

## CAROLINE SUITE AT STONEHOUSE COURT HOTEL, STONEHOUSE, GLOUCESTERSHIRE

**Bat Activity Survey** 

Report to Crocker House Ltd

Project number: 2023/131 A

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#### **QUALITY ASSURANCE**

**Title:** Caroline Suite, Stonehouse Court Hotel, Stonehouse, Gloucestershire – Bat activity survey

**Submitted to:** Crocker House Ltd **Report Number:** 2023/131 A **Date:** 21<sup>st</sup> September 2023

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### **SUMMARY**

In September 2023 Worcestershire Wildlife Consultancy was commissioned by Crocker House Ltd to undertake a dedicated bat survey on the Caroline Suite, Stonehouse Court Hotel, Stonehouse, Gloucestershire. The surveys were undertaken following recommendations from a previous Preliminary bat roost assessment carried out by Wild Service in August 2023 (report reference: JM2023027Av1) . This is to ensure compliance with National and European legislation.

#### **Bats**

During the activity survey, no bats were seen to emerge from the building. There was a maximum of three common pipistrelle bats seen and heard to be foraging in the area but not using the Caroline Suite. Since no bats have been confirmed to emerge or return, there will be no need to apply to Natural England for an EPSL.

#### Birds

During the bat activity surveys, no obvious birds were seen nesting but the developer should be aware of the potential, depending on the timings of the works. All birds are legally protected under the Wildlife and Countryside Act 1981 (as amended). Therefore, development operations should take care to avoid the risk of killing/injuring birds and their nests, especially during the nesting season (generally considered to be late February to late August). Any works that may impact nesting birds, should be undertaken outside of the bird breeding season and where this is not possible, a suitably qualified ecologist should be engaged to check for nesting birds prior to any works taking place.

It should be noted that if more than twelve months elapse between this survey and the commencement of any works then a further survey may be required to be undertaken at an appropriate time to determine the status of any protected species which may have taken up residence during the intervening period.

#### 1. INTRODUCTION

## 1.1 Commissioning Brief

In September 2023 Worcestershire Wildlife Consultancy was commissioned by Crocker House Ltd to undertake a dedicated bat survey on the Caroline Suite, Stonehouse Court Hotel, Stonehouse, Gloucestershire. The surveys were undertaken following recommendations from a previous Preliminary bat roost assessment carried out by Wild Service in August 2023 (report reference: JM2023027Av1). This is to ensure compliance with National and European legislation.

## 1.2 Summary of the Proposed Development

It is our understanding that planning permission is being sought for the renovation of the Caroline Suite, which will include reroofing and the installation of solar panels.

## 1.3 Site Location and Description

The Caroline Suite is located on the eastern aspect of the Stonehouse Court Hotel, Bristol Road, Stonehouse, Gloucestershire GL10 3QP (NGR SO 79952 05089). The Caroline Suite is a single-storey building used as a venue for events. Stonehouse Court Hotel a Grade II listed manor hotel building. Immediately to the north, east and south are the property gardens comprising amenity grassland and scattered trees, and there is a small ornamental pond to the south-east of the building. There is a large garden surrounding the property with the main house, green house, conifer hedge, track entrance, hard-standing parking area and brick walls and a green house. St Cyr's Church and churchyard are located approximately 60m south of the Suite.

## 1.4 Scope of the Survey

The bat survey focussed on the following points:

Determining the potential of the area of the proposed development work to support protected species (in this case bats), of which account must be taken prior to and during the planned works in accordance with the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 and the Protection of Badgers Act 1992.

The appraisal also aimed to identify habitats and species recognised within the local Biodiversity Action Plan (BAP Habitats).

Establishing the actual presence of protected species on the site, of which account must be taken prior to and during the planned works in accordance with the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017.

The appraisal and survey recommendations are also guided by the relevant legislation:

The Natural Environment and Rural Communities Act (NERC), 2006 states: "Every public authority must, in exercising its functions, have regard, so far is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity".

Furthermore, the appraisal and survey recommendations are guided by the National Planning Policy Framework<sup>1</sup> (NPPF), where the following policies are of particular relevance:

Para. 8. Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):

- a) an economic objective to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
- b) a social objective to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
- c) an environmental objective to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

Para. 131. Trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined (50), that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.

Para. 161. All plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property. They should do this, and manage any residual risk, by: ...

<sup>&</sup>lt;sup>1</sup> National Planning Policy Framework v3 published February 2021

- c) using opportunities provided by new development and improvements in green and other infrastructure to reduce the causes and impacts of flooding, (making as much use as possible of natural flood management techniques as part of an integrated approach to flood risk management); and
- d) where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to relocate development, including housing, to more sustainable locations.
- Para. 174. 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.
- Para. 179. 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 steppingstones 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.

- 180. When determining planning applications, local planning authorities should apply the following principles:
- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest:
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons(63) and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

The site visit also focussed on assessing the potential of the site to support populations of priority species, whose protection and recovery is promoted in paragraph 174, especially those given protection under British or European wildlife legislation as stated above.

## 1.5 Desk Study

A search was undertaken using the Multi-Agency Geographical Information for the Countryside website (MAGIC) for 2 km was undertaking. Wild Service undertook a Gloucestershire Centre for Environmental Records 1km search, which will be referred to herein this report.

## 1.6 Survey Constraints

The comprehensiveness of any ecological assessment and/or survey may be limited by the season in which the site visits were undertaken. To confirm the presence or absence of all protected species usually requires multiple visits at suitable times of the year.

This report cannot therefore be considered to provide a comprehensive analysis of the ecological interest of the site. However, it does provide a "snapshot" of the level of bat activity and usage on and across the site on the days when the surveys were undertaken and highlights areas where further survey work may be required.

#### 2. METHODOLOGY

#### 2.1 Bat Survey

During the survey, surveyors positioned themselves at suitable points to observe any bats emerging from or entering into the building. Bat detectors as well as flight patterns were used to identify any species present as they exit for their evening flight or enter for daytime roosting. The bat detectors used during the activity surveys were Pettersson D230s and BATBOX Duets, all operating in the heterodyne and frequency division modes. Surveyors had two-way radios to communicate survey findings with one another during the survey. Appendix 1 shows a site plan with surveyor locations.

Bat activity surveys were undertaken in suitable weather conditions at dusk on the evening of 14<sup>th</sup> September 2023; please note that only one activity survey was survey was undertaken in accordance with both the recommendations of Wild Service and the best practice guidelines for bats third addition – should bats be seen to emerge then further surveys will be undertaken. The survey was conducted by a team of two surveyors which included (Natural England bat licence WML CL18 registration number 2015-16640-CLS-CLS) of Worcestershire Wildlife Consultancy

#### 3. RESULTS AND DISCUSSION

## 3.1 Desk Study

There are no statutory sites of ecological significance within 2km of the site; the Cotswold Area of Outstanding Natural beauty is within 1km but the proposed works will not negatively affect that area. However, there is five non- statutory sites of ecological significance within 2km, but these are sufficiently distant not to be affected by the proposed works.

The biological data search yielded records of 164 records of bats within 2km of the proposed development Site, comprising of 11 different species: common pipistrelle Pipistrellus pipistrellus, soprano pipistrelle P. pygmaeus, brown long-eared bat Plecotus auritus, greater horseshoe Rhinolophus ferrumequinum, lesser horseshoe R. hipposideros, serotine Eptesicus serotinus, Daubenton's bat Myotis daubentonii, Natterer's bat M. nattereri, Whiskered bat M. mystacinus, noctule Nyctalus noctule and Leisler's bat N. leisleri. There were also some Myotis, Plecotus and Nyctalus species records which were not identified to species level. The closest bat records were located at Stonehouse Court Hotel (precise building location not provided) but none of these records were roost records. Species recorded at Stonehouse Court Hotel included lesser horseshoe, Myotis sp., noctule, common pipistrelle and soprano pipistrelle. The closest record of a roost (lesser horseshoe) appeared to be approximately 900m distant from the Site.

#### 3.2 Bat habitat assessment

#### **External Assessment**

Based on the assessment by Wild Service and this update assessment, the ground floor is well-illuminated by large glass windows along the western and eastern elevations, which allow ample natural daylight entering building and thus becoming considerably reducing the buildings capacity for internal bat use and from them using the window frames as they are in good condition. The external walls were of stone construction, and the stone walls appeared to be in good condition. However, there was one gap at the wall top on the north elevation of the building (between the wall and wooden eaves). There were also several similar gaps along the east elevation between the wall tops and wooden eaves which could allow potential access for bats to the internal loft, and a broken wooden panel on east elevation roof. Additionally, on the east elevation there were visible gaps under lead flashing and roof tiles which could provide potential roost features for crevice-dwelling species of bats. On the south elevation there was a small lean-to used for storage and there were no obvious potential roost features on this elevation of the building. On the north elevation there was a small flat roof above the building entrance. On the flat roof there were some areas where roof felt appeared to be torn, but this did not appear to create a large enough gap to be used as a potential roost feature for bats.

During the evening survey, it was noted that the building was very illuminated by artificial lighting and thus this would significantly reduce the building's capacity to support photophobic bat species.

## **Internal Assessment**

From the Wild Service report, the building was shown to have a large loft space which covered the entire building. This was accessed via a loft hatch in a ground floor storage room. There were a few potential access points for bats including a potential gap on the east elevation roof, where daylight was visible. Also, there were visible gaps in the wooden eaves along the west elevation of the roof, but these appeared to be too small to allow bats access to the loft interior. The loft was insulated, and the roof was supported by metal and wooden roof beams. As the loft could not be fully inspected, it was not possible to fully determine whether there were potential roost features in the loft e.g. gaps under roof lining. However, it was considered possible that bats could access the loft space, in particular via gaps on the east elevation roof. The ground floor of the building was fully inspected and there were no potential roost features or suitable places for bats to roost in this area of the building.

## General Habitat Assessment

The surrounding landscape is predominantly urban, with Bristol Road passing the Caroline Suite to the north, and residential properties to the east and west of the Site. Stroudwater Canal is located approximately 95m to the south of the Site and there is a small woodland block to the south of the Caroline Suite. The immediate garden does present some suitable foraging features with a mature garden and buildings, and the local habitats (including canal, pastures, meadows, small wooded copses) present good foraging habitats for local bats.

## 3.3 Bat Activity Surveys

A bat activity survey was undertaken in suitable weather conditions at dusk on the evening of 14<sup>th</sup> September 2023. Surveyors were positioned at suitable locations on the site (see Appendix 1) and recorded any bat emergence from/entry into the buildings along with a general activity assessment of the surrounding site.

Activity Survey (evening) 14<sup>th</sup> September 2023 Sunset:19:29 hrs

Factor	Start of survey	End of survey
Time	19:00	21:15
Temperature °C	19.6	15.8
Wind speed (km/h)	3	2
Wind direction	SSW	S
Cloud cover (%)	50	35
Precipitation	None	None

General	Moderate insect activity with some gnats and midges,		
	especially near the pond.		

Activity		Details			
Time	Details	Species	No	Surveyor	Location/Behaviour
19:54- 20:07	Foraging 45kHz	Pipistrellus pipistrellus	2	2	Common pipistrelle foraging around the trees south of the Suite. Seen and heard echolocating at 45kHz.
20:12- 20:14	Foraging 45kHz	Pipistrellus pipistrellus	1	1	Common pipistrelle foraging around the trees north of the Suite. Seen and heard echolocating at 45kHz.
20:32- 20:46	Foraging 45kHz	P. pipistrellus	3	2	Common pipistrelle foraging around the trees south of the Suite. Seen and heard echolocating at 45kHz.
20:53	Pass 45kHz	Pipistrellus pipistrellus	1	1	Common pipistrelle briefly passed north of the Suite. Seen and heard echolocating at 45kHz.
21:03	Pass 45kHz	Pipistrellus pipistrellus	1	2	Common pipistrelle pass over rear lawn area Seen and heard echolocating at 45kHz
21:15	Survey terminated – too dark to see any further emergences.				

## **Summary**

No bats were seen to emerge from the Caroline Suite but a maximum of 3 common pipistrelle bats were seen foraging in the vicinity.

## 4. CONCLUSIONS AND RECOMMENDATIONS

#### 4.1 Bats

During the activity survey, no bats were seen to emerge from the building. There was a maximum of three common pipistrelle bats seen and heard to be foraging in the area but not using the Caroline Suite. Since no bats have been confirmed to emerge or return, there will be no need to apply to Natural England for an EPSL.

The addition of a dedicated bat boxes (maximum of two) affixed to a nearby suitable building or on medium-large trees would serve to enhance the site. A suitable bat box would be the Vincent Pro, which supports common pipistrelles as well as a number of other species. Bat boxes should be installed at minimum heights of 2.5m, facing away from external illumination and should ideally face in a southeast or south-west orientation.

The proposed works may be accompanied by some degree of lighting, which could have negative effects on local bats. Lighting should not be directed onto any hedgerows or trees along the boundaries of the site, or if applicable, any installed bat roosting features on any retained trees, as this is known to deter bats from using them. It is strongly recommended that any lighting to be incorporated in the site should be low-powered (i.e. lux level of 3 or less), downward-pointing and/or mounted at a low level (e.g. standard bollard height) to minimise the level of impact of lighting on bats. The best types of lighting to use are narrow spectrum lights with no UV content, warm white LED or low-pressure sodium. Ideally the times that the lighting is operational should be limited to allow for some dark periods overnight. This may be possible through passive infrared sensors and/or controlling levels of lighting throughout some of the night-time period. The most current guidance (September 2018) produced between the Bat Conservation Trust and the Institute of Lighting Professionals should be adhered to and can be accessed via the following link: https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificiallighting/.

#### 4.2 Bird recommendations

During the bat activity surveys, no obvious birds were seen nesting but the developer should be aware of the potential, depending on the timings of the works. All birds are legally protected under the Wildlife and Countryside Act 1981 (as amended). Therefore, development operations should take care to avoid the risk of killing/injuring birds and their nests, especially during the nesting season (generally considered to be late February to late August). Any works that may impact nesting birds, should be undertaken outside of the bird breeding season and where this is not possible, a suitably qualified ecologist should be engaged to check for nesting birds prior to any works taking place.

It should be noted that if more than twelve months elapse between this survey and the commencement of any works then a further survey may be required to be undertaken at an appropriate time to determine the status of any protected species which may have taken up residence during the intervening period.

## 5. BIBLIOGRAPHY

Bat Conservation Trust. 2012. Bats and Buildings. Bats and the Built Environment Series. London.

Collins, J. (Ed). 2016. Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition. Bat Conservation Trust.

Gloucestershire Biodiversity Action Plans: https://www.gloucestershirenature.org.uk/biodiversity-action-plan-bap

JNCC, BTO, RSPB.2015. Birds of Conservation Concern 2015. RSPB,

Mitchell-Jones, A.J. 2004. Bat Mitigation Guidelines. English Nature, Peterborough.

Mitchell-Jones, A.J. and McLeish, A.P. 1999 (revised 2004). The Bat Workers Manual. Joint Nature Conservation Committee, Peterborough.

Wild Service Consultancy 2023. Caroline Suite, Stonehouse Court Hotel, Stonehouse Bat Preliminary Roost Assessment Report Project Code: JM2023027Av1

# Appendix 1 – Site Plan



NB: Yellow stars indicate

**Appendix 2: Site Photographs** 

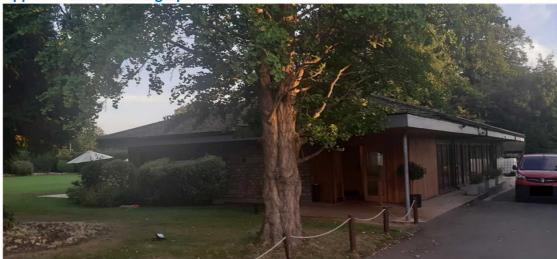


Plate 1: The northern elevation.



Plate 2: The north-eastern elevation.



Plate 3: The western elevation



Plate 4: Eastern elevation with its close fitting roof tiles



Plate 5: Internal view of the southern section



Plates 6: View of a gap on the western side of the building



Plates 7: View of a cobwebbed ga on the northern elevation



Plate 8: View of the habitat to the west (Stonehouse Court Hotel and pond)



Plate 9: View of the habitat to the south leading to St Cyr's Church



Plates 10: View of the western elevation lit up at night



Plate 11: View of the northern elevation lit up at night



Plate 12: View of the eastern elevation lit up at night

## Appendix 3- Wildlife Information and Legislation

Bats

Bats often occupy different roost sites at varying times of the year; what is suitable as a summer roost may not be as suitable for hibernation due to the variation in temperatures, for instance. Females often occupy maternity roosts when giving birth and return to the communal roost when the young are partly grown. Individual bats may move their roost site dependent on weather conditions. Since bats tend to re-use the same roosts, legal opinion is that the roost is protected whether or not the bats are present at the time.

There has been a severe decline in bat numbers over recent years, the main factors currently causing loss or decline are probably related to the following:

Intensification of agriculture and inappropriate riparian management.

Widespread misunderstanding of, or possibly ignored, legislation protecting bats, leading to loss or damage of many roosts when consultation procedures have not been carried out.

Loss, destruction and disturbance of other roosts, particularly maternity roosts, through the use of toxic timber treatment chemicals, intolerance by roost owners, inappropriate building practices and tree felling.

Loss of winter roosting sites, which need to be cold, humid and undisturbed. Such sites may include buildings, hollow trees and underground sites (mines, old tunnels, icehouses and cellars).

Losses, or changes to, large country properties which can supply both summer and winter roosts that are generally surrounded by potentially good foraging habitat.

All bat species are protected by law, both national (Schedule 2 of the Conservation of Habitats and Species Regulations 2017 and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and international (The Bern Convention 1979, The EC Habitats Directive 1992 and The Bonn Convention 1980 including the Agreement on the Conservation of Bats in Europe, 1994). The Countryside and Rights of Way Act 2000 reinforces the Habitat Regulations by creating a criminal offence rather than a prohibited action (Schedule 12).

There are three main areas of protection:

It is illegal to intentionally kill or injure a bat.

It is illegal to disturb a bat roost. This covers all roost sites such as caves, trees and buildings.

It is illegal to damage a roost site or obstruct the entrance.

Where developments requiring planning permission may affect protected species, such as bats, it is essential that appropriate surveys are conducted and submitted to meet the requirements of the National Planning Policy Framework. With regard to paragraph 117, in order to minimise impacts on biodiversity and geodiversity, planning policies should:

- plan for biodiversity at a landscape-scale across local authority boundaries;

 promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of <u>priority species</u> <u>populations</u>, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan;

If, following surveys, it has been established that bats are present and roosting within the structure to be affected by the proposed development then if there is a reasonable likelihood that a breech in the legislation will occur through undertaking the works a European Protected Species Licence for a development affecting bats will need to be obtained from Natural England.

Under the Conservation of Habitats and Species Regulations 2017 licences can only be issued if Natural England are satisfied that:

- there is no satisfactory alternative;
- the main purpose of the development is for either (1) 'Imperative Reasons Overriding Public Interest', (2) "Public Health or Safety", or for (3) "Wildlife Conservation";
- the action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.

Undertaking work to a bat roost without following appropriate recommendations from Natural England could lead to prosecution resulting in imprisonment, fines of up to £5000 per bat and confiscation of vehicles/equipment.

# Appendix 4 – Examples of bat mitigation

## Bat Roosting Features



Vincent Pro bat box

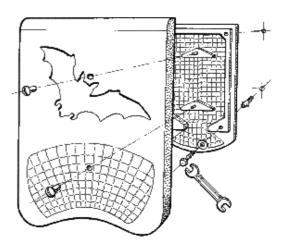


Schwegler 1FF bat box



Schwegler 1WQ Summer & Winter bat box





## **Appendix 5 - Ecological Experience**

#### Consultancy Manager & Principal Ecologist

joined the team in 2008, previously working as an independent consultant, prior to that he worked for the National Trust and Forestry Commission as an ecological surveyor. For the last 26 years he has worked in both the conservation and consultancy sector. Many of these years were in woodland conservation and management. He is an experienced ecologist with particular expertise in terrestrial and aquatic invertebrates, amphibians, reptiles, small mammals, riparian mammals and bats and holds Natural England (NE) and Natural Resources Wales licences for bats, dormice, great crested newts, white-clawed crayfish and barn owls. He is also an experienced botanist with National Vegetation Classification skills, the recent UK Habitat Classification System and an experienced bryologist. In addition, he has experience in biodiversity net gains and offsetting and being involved in range of conservation and developmental management plans including heritage projects and habitat restoration.



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Worcestershire Wildlife Consultancy provides an independent professional ecological service, encompassing a broad range of ecological knowledge and skills. While maintaining a local focus within the Midlands and Cotswolds, we also operate throughout the UK.

We offer a competitive pragmatic solution based environmental service to the business and development sector, local authorities, public utilities, Natural England and non-governmental organizations (NGOs), as well as individual clients.

Worcestershire Wildlife Consultancy (WWC) has been the consultancy for Worcestershire Wildlife Trust since 1988, providing a wealth of experience to the environmental and ecological sector. All the profits of the ecological Consultancy are donated to Worcestershire Wildlife Trust and used to support its charitable work throughout the County.

Worcestershire Wildlife Consultancy has wide-ranging ecological and environmental expertise and a team of specialist associates allowing us to offer a comprehensive list of ecological services:

- Phase 1 Habitat Surveys
- Protected Species Surveys
- Bat Surveys
- Great Crested Newt Surveys
- Reptile Surveys
- •
- Nesting Bird Surveys
- Breeding Bird Surveys
- Barn Owl surveys
- Otter & Water Vole Surveys
- Dormouse Surveys
- Invertebrate surveys
- Small Mammal Surveys
- Botanical Surveys (incl. NVC National Vegetation Survey)
- Hedgerow Surveys
- Invasive Weed Surveys

- Protected Species Licence Applications (incl. Bat Low Impact Class licence)
- Ecological Clerk of Works
- Mitigation Advice & Implementation
- Monitoring Botanical & Wildlife
- BREEAM Assessments (incl. Code for Sustainable Homes)
- Ecological Impact Assessments
- Ecological Planning Advice
- GIS Analysis
- Pond Surveys
- River Corridor Surveys
- Habitat Management Plans
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