



PHASE 1 BAT & NESTING BIRD SURVEY

**Orchard House, Little Rissington,
Gloucestershire, GL54 2ND**

15th September 2023

Ridgeway Ecology Ltd
36 Chichester Lane, Hampton Magna, Warwick,
Warwickshire, CV35 8TG, UK

Tel: 01926 259182

Mob: 07973445101

Email: enquiries@ridgewayecology.co.uk

Web: www.ridgewayecology.co.uk

Control Sheet

General Report Information	
Report title	Phase 1 Bat & Nesting Bird Survey
Client	Polly and Steve Rose
Location	Orchard House, Little Rissington, Gloucestershire, GL54 2ND
Prepared by	Dr Jon Russ
Issue Date	15/09/2023
Document Reference	RE2024-145

Disclosure:

This document has been prepared by Ridgeway Ecology Ltd for the sole use of the commissioning client/s. It has been provided in accordance with the agreed scope and intended purpose. No other warranty is made as to the professional advice included in this document. It does not purport to give legal advice.

This report should not be copied or relied upon by any third party without the express prior written agreement of Ridgeway Ecology Ltd and the commissioning client/s.

The evidence gathered, and the opinions provided, have been prepared in accordance with the Chartered Institute of Ecology and Environmental Management Code of Professional Conduct.

Where any appraisal is based upon information provided by third parties, it is assumed that this information is relevant, correct and complete; there has been no independent verification of information obtained from third parties unless otherwise stated. Where field investigations have been carried out these have been appropriate to the agreed scope of works and carried out to a level of detail required to achieve the stated objectives

Contents

1	Introduction	4
1.1	Background to activity/development.....	4
1.2	Site description	4
1.3	Proposed works	4
1.4	Planning and legislative context.....	4
1.5	Objectives	7
2	Methods.....	8
2.1	Pre-survey data search.....	8
2.2	Surveyor information	8
2.3	Field surveys.....	8
2.3.1	Habitat survey	8
2.3.2	Bat roost survey/Nesting bird survey(s).....	8
2.3.3	Bat activity survey(s)	9
3	Results.....	10
3.1	Pre-survey data search.....	10
3.1.1	Designated sites	10
3.1.2	Protected species.....	10
3.2	Field Surveys	10
3.2.1	Habitat description	10
3.2.2	Bat roost survey/Nesting bird survey(s).....	10
3.2.3	Bat activity survey(s)	11
3.2.4	Interpretation and evaluation of survey results.....	11
4	Assessment	12
4.1	Constraints.....	12
4.2	Potential impacts of the development.....	12
5	Recommendations and mitigation	13
6	References	14
7	Figures.....	15
8	Photographs.....	16

1 Introduction

1.1 Background to activity/development

This report has been prepared by Dr Jon Russ at the request of Ian Lenton of Eastabrook Architects acting on behalf of their clients Polly and Steve Rose. Planning consent is being sought from Cotswold District Council to convert an outbuilding at Orchard House, Little Rissington, Gloucestershire, GL54 2ND to create an annexe. The local planning authority will require a bat and nesting bird survey to inform the planning process.

1.2 Site description

The site proposed for development, Orchard House (GR: SP192197), is located in the village of Little Rissington in rural Gloucestershire (Figure 1). The site is surrounded by dwellings and open farmland consisting of arable cropland and pasture bordered by a network of hedges and treelines. There are several areas of woodland within 2 km of the site, the nearest being Forty Copse 330m to the north, Henever Coppice 230 m to the west and Moor's Copse 210 m to the south-east. There is a stream located 50 m south of the site and the River Dikler is located 1.1kmt. There are numerous ponds located within 1km of the site and Cotswold Carp Farm is located 1.3 km to the west. The standing and running water bodies, woodland, hedgerows and treelines represent good foraging habitat for bats. In addition, the variety of habitats is likely to support a relatively diverse bird population.

1.3 Proposed works

Planning consent is being sought from Cotswold District Council to convert an outbuilding at Orchard House, Little Rissington, Gloucestershire, GL54 2ND to create an annexe.

1.4 Planning and legislative context

The information below is intended only as guidance to the legislation relating to these species. The Acts themselves should be referred to for the correct legal wording.

Bats – Legislative context

All bats are included in Schedule 2 of The Conservation of Habitats and Species Regulations 2017, which implements the requirements of the Habitats Directive in England, Scotland and Wales and in Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations (Northern Ireland) 1995 (as amended) which implement the requirements of the Habitats Directive in Northern Ireland. Bats and their breeding sites or resting places are protected under Regulation 39. An amendment to the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 came into force in Northern Ireland on 21st August 2007 (Conservation (Natural Habitats, etc.) (Amendment) Regulations (Northern Ireland) 2007).

It is an offence for anyone without a license to:

- Intentionally or recklessly/deliberately injure, take or kill a bat;
- To possess a bat (unless obtained legally) whether alive or dead;
- Intentionally or recklessly/deliberately damage, destroy or obstruct access to any place that bats use for shelter or protection whether bats are present or not;

- Intentionally or recklessly/deliberately disturb a bat while it is occupying a structure or place that it uses for shelter or protection.
- deliberately disturb bats in such a way as to be likely significantly to affect—
 - (i) the ability of any significant group of bats to survive, breed, or rear or nurture their young;
 - or
 - (ii) the local distribution or abundance of that species;

Prosecution could result in imprisonment, fines of £5,000 per animal affected and confiscation of vehicles and equipment used.

Recent amendments to the Habitat Regulations in 2007 have removed many of the defences. This includes the commonly relied upon 'incidental result defence', which previously covered acts that were the incidental result of an otherwise lawful activity and which could not reasonably have been avoided. As the incidental result of a lawful operation defence has been removed from legislation (Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007) operators are now open to this strict liability offence, whether the damage occurs by accident or not. An offence will only be committed if the deliberate disturbance is likely to significantly affect a significant group of animals of that species' ability to survive, breed, or rear or nurture its young or is likely to significantly affect the local distribution or abundance of that species. Deliberate disturbance of a protected animal (species on Schedule 5 which includes EPS) in its place of shelter or protection will continue to be an offence under the Wildlife and Countryside Act 1981. However, the incidental result of a lawful operation defence will be available for that offence where the disturbance could not have been reasonably avoided.

In England, Scotland and Wales all bat species are protected under the Wildlife and Countryside Act 1981 (WCA) (as amended) through inclusion in Schedule 5. The existing offences under the Wildlife and Countryside Act (1981) as amended which cover obstruction of places used for shelter or protection, disturbance and sale still apply to European protected species.

In England and Wales, the WCA was amended by the Countryside and Rights of Way Act 2000 (CRoW), which adds an extra offence ('or recklessly' to S9(4)(a) and (b)), makes species offences arrestable, increases the time limits for some prosecutions and increases penalties.

Exemptions can be granted from the protection afforded to bats under the Habitat Regulations, by means of a EPS (European Protected Species) Habitats Regulations licence obtained from Natural England.

A 'EPS Habitats Regulations Licence' could be required for:

- Demolition of a building known to be used by bats prior to development of a site
- Conversion of barns or other buildings known to be used by bats
- Removal of trees known to be used by bats as well as tree pruning
- Significant alterations to roof voids known to be used by bats
- Road building or widening
- Bridge strengthening

There are three tests, which must be satisfied, before a licence can be issued to permit otherwise prohibited acts;

- Regulation 53(2)(e), for the purpose of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment; or
- Regulation 53(2)(f) for the purpose of preventing the spread of disease; or
- Regulation 53(2)(g) for the purpose of preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other forms of property or to fisheries; subject to Natural England being satisfied that the application additionally meets:
 - Regulation 53(9)(a) that there is no satisfactory alternative; and
 - Regulation 53(9)(b) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

A European Protected Species License is required before the commencement of any development that might impact on bats or their roosts.

Birds – Legislative context

All birds, their nests and eggs are protected by law under the Wildlife and Countryside Act 1981 (as amended). It is an offence, with certain exceptions, to:

- Intentionally kill, injure, or take (handle) any wild bird.
- Intentionally take, damage or destroy any wild bird nest whilst in use or being ‘built’.
- Intentionally take or destroy a wild bird egg.
- Have in one’s possession or control a wild bird (dead or alive), or egg, (unless one can show that it was obtained legally).

Some species of bird listed under Schedule 1 (e.g. Barn Owls, of the Act receive extra protection. For these species it is an offence to:

- Intentionally or recklessly disturb any wild bird whilst ‘building’ a nest or whilst in, on, or near a nest containing eggs or young.
- Intentionally or recklessly disturb any dependent young of wild birds.

Disturbance may be deemed reckless if it is committed by someone who could be expected to know that the bird(s) might be present but failed to check.

Under the 1981 Act (Part 1, section 25) local authorities are given the function of bringing this legislation to the attention of the public and may institute proceedings for any offence committed within their area. The police are empowered to enter onto any land and search, or stop and search, any person where an offence is suspected (section 14). Anyone found guilty of an offence is liable to a fine of up to £5,000 or imprisonment for a term not exceeding six months, or both.

Planning policy and Biodiversity Action Plan context

The National Planning Policy Framework (NPPF) is guidance for local planning authorities on the content of their Local Plans but is also a material consideration in determining planning applications. The NPPF has replaced much of the existing planning policy guidance, including Planning Policy Statement 9: Biological and Geological Conservation. However, the government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System, which accompanied PPS9 remains valid.

The Natural Environment and Rural Communities (NERC) Act 2006, in particular Section 40, places a duty on public bodies to have regard to the conservation of biodiversity. This duty is guided by the

habitats and species lists in Section 41 of the Act, within which seven bat species are included: barbastelle (*Barbastella barbastellus*), Bechstein's (*Myotis bechsteinii*), noctule (*Nyctalus noctula*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), greater horseshoe (*Rhinolophus ferrumequinum*) and lesser horseshoe (*Rhinolophus hipposideros*) bats. These seven species are also listed as Priority Species within the UK Biodiversity Action Plan (UKBAP), (the UK Government's response to the Convention on Biological Diversity).

1.5 Objectives

The bat survey was commissioned to assess:

- what species of bat are present at the site;
- what types of bat activity are occurring within the site;
- whether or not bats are roosting within the site; what population levels (size and importance) are present at the site;
- and to make recommendations on any further action that may be required to provide sufficient information for the local planning authority to support a planning application

A nesting bird survey was commissioned to:

- determine the use or otherwise of the site by nesting birds;
- determine the value of the site to nesting birds;
- make an assessment of the potential impacts and effects of the proposed development of the site on nesting birds;
- determine the legal implications of the proposed development; and
- recommend appropriate mitigation measures to remove or reduce impacts.

2 Methods

2.1 Pre-survey data search

As the scale of the proposed development is small a pre-survey data search of biological records was not carried out. A search using the MagicGov and Nature on the Map (Natural England) websites was performed to identify sites of nature conservation.

2.2 Surveyor information

The survey was carried out by Dr Jon Russ CEnv, MIEEM. Jon is a terrestrial and behavioural ecologist with a specialist interest in bats. As Director of Ridgeway Ecology Ltd and through his academic research and work with the Bat Conservation Trust he has managed, designed and carried out large- and small-scale bat surveys and bat monitoring programmes in the UK and the tropics. He has extensive experience with the United Kingdom and European Union legislation regarding bats and has been a fully licensed bat worker for over 20 years, holding bat conservation, education and scientific licences for radio-tracking, mist-netting, ringing, harp-trapping, ultrasonic playback and DNA sampling. His publication record includes a large number of articles in scientific journals as well as other publications including the widely used book, “The Bats of Britain and Ireland: Echolocation, Sound Analysis, and Species Identification”, “Review of ASSI designation for bats in Northern Ireland”, “The Northern Ireland Bat Action Plans” which he coordinated and delivered, “British Bat Calls: A Guide to Species Identification” and the recently published “Bat Calls of Britain & Europe”. In addition, Jon has a great deal of experience in avoidance, mitigation and compensation measures relating to bats and development. Licences include Natural England Class 3 (CL19 - 2015-11383-CLS-CLS) & Class 4 (CL20 - 2015-11384-CLS-CLS), Bat Mitigation Class Licence (CL21 - RC011), HS2 Bat Low Impact Class Licence for Trees (CL40 - B40RC016), HS2 Bat Low Impact Class Licence for Buildings (CL39 - B39RC016), Bat Earned Recognition (Ref: cBER0254).

2.3 Field surveys

The bat survey was undertaken in accordance with current best practice guidelines, which include: Bat Mitigation Guidelines (Mitchell-Jones, 2004); The Bat Workers Manual (Mitchell-Jones & McLeish, 2004); and Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins 2016).

A nesting bird survey was also undertaken in accordance with reference to *Field Guide to Nests, Eggs and Nestlings of British and European Birds* (Collins Field Guide 1985); *Survey techniques* (Barn Owl Trust 2010); and *Barn owls on site: A guide for developers and planners 2nd Edition* (English Nature 2002).

2.3.1 Habitat survey

A survey of the habitats that may be used by roosting bats was carried out.

2.3.2 Bat roost survey/Nesting bird survey(s)

On the 11th September 2023, the building was surveyed for potential roost sites and signs of bats. The survey utilised a ladder, a high-powered torch, binoculars and an endoscope (Ridgid CA-300 with 6mm and 9mm camera heads). The external inspection involved looking for bat droppings on the ground, stuck to walls or roof tiles and on windows and sills and recording suitable entry and exit points. The internal inspection focused on those areas which may be suitable for roosting bats, such

as ridge tiles, gable walls, joints and crevices in wood, crevices in walls as well as searching for bat droppings and feeding signs on the floors and other surfaces.

The following criteria were used to determine the roosting potential of the building.

Table 1. Description of roosting potential categories

Roosting potential	Criteria
Good	Buildings that have many areas suitable for roosting with a large number of potential access points. These are normally in sheltered locations, subject to low variation in temperature. Buildings with good potential could be used for a whole range of roosts including maternity roosts.
Moderate	Buildings with a smaller number of areas suitable for roosting, but still supporting features that could be attractive to bats and potentially support maternity roosts.
Limited	Buildings with limited roosting opportunities. These may be in locations that are subject to wide temperature fluctuations and drafts. They could be used as occasional or transient roosts, but are unsuitable for maternity roosts. Buildings that would otherwise be moderate to good potential but have reduced value due to other factors such as exposed location, separation from nearby foraging habitat, or presence of strong streetlight.
Low	Buildings that have no obvious places for bats to roost, but could be used on a sporadic or occasional basis for feeding or solitary day roosting.
Negligible	Buildings that appear unsuitable for roosting bats due to a clear lack of roosting spaces such as voids etc and/or absence of suitable access points. Such buildings in practice are rare.

A general search was made in and around the building for signs of nesting birds such as pellets, feathers, droppings, nests and nest debris.

2.3.3 Bat activity survey(s)

n/a

3 Results

3.1 Pre-survey data search

3.1.1 Designated sites

There are no designated sites within 1 km of the site.

3.1.2 Protected species

See 2.1.

3.2 Field Surveys

3.2.1 Habitat description

The focus of the survey is a stone outbuilding (Photographs 1-3). The east-facing roof pitch of the gable roof is covered with close-fitting concrete tiles and the west-facing roof pitch is covered with large stone slates. The tiles and slates are over timber sarking.

3.2.2 Bat roost survey/Nesting bird survey(s)

Bats

There is access to the room at the southern end of the building via an opening in the south gable wall (Photograph 4). There is no obvious access to the central and north bays.

The west-facing roof pitch is completely sealed with no openings between or under tiles (Photograph 5). On the east-facing roof pitch, there are a few openings under slates where the front of the slate has lifted slightly (e.g. Photographs 6 and 7). In most cases, the length of the slate means that the opening is 'pinched off' at the rear preventing access to the cavity between the slates, battens and sarking. However, there is a small number that do permit access to these cavities although the lower slate in all cases was quite dusty indicating that bats had not moved across them recently.

At the apex of both gable ends there are cavities next to the protruding ridge board (Photographs 8 and 9) and along the edge of the north gable there is an opening between the end rafter and the gable wall (Photograph 10). None of these cavities contained any evidence of use by bats.

At the southern end of the building, there is a room that contains exposed timbers suitable for perching (Photographs 11 and 12). The interior is well-lit during the day which is likely to deter bats from using it during this period. There were no droppings or any other evidence of bats.

The open roof void of the central bay (Photograph 13) leads into the partially enclosed roof void above the north bay (Photograph 14). The whole of the ridge area was covered with dense cobwebs to just below the level of the collar (e.g. Photograph 15) indicating that bats have not been present for some time, if at all. There were no droppings in these areas which is not surprising as there does not appear to be any access.

The northern bay contains exposed timbers but the interior is well lit during the day and there does not appear to be any access (Photograph 16). There was no evidence of bats.

Nesting birds

In the room at the southern end of the building, there were a few twigs on the truss indicating that birds, possibly jackdaws, had attempted to nest in the past (Photograph 17). It looks like their attempt may have been abandoned as there were no droppings or larger accumulations of nesting material. In the same room, there was some moss and feathers on the truss (Photograph 18). If this area was previously used for nesting it must have been many years ago.

3.2.3 Bat activity survey(s)

n/a

3.2.4 Interpretation and evaluation of survey results

Bats

The outbuilding is considered to be of low bat roosting potential. However, all of the potential roosting sites could be visually inspected, except for a very small number of cavities between the slates and lining on the west-facing roof pitch where only the openings could be inspected, and none contained any evidence of bats.

Nesting Birds

There was no evidence that birds have nested in the outbuilding in the past few years.

4 Assessment

4.1 Constraints

None.

4.2 Potential impacts of the development

Planning consent is being sought from Cotswold District Council to convert the outbuilding to create an annexe. The proposed work is unlikely to have an impact on bats or nesting birds.

5 Recommendations and mitigation

Bats

There was no evidence of bats within the outbuilding at Orchard House, Little Rissington (see 3.2.2 and 3.2.4). The outbuilding is considered to be of low bat roosting potential. However, all of the potential roosting sites could be visually inspected, except for a very small number of cavities between the slates and lining on the west-facing roof pitch where only the openings could be inspected, and none contained any evidence of bats. As such no further work is recommended.

Planning consent is being sought from Cotswold District Council to convert the outbuilding to create an annexe. The proposed work is unlikely to have an impact on bats. However, the following must be adhered to.

- As a precaution, a licensed ecologist must be present to supervise the careful removal of the slates on the roof of the outbuilding, if this occurs, and to re-inspect any cavities prior to repointing. If there is any evidence of bats work must stop and if it is not possible to reinstate the roost sites it may be necessary to obtain an appropriate derogation licence from Natural England.
- All work must be carried out carefully with the expectation that bats may be found. If bats are observed within the building at any time work must cease immediately and Natural England or the ecologist for this project must be contacted for advice.

The development of the site provides an opportunity to improve the roosting opportunities for bats within the area. Bats could be encouraged to roost within the site by:

- Installing a bat box at the top of the south wall of the outbuilding located away from windows and lights (e.g. Photograph 19).

Birds

There is no current evidence of nesting. However, in Britain, all wild birds are granted legal protection under the Wildlife & Countryside Act 1981 (as amended), the Bern Convention and the EC Birds Directive. The legislation protects the birds and their eggs and nests while being built or in use. This protection makes it an offence to intentionally kill, injure, take or have in possession any wild bird or egg. It is also an offence to intentionally damage or destroy the nest of any wild bird while it is being built or in use. Therefore, the following must be adhered to:

- If nesting birds are observed when a qualified ecologist is not present, work must stop and they must be contacted for advice. A suitable 'no work' buffer zone will need to be created around the nest and work may not be able to continue until the young have fledged.

6 References

- Altringham, J. (2003). *British Bats*. HarperCollins Publishers.
- Barratt, E. M., Deaville, R., Burland, T. M., Bruford, M. W., Jones, G., Racey, P.A. & Wayne, R.K. 1997. DNA answers the call of pipistrelle bat species. *Nature* 387: 138-139.
- Blake, D., Hutson, A. M., Racey, P. A., Rydell, J. & Speakman, J. R., 1994 Use of lamplit roads by foraging bats in Southern England. *J. Zool. Lond.* 234: 453 - 462.
- Battersby, J. (2005) *UK Mammals: Species Status and Population Trends*. JNCC/Tracking Mammals Partnership 2005.
- Collins, J. (ed.) 2016 *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)*. The Bat Conservation Trust, London.
- Elliot, P. (2005). *Warwickshire, Coventry & Solihull Local Biodiversity Action Plan: Bats*. Warwickshire County Council.
- Entwistle, A.C., Harris, S., Hutson, A., Racey, P.A., Walsh, A., Gibson, S.D., Hepburn, I. & Johnston, J. (2001). *Habitat management for bats. A guide for land managers, land owners and their advisors*. Joint Nature Conservation Committee, UK.
- IEEM. 2005. *Guidelines for Ecological Impact Assessment. Consultation Draft*. Institute of Ecology & Environmental Management, UK.
- Joint Nature Conservation Committee (2007). *UK Biodiversity Action Plan*. www.ukbap.org.uk
- Mitchell-Jones, A. J. (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough.
- Mitchell-Jones, A.J. & McLeish, A.P. 2004. *The Bat Workers Manual (3rd ed.)*. JNCC, Peterborough.
- Office of the Deputy Prime Minister, under licence from the Controller of Her Majesty's Stationery Office (2005). *Planning Policy Statement 9: Biological and Geological Conservation*.
- Russ, J. M. (1999). *The Bats of Britain and Ireland: Echolocation calls, sound analysis and species identification*. Alana Books, Powys, UK.
- Rydell, J. 1992 Exploitation of insects around street lamps by bats in Sweden. *Functional Ecol.* 6: 744 - 750.
- Simpson, P. 2007. New species protection legislation: opportunities and risks for consultant ecologists. In: *In Practice. Bulletin of the Institute of Ecology and Environmental Management*. 58, 24-27.
- Simpson, P. 2009. Ecology legal update. In: *In Practice. Bulletin of the Institute of Ecology and Environmental Management*. 66, 36-38.
- Swift, S.M. 1998. *Long-eared bats*. Poyser Natural History, London.

7 Figures



Figure 1. Location of the site (arrowed). 1:25000

8 Photographs



Photograph 1. The west elevation



Photograph 2. The south elevation



Photograph 3. The north elevation



Photograph 4. Opening in the south gable wall



Photograph 5. The sealed east-facing roof pitch



Photograph 6. Example of an opening under the slates on the west-facing roof pitch



Photograph 7. Further example of an opening under the slates on the west-facing roof pitch



Photograph 8. Crevices on either side of the protruding ridge board at the apex of the south gable wall



Photograph 9. Crevice to the side of the protruding ridge board at the apex of the north gable wall



Photograph 10. Crevice between the gable rafter and the north gable wall



Photograph 11. The room at the southern end of the building



Photograph 12. The painted timber sarking in the room at the southern end of the building



Photograph 13. The interior of the central bay



Photograph 14. The partially enclosed roof void above the north bay



Photograph 15. Example of dense cobwebs under the ridge in the central and north bays



Photograph 16. The bay at the northern end of the building



Photograph 17. Possible nesting material in the room at the southern end of the building



Photograph 18. Possible remnants of a nest in the bay at the southern end of the building



Photograph 19. Greenwood's EcoHabitats single cavity bat box

END OF REPORT



www.ridgewayecology.co.uk | enquiries@ridgewayecology.co.uk | 01926 259182