



Bat survey of No. 2 Firhouse Road and the former 'Morton's The Firhouse Inn', Firhouse Road, Dublin 24



May 2022

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1. Introduction

Ecologist Aidan Murphy M.Sc. QCIEEM carried out bat surveys of No. 2 Firhouse Road and the former 'Morton's The Firhouse Inn', Firhouse Road, Dublin 24 on behalf of Flynn Furney Environmental Consultants on the 4th, 6th, 10th, 13th and 15th May 2022. The surveys involved an internal search of the buildings to determine if bats are or were present. The properties are comprised of the Firhouse Inn, an adjacent cottage and a two story modern building. The properties are located in Tymon South, Firhouse, beside the junction of the Ballycullen Road and the Firhouse Road. The M50 motorway passes approximately 150 metres to the east. A car park is located to the north (rear) of the buildings and a treeline of mature sycamore run along, outside the car park boundary. To the north of this treeline, there are fields with mature hedgerow and treeline boundaries, leading to the Dodder River. This section of the River Dodder is designated as an NHA (NPWS site code 000991).

2. Legislation and bats

All bat species are protected by law in Ireland at a national and European level. Nationally, the Wildlife Act 1976 (amended 2000) makes it an offence to wilfully interfere with, or destroy, the resting or breeding place for bats. All species of Irish bats are listed under Schedule 5 of the Wildlife Act (1976) making it an offence to:

- Intentionally kill, injure, or take a bat
- Possess or control any live or dead specimen or anything derived from a bat
- Wilfully interfere with any structure or place used for breeding or resting by a bat
- Wilfully interfere with a bat while it is occupying a structure or place which it uses for that purpose

The EU 'Habitats' Directive (92/43/EC; transposed into Irish law by S.I. No. 94 of 1997) provides legal protection for bats and their roosts at a European Union level. In addition, the Irish government are signatories of the 1979 Bonn 'Convention on the Conservation of Migratory Species of Wild Animals' and the 1982 Convention on the 'Conservation of European Wildlife and Natural Habitats'. Ireland must also fulfil commitments under the 1991 'Eurobats Agreement' for the conservation of bats in Europe. Under the EU Habitats Directive, lesser horseshoe bats are listed as an Annex II species (afforded special protection). All other Irish bat species are listed in Annex IV (general protection) of this directive.

Under existing legislation, the destruction, alteration or evacuation of a known bat roost must be notified to National Parks and Wildlife Service (NPWS) before works can commence on or adjacent to a known bat roost.

3. Methodology

3.1 Desk study

A search of bat records held on the National Biodiversity Datacentre's online portal¹ for the 2km area (tetrad O12D) in which the site is located, was requested. Such information can identify bat species which may occur within a proposed development site or in the surrounding areas. It should be noted

¹ <https://maps.biodiversityireland.ie/Map/Terrestrial/Dataset/128> Accessed May 1st, 2022

that an absence of records is likely to reflect an absence of survey data and cannot be taken as confirmation that a particular species is not present in the site or surrounding area.

3.2 Field study – bat surveys

3.2.1 Internal/ external Inspections

An internal inspection of the Firhouse Inn and two adjacent building was carried out on the 6/5/2022. These inspections focused on the attic spaces in the three buildings. High-powered wide beam and narrow beam hand torches were used. Evidence for bats sought are dead and live animals, droppings, discarded insect remains, urine stains and greasy marks at entrances to structural crevices and gaps where bats may possibly roost.

An external search around the perimeter of the buildings was conducted and any possible access points i.e. gaps and crevices were noted and surveyed with the high powered torch and ladder as required. Walls, windowsills, exposed features around the windows and walls were inspected for any evidence of bat droppings or staining.

3.2.2 Dusk/dawn surveys

Four bat activity surveys (three dusk emergence and one dawn re-entry) were conducted on the 6th, 10th, 13th and 15th May, 2022 using a Batbox Duet bat detector and Echo Meter Touch 2 PRO bat detector. Conditions were good for all bat surveys with warm, dry weather and little or no breeze. The three emergence surveys began 30 minutes before sunset and finished one and a half hours after sunset on each survey. The single dawn re-entry survey began one and a half hours before sunrise and finished 30 minutes after sunrise.

4. Results

4.1 Desk study results

The NBDC database search returned the following bat records for tetrad O12D, Table 1.

Table 1. Bat records for tetrad O12D

Grid Reference	Survey dataset	Species	Most recent date
O114277	All Ireland Daubenton's Bat Waterway survey	24 records from this location: Soprano pipistrelle (2) Daubenton's bat (22)	18/08/2007 27/08/2014
O113277	All Ireland Daubenton's Bat Waterway survey	3 records from this location: Soprano pipistrelle (2) Daubenton's bat (1)	18/08/2006 09/08/2008
O112277	All Ireland Daubenton's Bat Waterway Survey	5 records from this location: Soprano pipistrelle (2) Leisler's bat (1) Pipistrellus sensu lato (1) Daubenton's bat (1)	18/08/2006 26/07/2007 18/08/2006 09/08/2008

O111277	All Ireland Daubenton's Bat Waterway survey	2 records from this location: Soprano pipistrelle (1) Daubenton's bat (1)	26/07/2007 09/08/2009
O108274	All Ireland Daubenton's Bat Waterway survey	3 records from this location Daubenton's bat (1) Soprano pipistrelle (2)	26/07/2007 18/08/2007
O106272	All Ireland Daubenton's Bat Waterway Survey	Daubenton's bat (1)	18/08/2007
O108276	All Ireland Daubenton's Bat Waterway Survey	Soprano pipistrelle (1)	18/08/2007
O105271	All Ireland Daubenton's Bat Waterway Survey	Daubenton's bat (1)	26/08/2009
O105269	EIA Survey – Scott Cawley	5 records from this location: Pipistrellus sensu lato (1) Soprano pipistrelle (1) Daubenton's bat (1) Leisler's bat (1)	25/08/2012 24/08/2012 24/08/2012 24/08/2012
O110270	EIS and Road Survey – C. Kelleher	Soprano pipistrelle (1) Daubenton's bat (1)	22/06/2005 22/06/2005
O110270	EIS and Road Survey – C. Kelleher	Soprano pipistrelle (1) Daubenton's bat (1)	22/06/2005 22/06/2005

In addition, Bat Conservation Ireland's habitat suitability index², available to view on the NBDC online mapping portal, classifies tetrad O12D, within which the site is located, as having a moderate habitat suitability for bats, with a score of 24.67. Most of the bat records as per Table 1 are from the River Dodder corridor where suitable habitat for bats occurs.

4.2 Building surveys

4.2.1 Internal inspection

No evidence of bat presence was noted in any of the three buildings surveyed. The roof spaces are extensive in area and have sufficient height to be used by bats

The Firhouse Inn attic has an approximate ridge height of 2 m high and water ingress through the slate roof is evident with frequent water staining on the rafters. One hole in the slates near the ridge could potentially enable bats to access, however, heavy cover of cobwebs rules out bats using it as an entry point. An extension was added to the original building and the attic is extended to run continuously from east to west with returns facing north at both ends. The older attic space, to the east, has a moderate level of cobwebbing throughout the roof space suggesting bats had not been flying around recently and no staining visible on the timbers other than water staining from rainwater ingress. A

² Lundy, M.G., Aughney, T., Montgomery, W.I., & Roche, N. (2011) *Landscape conservation for Irish bats and specific roosting characteristics*. Bat Conservation Ireland. Accessed October 1st, 2020.

single moth wing was noted indicating brown long-eared bat feeding, but no other sign of insects was observed. The newer attic space to the west was extensively used as file storage by the previous occupants and cobwebbing is not a feature. The water storage tank is uncovered but contains no bat corpses. The attic floor is covered in mouse droppings but no bat droppings were observed.

The cottage has two attics with a valley between the two roof spaces. Only one attic is accessible which is to the rear of the cottage. It has an approximate ridge height of 1.7 m high. The attic tank is covered and no holes were apparent in the tiled roof. It is moderately cobwebbed and there are no signs of bats.

The two story building to the west of the site has two separate attics; a large L-shaped attic to the front and a smaller attic to the rear on the east side. Neither attic showed any sign of bats.

4.2.2 External inspection

The external features of all buildings were also examined for signs of bat droppings or staining around windowsills and exposed features around windows and walls. None were found.

The soffits and fascia on the north facing gable ends of the Firhouse Inn are in poor condition with numerous holes suitable for entry by bats. The front attic of the cottage has two missing slates and mortar on the ridge tiles missing, allowing potential roost entry points for bats. The two story building is relatively modern and well maintained and offers no discernible roost features.

4.2.3 Dusk/ dawn surveys

Over the course of the four activity surveys, no bats were seen emerging from or re-entering the properties; consequently, no bats were recorded as using the properties for roosting.

The full results of the dusk/dawn surveys are detailed in Table 1. Below are the date, time, and weather details for all three of the activity surveys conducted.

- 4th May (Sunset 21:00) - Weather conditions were good for the survey (dry, 12°C, no breeze, ca. 50% cloud cover at 21:00). Any bats present are likely to be active.
- 10th May (Sunset 21:11) - Weather conditions were good for the survey (dry, 13°C with a light breeze and ca. 60% cloud cover at 21:11). Any bats present are likely to be active.
- 13th May (Sunset 21:16) - Weather conditions were good for the survey (dry, 20°C with no breeze and ca. 40% cloud cover at 21:16). Any bats present are likely to be active.
- 15th May (Sunrise 05:26) - Weather conditions were good for the survey (dry, 11°C with no breeze and ca. 60% cloud cover at 21:11). Any bats present are likely to be active.

The majority of bats recorded during the surveys were detected from the field and sycamores at the northern boundary of the carpark. The field and its mature hedgerows offer excellent habitat for bats and benefit from no light pollution. Bat sightings from within the area of the Firhouse Inn carpark were restricted to two soprano bats commuting through the site on the first dusk survey and one to two common pipistrelles intermittently foraging along the line of sycamore trees on all dusk surveys.

Table 1. Bat activity detected during the dusk and dawn surveys

Time	Location	Species	Comments
Dusk survey 04/05/2022			
21:33	Rear of Firhouse Inn	Leisler's bat	Detected - not seen
21:38	Rear of Firhouse Inn	Leisler's bat	Detected - not seen
21:40	Rear of Firhouse Inn	Soprano pipistrelle	Commuting south to north through site
21:49	Rear of Firhouse Inn	<i>Myotis</i> sp.	One pass detected. Faint detection.
21:54	Rear of Firhouse Inn	Soprano pipistrelle	Flying along sycamores. Feeding.
21:59	Rear of Firhouse Inn	Leisler's bat	Detected - not seen
Dusk survey 10/05/2022			
21:25	Modern two story	Soprano pipistrelle	Detected - not seen
21:26	Modern two story	Soprano pipistrelle	Distant call detected
21:26	Modern two story	<i>Myotis</i> sp.	Detected - not seen
21:32	Modern two story	Common pipistrelle	Flying along sycamores. Feeding.
21:33	Modern two story	Common pipistrelle	Flying along sycamores. Feeding.
21:53	Modern two story	Common pipistrelle	Flying along sycamores. Feeding.
22:12	Modern two story	Common pipistrelle	Flying along sycamores. Feeding.
Dusk survey 13/05/2022			
21:22	Front of Inn & cottage	Leisler's bat	Detected - not seen
21:25	Front of Inn & cottage	Leisler's bat	Detected - not seen
21:34	Front of Inn & cottage	<i>Myotis</i> sp.	Distant call detected
21:38	Front of Inn & cottage	Soprano pipistrelle	Distant call detected
21:47	Front of Inn & cottage	Soprano pipistrelle	Detected - not seen
21:53	Front of Inn & cottage	Leisler's bat	Detected - not seen
22:59	Front of Inn & cottage	Leisler's bat	Detected - not seen
22:04	Front of Inn & cottage	<i>Myotis</i> sp.	Distant call detected
22:07	Front of Inn & cottage	Soprano pipistrelle	Distant call detected
22:17	Front of Inn & cottage	Soprano pipistrelle	Distant call detected
Dawn survey 15/05/2022			
04:11	Rear of Firhouse Inn	Soprano pipistrelle	Detected - not seen
04:23	Rear of Firhouse Inn	<i>Myotis</i> sp.	Detected - not seen
04:31	Rear of Firhouse Inn	Leisler's bat	Detected - not seen
04:51	Rear of Firhouse Inn	Common pipistrelle	Detected - not seen
04:55	Rear of Firhouse Inn	Soprano pipistrelle	Detected - not seen
05:00	Rear of Firhouse Inn	Leisler's bat	Detected - not seen
05:47	Rear of Firhouse Inn	Leisler's bat	Detected - not seen
05:54	Rear of Firhouse Inn	Leisler's bat	Detected - not seen

5. Mitigation measures

Wildlife surveys, including those for bats, are a 'snapshot' in time and the absence of a species, or evidence of their presence, does not preclude their presence at a later date. The Firhouse building has a number of annexes and extensions, offering potential roost locations for bats. The cottage offers roost potential but it is more limited.

Prior to works commencing, emergence (dusk) and re-entry (dawn) watches should be undertaken to ensure no bats are present. These should be carried out during the appropriate season, May to September. If bats are not confirmed exiting or entering the buildings, a further internal survey is required before demolition works involving roofs can commence, under the supervision of an ecologist. During the period October to April inclusive, a pre-works internal survey is required, and demolition works involving the roofs supervised by an ecologist.

If bats are confirmed, works cannot proceed until an NPWS derogation licence is obtained.

It is recommended that an ecologist has input into the external lighting plan for the future development to ensure the correct positioning and models of lighting columns are installed and the habitats around the development are not impacted by light overspill.

6. Conclusion

No bats or evidence of bat presence was noted in the Firhouse Inn building and the two adjacent buildings. However, considering the large roof space areas of the three buildings and the extensions to the main Inn building, the future presence of bats cannot be completely ruled out. A pre-works internal survey of the three buildings is required immediately before any works involving demolition and renovation are carried out. Such works, particularly those involving roofs, should be done so under the supervision of an ecologist with a bat handling licence.

7 References

Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London.

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

Lundy, M.G., Aughney, T., Montgomery, W.I., & Roche, N. (2011) *Landscape conservation for Irish bats and specific roosting characteristics*. Bat Conservation Ireland. Accessed October 1st, 2020.

NRA (2006a) *Best practice guidelines for the conservation of bats in the planning of national road schemes*. National Roads Authority, Dublin, Ireland.

NRA (2006b) *Guidelines for the treatment of bats during the construction of national road schemes*. National Roads Authority, Dublin, Ireland

8. Plates



Plate 1. Front of cottage and Firhouse Inn. View to east.



Plate 2. Rear of Firhouse Inn. View to south



Plate 3. Rear of Firhouse Inn and cottage. View to east.



Plate 4 . Firhouse Inn attic showing return at western end



Plate 5. Firhouse Inn attic showing middle attic



Plate 6. Firhouse Inn attic, showing return at eastern end



Plate 7. Cottage showing roof with valley between two attic spaces. Rear attic (right) is tiled. Front attic (left) is inaccessible and has several slates dislodged allowing possible entry of bats



Plate 8. Interior attic of cottage (rear attic)



Plate 9. Exterior wall and windowsills were examined for bat droppings.



Plate 10. Front of two story modern building adjacent to and west of Firhouse Inn. View to east



Plate 11. Front attic of two story modern building.



Plate 12. Rear attic of two story modern building.