



**The Stables
Weston
Shropshire**

Ecology Survey Report

MR NIGEL AND MRS GEORGINA CHESTERS

VERSION 2

Final

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Executive Summary

BiOME Consulting Ltd was commissioned by Mr Nigel and Mrs Georgina Chesters (in June 2021) to undertake a Preliminary Ecological Appraisal of a small outbuilding proposed for demolition located at The Stables, Weston, Shropshire. This PEA identified the requirement for dedicated bat surveys, which have been completed.

The ecology surveys detailed within this report were completed in order to determine the baseline ecological conditions of the site, with particular attention given to the possible presence of protected, controlled or otherwise notable species.

The outbuilding was located to the north of an occupied dwelling (The Stables). A lawned garden was present to the north, with boundary wall adjoining to the west and hardstanding/buildings to the south and east. This pitched roof building was single storey and used for accommodation (although is presently unoccupied).

The ecological issues identified during the completed surveys were:

Bats: A Preliminary Roost Assessment and nocturnal survey failed to find any evidence of roosting bats, and bat roosts are therefore considered likely absent. No further works in relation to roosting bats are required, however, in the apparently unlikely event that bats are disturbed during the works, all works must stop immediately, and the advice of a Suitably Qualified Ecologist (SQE) sought.

A sympathetic lighting plan should be developed to ensure that impacts to foraging bats are minimised.

Other Species: No further survey work in relation to amphibians or nesting birds is required. However, if during works amphibians/active bird nests are encountered works must cease and the advice of a SQE sought.

1. Introduction

BiOME Consulting Ltd was commissioned by Mr Nigel and Mrs Georgina Chesters (in June 2021 to undertake a Preliminary Ecological Appraisal (PEA) of a small outbuilding proposed for demolition. This PEA identified the requirement for dedicated bat surveys, which have been completed.

The site, located on the northern periphery of the village (**Figure 1**) of Weston, Shropshire (National Grid Reference SJ 56576 28971) was located in the grounds of a larger dwelling (the Stables) and included a small single-storey outbuilding (**Figure 2, Photograph 1**) (henceforth termed 'the Outbuilding').

The ecology surveys detailed within this report were completed in order to determine the baseline ecological conditions of the Outbuilding, with particular attention given to the possible presence of protected, controlled or otherwise notable species. The results have been used to identify further ecological work/mitigation/licencing required to enable the proposed works at the site to proceed lawfully.

Figure 1. Site location

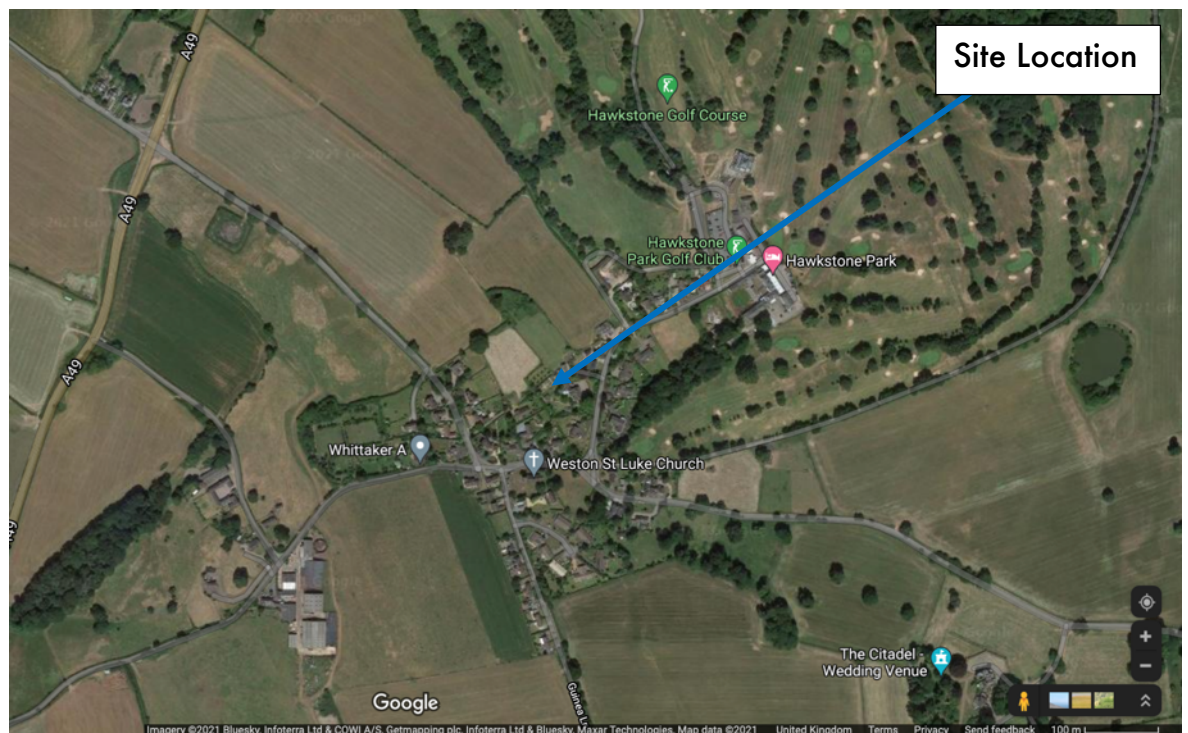


Figure 2. Site layout



Photograph 1. **The Outbuilding**



1.1. Site Description

The Outbuilding (**Photograph 1**) was located to the north of an occupied dwelling (The Stables). A lawned garden was present to the north, with boundary wall adjoining to the west and hardstanding/buildings to the south and east. This pitched roof building was single storey and used for accommodation (although was unoccupied).

1.2. Development Proposal

It is proposed to demolish the Outbuilding and an extension to the house constructed on its footprint.

2. Methodologies

2.1. Desk Study

Details in relation to internationally designated sites within 5km and nationally designated sites with 2km were obtained from www.magic.gov.uk. A search was also completed using the same database for the following, within 2km of the site:

- Granted European Protected Species (EPS) development licences.
- Great Crested Newt Class Survey Licence returns
- Pond surveys 2017-2019.

Habitats and Species of Principal Importance included within Section 41 of the Natural Environment and Rural Communities (NERC) Act and Local Biodiversity Action Plan (LBAP)¹ priority habitats and species were also reviewed to compare to those habitats and species recorded within the site during the survey or recorded as having potential to be present due to habitat suitability.

Due to the nature of the proposals, the extent of potential impacts and the results of the site survey the purchase of species records from the local biological records centre was considered unnecessary.

2.2. Preliminary Ecological Appraisal Survey

A PEA site survey^{2,3} was undertaken on 12 June 2021 by an experienced ecologist, Martyn Owen MCIEEM. This survey was completed in suitable weather conditions (sunny and dry). Prior to the completion of the site survey, aerial imagery was reviewed⁴ to provide an indication of habitat types present in the area.

1 Shropshire Biodiversity Partnership Steering Group (2002) Shropshire Biodiversity Action Plan [online] available at: <https://shropshire.gov.uk/environment/biodiversity-ecology-and-planning/biodiversity-action-plan/> (accessed 12 June 2021)

2 Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London

3 CIEEM (2017) *Guidelines for preliminary ecological appraisal* [online] available at: <https://www.cieem.net/guidance-on-preliminary-ecological-appraisal-gpea-> (accessed 12 June 2021)

4 Google Maps [online] available at: <https://www.google.co.uk/maps> (accessed 12 June 2021)

During the survey all areas within the site and adjacent areas were walked and habitat types assessed. Signs of protected species, invasive plants (i.e. those included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)) and other notable species were also searched for, as well as noting habitats considered to have the potential to support protected species.

The ultimate purpose of this PEA was to identify potentially valuable habitats and plant species assemblages, and to identify the presence and/or potential for protected/controlled species. This report presents an assessment of the ecological significance of the features present and discusses the potential for the site to support legally protected species and/or species of conservation interest which may be impacted by the project.

2.3. Bats

2.3.1. Preliminary Roost Assessment

A Preliminary Roost Assessment (PRA) survey was completed during the PEA, in line with appropriate survey guidance⁵. Martyn holds a Natural England (NE) licence to survey bats (2015-1974-CLS-CLS), which derogates the law with regard to disturbance of these species.

The survey involved an inspection of the interior and exterior of the Outbuilding to identify potential or actual bat access points and roosting sites, and to locate any evidence of bats such as live or dead specimens, bat droppings, urine splashes, fur-oil staining and/or squeaking noises. It should be noted that sometimes bats leave no visible sign of their presence on the outside of a building (and even when they do wet weather can wash away evidence).

The inspection of buildings and built structures for evidence of bats can be conducted at all times of year. The daytime inspection was completed outside the main period of bat activity (May-September) and it is therefore possible that previous evidence of low-level bat usage may have not been apparent. However, the building was not in regular use and any bat evidence inside the buildings would very likely have been visible to the surveyor, if present.

⁵ Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn.). The Bat Conservation Trust, London

The inspection was facilitated by the use of ladders, a high-powered torch, endoscope and small dental mirrors to inspect accessible crevices considered likely to support bats.

The potential suitability of the building for roosting bats was assessed in line with relevant guidelines⁵ and allocated to one of the categories detailed within **Table 1**.

Table 1. Guidelines for assessing the potential suitability of proposed development sites for bats

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure/tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure/tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure/tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Conformed Roost	Roosting bats observed, or definitive evidence of roosting bats encountered.

2.3.2. Foraging and Commuting Habitat

An assessment was made of the suitability of the site and the surrounding landscape to support foraging and/or commuting bats. The assessment was based on the presence of key habitat features such as woodland, scrub, hedgerows, grassland and open water, which are highly attractive to bats. Of potential importance is the presence of unlit (semi)-natural vegetation and habitat linkage between the site and the surrounding landscape.

The quality of bat foraging and commuting habitat has been assessed using the criteria detailed in **Table 2**.

Table 2. Valuing bat foraging and commuting habitat

Grading Criteria	Reason
Optimal Quality	Presence of optimal habitat features such as unlit woodland, scrub, hedgerows, grassland and open water with excellent linkage to similar habitats within the wider landscape. Presence of high potential buildings/trees and/or known roosts within immediate landscape. Sites are generally rural in character.
Moderate Quality	Presence of optimal habitat features such as woodland, scrub, hedgerows, grassland and open water with reasonable linkage to similar habitats within the wider landscape. Limiting factors may include size of site.
Low Quality	Presence of some limited habitat features such as scrub or hedgerows, with minimal linkage to suitable habitats within the wider landscape.
Poor Quality	No suitable habitat present or, if present, highly degraded/fragmented. Minimal unlit areas with no linkage to suitable habitat beyond site. Generally urban in character.

2.3.3. Nocturnal Survey

Following the identification of features with the potential to support roosting bats and evidence of bat presence, a single nocturnal bat survey was completed (**Table 3**).

Surveys were managed by Richard Moores and completed by Martyn Owen MCIEEM (NE bat licence number: 2016-19747-CLS-CLS) and Stuart Thomas all of whom are experienced nocturnal bat surveyors.

A single nocturnal survey was completed. To ensure coverage of all potential bat access points into the building, the survey was completed by two surveyors (MO & ST), positioned at the northern and southern sides of the Outbuilding.

Surveyors were equipped with electronic bat detectors (EM Touch Pro 2 and/or Peersonic) and sound files were analysed with appropriate bat analysis software (Kaleidoscope) once the surveys were completed, if necessary. Infra-red cameras were used during the survey, with cameras positioned to achieve coverage of areas of the roof.

The nocturnal bat survey was undertaken in weather conditions considered appropriate for surveys of this kind (Table 3).

Table 3. Nocturnal bat activity survey information

Date	Surveyors	Sunset/ rise	Time		Cloud (octets)	Wind (Beaufort/ Direction)	Temp (°C)	Precip.
			Start	Finish				
16/07/2021	MO & ST	21:27	21:12	23:27	1-2	0-1N	19- 17	Nil

2.4. Limitations

The findings presented in this study represent those at the time of survey and reporting, and data collected from available sources. Ecological surveys are limited by factors which affect the presence of plants and animals, such as the time of year, migration patterns and behaviour.

3. Results

The results of the desk study (Section 3.1) and the site surveys (Section 3.2) are presented below.

3.1. Desk Study

3.1.1. Designated Sites

There were no designated sites within the relevant search areas.

Taking into account the nature of the proposals, the site and the location/qualifying features of the identified designated site, no impacts in relation to designated sites are anticipated and no further works are required. Designated sites are not considered further within this report.

No information in relation to granted EPS applications, GCN class licence survey return information or GCN pond surveys (2017-2019) were available within the 2km search area.

3.2. PEA/PRA Site Survey

3.2.2 Habitats

The site comprised a single storey outbuilding surrounded by well-maintained gardens and housing/hardstanding.

None of the habitats present with the site that will be directly or indirectly impacted by the proposed redevelopment works were considered to be of significant ecological value and no further survey work in relation to these habitats is deemed necessary.

3.2.3 Species

3.2.1.1. Bats

All bat species are European Protected Species (EPS) protected under the Conservation of Habitats and Species Regulations 2010 (as amended) and receive protection under the Wildlife and Countryside Act 1981 (as amended).

Preliminary Roost Assessment

The Outbuilding was a single storey building with a slate roof lined with bitumen felt on a wooden frame (Photograph 2). The brick walls were rendered with wooden-framed windows present.

A small/low (c. 1m high) roof void was present. Full access was achieved and comprehensive inspection completed. No evidence of bat presence was found within the building or on its exterior. The roof covering was tight and the building in excellent overall condition. However, a small gap was noted at ridge.

Overall, the Outbuilding was considered to have **LOW** suitability (Table 1) for roosting bats on the basis that potential roost sites may be present, although it is unlikely that any of these could support large/significant numbers of bats or important roosts.

Photograph 3. Interior of Outbuilding roof void



Nocturnal Survey - 16 July 2021 (Dusk)

No bats roosted within the Outbuilding and activity was very low with single passes of Common Pipistrelle *Pipistrellus pipistrellus* and Soprano Pipistrelle *Pipistrellus pygmaeus* logged as well as occasional passes of Noctule *Nyctalus noctula* high overhead.

Foraging and Commuting Habitat

Based on the result of the site surveys and the absence of optimal foraging/commuting habitats, the site was assessed to be of **LOW** quality (Table 2).

However, habitats of greater value were present in close proximity to the site and measures will need to be employed during and post-construction to ensure that impacts are minimised to foraging/commuting bats (Section 4).

3.2.1.2. Badger *Meles meles*

Badger are protected through the Protection of Badgers Act 1992, which makes it an offence to recklessly take, injure or kill a Badger or cause disturbance to its sett. Furthermore, Badgers are afforded protection from ill-treatment, which has been defined to include preventing a Badger accessing its sett, as well as causing the loss of significant foraging resources within a Badger territory. Badgers are also protected through this species' inclusion on Schedule 6 of the Wildlife and Countryside Act 1981 (as amended), which prohibits their killing or taking by certain methods.

No evidence of Badger was present within the site/adjacent areas. No further survey work is considered necessary and this species is not considered further within this report.

3.2.1.3. Other Section 41 Mammals

In England many of the rarest and most threatened species are included within Section 41 of the 2006 Natural Environment and Rural Communities Act. Although these species are afforded no additional legal protection, their rarity renders them an important consideration for planning applications. Section 40(1) of this Act imposes a duty to conserve biodiversity; *'Every public authority must, in exercising its function, have regard, so far as is consistent with the proper exercise of those*

functions, to the purpose of conserving biodiversity'. Section 40(3) of the Act explains that 'Conserving biodiversity includes, in relation to living organism or type of habitat, restoring or enhancing a population or habitat'.

Optimal habitats for other Section 41 mammal species are absent from the site and immediate surrounding area and taking into account the abundance of similar habitats in the vicinity, the potential for adverse impacts to any other Section 41 mammal species is considered highly unlikely.

3.2.1.4. Amphibians

A number of amphibian species are legally protected under Section 9 of the Wildlife and Countryside Act 1981, as listed under Schedule 5. Great Crested Newts *Triturus cristatus* (GCN) and Natterjack Toads *Epidalea calamita* are also afforded additional protection as EPS, as defined under the EC Habitats and Species Directive 92/43/EEC.

One pond was shown as present on Ordnance Survey mapping within 0.25km of the site (considered to be the typical ranging distance from a breeding pond for the majority of a population of GCN⁶), situated 210m to the east of the Outbuilding (Figure 3), within the grounds of Hawkstone Park. Access was not possible to this pond, although a review of aerial imagery indicated that it was a manmade ornamental pond within the grounds of the hall and was dry/derelict at the time of the image (2021).

Potential refugia (dead wood, stones, etc) near the Outbuilding were searched during the site survey; no amphibians were encountered. No records of GCN presence were returned within 2km during the desk study.

Taking into account the results of the desk study and site survey the presence of legally protected amphibian species or significant populations of amphibians in areas to be impacted by the proposal is considered highly unlikely.

No further survey work in relation to amphibians is required. However, if during works amphibians are encountered works must cease and the advice of a Suitably Qualified Ecologist (SQE) sought

⁶ English Nature (2001). *Great Crested Newt Mitigation Guidelines*

Figure 3. Pond location and aerial image



3.2.1.5. Reptiles

Reptiles are protected under Schedule 5 of the Wildlife and Countryside Act 1981. Section 9(1) of the Wildlife and Countryside Act 1981 prohibits the killing, injuring or taking by any method. All native reptiles are also S41 priority species.

Habitats favoured by reptiles tend to be sunny, well-drained and often south-facing. Typical habitats include grass and heather heathland, chalk downland, coppiced woodland, sand dunes, disused allotments, suburban wasteland, road/railway embankments, golf course roughs, rough grassland, open woodland and woodland edge, immature plantation forestry, sea cliffs, moorland, disused quarries, non-intensive farmland and wild gardens. In addition, Grass Snakes *Natrix helvetica* favour damp habitats⁷.

Taking into account the nature of the habitats to be impacted/adjacent areas, the potential for impacts to any reptilian species is considered highly unlikely. No further works are considered necessary and reptiles are not considered further within this report.

3.2.1.6. Birds

All wild birds (defined as species which are resident or are visitors to the United Kingdom (UK), but generally not game birds) are protected by the Wildlife and Countryside Act 1981 (as amended). As far as planning and development is

⁷ Froglife (1999). *Froglife Advice Sheet 10; Reptile Survey. An introduction to planning, conducting and interpreting surveys for snake and lizard conservation*

concerned, it is an offence to kill, injure or take any wild bird. Some species, listed in Schedule 1 of the Act, are protected by special provisions because of their rarity and it would constitute an offence to disturb them while nesting (which includes nest building). It is also an offence to disturb dependent young of a Schedule 1 bird.

A number of bird species were recorded in and around the site:

- Blackbird *Turdus merula*
- Chaffinch *Fringilla coelebs*
- Great Tit *Parus major*
- Magpie *Pica pica*
- Robin *Erithacus rubecula*
- Wood Pigeon *Columba palumbus*
- Wren *Troglodytes troglodytes*

No evidence of nesting birds was present, and no potential nesting opportunities were identified. No further survey work in relation to breeding birds is required. However, if during works an active nest is encountered works must cease and the advice of a SQE sought.

3.2.1.7. Invertebrates

A number of invertebrate species are afforded legal protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). These species are protected from intentional killing, injuring or taking, possession or control, intentional damage/destruction of any structure or place used for shelter or protection, intentional disturbance while occupying such a structure/place, selling or offering for sale or buying. Numerous species are also included on Section 41 of the NERC Act.

Taking into account the nature of the habitats on-site/nearby it is considered highly unlikely that significant populations/species of invertebrates are present and no further works relating to invertebrates are considered necessary. Invertebrates are not considered further within this report.

3.2.1.8. Invasive Plants

No non-native invasive plant species listed on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended) were observed during the survey.

No further work in relation to invasive plants is considered necessary. Invasive plants are not considered further within this report.

4. Conclusions and Recommendations

A PEA (including PRA) site survey/complimentary desk study and a suite of nocturnal bats surveys have been completed to inform the demolition of the Outbuilding, The Stables. These surveys identified the below detailed ecological considerations/requirements, along with recommendations to ensure that the works are carried out lawfully and in such a manner to minimise ecological impacts.

4.1. General Mitigation

Standard pollution control measures should be implemented during construction to protect habitats on/adjacent to the site.

4.2. Bats – Roosts

No further works in relation to roosting bats are required, however, in the apparently unlikely event that bats are disturbed during the works, all works must stop immediately, and the advice of a SQE sought.

4.3. Bats - Lighting

Habitats with the potential to support foraging and/or commuting bats around the site periphery were identified.

To minimise impacts to bats during construction, works during the period between 15 minutes before sunset and 15 minutes after sunrise should be avoided/minimised so far as practicably possible. If temporary lighting is necessary, it should be directed to where it is needed, and light spillage avoided.

To ensure that impacts commuting/foraging bats from permanent lighting are minimised so far as practicably possible, lighting should be directed to where it is needed and light spillage avoided. This can be achieved by the design of the luminaire and by using accessories such as hoods, cowls, louvres and shields to direct the light to the intended area only.

The height of lighting columns in general should be as short as is possible as light at a low level reduces any ecological impact. However, there are cases where a taller column will enable light to be directed downwards at a more acute angle

and thereby reducing horizontal spill. For access lighting this can take the form of low-level lighting that is as directional as possible and below 3 lux at ground level.

Light levels should be as low as possible and if lighting is not needed, it should be avoided.

Many security lights are fitted with movement sensors which, if well installed and aimed, will reduce the amount of time a light is on each night. This is more easily achieved in a system where the light unit and the movement sensor are able to be separately aimed. If the light is fitted with a timer this should be adjusted to the minimum to reduce the amount of 'lit time'. The light should be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible. A shield or hood can be used to control or restrict the area to be lit. Avoid illuminating at a wider angle as this will be more disturbing to foraging and commuting bats and other wildlife.

4.4. Other Species

No further survey work in relation to amphibians or nesting birds is required. However, if during works amphibians/active bird nests are encountered works must cease and the advice of a SQE sought

4.5. Opportunities for Enhancement

The National Planning Policy Framework (NPPF) sets out national planning policies for the protection of biodiversity (and geological) conservation through the planning system. A key principle of NPPF is that, '*Opportunities to incorporate biodiversity in and around developments should be encouraged*'. Taking the requirements of NPPF into account, opportunities should be sought where possible for nature conservation enhancement at this site.

Opportunities may exist to create small habitat areas and to use native species in any landscape planting. Opportunities also exist to enhance the site for bat and bird species through the incorporation of bat/bird boxes into built structures or on retained trees. S41 priority species such as the House Sparrow *Passer domesticus* could potentially benefit from the provision of appropriate boxes. Such measures would therefore be beneficial to nature conservation and show compliance with the policy guidance.