

Sports Pavilion, Court Place Farm, Oxford

Preliminary Roost Assessment

On Behalf of:
The Oxford Hindi Temple and
Community Centre Project

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4 Acre Ecology Limited

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1. Executive Summary

- 1.1 The building is a single storey detached property located within the City of Oxford near Marston (Central Grid Reference SP 53260843).
- 1.2 There are plans to convert the building to a Hindu Temple and Community Centre. Therefore, a Preliminary Roost Assessment has been requested to inform the planning decision.
- 1.3 The field survey was undertaken on the 11th May 2023 by an experienced Ecologist with a Class 2 Natural England bat survey licence (Class Licence Registration Number 2015-13769-CLS-CLS). The building was assessed for roost potential and evidence of bats.
- 1.4 The building is a single-storey, detached property with a twin pitched roof. No signs of bats were found within the single roof space, however the gable ends are covered by wooden cladding that is in poor condition and a number of access points behind the cladding were observed. There are open playing fields to the north and east, with trees lining the road to the west.
- 1.5 Therefore, the property was assessed as having low potential for roosting bats and a single emergence survey is required to confirm likely absence of roosting bats, if no bats emerge.
- 1.6 No other protected species are believed to be present or affected by the proposed works.
- 1.7 Recommendations for enhancements have been made to help fulfil some of the aims of the NPPF.

2. Introduction

Background

- 2.1 The building is located in the Court Place Farm area on the north-western edge of the City of Oxford (Central Grid Reference SP 53260843). The site consists of a two-storey detached single-storey building with a strip of amenity grass on three sides, with tarmac hard standing on the fourth and beyond the amenity grassland.
- 2.2 There are plans to convert the building to a Hindu Temple and community centre with Lottery Funding to provide a much-needed resource for the city, which does not currently have a Hindu Temple. Therefore, a Preliminary Roost Assessment has been requested by the local authority to help inform the planning decision.
- 2.3 Mark Bhagwandin commissioned 4 Acre Ecology Limited on behalf of the The Hindu Temple and Community Centre on 10th May 2023 to undertake a Preliminary Roost Assessment of the property to allow this report to be written.

Aims and Objectives

- 2.4 The aim of the survey was to determine whether bats were likely to use the building to roost in, or if further surveys were required to do so. The objective was to support a successful application, whilst maintaining the conservation status of bats within the local area.

About the Author

- 2.5 Mark Satinet has been working in the field of Wildlife Conservation and Ecology since 1992. 13 years at the Wildlife Trusts working on wider countryside habitat and species projects provided a good background in habitat surveys, species identification, habitat management advice to landowners and dealing with the public and media. He became the County Mammal Recorder for Wiltshire in 2000 and set up the Wiltshire Mammal Group in 2005. He is also a voluntary Bat Warden for Natural England and has been an active member of the Wiltshire Bat Group since 2001.
- 2.6 Since 2005 he has been a consultant ecologist, first as a senior ecologist at a multi-disciplinary company for a year and then the principal ecologist running the ecology team in a specialised ecological firm for a further four years. He is a full member of the Chartered Institute of Ecology and Environmental Management and a Chartered Environmentalist.
- 2.7 He now owns and runs his own company, 4 Acre Ecology Limited. He holds disturbance licences for bats, Great Crested Newts, Dormice, Barn Owls and Shrews and has held development licences for Great Crested Newts, bats, Badgers and Dormice and holds both a Bat Mitigation Class Licence and Great Crested Newt Low Impact Class Licence.

3. Methodology

Desk Study

- 3.1 A data search was commissioned from the Thames Valley Environmental Records Centre (TVERC) for bats within 2km of the site. Biological Records Centres hold information regarding statutory designated sites, local nature reserves, sites of conservation interest, records of protected species and other species of conservation concern. However, this data cannot be considered fully comprehensive and therefore the absence of data, in response to a data search, does not imply that a species, important habitat or designation does not exist within that search area.
- 3.2 The Multi-Agency Geographical Information for the Countryside (MAGIC) website was consulted to determine if there were any sites designated for bats within 5 km of the site and the number of licences issued in the area.

Field Survey

- 3.3 An external and internal inspection of the main house and garage was made by a Natural England Licensed bat surveyor (Class Licence Registration number 2015-13769-CLS-CLS). The exterior of the buildings was searched for evidence of bats, looking for grease stains in external crevices and searching for droppings on windows sills, windows, walls and ledges and on the ground below potential entrance/exit areas to the roof or walls.
- 3.4 The interior of the buildings was searched using high powered torches for evidence of bats. This evidence includes sightings, dead bats, feeding remains, smell, droppings and grease marks at entry/exit points. The potential of the buildings as bat roosts was judged and any signs of bats or features offering roost potential were noted.

4. Legislation and Planning Policy

4.1 There are a number of tiers of legislation protecting wildlife in England and Wales. The highest tier is for those species protected by European Legislation, such as the Dormouse, Great Crested Newt, Otter and all species of bat. These are known as European Protected Species (EPS), which gain their protection from the Conservation of Habitats and Species Regulations (Habitat Regulations) 2017 (As Amended), whereby under section 43 it is an offence to

- deliberately capture, injure or kill an EPS
- deliberately disturb or take/destroy the eggs of an EPS
- damage or destroy a breeding site or resting place of an EPS

4.2 Nationally protected species are either fully protected (e.g. Water Vole, Bat) or partially protected (e.g. Adder or Smooth Newt) under the Wildlife and Countryside Act (WCA) 1981 and amendments, including the Countryside and Rights of Way Act (CRoW) 2000. Under the WCA it is an offence to:

- intentionally kill, injure or take any wild bird, take or destroy any wild bird egg or take, damage or destroy any nest while it is in use or being built
- intentionally or recklessly disturb any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or disturb dependent young of such a bird
- intentionally or recklessly at any other time take, damage, destroy or otherwise interfere with any nest habitually used by any wild bird included in Schedule A1
- intentionally or recklessly kill, injure or take from the wild or possess all or any part of a Schedule 5 species
- intentionally or recklessly damage or destroy any structure or place which a schedule 5 species uses for shelter or protection, or disturb a schedule 5 species while it is occupying such a place
- obstruct access to any structure or place which a schedule 5 species uses for shelter or protection
- intentionally pick, uproot or destroy any wild plant included in Schedule 8

4.3 The CRoW Act 2000 added the term recklessly after intentionally in the Wildlife and Countryside Act 1981 and introduced a maximum custodial sentence of 6 months for offences.

- 4.4 The Natural Environment and Rural Communities Act 2006 (NERC) made provision about bodies concerned with the natural environment and rural communities and in connection with wildlife, sites of special scientific interest, National Parks and the Broads. Section 41 established a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity. This is known as the UK Biodiversity Action Plan (BAP) list.
- 4.5 The National Planning Policy Framework (NPPF) updated in July 2018 (Revised in July 2021) states that Planning policies and decisions should contribute to and enhance the natural and local environment by:
- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
 - b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
 - d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
 - e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
 - f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.
- 4.6 To protect and enhance biodiversity and geodiversity, plans should:
- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
 - b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

5. Results

Desk Study

- 5.1 No protected sites designated for bats were identified within 5 km of the site. There are two sites of national importance within 2km of the site; Sidling Copse and College Pond SSSI and New Marston Meadows SSSI.
- 5.2 Twenty-one protected species licences have been issued for bats within 5km of the site, but only two within 2km; 1km east for both Common and Soprano Pipistrelles and one 2km SSW for Brown Long-eared and Soprano Pipistrelle.
- 5.3 The Thames Valley Environmental Records Centre (TVERC) holds 150 records of bats within 2km of the site covering at least seven species; Bat (2), Brown Long-eared (16), Common Pipistrelle (36), Daubenton's (2), Myotis sp. (8), Nathusius Pipistrelle (2), Noctule (18), Nyctalus sp. (4), Pipistrelle Bat sp. (34), Serotine (1), Soprano Pipistrelle (27).

Field Survey

- 5.4 The survey was undertaken on 11th May 2023, a dry day with 70% cloud cover, a light wind and an air temperature of 12° centigrade.

Local Context

- 5.5 The site lies to the north of the Oxford city centre with the landscape a mixture of housing and parkland. To the south and west is the suburban area of Marston. To the north there is the northern by-pass road open farmland beyond. To the immediate east is an area of playing fields, with urban housing beyond.
- 5.6 The building is surrounded on the west, north and east by amenity grassland, with a tarmac car park to the south. Beyond the grass there is an access drive, lined by mature trees, with a road beyond these to the west, with a tarmac car park to the east. There is a larger building to the north.

The Pavilion

- 5.7 This is a detached single-storey building with brick walls for the first 2m, topped by windows to the eaves a metre above. These are currently boarded for security, while both gables are clad with wooden boards above the eaves height, generally in poor condition with a number of gaps. There are small gaps at the base of each of the overlying wood strips on the vertical boards, while centrally in each gable there are wooden doors above the eaves, the southern one with a number of gaps around it..
- 5.8 The building has a twin-pitched modern corrugated steel roof with a number of opaque panels in the central and northern sections. There are also a number of metal flues

protruding from the roof. The eaves and gable ends are sealed by wooden soffit boards 150mm in width.

- 5.9 Internally there is one main roof space, which has a high collar roof structure, but with no central ridge board. There is a central corridor that has a ceiling at 2m running the whole length of the building from south to north, but the rooms to either side have 3m high walls. These were mainly showers and changing rooms, with the northern two thirds of the building having no ceilings present above these rooms, where the opaque panels provide some light. There are a number of water tanks in the roof space above the shower rooms below.
- 5.10 The northern section of the roof is lined by plywood sheeting, while the southern third above the ceiling area has a plasticised sheet board lining. The southern end is darker, as there are no opaque panels and a ceiling, but there are cobwebs throughout the roof space. There is no insulation within the roof space, but the gables have insulation between the cladding.
- 5.11 No signs of bats were found in or around the building.

6. Discussion

- 6.1 There are no sites designated for bats within 5km of the site, but two nationally important sites within 2km of the site. The proposed works are confined to the building, so no impacts to these will occur from the proposals.
- 6.2 There have been 21 protected species licences issued for bats within 5km of the site, but only two within 2km of the site, one and two kilometres away. These are sufficiently far enough away to be un-associated with the site.
- 6.3 The local records centre holds 150 records of at least seven species of bats within 2km of the site, which is a fair representation of the number and species of bats likely to be in the area although there is likely to be a few more species than have been recorded.
- 6.4 The structure of the immediate surrounding area offers good commuting and foraging habitat for bats with the surrounding buildings offering potential roosting habitat.
- 6.5 There were no signs of bats within the roof space and no ridge board for them to roost against, a favoured location for them, so light-testing bats, such as Brown Long-eared that fly within the roof space before emerging, are not present (Entwistle and Swift 2008).
- 6.6 The lining beneath the steel roof means that droppings from crevice dwelling bats would not be visible for the surveyor to see. However, the roof was generally well-sealed, with few egress points for crevice dwelling bats to enter under it (Jones and Racy 2008). However, the wooden clad gable had vertical boards overlying the main wooden joints, leaving small gaps at each of these (See Figure 2), whilst the southern boarding was in poor conditions with a number of additional holes.
- 6.7 Therefore, the building was assessed as having low potential for roosting bats. Therefore, following best practice guidelines a single emergence survey is required to prove likely absence of roosting bats. If roosting bats are confirmed as present by this, then a further two surveys will be required to classify the roost(s) present and support a protected species licence application to undertake the works.
- 6.8 As there is some good potential foraging and commuting habitat adjacent to the building, recommendations have been put forward with regard to lighting.
- 6.9 No other protected species are believed to be present or affected by the proposed works on the site.

7. Further Surveys, Recommendations and Enhancements

Further Surveys

- 7.1 A single emergence survey is required to prove likely absence of roosting bats, but if this confirms presence, then a further two surveys, including one dawn return to roost survey, will be required to classify the roost and support a protected species licence application.
- 7.2 Surveys will be carried out during the active season for bats, from May to September, with the peak season being mid-May to August.

Recommendations

- 7.3 There will be no direct lighting of the tree line on the opposite side of the access drive adjacent to the building. Any outdoor lighting should be;
- Less than 3 lux light level
 - Led luminaries with warm white spectrum <2700 Kelvin (To Avoid Blue / UV Elements)
 - Bollard or low-level downward directional luminaries are used and mounted on the horizontal with no upward tilt.
 - Any security lighting should not exceed 75w in power, the light should be motion activated with short timers (1 Minute), angled downwards as sharp as possible to light up the immediate area only.

Enhancements

- 7.4 Any future planting should include night flowering plants to encourage insects for bats to feed on, such as Honeysuckle, Evening Primrose or White Jasmine.

8. Figures

Figure 1: Roof Plan

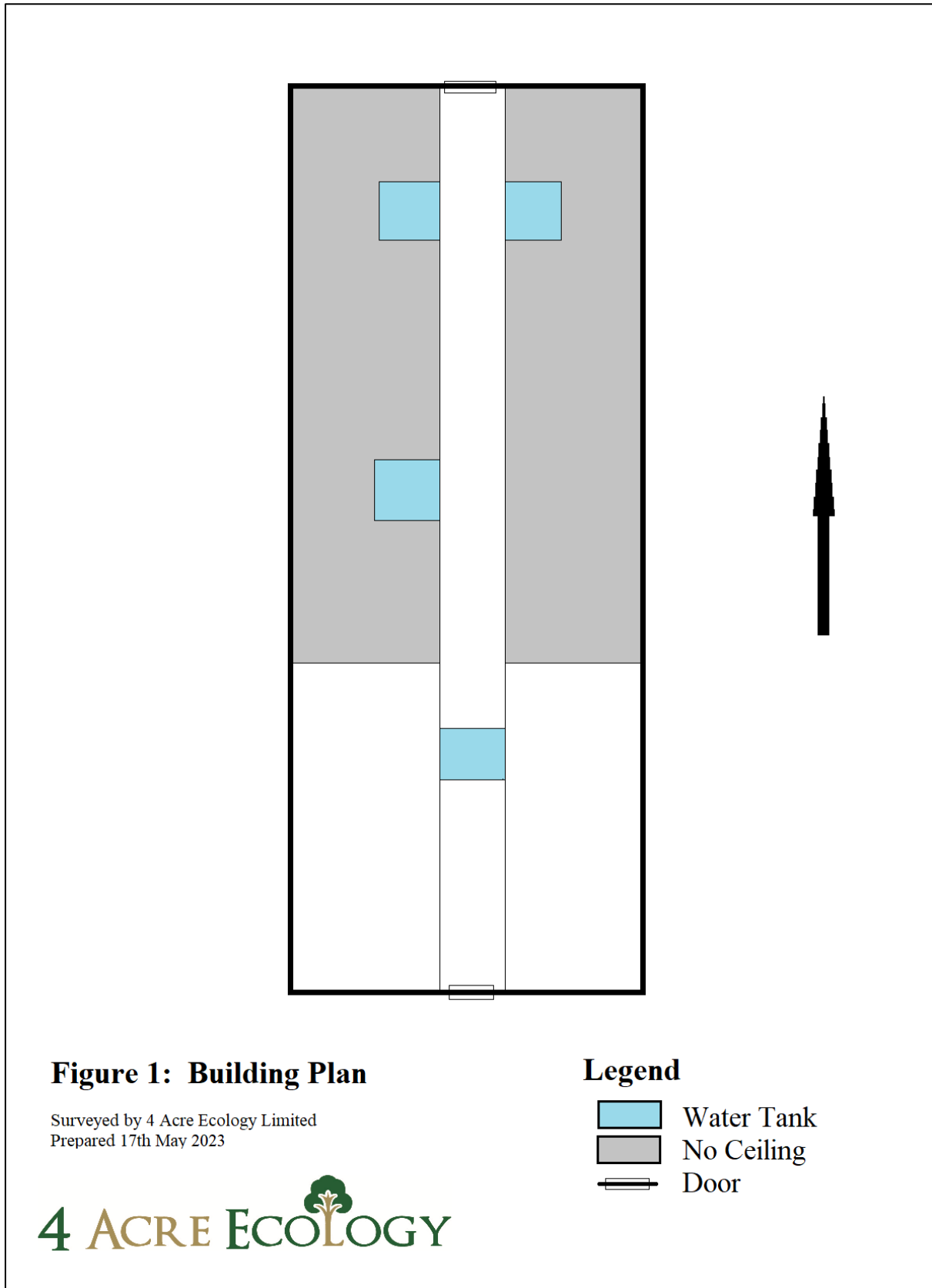


Figure 2: Images



1. Building from the north-west



2. Building from the south-east



3. Building from the north-east



4. Holes in and around southern gable door



5. Gaps in wooden boarding



6. Roof space above central corridor



7. Cobwebs in boarded apex



8. Gable end door

9. References

Bat Conservation Trust, 2016: *Bat Surveys by Professional Ecologist: Good Practice Guidelines Third Edition*. Bat Conservation Trust, London

Countryside and Rights of Way Act 2000. Available on-line at: <http://www.legislation.gov.uk/ukpga/2000/37/contents> accessed 14/11/10

The Conservation of Habitats and Species Regulations (and amendments) 2017. Available on-line at: <http://www.legislation.gov.uk/uksi/2017/1012/contents/made>. Accessed on 10/11/2021

English Nature, 2004: *Bat Mitigation Guidelines*. English Nature, Peterborough

Entwistle A.C. & Swift S.M. 2008: *Brown Long-eared Bats*. Pp 364-370 of; *Mammals of the British Isles Handbook, 4th edition*. Mammal Society, Southampton

JNCC, 2004: *Bat Workers Manual 3rd Edition*. JNCC, Peterborough.

Jones G. & Racey P.A., 2008: *Common and Soprano Pipistrelles*. Pp 343-351 of; *Mammals of the British Isles Handbook, 4th edition*. Mammal Society, Southampton.

MAGIC, 2023. Available on-line at: <http://magic.defra.gov.uk/website/magic/>. Accessed on 15/05/2023

Natural England, 2010: *Ten 'Handy Hints' for obtaining a bat mitigation licence at first Submission*. Available at: http://www.naturalengland.org.uk/Images/bat-handy-hints_tcm6-15663.pdf. Accessed on 22/3/12.

National Planning Policy Framework, 2021. Available online at: [National Planning Policy Framework - Guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/91212/nppf-2021.pdf) Accessed on 10/01/2022.

Waring, S. D., Essah, E. A., Gunnell, K. & Bonser R. H. C, 2013: *Double Jeopardy: The Potential for Problems when Bats Interact with Breathable Roofing Membranes in the United Kingdom*. Architecture & Environment. AE 2013, 1(1):1-13. Sci-know Publications Ltd.

Wildlife and Countryside Act 1981 (and amendments). Available on-line at: <http://www.legislation.gov.uk/ukpga/1981/69/contents>. Accessed on 14/11/10

Appendix 1: Information on British Bats

There are 18 species of bat in the UK (17 of which are known to be breeding here). They range from the tiny **Pipistrelle**, weighing in at around 5g (less than a £1 coin), to our biggest bat, the **Noctule**, which is still smaller than the palm of your hand.

All British bats eat insects exclusively, a **Pipistrelle** bat eating as many as 3,000 midges in one night, while **Long-eared** bats eat moths and **Noctule** or **Greater Horseshoes** also eat larger beetles.

The **Alcothoe** bat is the latest addition to the UK bat family, only being confirmed as a resident species in 2010 due to its similarity to the **Whiskered** and **Brandt's** bat species.

The **Daubenton's** bat is known as the 'water bat', as they fish insects from the water's surface with their large feet or tail. In England and Wales the majority of known summer colonies are in humid, more or less underground sites near water. These may be tunnels or bridges over canals and rivers, or in caves, mines and cellars. They are only occasionally found in buildings, usually old stone structures such as moated castles and waterworks.

Bats do not build nests, but use small spaces to shelter and rest in during the day, or hibernate in during winter. These places are known as roosts. There are a variety of different types of roost, from winter hibernation roosts, spring and autumn transitory roosts to summer maternity roosts. However, not all bats will roost within buildings, with the following being those most likely to:

Pipistrelle bats (both Common and Soprano species) are the most common bats in this country. They prefer to roost in very confined spaces around the outside of buildings, typically behind hanging tiles, soffits and barge boards, under roofing felt or in cavity walls. They do not usually enter roof spaces, although well-established large colonies in older buildings may do so.

Brown Long-eared bats are the third most commonly occurring species, after the two **Pipistrelle** species. They roost singly or in small groups among the roof timbers at the apex, particularly around ridge ends and chimneys, and in crevices in ridge tiles. These medium sized bats spend more time inside the roof space than many other bats, and are generally very quiet inside the roost, not leaving until after dark.

The **Serotine** bat, one of the largest bat species in the UK, is almost exclusively found roosting in houses across southern England and Wales. Rarer than **Pipistrelles** and **Brown Long-eared** bats, **Serotines** usually roost in crevices around chimneys and in cavity walls. Their favoured prey is large beetles, which they find over farmland and grassland.

Horseshoe bats, probably the most unusual looking of the UK's bats, are sometimes found roosting in houses in south-western England and Wales. **Greater** and **Lesser Horseshoe** bats hang free in the roost from their feet.

(Find further details from the Bat Conservation Trust Website at: www.bats.org.uk)