survey Area

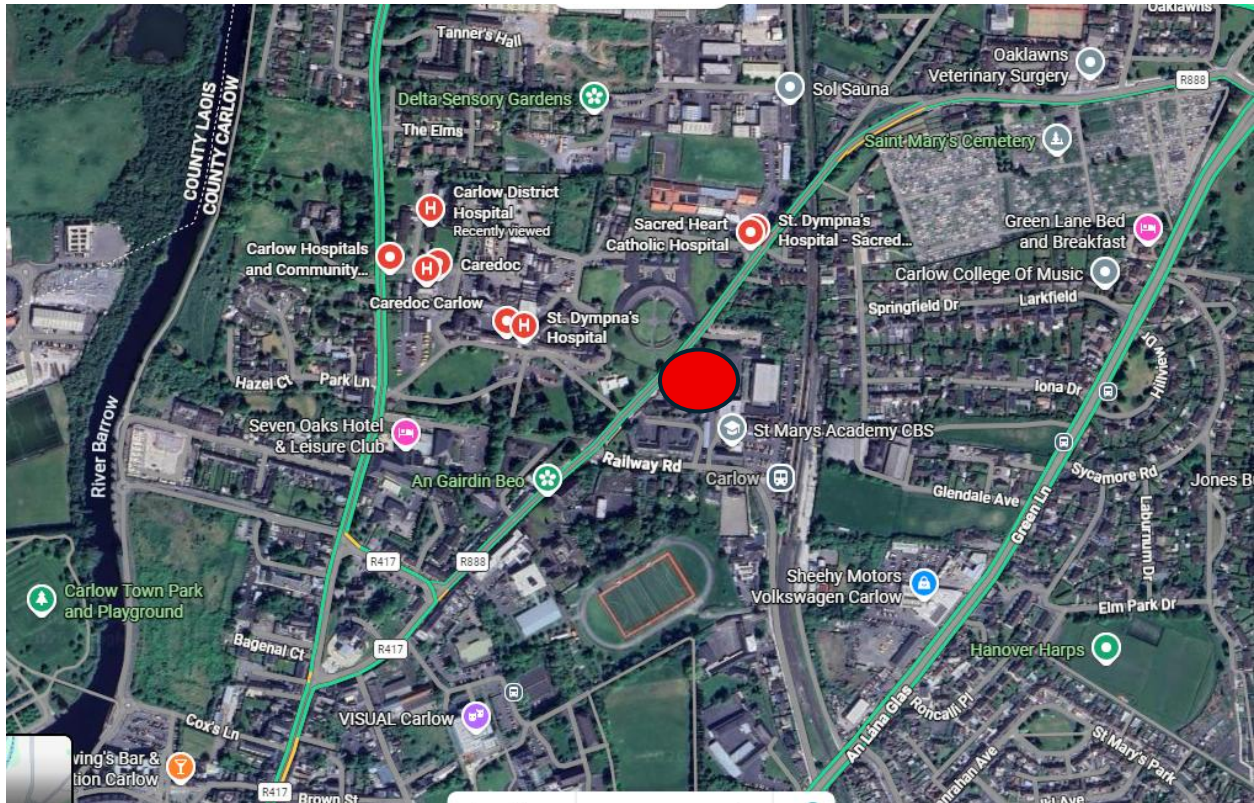
Grid Reference - S 72508 77270

Habitat features within and adjoining the site of importance to bats.

WL1 Hedgerow

BL3 Buildings and artificial surfaces

Connectivity – Map of site showing the wider area with ecological features.



Red oval - site

To the east is parkland and mature trees at St Dymphna's hospital, and further east is the River Barrow.

Survey Methodology

Surveyors

Donna Mullen, Ferdia Keeley and Brian 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
- Two Songmeter Mini Bat detectors placed overnight.
- 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 2025

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

Overnight surveys

Date: May 12, 2026

Sunrise time: 5.34

Sunset time: 21.13

Temperature and weather conditions

Temperature during the evening survey was 11°C, and breezy.

Date: 27 May 2026

Sunrise time: 5.13

Sunset time: 21.36

Temperature and weather conditions

Temperature during the evening survey was 23°C, with a temperature of 15°C during the morning survey.

Daytime inspection

A daytime inspection took place on August 12

Lux Levels

0 lux on site

Site Map

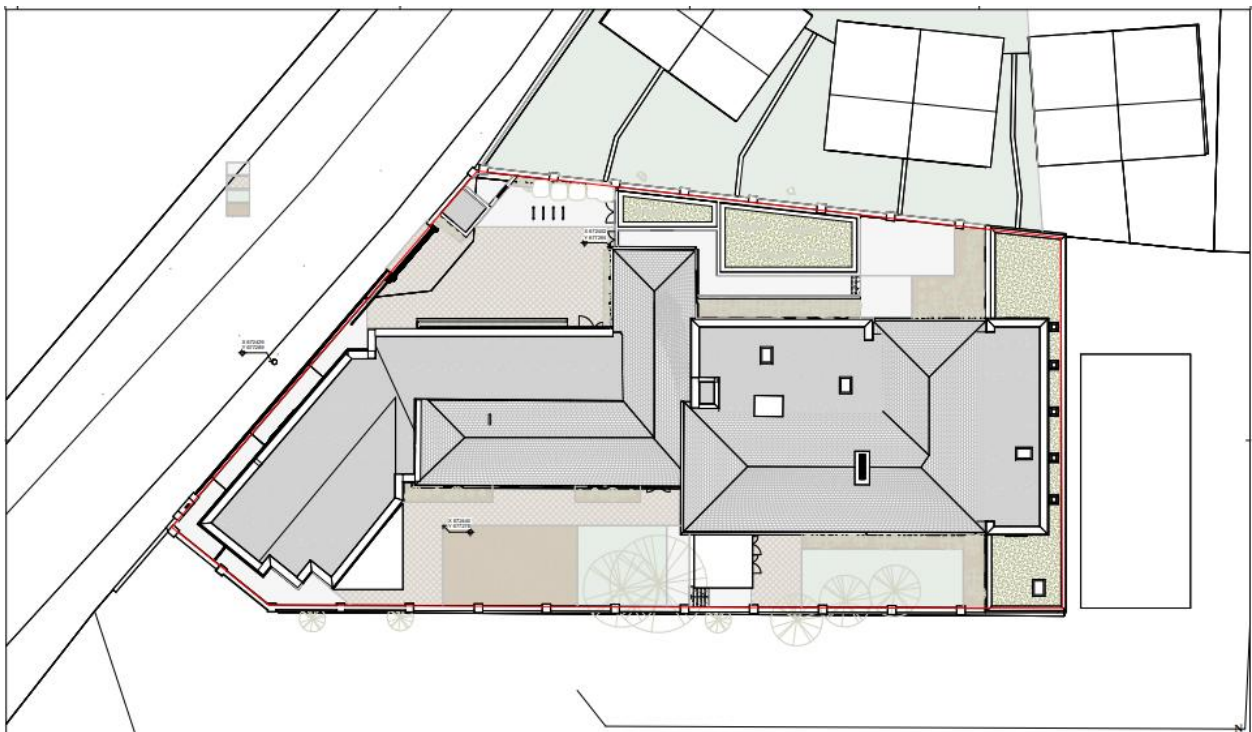
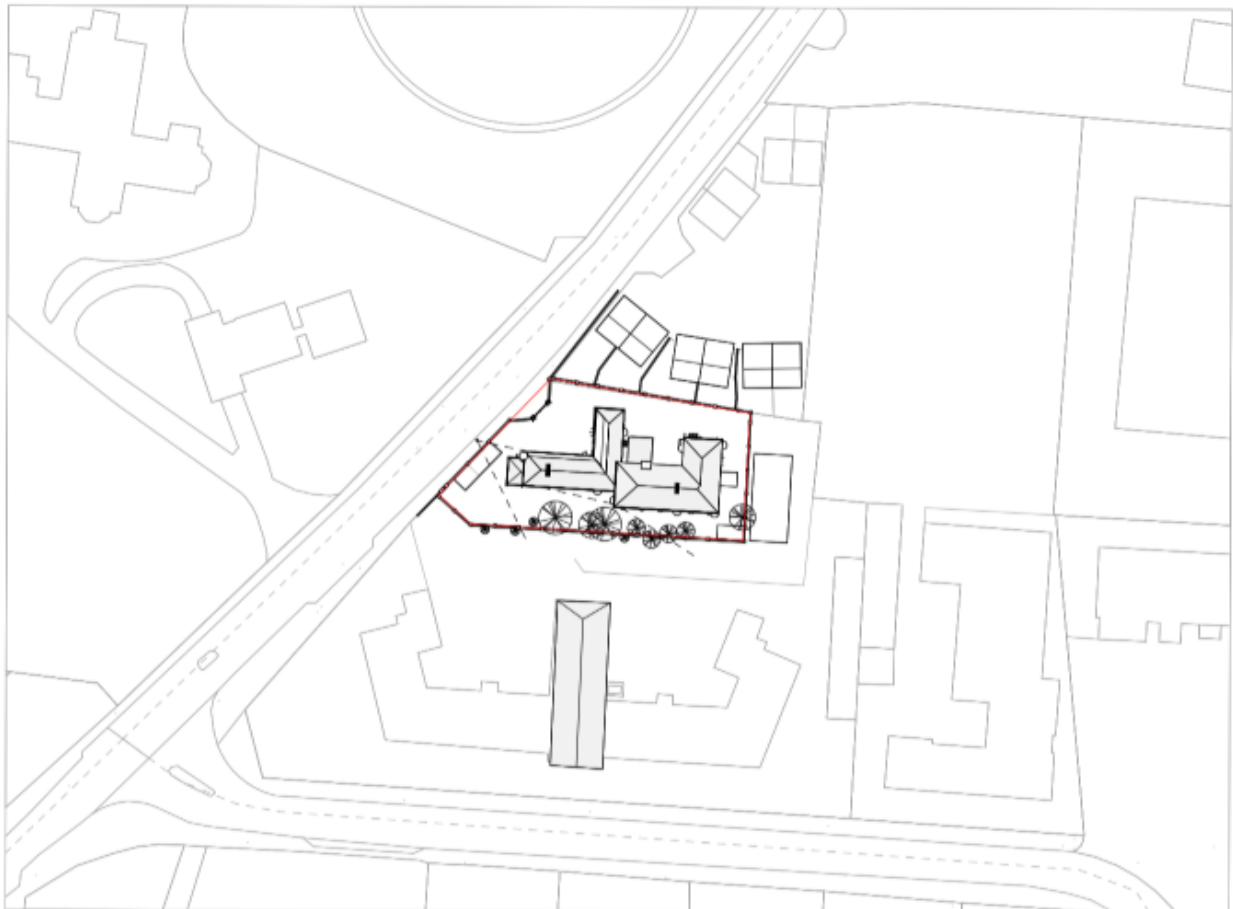




Photo of site



2 EXISTING SITE LAYOUT PLAN
1:500

Site Context

Complexity of lands and ability to cover ground during surveys

All areas were accessible, except the lower boiler room in May. This boiler room was accessible during a daytime inspection on August 12.

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 and for this reason Daubenton's bats, Whiskered bats and Natterer's bats cannot be conclusively identified by sound analysis alone. They can be identified with an accuracy level of approximately 75% using sound analysis, which is adequate and avoids the disturbance of trapping and handling bats. 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.

Survey results including raw data, any processed or aggregated data, and negative results as appropriate. Photographs and maps must be provided where site-specific features are referred

Survey Results: including raw data, any processed or aggregated data, and negative results as appropriate.

Assessment of buildings as potential roosts with photos



The main building. Slate roof, high bat roost potential.



Timber sheds – Low bat roost potential



Garage – Flat roof, moderate bat roost potential.

Map of the placement of the static detectors.



Red triangle – Static detector placed for 4 nights on site.

Blue triangle – Static detector placed overnight.

Results of survey

May 12

The survey commenced at 21.00 with 2 surveyors working overnight. All attics were checked for signs of bat usage, droppings, staining etc. There was one old bat dropping in the western attic (near the road).



At 21.24 a soprano pipistrelle was seen commuting from southwest to northeast. At 21.28, Leisler's bats began to emerge from the Northern chimney at the boiler room.



Bat roost entrance – See staining below roost entrance.



Bat roost

Common pipistrelle bats began feeding along the hedgerows around the building at 21.37, and by this time 37 Leisler's bats had emerged from the chimney. Two soprano pipistrelles were seen together at 21.41 at the rear of the site (east), moving west to east, and then south and over the wall to the school. Both common and soprano pipistrelles continued to feed along the eastern garden, moving back and forwards to the school. At 22.02, the Leisler's bats began to return to the site, with 58 bats seen entering, viewed on a thermal imager.

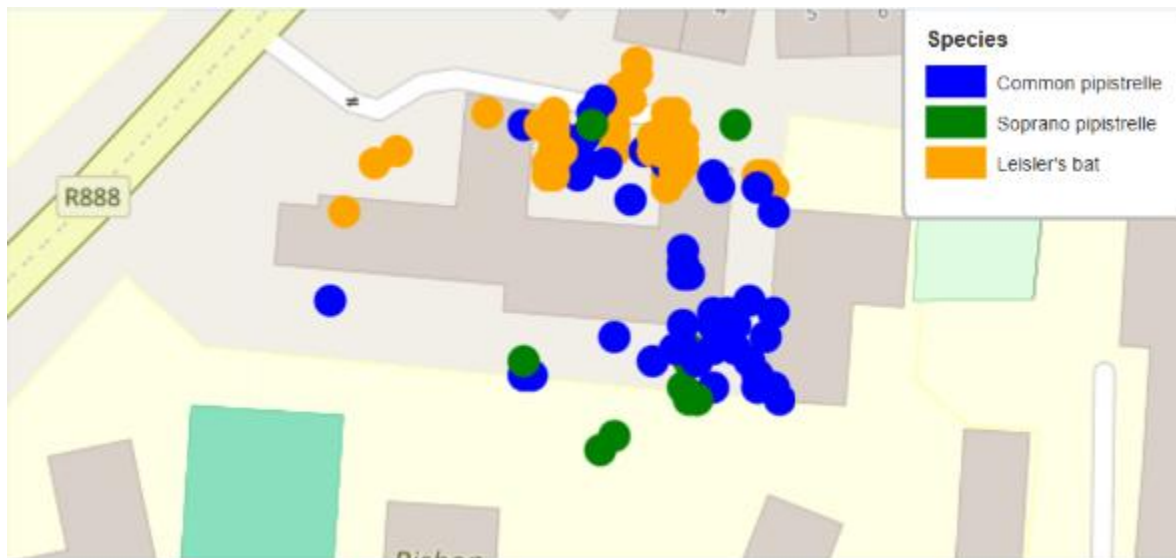
The survey commenced at 3.45, with a soprano pipistrelle seen near the gate at 4.15. There was slight drizzle. A Leisler's bat was seen at 4.27 and began to swarm at the chimney until 4.37. A soprano pipistrelle was seen in the same area at 4.38. A Leisler's bat entered the roost at 4.49, and a soprano pipistrelle was heard in the schoolyard towards the south. A hedgehog was seen in the garden at 5.12.



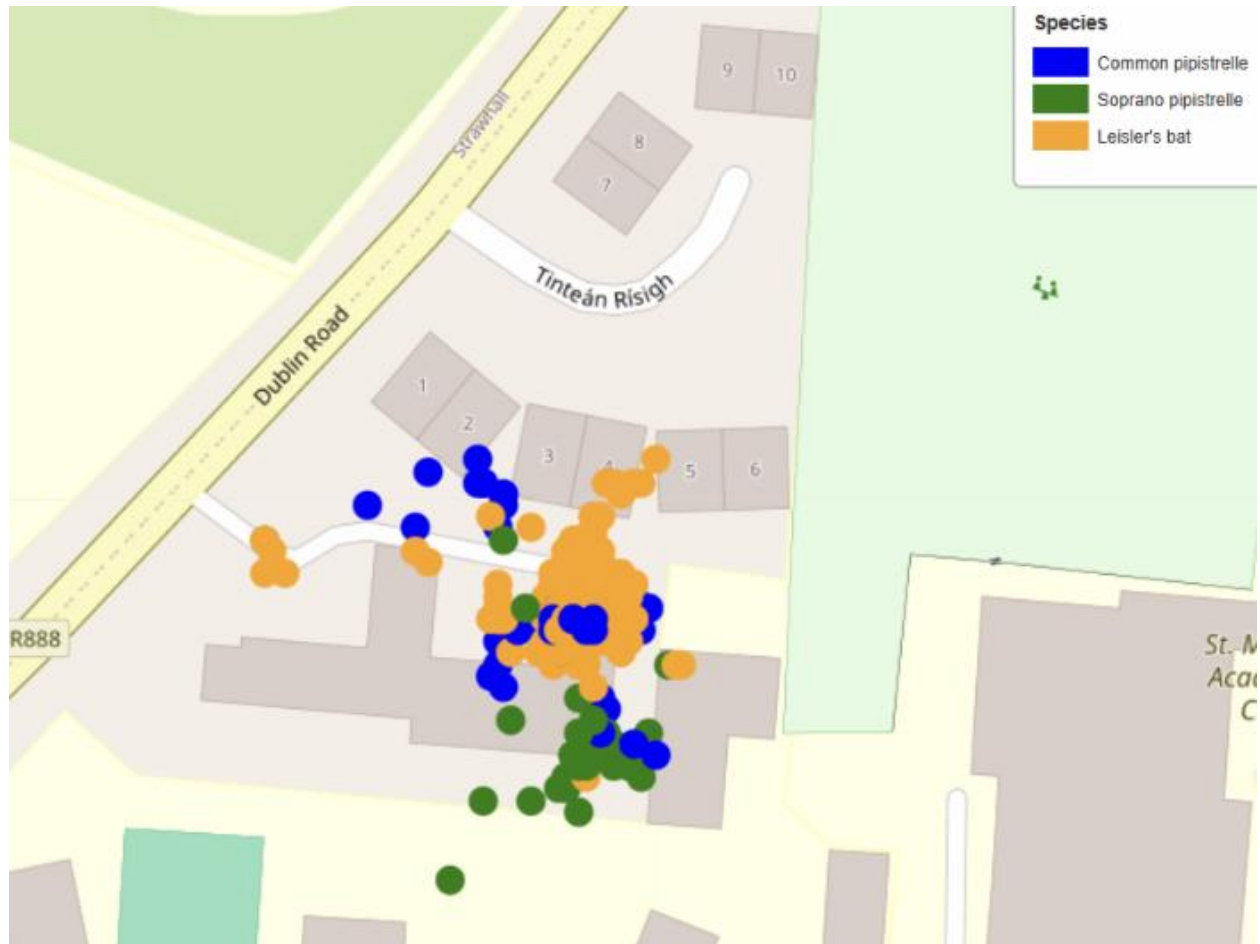
Hedgehog

Bat data

Surveyor 1



Surveyor 2



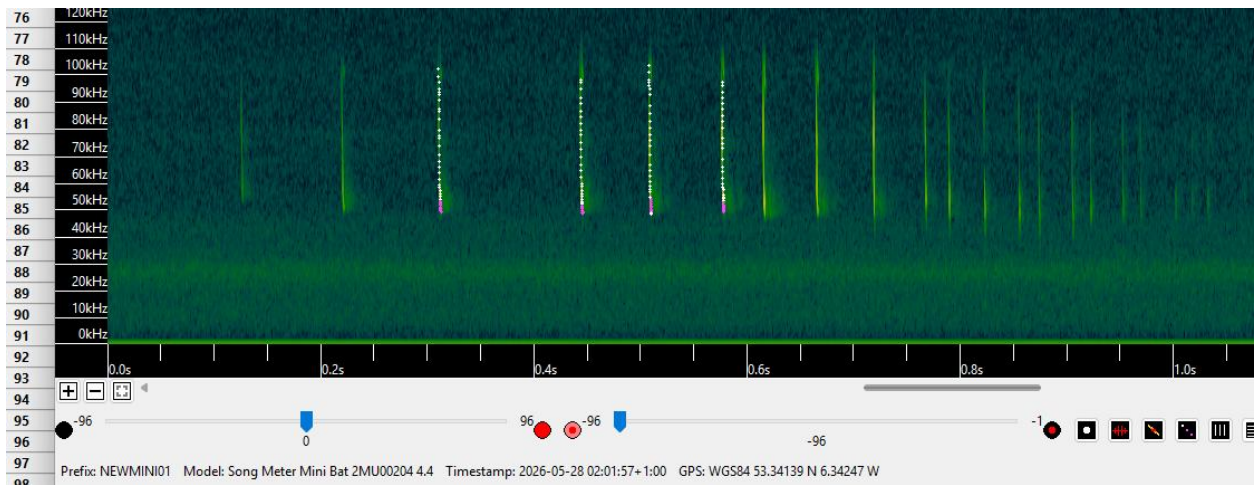
Survey 27 May 2026

The survey commenced at 21.00 with 3 surveyors working overnight. A song meter mini bat detector was placed on the southern windowsill overnight.

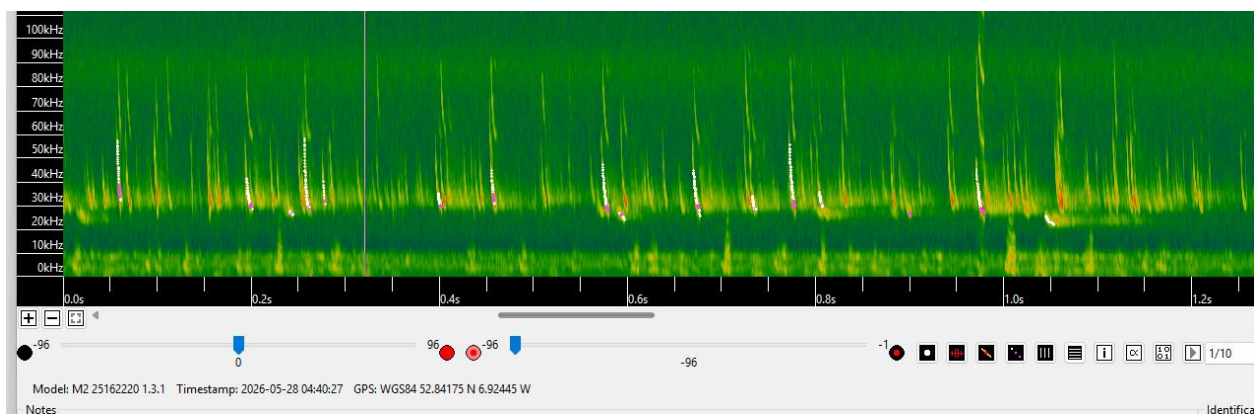
At 22.05, a soprano pipistrelle began feeding along the southern hedgerow of the building, moving up and down the hedgerow. At 22.07 Leisler's bats began to emerge from the chimney roost. 68 Leisler's bats emerged between 22.07 and 22.18, and a common pipistrelle fed along the northern hedgerow, flying high over the walls. A stream of common pipistrelles flew from west to east, from the road, across the site, feeding along the vegetation, at 23.10, swarming began at the chimney with 6 Leisler's

bats. Three went inside. At 23.16 a soprano pipistrelle fed near the road with a common pipistrelle.

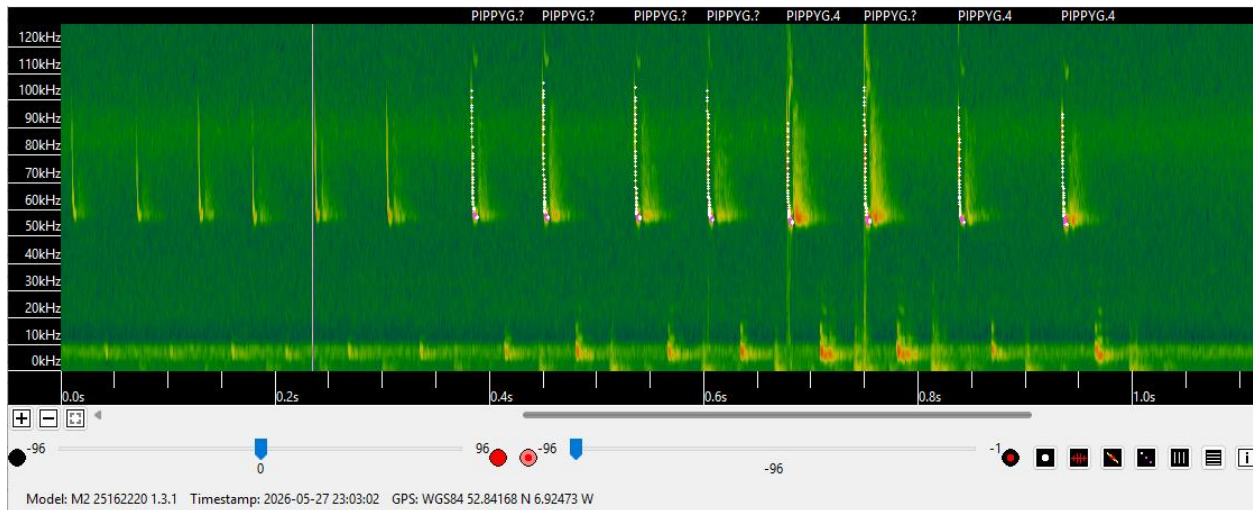
At 2.01 a song meter mini static detector recorded a myotis, possibly a Natterer's bat, to the south of the site.



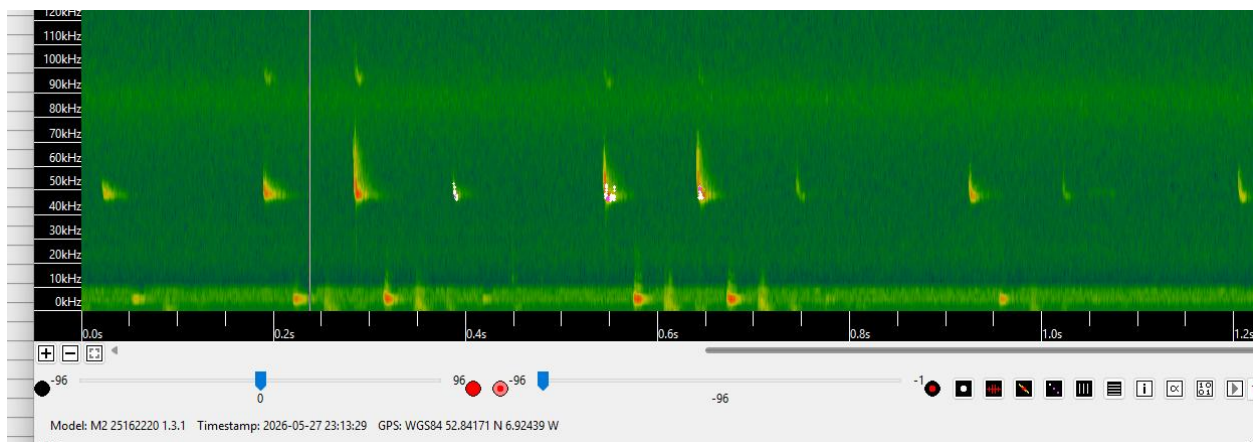
At 3.52, seven Leisler's bats flew out of the roost, and one flew around the building, with a common pipistrelle. At 4.19 a soprano pipistrelle headed east, followed by a common pipistrelle. Leisler's bats began to swarm at 4.34, with 5 bats flying around. Three entered the roost. A common pipistrelle continued to feed at the rear of the building at 4.45. Leisler's bats continued to swarm until at 4.46, 36 Leisler's bats had entered. One common pipistrelle was seen moving offsite at 4.48.



Leisler's bats swarming at roost.



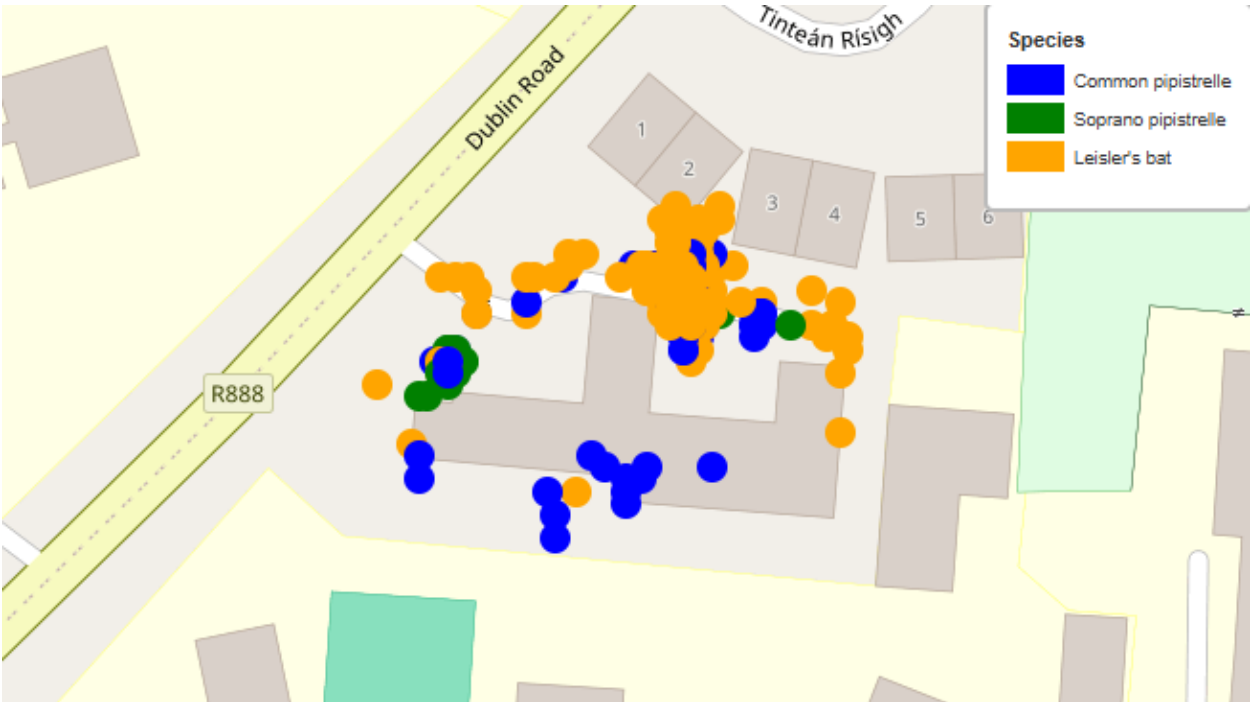
Soprano pipistrelle



Common pipistrelle

Bat Data

Surveyor 1

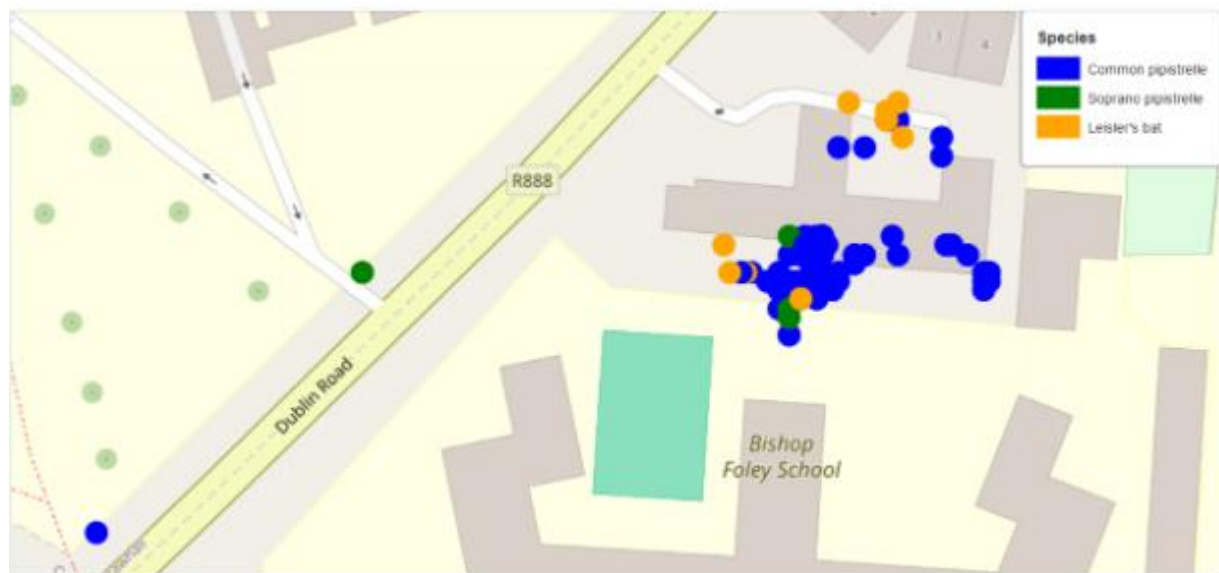


Surveyor 1

Bat species	Number of bat passes

NYCLEI	78
PIPPIP	90
PIPPYG	12
Grand Total	180

Surveyor 2





Carlow bat survey data surveyor 3

27th May 2026

Bat species	Bat passes per hour		
	10	1	Grand Total
Leisler's bat	1	9	10
	13		
Common pipistrelle	5	8	143
Soprano pipistrelle	2	2	4
	13	1	
Grand Total	8	9	157

Data from overnight static detector placed on windowsill to the south.

Row Labels	Sum of FILES
MYONAT	2
NYCLEI	83
PIPPIP	145
PIPPYG	80
(blank)	



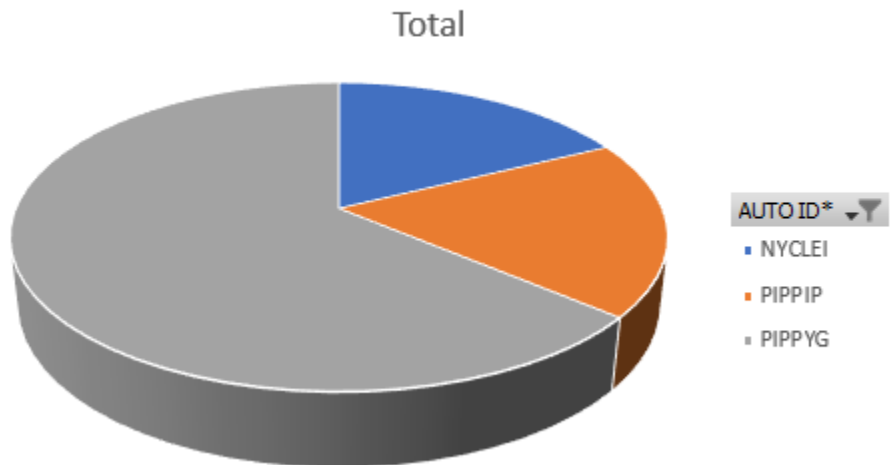
Grand Total	417
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Data from static detector placed from 12 – 14 May to the rear of the site.

Row Labels	Sum of HOUR-12
NYCLEI	1559
PIPPIP	1628
PIPPYG	5624
Grand Total	8811

Bat activity chart 12-14 May

Sum of HOUR-12



Population Size At least 68 bats are present in the chimney. It is probable that each bat is a breeding female. As each bat generally has one young per year, it is likely that there are 130-140 bats present.

Results

This site contains a roost of at least 68 Leisler's bats within the large chimney, above the boiler house. They are entering and exiting through the grill. As this survey took place in May, before the young have flown, the total number of Leisler's bats could be in excess of 100. This is a locally and perhaps nationally significant roost. No other Leisler's bat roosts are recorded within a 10km radius of the site.

Bats were leaving and returning to the roost throughout the night. In addition to this, bats were using the hedgerow to feed and commute, with common and soprano pipistrelles flying throughout the night, and there is the occasional record of a myotis, probably a natterer's bat. These myotis bats are intolerant of lighting, so lighting must only be used where necessary.

A hedgehog was also found on site.

Bat species found roosting.

Leisler's bat *Nyctalus leisleri*

Bat species found feeding and commuting on the site

Common pipistrelle	<i>Pipistrellus pipistrellus</i>
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>
Leisler's bat	<i>Nyctalus leisleri</i>
Natterer's bat	<i>Myotis nattereri</i>

Reason for Derogation-In the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment

- The project delivers 10 units of emergency refuge accommodation for women and children fleeing domestic abuse, funded under DHLGH's Capital Assistance Scheme, sponsored by Carlow County Council, and has already secured CAS Stage 2 approval following Government assessment.
- Carlow currently has no dedicated refuge accommodation. Tusla's 2018 national needs assessment indicates a requirement of 6 refuge units per 10,000 population, which for Carlow's population of c.62,000 equates to a need for 36 refuge spaces against a current provision of zero.
- The project directly supports Ireland's Third National Strategy on Domestic, Sexual and Gender-Based Violence (Zero Tolerance), the Istanbul Convention, the EU Directive on Combating Violence Against Women and Domestic Violence, and Housing for All.
- CCC has confirmed in writing that the use and zoning of the site is acceptable, so the social need and site suitability are independently established outside this application.
- This is a statutory, humanitarian public interest which, when weighed against the conservation status of the roost, supports a solution where both are protected together: the refuge proceeds and the roost remains undisturbed, rather than one being prioritised over the other.

Please see attached Public Interest report

[]

Absence of Alternative Solutions

Alternative	Reasons "Unsatisfactory"
Do-nothing	Building continues to deteriorate (water ingress already recorded at the chimney and boiler room in our timber survey). Fails to meet CAS funding conditions or the accommodation need. Continued dereliction increases risk of uncontrolled roost disturbance through fabric failure, a worse outcome than a managed, licensed approach.
Remove the chimney (exclude the bats)	Our survey records at least 68 Leisler's bats, possibly 100+, describes the roost as locally and nationally significant, and confirms no other Leisler's roost within 10km. Loss would pose a negative impact and breaches the standard mitigation hierarchy, which requires avoidance to be ruled out first.
Alternative site	Not viable. The site has progressed through DHLGH Stage 1 and Stage 2 approval and CCC has accepted the use and zoning in principle. A new site would mean losing sunk approvals and years of delay to a time-critical need.
Co-habitation (proposed)	Retains the roost intact, access through the grille undisturbed, no works to the chimney itself. Satisfies the "avoid" step of the hierarchy while allowing the development to proceed. This is the approach we're applying for.

Impact of a derogation on Conservation Status

The population of Leisler's bats is favourable at a national level, however at a local level, this roost is very important as it represents the only known Leisler's breeding roost within 10km (Bat Conservation Ireland data). It is important that this roost is retained. Leisler's bats frequently move roost in summertime, however at each visit to the site, bats were present (from May to August) which suggests that they may have no other nearby roost to move to. Because of this, we plan to retain the roost and work around it.

Predicted Impacts Before Mitigation

(1) Loss of feeding and commuting habitat. Four species of bat are feeding and commuting along and within the grassland and hedgerow which may be removed in this development. This will not affect the conservation status of any species present even in the absence of mitigation.

This will have a moderate long-term negative impact on individuals within these species.

(2) Loss of roosting habitat .If the chimney roost was demolished or collapsed or became derelict - The loss of a maternity roost of this size of Leisler's bat would have a severe long term permanent negative impact on the bats.

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

Impacts after mitigation

(1) Loss of feeding and commuting habitat. Planting for bats will reduce the impact to a slight long-term impact on individuals within these species.

(2) Loss of roosting habitat. Retention of the chimney roost and the addition of bat boxes and will reduce the impact to an imperceptible long-term impact on individual bats.

(3) Light Pollution – There will be light pollution with this development. However, creating dark sky areas within the development will reduce the impact to a slight long term negative impact on individual bats.

This will result in no negative impact on local bat populations, with proper implementation of the above measures.

Mitigation

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

(1) The chimney is a large maternity roost. Access through the grill must be retained and signage must be put in place to alert builders not to interfere with the grille. Builders must also be given a toolbox talk, and works supervised by an ecologist. A derogation licence must be sought from NPWS prior to any work commencing. The NPWS ranger must be contacted before works commence.

(2) No work can take place near the roost (in the roof area marked in yellow below, and the pink roost area) from May to September as bats may be breeding. Works may take place in the areas away from the roost, marked in green.



Groundworks should commence in April, in advance of the breeding season, to allow the bats to acclimatise to some disturbance. Access should be retained to the base of the chimney by retaining/upgrading an existing hatch to allow for cleaning if necessary.



Existing hatches at the base of the chimney

(3) 3 bat tree boxes, and 3 Schwegler 2FN Schwegler bat boxes with front panels must be put in place. Bat boxes should be placed on trees, walls 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 (or using the links included below) and must be placed in a dark area. Leisler's bats have been found to use 2FN bat boxes as roosts – (The Vincent Wildlife Trust's Irish bat box schemes Kate McAney & Ruth Hanniffy July 2015)

Bat tree box - https://www.quickcrop.ie/products/bat-tree-box-vkws8.html?searchid=1989103&search_query=bat+boxes

Schwegler 2FN bat box - https://www.quickcrop.ie/products/schwegler-bat-box-2f-with-double-front-panel.html?searchid=1989104&search_query=bat+boxes

(4) Bats will suffer a loss of feeding if hedgerow is removed. Native shrubs and trees must be used within the new development, if hedgerow is removed, to allow bats to continue to commute. Where other climbers and shrubs are required, they should be

taken from the approved list from the All-Ireland Pollinator Plan: pollinators.ie/wp-content/uploads/2023/04/Top-Ten-pollinator-plants-Guide-WEB.pdf.

Bat Conservation Ireland recommend the following plants for nighttime insects -
Honeysuckle - *Lonicera periclymenum*, Wild roses – e.g. *Rosa canina*, *Rosa arvensis*,
Jasmine – *Jasminum officinale*, Brambles – *Rubus fruticosus*, Forget me not – *Myosotis arvensis*, White clover – *Trifolium repens*. Red clover – *Trifolium pratense*, Primroses – *Primula vulgaris*, Irish bluebells – *Hyacinthoides non-scripta*

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

(6) 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. Low level lighting plans such as those listed below have been used successfully in Bushy Park Dublin and Cloughjordan Eco Village in Co Tipperary, to allow and retain bat commuting and access routes.

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)

	Measure	Recommendations
Avoidance	<i>Conserve dark areas</i>	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	<i>Part-night lighting</i>	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
	<i>Dimming</i>	• Adapt dimming strategy to human activities • Keep illuminance levels as low as possible according to EU standards (not going over minimum illuminance required)
	<i>Avoid light trespass</i>	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
	<i>General lighting and not sports</i>	<i>Adapt lamp spectra</i> Avoid lamps emitting wavelengths below 540 nm (blue and UV ranges) and with a correlated colour temperature > 2700 K
Compensation	<i>Restore dark areas</i>	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.

(7) Monitoring of the roost must take place for at least two years, with results sent to NPWS.

Monitoring the impacts of the derogations

In addition to the supervision of the works, monitoring of the bat populations will take place for at least two years. This will include a summer count of the Leisler's bats, using time expansion detectors and thermal imagers, with monitoring reports sent to NPWS and all data logged on the Bat Conservation Ireland database. This will clearly specify the mitigation measures that have been applied, using plans and photographs where appropriate, show results of surveys of the target species, using methods comparable to those undertaken when establishing the baseline population and will identify any corrective measures that have been undertaken to address unforeseen failure to maintain the species populations at the relevant scale. There will be contact with the NPWS ranger throughout the works. He has already visited the site, and may visit in the future.

In addition to the monitoring reports, a returns form will be sent to NPWS.

Appendix 1

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

Pipistrellus nathusii

The first confirmed Irish breeding colony of this bat was discovered in May 1997 near Lough Neagh. Since then, it has been found across Northern Ireland but mainly close to Loughs Neagh and Erne. The Nathusius' pipistrelle has been recorded by bat detector in a number of counties in the Republic and small roosts have been found here but it has not yet been confirmed breeding. This bat has similar features to the two other pipistrelles so it is possible that it has been under-recorded in roosts, or the Irish population may be recent in origin.

Research by the Centre for Irish Bat Research suggests that its population is expanding due to global warming. The Nathusius' pipistrelle is migratory in Europe, migrations of more than 1,600km have been recorded between summer and hibernation sites. It is not known whether the Irish population migrates within or from Ireland to another country to overwinter, although there is evidence that Nathusius' pipistrelle bats migrate from Britain to overwinter on continental Europe. The Nathusius' pipistrelle often forages over water or along forest tracks.

The species is recorded by the [Car-based Bat Monitoring Scheme](#), although in such low numbers that its annual population trend is difficult to establish with certainty.

Conservation status

HABITATS DIRECTIVE ARTICLE 17 REPORTING

Range: Unknown

Population: Unknown

Habitat: Favourable

Future Prospects: Unknown

Overall Assessment of Conservation Status: Unknown

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 reason 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

Daubenton's bat

Myotis daubentonii

Often called the 'water bat', this species is easily recognised in flight by its low, level flight a few centimetres above the surface of lakes, slow-moving rivers and canals. It skims like a hovercraft above the water in search of caddisflies,

mayflies and midges, and may even scoop prey from the water surface using its big feet. Many other bats feed over lakes and rivers, but none has such a close association with water as the Daubenton's. The Daubenton's bat can even swim if it makes a mistake and ends up in the water.

Daubenton's bats roost under stone bridges, in ruins, canal tunnels, trees and damp caves.

The Daubenton's bat annual trend is monitored using a volunteer-based programme – the [All Ireland Daubenton's Bat Waterways Survey](#). This scheme has been ongoing since 2006 and the Daubenton's bat trend has been reasonably stable since this time.

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

Natterer's bat

Myotis nattereri

One of the rarer Irish bat species, the Natterer's bat likes woodland, mature hedgerow and pasture habitats. The Natterer's bat has broad wings so can fly with great manoeuvrability among trees and around hedgerows. It sometimes gleans insects or even spiders from foliage and may eat larger prey at a feeding perch. Its usual roost sites are in tree holes, old stone buildings such as churches and barns, and under bridges. This species has a fringe of stiff bristles along the trailing edge of its tail membrane, which may help to hold or trap its prey.

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

Whiskered bat

Myotis mystacinus

Another uncommon and little-known bat, the whiskered is closely related to the Natterer's, Daubenton's and Brandt's bats. The whiskered bat typically forages along forest tracks or near water. It has a rapid fluttering flight and flies along a regular 'beat' over and over again. It is sometimes found roosting in attics of old buildings but there are very few confirmed roosts in Ireland. It is also sometimes found roosting in crevices under stone bridges and in trees.

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

Brown long eared bat

Plecotus auritus

The huge ears of this bat are its most distinctive feature – they are almost as long as the body. Although they are probably quite common in Ireland, it is difficult to see long-eared bats in flight because they prefer to forage in woodland flying amongst the foliage, picking moths and other insects off leaves. These bats emit their quiet echolocation sounds through their nose. Larger prey items such as noctuid moths are taken to a feeding perch, often in a porch or outhouse. These perches are recognisable by the piles of insect remains, such as moth wings, which collect under them. The long-eared bat roosts in buildings such as houses with large attic spaces, churches, outbuildings and in tree holes.

A scheme for monitoring the brown long-eared bat at its roosts was developed in 2007 (the [Brown Long-eared Bat Roost Monitoring Scheme](#)). Thus far its population has been stable.

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)
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- Wildlife (Amendment) Act (2000)
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Lesser Horseshoe Bat

Rhinolophus hipposideros

The lesser horseshoe bat belongs to the Rhinolophidae family of bats, while the other resident species belong to the Vespertilionidae family. Horseshoe bats differ from the Vespertilionid bats in that they have a number of flaps or folds of skin around their nostrils, called a noseleaf, that form a horseshoe shape. The

lesser horseshoe hangs freely by its feet and wraps its wings around its body, the only Irish species to do so.

The range of the lesser horseshoe bat in Ireland is, for the most part, limited to six western counties – Clare, Cork, Galway, Kerry, Limerick and Mayo. The species has been recorded once in Roscommon and twice in Sligo. Fragments of a lesser horseshoe bat skeleton have been found alongside prehistoric remains in a cave in Waterford, indicating that it was formerly more widespread on the island. It roosts mainly in roofs of old houses or in outhouses, stables or old cottages. In winter this species hibernates in caves, disused cellars, mines and souterrains. The lesser horseshoe bat's distribution in the west is strongly linked with broadleaved and mixed woodland, and it usually forages in woodland and scrub.

The Irish population of this species is estimated at 14,000 individuals and is considered of International Importance because it has declined dramatically and become extinct in many other parts of Europe.

In Ireland the species has been counted regularly in winter and summer roosts since the 1980s by the [National Parks and Wildlife Service](#) and, more recently, also by [The Vincent Wildlife Trust](#). Bat Conservation Ireland currently manages [this scheme to monitor the species](#). Data collected from this scheme shows that the species increased significantly between from the early 1990s to present. Population increases may be the result of improved protection, increased woodland cover or climate change, or a combination of these and other reasons.

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

Appendix II

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 include “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.

Appendix III

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.

Contact Details: [REDACTED]

[REDACTED] Our website is <https://www.wildlifesurveys.net/>

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

BCIreland data: search results 30 May 2026					
Search parameters: Roosts Transects Ad-hoc observation sites with observations of all species within 10000m of S7250877270					
Roosts					
Name	Grid reference	Grid ref easting	Grid ref northing	Addresses	Species observed
Holy Trinity Church Bell Tower	S6479072328	264790	172328	Holy Trinity Church, Co. Carlow	Myotis nattereri
Milford Bridge	S7000070500	270000	170500	South of Carlow Town, Co. Carlow	Myotis daubentonii
Transects					
Name	Grid reference start	Grid ref easting start	Grid ref northing start	Species observed	

Barrow Track, Carlow Town Transect	S7173976826	271739	176826	Unidentified bat, Myotis daubentonii	
Bestfield Lock Gates	S7170079284	271700	179284	Myotis daubentonii, Unidentified bat	
Clogrennan Bridge Transect	S698737	269800	173700	Unidentified bat, Myotis daubentonii, Nyctalus leisleri	
Gotham Bridge Transect	S726822	272600	182200	Myotis daubentonii, Unidentified bat, Pipistrellus spp. (45kHz/55kHz), Pipistrellus pygmaeus	
Maganey Bridge Transect	S7175084650	271750	184650	Myotis daubentonii, Unidentified bat	
S78 (1) 2003-	S749804	274900	180400	Nyctalus leisleri, Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Pipistrellus spp. (45kHz/55kHz), Myotis spp.	
S78 (2) 2003-	S749839	274900	183900	Pipistrellus spp. (45kHz/55kHz), Nyctalus leisleri, Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Unidentified bat	
The Millrace Transect	S7210476508	272104	176508	Myotis daubentonii, Unidentified bat, Plecotus auritus, Pipistrellus pipistrellus (45kHz)	
Ad-hoc observations					
Survey	Grid reference	Grid ref easting	Grid ref northing	Date	Species observed
BATLAS 2010	S8080	280000	180000	##### ##	Pipistrellus pipistrellus (45kHz), Pipistrellus

					pygmaeus, Pipistrellus spp. (45kHz/55kHz), Myotis daubentonii
BATLAS 2010	S698739	2698 00	17390 0	##### ##	Pipistrellus pygmaeus, Myotis daubentonii
BATLAS 2010	S640753	2640 00	17530 0	##### ##	Pipistrellus pygmaeus
BATLAS 2010	S754745	2754 00	17450 0	##### ##	Pipistrellus pygmaeus, Nyctalus leisleri, Myotis daubentonii, Plecotus auritus
BATLAS 2010	S716767	2716 00	17670 0	##### ##	Pipistrellus pygmaeus, Myotis daubentonii, Myotis nattereri
BATLAS 2010	S727723	2727 00	17230 0	##### ##	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus
BATLAS 2010	S666814	2666 00	18140 0	##### ##	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Nyctalus leisleri
BATLAS 2020	S6996370 487	2699 63	17048 7	##### ##	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Myotis daubentonii
BATLAS 2020	S7518772 940	2751 87	17294 0	##### ##	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Nyctalus leisleri, Pipistrellus spp. (45kHz/55kHz)
BATLAS 2020	S7008973 916	2700 89	17391 6	##### ##	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus
BATLAS 2020	S7064474 236	2706 44	17423 6	##### ##	Pipistrellus pygmaeus, Myotis daubentonii
BATLAS 2020	S7533674 523	2753 36	17452 3	##### ##	Pipistrellus pygmaeus, Myotis daubentonii, Pipistrellus spp. (45kHz/55kHz)
BATLAS 2020	S7427275 380	2742 72	17538 0	##### ##	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Myotis daubentonii

BATLAS 2020	S7627276 560	2762 72	17656 0	##### ##	
BATLAS 2020	S7153676 695	2715 36	17669 5	##### ##	Myotis daubentonii
BATLAS 2020	S7192577 490	2719 25	17749 0	##### ##	Myotis daubentonii
BATLAS 2020	S7860778 523	2786 07	17852 3	##### ##	Plecotus auritus
BATLAS 2020	S7757179 411	2775 71	17941 1	##### ##	Pipistrellus pipistrellus (45kHz),Myotis daubentonii
BATLAS 2020	S7587383 211	2758 73	18321 1	##### ##	
BATLAS 2020	S8171483 957	2817 14	18395 7	##### ##	Pipistrellus pygmaeus,Nyctalus leisleri,Pipistrellus spp. (45kHz/55kHz)
BATLAS 2020	S7672484 135	2767 24	18413 5	##### ##	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri,Myotis daubentonii
BATLAS 2020	S7168284 729	2716 82	18472 9	##### ##	Pipistrellus pipistrellus (45kHz),Nyctalus leisleri,Myotis daubentonii,Pipistrellus spp. (45kHz/55kHz)
BATLAS 2020	S7844384 961	2784 43	18496 1	##### ##	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Myotis daubentonii,Pipistrellus spp. (45kHz/55kHz)
BATLAS 2020	S7287185 001	2728 71	18500 1	##### ##	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Myotis daubentonii,Pipistrellus spp. (45kHz/55kHz)

BATLAS 2020	S6646171 485	2664 61	17148 5	##### ##	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Plecotus auritus,Myotis spp.,Myotis mystacinus
BATLAS 2020	S6431972 132	2643 19	17213 2	##### ##	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri,Plecotus auritus
EIS and Road Surveys - Conor Kelleher	S7000070 000	2700 00	17000 0	##### ##	Pipistrellus pygmaeus,Pipistrellus pipistrellus (45kHz),Plecotus auritus,Myotis nattereri
EIS and Road Surveys - Conor Kelleher	S7200080 000	2720 00	18000 0	##### ##	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri,Plecotus auritus,Myotis daubentonii,Myotis nattereri,Myotis mystacinus/brandtii
Faith Wilson	S802806	2802 00	18060 0	##### ##	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus,Nyctalus leisleri
Faith Wilson	S6474	2640 00	17400 0	##### ##	Pipistrellus pipistrellus (45kHz),Pipistrellus pygmaeus
National Biodiver sity Data Centre Bat Records	S647746	2647 00	17460 0	##### ##	Pipistrellus nathusii
National Biodiver sity Data Centre	S647746	2647 00	17460 0	##### ##	Pipistrellus nathusii

Bat Records					
National Biodiversity Data Centre Bat Records	S647746	264700	174600	##### ##	Pipistrellus nathusii
National Biodiversity Data Centre Bat Records	S647746	264700	174600	##### ##	Pipistrellus nathusii
National Biodiversity Data Centre Bat Records	S631675	263100	167500	##### ##	Plecotus auritus
National Biodiversity Data Centre Bat Records	S631674	263100	167400	##### ##	Plecotus auritus
National Biodiversity Data Centre Bat Records	S777863	277700	186300	##### ##	Pipistrellus pipistrellus (45kHz)
National Biodiversity Data Centre	S631676	263100	167600	##### ##	Pipistrellus spp. (45kHz/55kHz)

Bat Records					
National Biodiversity Data Centre Bat Records	S631674	263100	167400	##### ##	Unidentified bat
National Biodiversity Data Centre Bat Records	S761674	276100	167400	##### ##	Unidentified bat
National Biodiversity Data Centre Bat Records	S643693	264300	169300	##### ##	Unidentified bat

Appendix V

Bat data from Surveyors.

May 12th

Bat species Row Labels	Bat passes per hour		Grand Total
	9	10	
NYCLEI	15	99	114
PIPPIP	52	2	54
PIPPYG	12		12
Grand Total	79	10 1	180

Sum of FILES Row Labels	Column Labels					Grand Total
	9	1 0	1 1	0 4	0 5	
		7				
NYCLEI	5	9	7	8	2	101
PIPPIP	31	3	3			37
PIPPYG	17		1	7		25
Grand Total	53	8 2	1 1	1 5	2	163

Bat data May 27



Carlow bat survey data surveyor 3

27th May 2026

Bat species	Bat passes per hour		
	10	1	Grand Total
Leisler's bat	1	9	10
	13		
Common pipistrelle	5	8	143
Soprano pipistrelle	2	2	4
	13	1	
Grand Total	8	9	157

Carlow Refuge Surveyor 2

2			
3	Row Labels	Sum of HOUR-12	
4	NYCLEI	1727	
5	PIPIPI	836	
6	PIPPYG	269	
7	Grand Total	2832	
8			

Surveyor 1

Bat species	Number of bat passes
NoID	36
Noise	47
NYCLEI	78
PIPIPI	90
PIPPYG	12
Grand Total	263