



*Nick
Tomlinson
Ecology*

Orchard Cottage
Preliminary Bat Roost Appraisal
September 2023

Nick Tomlinson
01305 773 502

nick@elephantsears.org
www.nicktomlinsonecology.com

Data Table

Address of Site	Orchard Cottage, Trappers Lane, Uplyme, Devon, DT7 3TJ
National Grid Ref.	SY 3297 9306
Client Contact Details	Mr & Mrs Dean
	Address as above
Timetable of events	
Initial Survey	15 th August
Report Issued	25 th September 2023

Executive Summary

- a) The survey involved a detached, two storey, brick and block built, stone clad building with a single storey extension on the northern end and two Velux windows in the rear pitch of the main roof.
- b) The proposed works include the extension of the building to the rear and the replacement of the existing Velux windows with a roof dormer.
- c) No evidence was found, either internally or externally, to indicate any use of the building by cavity or crevice dwelling bats and, based upon the survey work undertaken, it is not believed bats were, at the time of the survey, making use of the building, as either a long-term established roost or as a temporary, transitory or feeding roost.
- d) Given the lack of evidence of bat use the building is classified as having [Negligible Suitability](#) for bats and therefore no further survey work is required and no timing constraints are placed on when the works can take place.
- e) Enhancements for bats and bees, in line with the National Planning Policy Framework, are set out

1. Introduction

- 1.1. There are a number of factors to consider when undertaking an ecological assessment regarding proposed works on a building or structure, regardless of the size of the proposed works.
- 1.2. A range of species, including all of the UK's bats are afforded protection, under a number of pieces of legislation, from disturbance, injury or death and from impacts on places they use for rest or for breeding¹ (Please see Appendix A).
- 1.3. Mitigation for any such impact will be required and may, in cases of significant impact², require a mitigation licence to be secured before the works can proceed
- 1.4. In addition, where developments do not impact directly on a protected species, but do impact on biodiversity in general by, for instance, the loss of habitat through the removal of hedgerows or trees, mitigation for that loss will also be required.
- 1.5. Finally, the National Planning Policy Framework (NPPF) states that developments, regardless of scale, should not only seek to prevent damage to biodiversity but should seek to enhance it.
- 1.6. Local Planning Authorities (LPA) are expected to apply the NPPF in the exercise of their duties and to seek enhancements for biodiversity, even where protected species are not identified as being present on a site or impacted by the proposed works.
- 1.7. NB: The updated survey guidelines (Bat Surveys for Professional Ecologists, Good Practice Guidelines, 4th Edition, Bat Conservation Trust, 2023) were released at the National Bat Conference in September 2023. The survey reported on in this report was undertaken on the 15th August and was therefore undertaken in accordance with the previous guideline (Bat Surveys for Professional Ecologists, Good Practice Guidelines, 3rd Edition, Bat Conservation Trust, 2016).

¹ Typically described as a roost where referring to bats

² Such as when the bat use of a building is found to be significant (for instance a maternity colony, large numbers of bats, or a rare species) or the proposed works would make the building unusable by bats after the works are complete

2. Reason For Survey

- 2.1. Nick Tomlinson Ecology were commissioned ([July 2023](#)) to undertake a Preliminary Bat Roost Appraisal at [Orchard Cottage](#), a detached building set within its own grounds (see [Figures A & B](#), [Appendix B](#)).
- 2.2. The proposed works include the extension of the building to the rear and the replacement of the existing Velux windows with a roof dormer (see [Figures C & D](#), [Appendix B](#)).
- 2.3. The purpose of the survey was, therefore, to establish whether there was evidence of, or potential for bats to be using the building and, if so, to determine if/how they may be affected by the proposed works.
- 2.4. This information can then be used to inform both the planning, development and mitigation processes, enabling the needs of the bats to be taken into account, together with those of the owners of the property.

3. Limitations and Restrictions

- 3.1. There were no limitations or restrictions on the survey.
- 3.2. Please note, changes to the physical nature of a building, whether due to alterations or repairs, or deterioration in the fabric of the building due to the passing of time, can result in a building becoming more suitable as a roosting location for bats.
- 3.3. As a result, although this survey found no evidence of bat use of the buildings, [at the time of the survey](#), no guarantee can be given that bats will not begin to make use of the building in the future.
- 3.4. In order to reflect that potential for change, the findings of this report remain [valid for two years from the date of the survey](#). If the planned works are not undertaken within those two years then revised surveys must be undertaken to re-assess the situation with regards protected species use of the building.
- 3.5. In addition, if, at any point during any of the works, bats, or signs of bats, such as droppings, are found, all work on the area the bat, or droppings, were found in must cease, the area in which the animals have been found made secure, with care taken not to injury the animals when replacing material, and a suitability experienced ecologist engaged. Works must not re-start until the ecologist has had time to assess, and resolve, the situation.

4. Survey Method

- 4.1. The survey was undertaken by Nick Tomlinson, of Nick Tomlinson Ecology. Nick has over 20 years of experience undertaking ecological surveys and a brief biography is given in Appendix C.
- 4.2. The survey took place on the [15th August 2023](#). The weather on the day of the survey was bright, warm, with scattered cloud and an occasional gentle breeze.
- 4.3. Equipment used (as required) included binoculars, bat detector (Elekon Batscanner), head torch, high powered torch (350 lumens), endoscope, camera (with x260 zoom function) and mirrors (flat and telescopic).
- 4.4. The building was checked internally, where appropriate, for evidence of use by bats. The kind of evidence searched for included the actual presence of bats, feeding signs (such as insect wings), or bat droppings, any of which would indicate the use of the site by bats. Whilst the internal surveys were underway a bat detector (Elekon Batscanner) was carried to alert the surveyor to the ultrasonic calls of any bats present³.
- 4.5. The external surfaces of the building were checked for potential access points, e.g. cracks, gaps etc, and all surfaces were checked, either directly or through binoculars, for signs that might suggest the use the buildings by bat, including droppings stuck on surfaces, worn or stained gaps or smoothed surfaces surrounding gaps.
- 4.6. A data search was also undertaken through the Local Environmental Records Centres ([LERC](#)) for both Devon and Dorset and through the Devon Bat Group⁴. This would identify any previous records associated with the property and also any known roosts in the area. This adds to the overall interpretation of the site and also puts any findings in context.

³ The detector scans all frequencies at the same time and so will alert the surveyor to any ultrasonic calls, of any frequency, that may occur due to bats being present but not visible. The detector will also alert the surveyor to any deterrents that may be in situ, including, for instance, rodent scarers which emit ultrasound that may disturb bats.

⁴ The property lies within 200m of the Dorset/Devon border so, as the data search seeks records within 1km radius of the site record searches through both the Devon and Dorset record centres were required. In addition bat records in Devon are held by the local records centre and the bat group so, in order to ensure all records are available, as data search is required through both organisations.

5. Survey Findings

5.1. Data Search

- 5.1.1. The data search revealed no bat records associated with the building.
- 5.1.2. There are 13 bat roosts recorded within 1km of the site, the species⁵ associated with these roosts are:
- Lesser Horseshoe Bat ([Rhinolophus hipposideros](#))
 - Greater Horseshoe Bat ([Rhinolophus ferrumequinum](#))
 - Western Barbastelle Bat ([Barbastella barbastellus](#))

 - Unconfirmed pipistrelle species ([Pipistrellus](#) sp)
 - Unconfirmed long-eared species⁶ ([Plecotus](#) sp)
 - Unconfirmed bat species
- 5.1.3. In addition to the above species, there are flight records (eg not associated with a roost) for the following species within that 1km radius:-
- Noctule Bat ([Nyctalus noctula](#))
 - Serotine Bat ([Eptesicus serotinus](#))
 - Common Pipistrelle Bat ([Pipistrellus pipistrellus](#))

 - Unconfirmed Myotis species ([Myotis](#) sp)⁷
- 5.1.4. DNA testing (through a university laboratory) is now used routinely on bat droppings to confirm species, but it is a relatively new method and many records relate to the times before such testing was widely available.
- 5.1.5. As a result, although sometimes it may have been possible to identify bat dropping to at least genus level (eg [Pipistrellus](#) or [Plecotus](#)), at other times it was not possible to state any more than the location is a bat roost, but the species remains unclear.
- 5.1.6. Roost are sometimes identified by the presence of droppings only, without the species being identified. Knowing the location of such roosts, however, even if the species is not known/certain, is still an important part of the assessment of a site.
- 5.1.7. Please note, if a species does not appear above that does not mean it is not in the area, it has simply not yet been recorded there.

⁵ Presented in order as given in [Bats of Britain and Europe](#), Dietz et al, Bloomsbury, 2016

⁶ There are two species of long-eared bats in the UK and they cannot be separated based on droppings only so, where the roost is noted as a result of finding droppings, but the species cannot be confirmed (by, for instance, DNA testing of the droppings) then the roost is noted as being unconfirmed long-eared species.

⁷ The [Myotis](#) genus comprise six species and they show considerable overlap in the characteristics of their echolocation calls and so can be difficult to separate based solely on a recording of those calls or droppings. Where that is the case the bat is noted as a [Myotis](#) sp but the species is unconfirmed.

5.2. Building

- 5.2.1. The building is a detached, two storey, brick and block built, stone clad building with a single storey extension on the northern end and two Velux windows in the rear pitch of the main roof.
- 5.2.2. Internally the roof void is small, and the roof is underlain with a bituminous felt. The ridge is heavily cobwebbed, in places coming down to the floor of the void. While this cannot be taken as evidence of lack of bat use, it is suggestive of lack of extensive use.
- 5.2.3. Externally the roof comprises curved interlocking concrete tiles which are tightly laid across the roof.
- 5.2.4. The cement holding the ridge tiles in place is complete and entire and, although there are two ventilation grills in the ridge they are grilled and do not provide for access into the roof void or any space beneath the tiles.
- 5.2.5. The lower edges of the tiles open into the guttering and so there is no clear flight path into or out of the edges.
- 5.2.6. There are small gaps associated with the (presumed plastic) sheeting that covers the tiles beneath the Velux windows but these gaps are filled with material and detritus indicating they are not being used as roosting locations.
- 5.2.7. The barge boards and soffits are plastic and are tightly fitting to the building.
- 5.2.8. The cement that seals the tiles at the gable ends is complete and entire.
- 5.2.9. There was some small potential, created by lifted tiles, associated with the roof of the single storey extension where it met the roof of the main house, that could offer roosting opportunity in their own right or give access to the space between the tiles and the felt.
- 5.2.10. Inspection of this area with binoculars, however, showed the gaps to be heavily cobwebbed and filled with detritus, indicating they had not been used as roosting locations.
- 5.2.11. The larger of the two single storey extensions is open to the ridge at the front but contains a small roof void to the rear (in which the Velux window sits – see Figure B.B in Appendix B). This void has been boarded out and there is no access from outside.
- 5.2.12. No signs of bat use were found in the internal spaces or on the external surfaces of the building.

6. Discussion

- 6.1. No evidence was found, either internally or externally to indicate any use of any of the building by cavity or crevice dwelling bats. Based upon the survey work undertaken it is not believed bats were, [at the time of the survey](#), making use of the building, as either a long-term established roost or as a temporary, transitory or feeding roost.
- 6.2. Given the lack of evidence of bat use the building is classified as having [Negligible Suitability](#) for bats and therefore no further survey work is required and no timing constraints are placed on when the works can take place⁸.
- 6.3. As noted in Section One, in line with the NPPF, enhancements for biodiversity are required as part of the planning process therefore enhancements for bats and bees will be installed as part of the works.

6.4. [Bats](#)

- 6.4.1. The preferred option for bats is to install integrated bat boxes, as these are more likely to be the most effective, however in this case it is unlikely the proposed works will lend themselves to the installation of an integrated box as the replacement building is pre-fabricated.
- 6.4.2. In line with the NPPF, therefore, one externally mounted box is to be installed as shown in [Figure F, Appendix B](#).
- 6.4.3. A number of designs, from different various suppliers, are available and a selection are shown in [Figure E, Appendix B](#), with the preferred option outlined in red.
- 6.4.4. They can be bought from a range of suppliers, including the Royal Society for the Protection of Birds, NHBS, Birdfood.co.uk, nestbox.co.uk and others.

6.5. [Bees](#)

- 6.5.1. Two bee bricks/blocks are to be installed. Locations are not set out but bee bricks/houses should be positioned in a warm sunny spot, south facing, with no vegetation in front of the fascia. Ideally placed at least 1 metre from the ground with no upward limit.
- 6.5.2. Examples are shown in [Figure G, Appendix B](#) and they can be bought from a range of suppliers, including the Royal Society for the Protection of Birds, NHBS, Birdfood.co.uk, nestbox.co.uk and others.

⁸ Bat Surveys for Professional Ecologists, Good Practice Guidelines, 3rd Edition, Bat Conservation Trust, 2016

Appendix A : Species Legal Protection

NB: This appendix serves as a brief summary of the relevant legislation and the species listed below are a sample taken from the schedules in the named Legislation. For a full listing, and full details of the protection afforded them, reference should be made to the relevant legislation.

1. European Protected Species

- 1.1. Annex IV(a) of the [Habitats Directive](#) lists a range of animals, referred to as European Protected Species afforded special protection due to their conservation status. This includes all species of UK bats.
- 1.2. That protection is transcribed into domestic legislation as [The Conservation of Habitats and Species Regulations 2017](#), as amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#), with all species of British bat listed on Schedule 2
- 1.3. Under this legislation it is illegal to :-
 - 1.3.1. Deliberately disturb a European Protected Species
 - 1.3.2. Deliberately capture, injure or kill a European Protected Species
 - 1.3.3. Damage or destroy a breeding site or resting place of a European Protected Species
 - 1.3.4. Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead European Protected Species or any part thereof
- 1.4. Please Note:-
 - 1.4.1. The concept of [deliberate](#) covers not only situations where a certain result is directly intended, but also situations where the person committing the offence knows the possible consequences of their action, but accepts them, even if not directly intended and continues with the action.
 - 1.4.2. For the purposes of this legislation [disturbance](#) is defined as significantly affecting the local distribution or abundance of a European Protected Species, or impairing its ability to (i) survive, breed or reproduce, or to (ii) rear and nurture their young, or to (iii) hibernate or migrate.
 - 1.4.3. Please note, the place a bat uses to breed or rest is often referred to as a [roost](#). That term does not exist in the legislation but, for the purposes of discussion, roost should be taken to represent a place a bat uses to breed or rest.
 - 1.4.4. The offence of [damage or destruction](#) to a breeding site or resting place is considered to be an [absolute offence](#), there is no need to prove intent or that the act was deliberate.
 - 1.4.5. The protection of a [breeding or resting place](#) applies whether it is being used or not

Appendix A : Species Legal Protection (cont....)

2. Wildlife & Countryside Act 1981 (as amended)

- 2.1. The [Wildlife and Countryside Act 1981 \(as amended\)](#) [referred to as The Act hereafter] affords protection for European Protected Species, but only in relation to:-
- 2.1.1. Disturbance of a species at a site used for shelter or protection
 - 2.1.2. Obstructing access to a place used for shelter or protection
 - 2.1.3. Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead European Protected Species or any part thereof

3. Wild Mammals Protection Act (1996)

- 3.1. All wild mammals are covered by the [Wild Mammals Protection Act \(1996\)](#), which prohibits cruel treatment, such as mutilation, kicking, beating, nailing, impaling, stabbing, burning, stoning, crushing, drowning, dragging or asphyxiation of all wild mammals.

4. Natural Environment and Rural Communities (NERC) Act 2006

- 4.1. The [Natural Environment and Rural Communities \(NERC\) Act 2006](#) sets out the responsibilities of Local Planning Authorities with regards conserving and enhancing biodiversity, which includes restoring or enhancing a population or the habitat associated with that species. Section 41 of the act lists species to which the provisions apply, which includes (but not limited to):-

Lesser horseshoe (Rhinolophus hipposideros)	Greater horseshoe(R. ferrumequinum)
Bechstein's bat (Myotis bechsteinii)	Noctule (Nyctalus noctula)
Soprano pipistrelle (Pipistrellus. pygmaeus)	Brown long-eared (Plecotus auritus)
Barbastelle (Barbastella barbastellus)	

5. Mammal Society Red List

- 5.1. In 2020 the [Mammal Society](#) produced a 'Red List' for UK mammals, identifying those bats most at risk, including (but not limited to):-

Greater Mouse-eared	Myotis myotis	Critically Endangered
Grey Long-eared bat	Plecotus austriacus	Endangered
Serotine	Eptesicus serotinus	Vulnerable
Barbastelle	Barbastella barbastellus	Vulnerable
Leisler's bat	Nyctalus leisleri	Near Threatened
Nathusius' pipistrelle	Pipistrellus nathusii	Near Threatened

Appendix B : Selected photographs and figures



The red arrows show the direction in which the photograph was taken



Figure A: Selected photographs of the site

Appendix B : Selected photographs and figures (Cont...)



The red arrows show the direction in which the photograph was taken



Figure B : Selected photographs of the site

Appendix B : Selected photographs and figures (Cont...)



Figure C:
Existing
Elevations

Appendix B : Selected photographs and figures (Cont...)



Figure D:
Proposed
Elevations

Appendix B : Selected photographs and figures (Cont...)



Figure E: Examples of externally mounted bat boxes to be installed as NPPF Enhancements

Appendix B : Selected photographs and figures (Cont...)

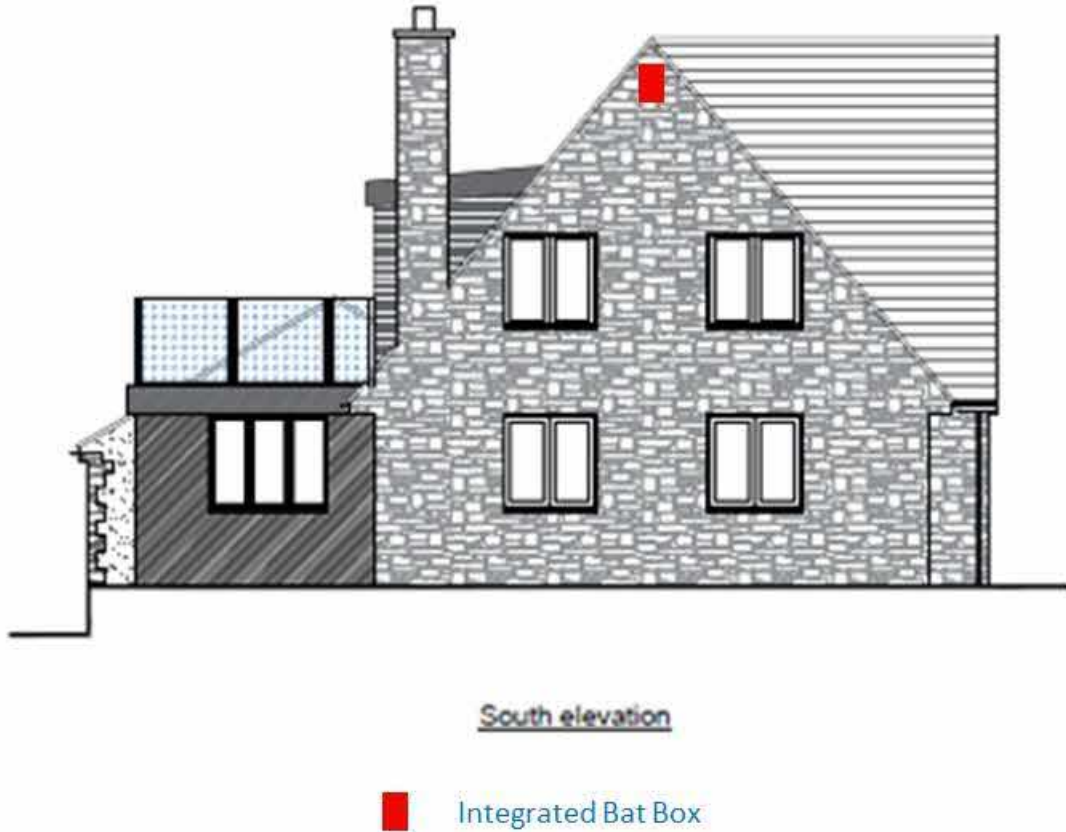
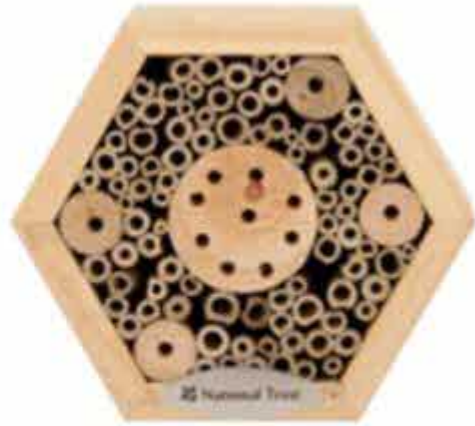


Figure F : Location externally mounted bat box to be installed as NPPF Enhancements

Appendix B : Selected photographs and figures (Cont....)



National Trust Apex Insect House



National Trust Hexagon Insect House



Bee brick (manufactured by Green & Blue and available in multiple colours)



Bee block (manufactured by Green & Blue and available in multiple colours)

Figure G: Examples of bee bricks and blocks to be installed as NPPF enhancements

Appendix C: Nick Tomlinson : Short Biography

Nick's employment history includes one year working for the Bat Conservation Trust, seven years managing nature reserves for the Royal Society for the Protection of Birds, three years working for the Dorset Wildlife Trust, running an environmental education centre, and three years working for the Somerset Wildlife Trust, running an urban conservation and community engagement project.

He has been involved with bat work in Dorset and Somerset for over 20 years and running his own consultancy business for most of that time. He holds both CL19 and CL20 Natural England class licences and a Dorset/Somerset wide project licence to undertake bat research using harp traps, mist nets and acoustic lures and is licenced to fur clip, ring and radio track bats.

As part of his commercial work he has held a number of Natural England mitigation licences covering the following species:

lesser horseshoe, whiskered, Natterer's, serotine,
common pipistrelle, soprano pipistrelle and brown long-eared

Project undertaken through these licences, or through appropriately timed method statements, include works on maternity colonies, hibernation sites, mating sites, transitional roosts and summer day roosts involving:-

Client Advice: Guiding landowners and house holders through the biodiversity requirements of the planning system, including the legal requirements for protected species.

Phase One Surveys: Surveying buildings, structures and trees for signs of bat use, and the analysis and evaluation of the results to assess the importance of the site and inform further work required.

Phase Two surveys: Scoping, planning, resourcing, managing and delivering dusk emergence, dawn return, and hibernation surveys, together with activity transects, including the supervision of surveyors and the deployment of static detectors and night vision equipment.

Reporting: Analysis of the results from a range of surveys and activities, providing appropriate interpretation and making recommendations based thereon, including drawing up and designing appropriate and proportional mitigation, setting out safe working methods to be followed on site and any follow up work required, including habitat management and post mitigation monitoring.

Mitigation Implementation: Overseeing/supervision of mitigation works on site, including, Team briefings, Controlled roof strips and re-roofing, Demolition, Temporary and permanent roost exclusion, Roost examination/mapping, New roost creation and Designing revised working methods

Advanced Techniques: Using advanced techniques, including the use of harp traps, mist nets, acoustic lures and radio tracking to understand landscape use, identify roosts and foraging or commuting routes, define further survey work and inform mitigation.

Nick also undertakes a large number of research projects, including population studies, hibernation surveys, SSSI monitoring and foraging/habitat use mapping. His work includes the commoner species but also focuses on the rarer bat species, including Bechstein's, barbastelle and grey long-eared.

Nick runs an ongoing bat worker training programme in Dorset, is a south west regional trainer for the Bat Conservation Trust and tutor on the Trust's Advanced Trapping Techniques Course. He is also bat record verifier for Dorset and chair of the Dorset Bat Group.