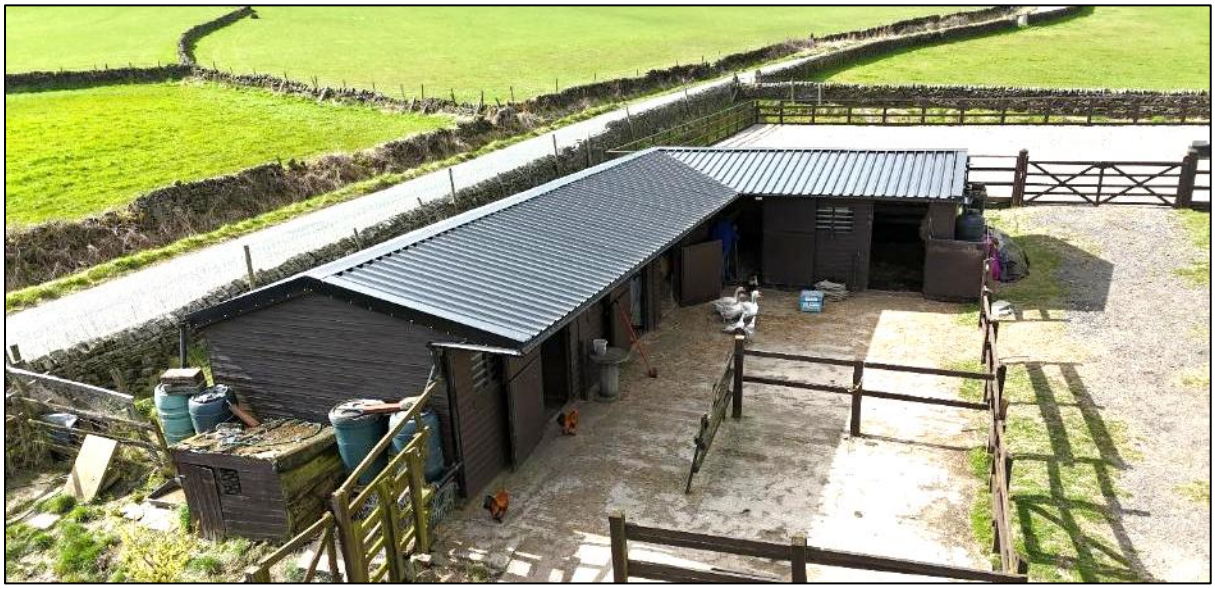
Stables off Royd Moor Road, Thurlstone

Bat and Bird Survey Report

31st March 2025



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Document ref: MBE/BAT/2025/032/01				
Purpose and Description	Originated	Checked	Reviewed	Date
For Planning	R Bell MCIEEM	P Middleton MCIEEM	R Bell MCIEEM	31/03/2025

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1. Summary

1.1.1 An update bat survey of a stable building located off Royd Moor Road, Thurlstone was commissioned by the clients, Julie and Les Barden, on 28th March 2025.

1.1.2 The survey was undertaken to support a planning application to demolish the stables and build a residential dwelling on the site.

1.1.3 The bat survey works undertaken comprise a preliminary roost assessment undertaken on 28th March 2025. An original bat survey of the stables was undertaken by Middleton Bell Ecology in 2020 (MBE, 2020). No signs of roosting bats were recorded during the 2020 survey and the stables were assessed as displaying a negligible level of bat roost suitability.

1.1.4 The update bat survey comprised a preliminary roost assessment undertaken on 28th March 2025.

1.1.5 No evidence of roosting bats was recorded from any location during the bat survey. The surveyed building comprised a recently constructed stable block of a simple design. The stable block was considered to display a negligible level of bat roost potential. Evidence of swallow nesting was confirmed from the stables. No other bird nests were recorded from the building.

1.1.6 No further survey effort is necessary, providing works commence within 24 months of the survey date. If works are to commence after this date, then Middleton Bell Ecology should be contacted to determine the requirement for update survey.

1.1.7 Works should proceed with caution and vigilance for unexpected bat presence, as single bats can roost almost anywhere. If bats are subsequently discovered, work should cease, and further advice sought without delay.

1.1.8 It is an offence to damage or destroy active bird nests, therefore demolition should take place outside of the bird nesting season, which in this case is from March to September. Any works undertaken during the main nesting bird season should be preceded by a nesting bird check, to be undertaken by an ecologist.

1.1.9 It is recommended that mitigation for nesting swallow is incorporated into the proposed development with a bat roost enhancement also recommended.

2. Introduction

2.1.1 An update bat survey of a stable building located off Royd Moor Road, Thurlstone was commissioned by the clients, Julie and Les Barden, on 28th March 2025.

2.1.2 The survey was undertaken to support a planning application to demolish the stables and build a residential dwelling on the site.

2.1.3 The bat survey works undertaken comprise a preliminary roost assessment undertaken on 28th March 2025. An original bat survey of the stables was undertaken by Middleton Bell Ecology in 2020 (MBE, 2020). No signs of roosting bats were recorded during the 2020 survey, with the stables assessed as displaying a negligible level of bat roost suitability.

2.1.4 The stables were located in open farmland approximately 850 m northwest of the centre of the village of Thurlstone, approximately 12 km west of Barnsley town centre.

3. Habitat Assessment

3.1.1 The stables were located in an open and exposed situation within an area of mixed farmland, bounded by dry-stone walls.

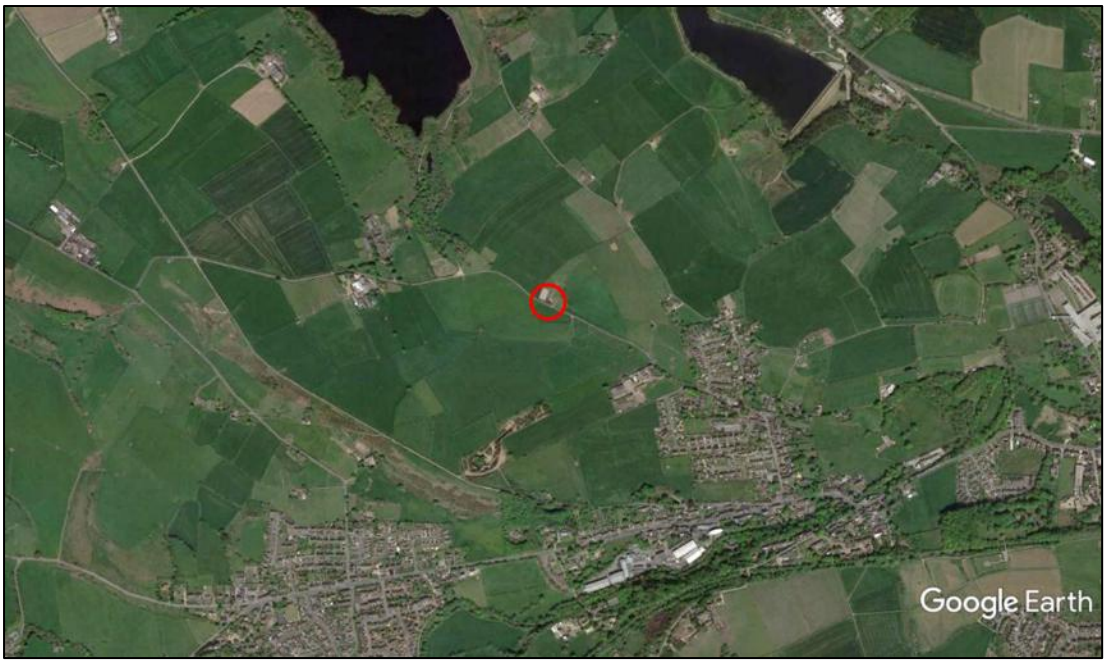
3.1.2 The edge of Thurlstone village was located c.450 m southwest of the site. The closest area of higher quality bat foraging habitat comprised a belt of woodland, located 280 m northwest of the site. This woodland extended south from Royd Moor Reservoir, with both this waterbody and the connected Scout Dike Reservoir comprising prime bat foraging habitat.

3.1.3 Whilst the surrounding area experienced little light pollution, given the site's exposed position, the abundance and species diversity of bats regularly using habitats within the immediate vicinity was expected to be quite low.

Table 1. Location and habitat table

Name and address: Royd Moor Road, Thurlstone, Penistone, S36 7RD			
OS Grid Ref. SE 22684 04065		Altitude. 249m	
Local Planning Authority: Barnsley Council			
Features on site and adjacent to site			
Feature	On site	Adjacent	Comments
Buildings	✔		Located c.350 m from nearest building
River			River Don 840 m south of site
Standing water			620 m southeast of Royd Moor Reservoir
Bridges tunnels and culverts			
Trees			Nearest tree c.280 m from site
Woodland			Small area of woodland c.280m from site
Grassland	✔	✔	Stables located adjacent to pasture

Figure 1. Site location, as indicated by red circle



3.2 Aims

3.2.1 The survey was conducted to help determine the following:

- The presence/absence of roosting bats.
- Bat roosting areas and access/egress points into the structure.
- The presence/absence of roosting and/or nesting barn owl.
- The presence/absence of nesting by other bird species.
- The level of bat roost potential associated with the structure.
- The number and species of bat roosting within the structure.
- Identify further survey work or mitigation requirements.

4. Methodology

4.1 Data Consultation

4.1.1 Bat records were not obtained for this scheme given the negligible level of bat roost potential offered by the stables.

4.1.2 A search of the Multi-Agency Geographical Information for the Countryside (MAGIC) website was also undertaken to identify historic European Protected Species (EPS) licences obtained for locations within 2 km of the site.

4.3 Field Survey

Preliminary Roost Assessment

4.3.1 The following personnel conducted the preliminary roost assessment on 28th March 2025:

- Robert Bell (MCIEEM; Bat Survey Class License WML-A34-Level 4, 2016-25236-CLS-CLS; Barn Owl Survey Class Licence CL29/00070)

4.3.2 The following activities were carried out during the surveys in compliance with relevant Bat Survey Guidelines (Collins 2016):

- A brief inspection and assessment of the site and habitats present to within 300 m.
- An extensive examination of all parts of the building both inside and out to record structural features and condition and to record features that may be suitable for roosting bats. Particular attention was paid to any crevices or gaps in walls, lintels, gaps between beams and joists and to the possibility of finding droppings stuck to walls, floors or other surfaces, or insect remains below beams, among a number of other factors. All signs indicative of a bat roost presence including live or dead bats, droppings, feeding remains, scratch marks and staining were recorded.
- An assessment of the building's bat roost potential (negligible, low, moderate, high or confirmed roost).
- If barn owl signs are present, determination of whether the building comprises an Occupied Breeding Site, Active Roost Site or Temporary Roost Site.

4.3.3 The following equipment was used or at hand during the survey:

- Clulight
- Binoculars
- Endoscope
- Ladders
- Camera

4.4 Survey Limitations

4.4.1 No limitations to an effective survey were encountered.

5. Results

5.1 Data Consultation

5.1.1 Three European Protected Species (EPS) mitigation licence have been issued for locations within 2 km of the site. These licensed relate to either common pipistrelle *Pipistrellus pipistrellus* or brown long-eared bat *Plecotus auritus*. The closest licence was issued in 2012 to permit the destruction of a common pipistrelle resting place, located 750 m southeast of the site

5.2 Field Survey

Preliminary Roost Assessment

5.2.1 No signs of roosting bats were recorded from the stables and they were considered to offer negligible bat roosting potential. Three historic swallow *Hirundo rustica* nests were however recorded across various sections of the stable block.

Building description

5.2.2 The surveyed stable building was constructed between 2003 and 2009. It comprised a single-storey L-shaped timber framed and wood clad structure, with a pitched corrugated metal sheet covered roof, with metal ridge and verge capping (Plates 1-4). Single paned windows and wooden stable doors were present. Guttering was uPVC and ran into water butts.

Plate 1. North corner of stables

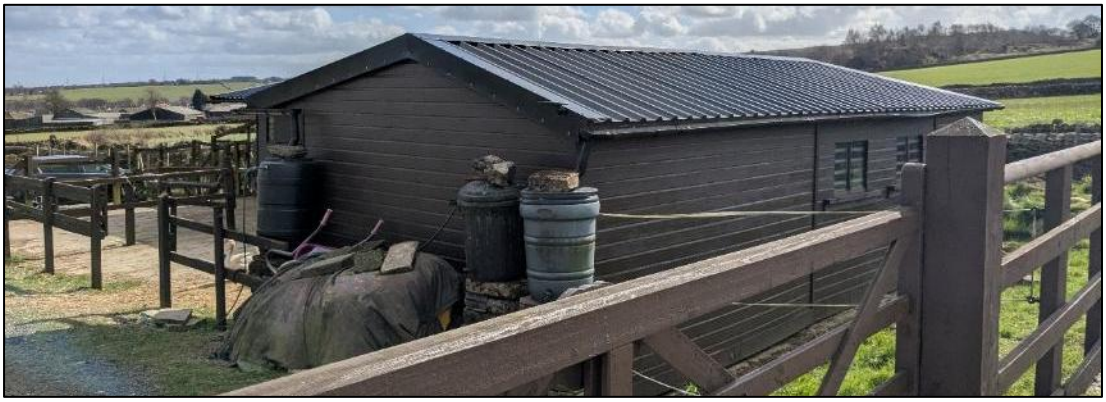


Plate 2. East corner of stables

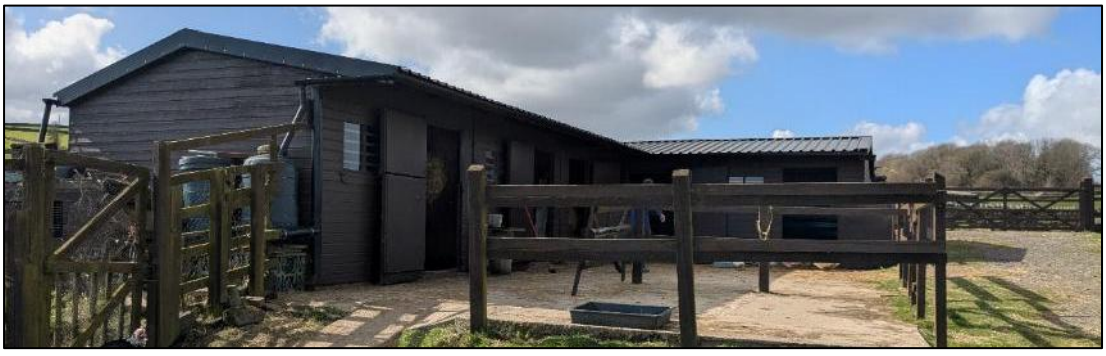


Plate 3. Western corner of stables

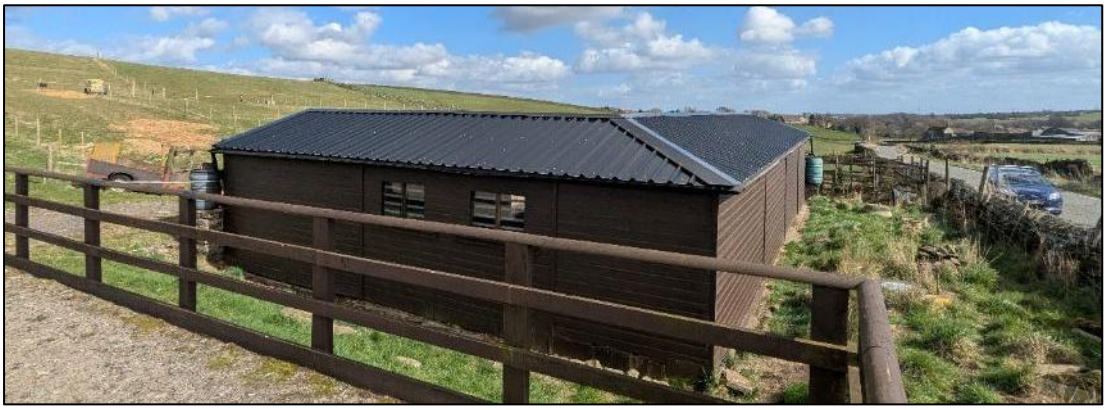
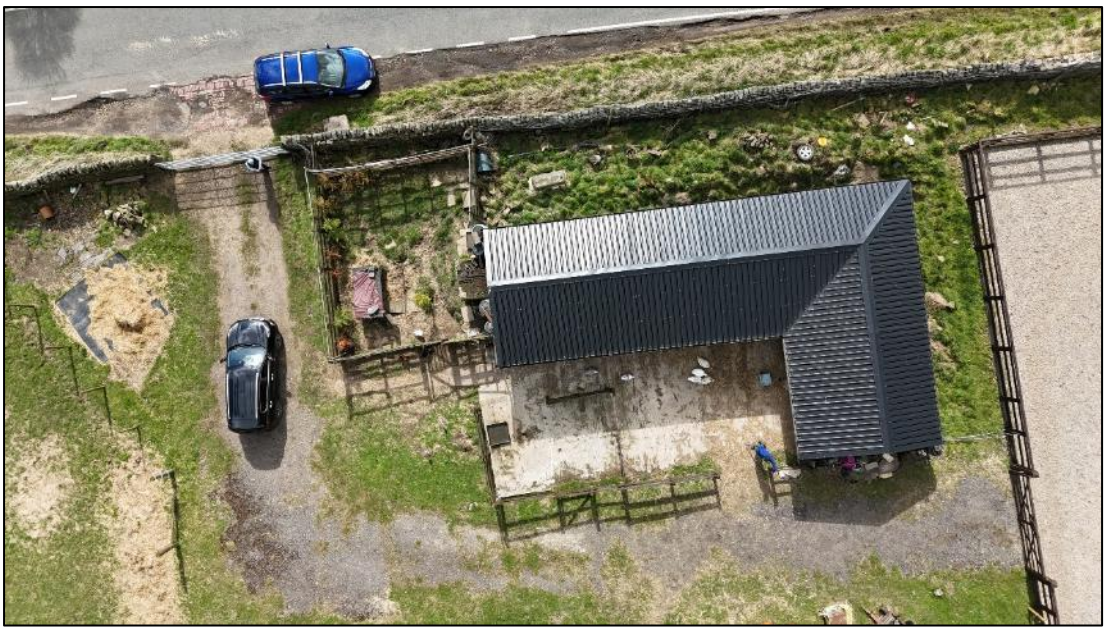


Plate 4. Stables viewed from above



External features offering bat roost potential

5.2.3 The exterior of the stables was in a good state of repair and lacked any suitable bat access points or features offering more than negligible bat roost potential.

Internal inspection

5.2.4 The roof was lined with chipboard and suspended on a simple timber framework. The external walls were single skin from 1 m up, with a double skin below this height. There were however no potential bat access points into the double skin section of the wall.

5.2.5 Approximately three former swallow nests were recorded from various compartments of the stables (Plate 5).

Plate 5. Interior of roof, with old swallow nest visible

6. Assessment

6.1 Summary and Evaluation of Findings

6.1.1 No evidence of roosting bats was recorded from any location during the bat survey. The surveyed building comprised a recently constructed stable block of a simple design which lacked potential roost features. The stable block was considered to display a negligible level of bat roost potential.

6.1.2 Evidence of swallow nesting was confirmed from the stables. No other bird nests were recorded from the building.

6.2 Legislation and Policy Guidance

Bats

6.2.1 Bats receive protection under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and the Wildlife and Countryside Act 1981 (as amended).

6.2.2 It is an offence to:

- Deliberately capture (or take), injure or kill a bat.
- Intentionally or recklessly disturb bats whilst they are occupying a structure or place used for shelter or protection or obstruct access to any such place.
- Damage or destroy the breeding or resting place (roost) of a bat.
- Possess a bat (live or dead), or any part of a bat.
- Intentionally or recklessly obstruct access to a bat roost.
- Sell (or offer for sale) or exchange bats (dead or alive), or parts of parts.

6.2.3 The Convention on Biological Diversity, signed in Rio de Janeiro, Brazil in 1992, requires member states to develop national strategies and to undertake a range of actions aimed at maintaining or restoring biodiversity. The UK Biodiversity Strategy was produced in response to the Convention.

6.2.4 In England & Wales, the Natural Environment and Rural Communities (NERC) Act, 2006 imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, “to have due regard, as far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. It notes that “conserving biodiversity includes restoring or enhancing a population or habitat”. Barbastelle *Barbastella barbastellus*, Bechstein’s *Myotis bechsteinii*, brown long-eared, greater horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *Rhinolophus hipposideros*, noctule *Nyctalus noctula* and soprano pipistrelle *Pipistrellus pygmaeus* bats are included as priority species within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. At a more local level there are Local Biodiversity Action Plans for smaller geographical areas which may cover a greater or lesser range of bat species.

6.2.5 The National Planning Policy Framework for England was revised in 2023. The National Planning Policy Framework for England was revised in 2024. This document states that plans should ‘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'.

Birds

6.2.6 All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to:

- Intentionally kill, injure or take any wild bird.
- Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.

6.3 Further Survey, Recommendations and Enhancements

Bats

6.3.1 No further bat survey is considered necessary providing works commence within 24 months of the survey date. If works commence after this time, then Middleton Bell Ecology should be contacted to determine the requirement for update survey works to be undertaken.

6.3.2 In accordance with the aims of the National Planning Policy Framework (2024), it is recommended that at least one bat roosting feature be incorporated within the new dwelling. It is advised that an enclosed and integrated bat box, of a design such the PRO UK Build-in WoodStone Bat Box (Plates 6 & 7) be fitted at wall top height, away from areas of light spill. For further information on appropriate bat roosting features please contact Middleton Bell Ecology.

Plates 6 & 7. PRO UK Build-in WoodStone Bat Box

6.3.3 Over time bats will often access new buildings. Bats have been shown to regularly become entangled and die in the component filaments of standard modern woven roofing membranes (Appendix 1). There are however now a number of modern roofing membranes which have been shown to be relatively safe for bats. As a result, it is recommended that the roof of the new dwelling be lined with a 'bat safe' membrane.

6.3.4 The stables are located in a dark rural setting. Many species of bat show a strong light aversion. Where lighting is necessary, then it is recommended this should be subject to passive infra-red sensor activation, in order reduce the times of operation. It is strongly recommended that decorative building lighting be completely avoided. It is recommended that any new lighting should be low height, directed downwards, low output and of a warm colour tone (ILP, 2023).

Birds

6.3.5 Demolition of the stables should either be undertaken outside the bird nesting period (March to September inclusive), or the works would need to be preceded by a nesting bird check, to be undertaken by an experienced ecologist.

6.3.6 It is also recommended that mitigation for nesting swallows be incorporated within the development. Suitable mitigation may include the provision of two swallow nest cups within a newly constructed open sided structure (i.e. car port, stables or log store).

6.4 Conclusions

6.4.1 There were no visible signs of bat occupation on either the inside or outside of the stable block.

6.4.2 No further survey effort is necessary, providing works commence within 24 months of the survey date. If works are to commence after this date, then Middleton Bell Ecology should be contacted to determine the requirement for update survey.

6.4.3 Works should proceed with caution and vigilance for unexpected bat presence, as single bats can roost almost anywhere. If bats are subsequently discovered, work should be stopped, and further advice sought without delay.

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6.4.5 It is recommended that mitigation for nesting swallow is incorporated into the new development with a bat roost enhancement also recommended.

7. References

Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). The Bat Conservation Trust.

MBE (2020) Stables off Royd Moor Road, Thurlstone – Bat and Bird Survey Report. Middleton Bell Ecology.

ILP (2023) Guidance Note 08/23: Bats and Artificial Lighting at Night. Institute of Lighting Professionals and Bat Conservation Trust.

Appendix 1. Bats and Roofing Membranes

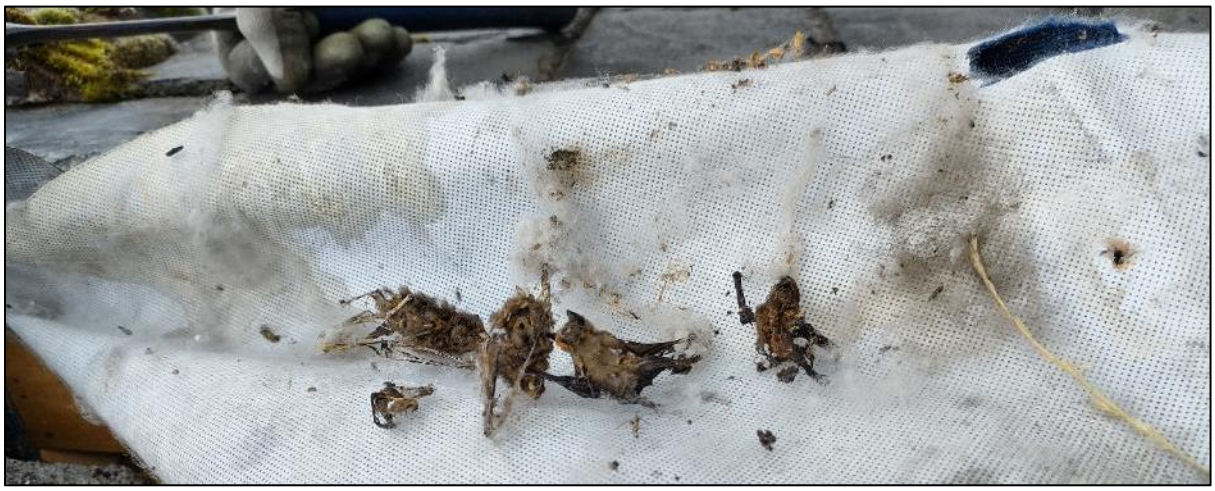
Standard roof membranes can cause the death of significant numbers of bats. Traditional bitumen coated roofing felt is recommended where roosting bats are expected to be present.

The problem

Standard non-bitumen coated membranes (including almost all breathable membranes) used below roof slates and tiles present a significant problem for bats. Over time, strands are pulled away from the surface of these materials as bats crawl over them. These fuzzy strands are very strong and can tangle and trap bats, sometimes causing the death of bats over multiple years[1].

One example we have encountered comprised a pipistrelle roost which formed in a building extension constructed in 2009. Over the course of just 13 years the roofing felt degraded to the extent that it trapped and killed more than 10 bats. Fortunately, the problem in this roost was identified and remedial work was undertaken to replace the roofing membrane in 2022.

Plate A1.1. Four dead pipistrelles tangled in breathable roofing membrane



Although a new roof might be considered to lack potential bat access points, that is often not the case. Roofs covered with stone slates almost always have gaps large enough to be accessed by bats, this is often also the case where imitation stone slates are used. On older buildings the uneven roof timbers and/or building design also often results in gaps on wall tops and between slates. Even on new builds it is often possible for bats to access potential roosts via features such as dry verge capping. Some bats can access a space no wider than a biro pen, therefore it is not surprising that they can find their way into most buildings.

Safe roofing membranes (and membranes behind cladding)

From a bat perspective, the best membrane option for areas where roosts are expected comprises traditional hessian-backed Type 1F bituminous felt. This product has been widely and safely used as a secondary weather barrier since approximately the 1950s/1960s. Wooden sarking has also been used for many decades and if appropriately treated, is safe for

[1] Wearing S. Essah E., Gunnel K. & Bonser R. (2013) Double jeopardy: the potential for problems when bats interact with breathable roofing membranes in the United Kingdom. Architecture and Environment

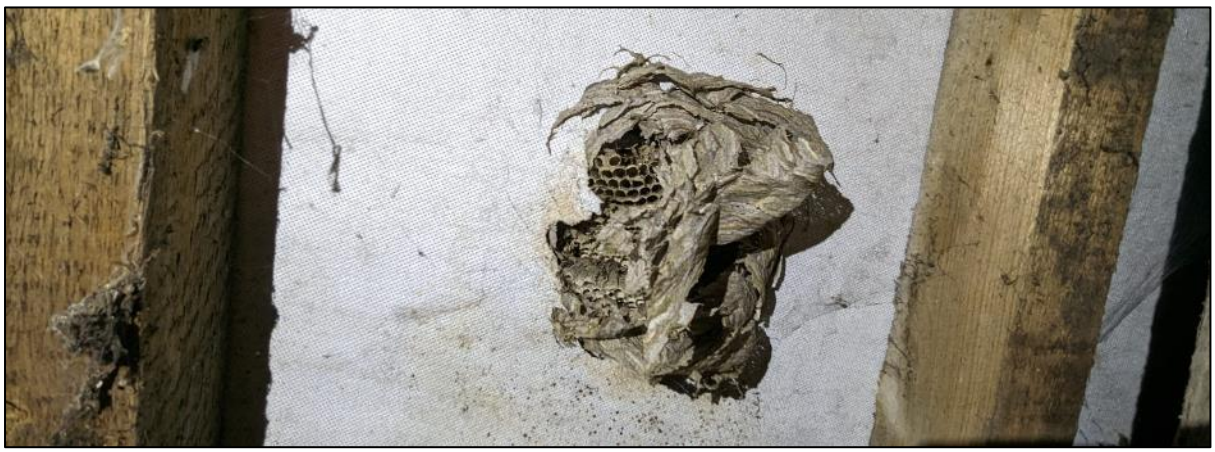
use in bat roosts. Wooden sarking also has the benefit of providing adding additional insulation and it is usually breathable.

At the time of writing (and to our knowledge) two products have passed the 'snagging propensity' test; consequently these products are approved by Natural England for use in bat roosts. This test attempts to replicate the wear and tear which results from bats crawling over the membrane. The approved products are: TLX BatSafe[2,3] and SIGA Majcoat 350. Although they have passed this test, it is unclear how these membranes will degrade in the medium-long term, particularly in larger bat roosts. Therefore we do not recommend that they are used for roosts with multiple bats, and particularly for large (maternity roosts). A third product, SIGA Majcoat 200 SOB Diffusion, passed the test for its upper surface only. This product should not be used in known bat roosts or locations where bat mitigation is to be installed. Although none of these products are considered to be as safe as traditional Type 1F bituminous felt, they may provide an option for roofs where future bat use cannot be ruled out, and a breathable solution is required.

Additional considerations

In recent years a fairly substantial proportion of the lofts we have surveyed which had existing breathable felt, were found to have been damaged by wasps (Plate A3.2). The wasps appear to have chewed holes in the felt and formed nests. This doesn't appear to be a problem associated with traditional bitumen coated roofing felt. Any holes within roofing felt are likely to significantly reduce its functionality as a secondary weather barrier. Where bats or birds come into contact with breathable roofing membranes, they can also damage it causing it to leak, they can also significantly reduce the breathability of the felt in that location.

Plate A1.2. Damage to a breathable roofing membrane adjacent to a wasp nest



Traditional bituminous Type 1F roofing felt is a non-breathable product and therefore ventilation is required. Sufficient ventilation can be usually be achieved, even in buildings with vaulted ceilings, however, some consideration during the design stage is required. Products to increase the ventilation within roofs where bituminous Type 1F felt has already been installed are also available.

[2] https://www.gov.uk/government/publications/bats-apply-for-a-mitigation-licence#full-publication-update-history:~:text=Use%20of%20safe%20roofing%20membranes

[3] TLX BatSafe requires all joints and cut edges to be taped in order to prevent the fraying of bare edges.