

Bat Survey of Glebe House, Ballyfad, Gorey, Co. Wexford



Report Prepared for

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ABSTRACT

Structure:	Former rectory & outbuildings, Ballyfad, Gorey, Co. Wexford
Irish Grid Reference:	T14959 69357
Latitude & Longitude:	52.763304, -6.2984881
Bat species Present:	Nursery roost of Soprano pipistrelles in main house 2 Brown long-eared bats in main outbuilding to rear 1 Whiskered bat in main outbuilding to rear
Bird species present:	Swallows in outbuildings
Proposed Works:	Renovation and extension of main house as residential home Renovation of outbuildings for use as yoga studio and accommodation
Impact on Bats:	There will be no impact on the Soprano pipistrelle roost in the main house. The entry point at the wall plate on the front gable will be retained. Re-roofing works will not commence until after mid September 2024 when the nursery colony has broken up. The small number of Brown long-eared bats and the single Whiskered bat will be provided with a bat box mounted on the rear of the outbuilding. Alternatively, these species can enter the attic space of the house via the vents on the front gables.
Bat Survey by:	Caroline Shiel
Dates:	5 th September 2023 & 6 th September 2023

CONTENTS

1. SUMMARY.....	4
2. AIMS OF BAT SURVEY.....	4
3. INTRODUCTION.....	4
3.1 Bat species	4
3.2 Legislation	5
4. PROPERTY – Glebe House, Ballyfad, Gorey, Co. Wexford	6
5. SURVEY METHODOLOGY	7
6. SURVEY CONSTRAINTS	7
7. SURVEY RESULTS	7
7.1 Daytime survey	7
7.2 Bat detector surveys	8
8. POTENTIAL IMPACTS OF THE PROPOSED WORKS ON BATS	8
9. RECOMMENDATIONS AND MITIGATION MEASURES	9
10. BIBLIOGRAPHY	12
11. PHOTOGRAPHS	13

1. SUMMARY

I was contracted by Sheehan and Barry Architects to conduct a bat survey of Glebe House and associated stone outbuildings at Ballyfad, Gorey, Co. Wexford.

It is proposed to convert Glebe House into a residential home and the outbuildings into a yoga studio and accommodation.

Glebe House is a protected structure on Wexford County Council's Record of Protected Structures WCC RPS 1022 and listed on the National Inventory of Architectural Heritage (NIAH) Ref No. 15700302. Glebe House dates from 1815-1820.

The buildings were surveyed internally and externally for bats on 5th September 2023. Dusk and dawn bat detector surveys were conducted outside the buildings on the evening of 5th September and morning of 6th September 2023.

2. AIMS OF BAT SURVEY

- (a) To determine the importance of the buildings for bats.
- (b) To assess the impact of the proposed renovation works on bats using the site.
- (c) To make recommendations in order to reduce the impact of renovation works on bats using the site.

3. INTRODUCTION

3.1 Bat Species

Bats belong to the Order Chiroptera and to date nine species are recorded as resident in Ireland. These nine species are divided into two families – Family Vespertilionidae which contain nine of our Irish species (Daubenton's bat *Myotis daubentonii*, Natterer's bat *Myotis nattereri*, Whiskered bat *Myotis mystacinus*, Leisler's bat *Nyctalus leisleri*, Long-eared bat *Plecotus auritus*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Common Pipistrelle *Pipistrellus pipistrellus* and Nathusius Pipistrelle *Pipistrellus nathusii*) and one species in the family Rhinolophidae –the Lesser Horseshoe bat *Rhinolophus hipposideros*.

Brandt's bat *Myotis brandii* has only been recorded once in Ireland from a site in Co.

Wicklow and is classified as a vagrant. In 2013 a single male Greater horseshoe bat *Rhinolophus ferrumequinum* was recorded in Co. Wexford. This bat was also considered to be a vagrant. During the field season of 2020 recordings were made of a Greater horseshoe bat in Co. Wicklow. Further investigations are on going.

3.2 Legislation

The serious decline in bat populations both in Ireland and across Europe has led to conservation measures and appropriate legislation being drawn up and implemented in an attempt to stabilise population numbers. It is estimated that bat populations across Europe have decreased by up to 60% in the last 30 years. As they are highly specialised animals, bats serve as biological indicators and are often amongst the first animal species to show signs of population change due to the activities of man. Destruction of roosts and foraging areas, coupled with the widespread use of pesticides, are the key reasons for the decline in numbers of bats in Ireland. Efforts should be made to retain known bat colonies and methods to lessen disturbance to these animals should be incorporated into any development.

Bats' dependency on insects has left them vulnerable to habitat destruction, land drainage, agricultural intensification and increased use of pesticides. Their reliance on buildings has also made them vulnerable to building repairs and the use of chemicals for timber treatment. Roosting or hibernation sites in caves, mines, trees and disused buildings are also often lost to development.

Irish Legislation

Wildlife Act 1976 – In the Republic of Ireland, under Schedule 5 of the Wildlife Act 1976 all bats and their roosts are protected by law. It is an offence to disturb either without the appropriate licence. This Act was further strengthened by the Wildlife Amendment Act 2000.

E.U. Legislation

Under the Habitats Directive 1992 (EEC 92/43), each member state of the E.U. was requested to identify habitats of national importance and priority species of flora and fauna. These habitats are now designated as Special Areas of Conservation (SAC). In Ireland, all bat species, except one are classified as Annex IV species under the Habitats Directive. Annex IV species are species in need of strict protection. The exception is the Lesser Horseshoe bat which is an Annex II species (Priority Species). Annex II species are species requiring the designation of Special Areas of Conservation specifically for their protection. All species of bat in Ireland are strictly protected under the Habitats Directive to include deliberate disturbance of these species, particularly during the periods of breeding, rearing and hibernation. It also specifies deterioration or destruction of breeding or resting places.

International Legislation

Ireland has ratified two international wildlife laws pertaining to bats

- (a) The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention, 1982) – part of this convention stipulates that all bat species and their habitats are to be conserved.
- (b) The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979, Enacted 1983). This was instigated to protect migrant species across all European boundaries.

4. PROPERTY: Glebe House, Ballyfad, Co. Wexford
Grid Reference: T14959 69357

Glebe House is situated in the rural townland of Ballyfad in north Co. Wexford. It stands on an elevated site surrounded by mature deciduous trees. The property is approached via a tree-lined avenue with a pair of ancient beech trees flanking the entrance gate. The front elevation of the house faces south east. The house is a three-bay two storey triple gable-fronted Board of First Fruits Church of Ireland Glebe House, originally built in 1819 on a cruciform plan. The house was refronted in 1879, producing the present composition. The house is roofed in natural slate.



Figure 1 – Aerial photo showing location of Glebe House and outbuildings to rear

Two stone outbuildings lie to the rear of Glebe House. The larger outbuilding is comprised of a two storey granary with a long single storey outbuilding with loft attached to the south western wall of the granary. The loft space of the granary building and the loft space of the single storey building are connected via a doorway. There is a stone lean-to shed against the north-east gable wall of the granary. There is a separate shed used for wood storage adjacent to the south west gable wall of the single storey outbuilding. The main outbuilding is roofed in original natural slate.

To the rear of the main outbuilding there is a smaller single storey stone outbuilding with a natural slate roof.

5. SURVEY METHODOLOGY

Daylight Inspection

Glebe House was inspected both internally and externally for bats or signs of bats on 5th September 2023 during daylight hours. It was possible to access all rooms of the house and all sections of the attics. The various attic spaces were accessed via trap doors in the ceilings.

The rooms and attic space of the building were systematically searched for signs of bats in the form of live bats, bat droppings, urine stains, culled insect fragments or dead bats.

The external walls of the Glebe House were examined for evidence of bats using a high powered torch (Ledlenser Rechargeable System), paying particular attention to gaps in the fascias and slates. Window sills were inspected for possible accumulations of droppings. Window panes were inspected for bat droppings that may adhere to their surfaces.

Bat Detector Survey

A dusk bat detector survey was conducted on 5th September 2023 from approximately 20 mins before sunset (Sunset 20.03) and ran until 23.00. A dawn bat detector survey was conducted on 6th September 2023 and ran from 1.5 hours before sunrise until sunrise at 06.44.

Equipment used included a Pettersson D240X bat detector, an echometer Pro plugged into an iPad, a Batlogger M detector and a thermal imaging scope Guide Pro 19.

6. SURVEY CONSTRAINTS

This survey was conducted within the recommended time period for surveying bats in buildings which is May to mid September. Weather was favourable for the dusk and dawn bat detector surveys.

7. SURVEY RESULTS

7.1 Daylight survey – Main House

The building was surveyed internally and externally for bats on 5th September 2023. No bats were found in any of the rooms of the main house. However, an accumulation of droppings was found on the timber floor of the central front bedroom. These droppings had fallen from a void in the wall beside the window frame. This void was opened up to facilitate architectural investigations. A survey of the main attic space revealed an accumulation of bat droppings at the base of the front wall. Five Soprano pipistrelle bats were seen clinging to the inner surface of the front wall. Other bats were present but not visible. Several dead bats were also seen in a water tank above the upstairs bathroom.

Daylight survey - Main outbuilding

The main outbuilding consists of a two storey stone granary building with a long single storey outbuilding attached to the southwestern side of the granary. The granary roof is a hipped roof construction with exposed internal timbers.

A small accumulation of droppings of the Brown long-eared bat were recorded directly under the point where the front timbers converge. This would be a typical roosts site for Brown long-eared bats. No bats were visible during the torch survey. Brown long-eared bats frequently roost out of sight behind roof timbers and only become visible shortly

before emergence. Several accumulations of butterfly wings were recorded on the loft floor. The wings are typically discarded by the bats prior to ingestion. Bat droppings were also recorded on the work bench in the southwestern section of the long outbuilding. No bats were visible on the roof timbers of this section of the outbuilding during the torch survey.

Daylight survey - Small Outbuilding

No evidence of bats was found in the smaller outbuilding

7.2 Bat Detector Surveys

A bat detector survey was conducted at dusk on 5th September 2023 and ran for 2 hours. A dawn bat detector survey was conducted on 6th September 2023.

Dusk Bat Detector Survey

Main House

Weather = Clear, calm & dry. Temp = 20 C. The survey commenced approximately 20 mins before sunset (Sunset = 20.03). A thermal imaging camera was set up to record bats emerging from the front of the main house. The rear of the main house and the main outbuilding were surveyed using bat detectors and an infrared camcorder.

From 21.20 onwards 30 Soprano pipistrelles were recorded emerging from a point at roof plate level at the front of the house. The exit point was to the south side of the centre roof gable. No other bats were recorded emerging from the main house.

Main Outbuilding

From 20.10 onwards two Brown long-eared bats were recorded flying within the attic space of the granary building. They eventually emerged at 20.45 and 20.47 via a gap above the window on the front of the building. A single whiskered bat was recorded flying within the roof space of the long outbuilding and also in the granary. The exit point used by this bat was not established.

Small Outbuilding

No bat activity was recorded in the vicinity of the smaller outbuilding.

Dawn Bat Detector Survey

Weather = Clear, calm & dry. Temperature = 15 C. Sunrise = 06.44

Main House - Up to 6 Soprano pipistrelles were recorded swarming at the front of the main house prior to dawn. By 06.20 all bats had reentered the roost site.

The thermal imaging scope was set up to cover the front of the granary building at dawn.

Main Outbuilding - No bats were seen returning to the main outbuilding. Bats most likely returned to roost earlier in the night.

Smaller outbuilding – No bat activity was recorded at this building

8. POTENTIAL IMPACTS OF THE PROPOSED WORKS ON BATS

Main House Re-roofing works to the main house could lead to the loss of a nursery roost site of Soprano pipistrelle bats unless the current entry/exit point is retained. It has been confirmed by the architect and owner that the access point to the roost site in the roof of the main house will be retained for the Soprano pipistrelle colony.

Main Outbuilding – the re-roofing and conversion of the main outbuilding into a yoga studio and accommodation will lead to the loss of a roost site for a small number of Brown long-eared and Whiskered bats. It is most likely that these bats are males which tend to roost singly or in small groups.

However, alternative roost sites will be provided including an EcoRocket Box bat box on a pole to the rear of the outbuilding. In addition, the vents on the front gables of the main house will be left open to allow nbats to enter the attic space.

9. RECOMMENDATIONS AND MITIGATION MEASURES

9.1 Derogation Licence

The proposed renovation work to both the main house and the main outbuilding will require a derogation licence from the National Parks and Wildlife Service.

9.2 Bat Access

The gap at wallplate level currently used as an exit and entry point by Soprano pipistrelles will be retained. In addition, the vents on the front gables will be left open to allow bats to use them (see Figure 3).

9.3 Roofing Membrane

Roofing membrane in the vicinity of the Soprano pipistrelle roost at the front of the house will be bituminous felt. Modern breathable roofing membranes pose a risk of bat entanglement in the fibres of the material.

9.4 Alternative roost site for bats in outbuilding

After renovation, the interior of the outbuilding will remain open to full height with exposed rafters. This will lead to the loss of the roosting sites within the rafters of the outbuilding.

An alternative roost site should be provided in the form of a rocket box. One of these boxes should be mounted close to tree line to the rear of the outbuilding. These boxes are mounted on a 4m aluminium pole.

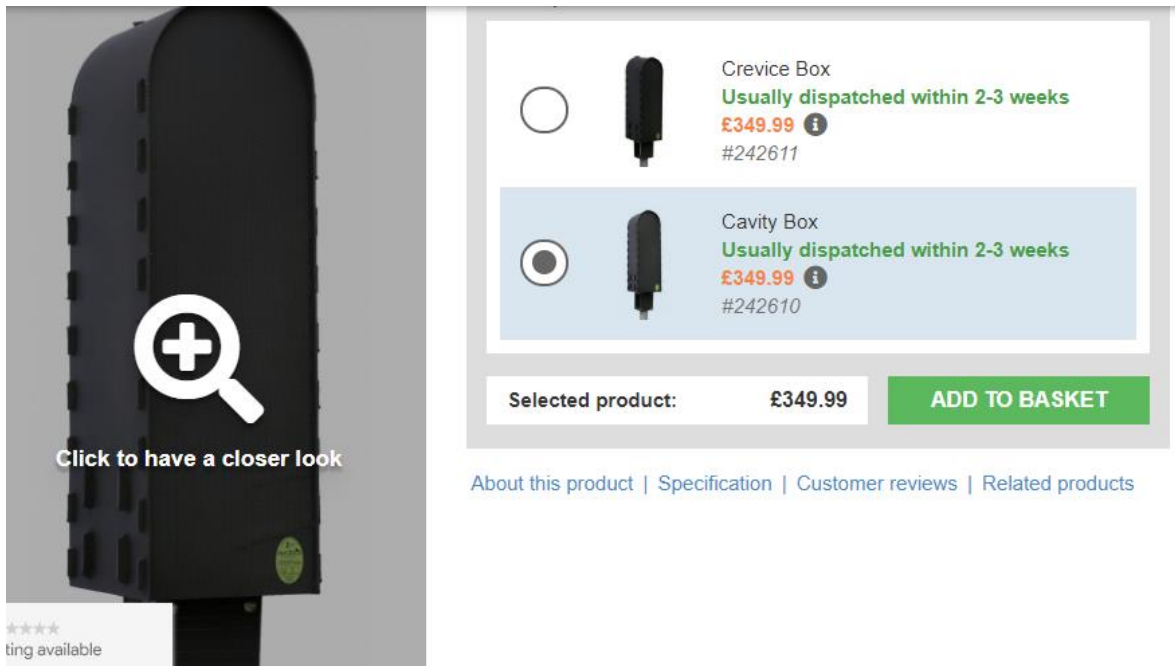


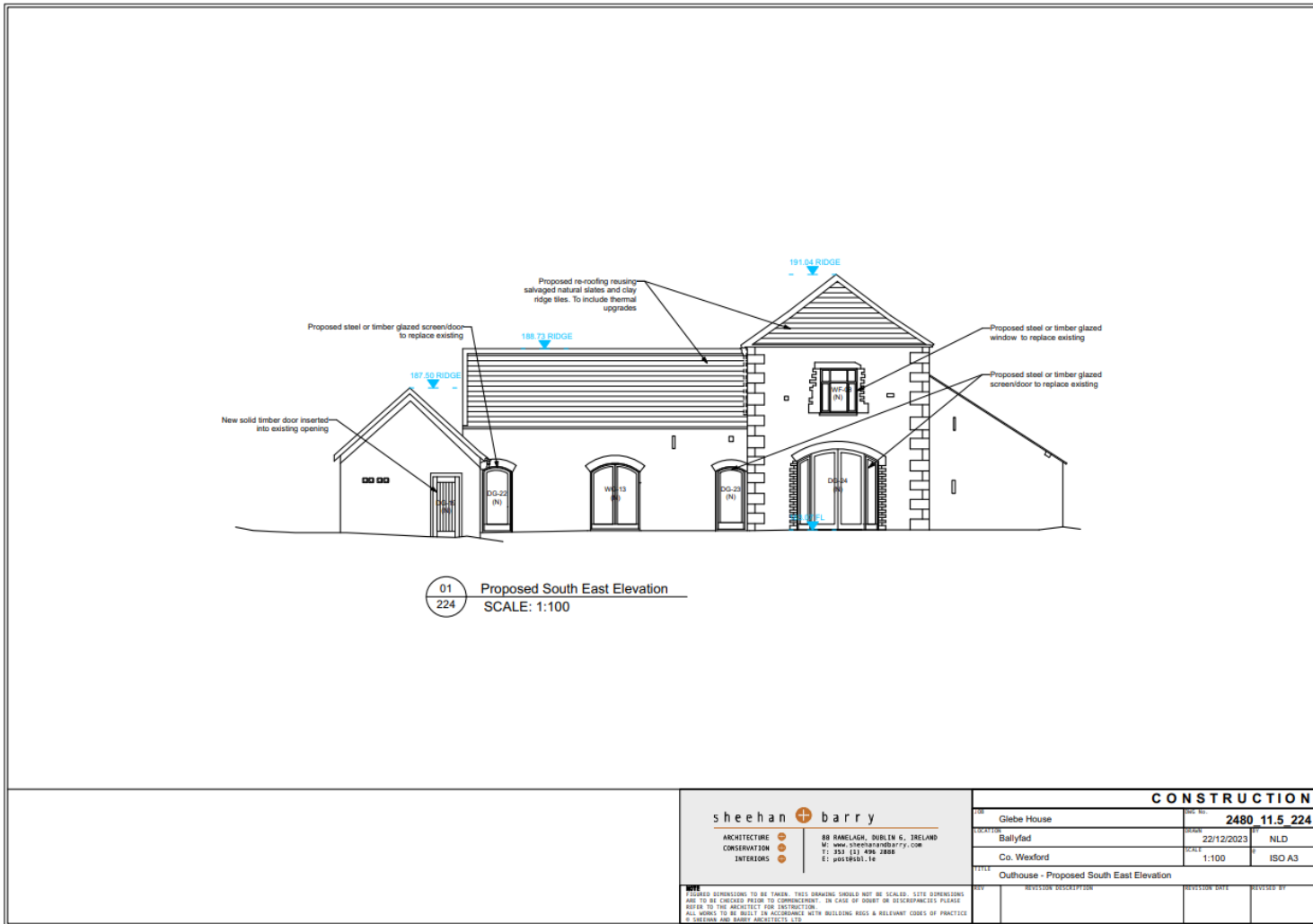
Figure 2 - Eco Rocket box available from NHBS in UK

9.5 Wood Preservative

All roof timbers must be treated with bat-friendly wood preservative.

9.6 Procedure if Bats are found

If any bats are found during the course of this work, work must stop immediately and the local NPWS conservation ranger or other bat specialist contacted. If bats need to be removed they may only be handled by a licenced bat worker.



		CONSTRUCTION	
		TITLE Outhouse - Proposed South East Elevation	DATE 22/12/2023
ARCHITECTURE CONSERVATION INTERIORS	BR RAMELAGH, DUBLIN 6, IRELAND M: www.sheehanbarry.com T: 01 451 496 2866 E: p019@01.ie	PROJECT NO. 2480 11.5 224	CLIENT NLD
NOTE DIMENSIONS TO BE TAKEN FROM DRAWING SHOULD NOT BE SCALED. SITE DIMENSIONS ARE TO BE CHECKED PRIOR TO COMMENCEMENT. IN CASE OF DOUBT OR DISCREPANCIES PLEASE REFER TO THE ARCHITECT FOR INSTRUCTION. ALL WORKS TO BE BUILT IN ACCORDANCE WITH BUILDING REGS & RELEVANT CODES OF PRACTICE © SHEEHAN AND BARRY ARCHITECTS LTD		SCALE 1:100	STANDARD ISO A3
		REVISION DESCRIPTION	REVISION DATE
		REVISION BY	

Figure 4 – front elevation of outbuilding

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PHOTOGRAPHS

MAIN HOUSE



Photo 1 – entrance gate to Glebe House flanked by pair of ancient beech trees



Photo 2 – south west corner of house showing setting of mature trees



Photo 3 – front elevation and southwest elevation of house. Triple gable structure on front of house



Photo 4 – rear of main house showing lower roofed section to rear



Photo 5 – front elevation of the house at dusk



Photo 6 – showing location of exit point used by Soprano pipistrelles



Photo 7 – close up of entry/exit point used by Soprano pipistrelles



Photo 8 – sitting room in house



Photo 9 – front hallway



Photo 10 – exposed section of side roof in upstairs bathroom



Photo 11 – access to attic space above bathroom



Photo 12 – section of plaster removed for architectural investigations in centre front bedroom. The pile of bat droppings are visible on the floor under the opening



Photo 13 – pile of bat droppings on floor



Photo 14 – bat droppings accumulated in space between wall and plaster



Photo 15 – access trapdoor to main attic on landing



Photo 16 – main attic space



Photo 17 – five Soprano pipistrelles clinging to internal surface of front wall of house

OUTBUILDINGS



Photo 18 – main outbuilding showing two storey granary with stone lean-to



Photo 19 – long stone single storey building attached to granary



Photo 20 – front elevation of granary. The Brown long-eared bats emerged from a gap above the window as indicated



Photo 21 – rear elevation of main outbuilding. The granary loft is accessed via this door



Photo 22 – Roof of single storey section of main outbuilding.



Photo 23 – ground floor of granary



Photo 24 – swallow's nest on timbers of long house building



Photo 25 – interior of separate shed to south west of main outbuilding



Photo 26 – Swallow's nest on roof timber of separate outbuilding



Photo 27– section of roof of long outbuilding above workroom



Photo 28 – bat droppings on work bench in workroom



Photo 29 – workroom at south west end of long single storey outbuilding



Photo 30 – hipped roof of granary. The position of the roosting Brown long-eared bats is indicated



Photo 31 – bat droppings on floor of granary loft



Photo 32 – view along length of attic space of long outbuilding



Photo 33 – Smaller outbuilding to rear