

**Kerris Manor
Farmhouse**

Paul

Penzance

**Bat and Breeding
Bird Survey**

**Client: The Bolitho
Estate
Project no. 2324097
Issued: January 2024**

JG Ecological Surveys Ltd
33 Cranford Avenue
Exmouth
EX8 2QA

Tel: 01395 271417

Company reg no: 6623813

jason@jgecologicalsurveys.co.uk

CONTENTS

1. INTRODUCTION AND SCOPE 2

 1.1 GENERAL2

 1.2 SURVEY AIMS2

 1.3 SUMMARY OF RESULTS.....2

 1.4 IMPLICATIONS FOR THE PROPOSED WORKS 3

2. SURVEY METHODOLOGY..... 4

 2.1 SITE SURVEY4

 2.2 SURVEY LIMITATIONS4

3. RESULTS 5

 3.1 DESCRIPTION5

 3.2 FINDINGS7

4. CONCLUSIONS 9

5. RECOMMENDATIONS..... 10

 5.1 BATS..... 10

 5.2 NESTING BIRDS 10

APPENDICES 12

1. INTRODUCTION AND SCOPE

1.1 General

JG Ecological Surveys Ltd was commissioned by the Bolitho Estates management team to carry out a bat, Barn owl and breeding bird survey Kerris Manor Farmhouse, Paul, near Penzance, Cornwall, TR19 6UY. Two other barns within the farmstead were also surveyed as they have been identified as donor buildings for slates suitable for re-roofing the farmhouse.

The site was located at OS grid reference SW 4430 2715.

The survey was commissioned due to significant damage to the roof covering of the farmhouse which was patched in numerous places with roofing membrane to minimise water ingress.

1.2 Survey Aims

Fieldwork was undertaken in order to identify whether bats used the building for roosting and to check for the presence of nesting birds including Barn owl *Tyto alba*.

1.3 Summary of Results

Bats

No bat field signs were found in the main roof spaces. The roof spaces were draughty and light due to the large holes. The lime mortar lining to the slates was detached in large areas and laying within the roof space. Anecdotal evidence of roosting bats was given by the tenant who described summer use of a single storey ancillary accommodation section attached to the main farmhouse, where bats had been observed emerging from under the gutter board.

The two "donor" barns were surveyed and no bat field signs were found. Both these buildings had very large holes in the roof giving no dark, sheltered areas for bats to use.

Barn owl

There were three Barn owl pellets in one of the donor barns that housed a grain store. It was presumed that Barn owls preyed upon rats using the ruptured grain silo and regurgitated the pellets in *situ*. A Barn owl box was present in a neighbouring more recent farm building with anecdotal evidence of regular breeding use.

Breeding Birds

There were occasional Swallow nests within the workshop attached to the farmhouse.

1.4 Implications for the Proposed Works

Bats

Bats are fully protected under both the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. In combination these pieces of legislation make it an offence to:

1. Deliberately capture, injure or kill a bat
2. Intentionally or recklessly disturb a bat in its roost or deliberately disturb bats
3. Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time)
4. Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat
5. Intentionally or recklessly obstruct access to a bat roost

Due to the identification of a roost in an adjacent but unaffected section of the farmstead care must be taken to avoid disturbance during the works (refer to section 4).

Nesting birds

Nesting birds receive legal protection under the Wildlife and Countryside Act 1981 (as amended). The nesting season is typically mid March to mid to end August but is prone to local variation depending on such things as weather conditions and food supply. Works that might impact on nesting birds would need to be timed for commencement after the last fledgling has stopped returning to the nest, and prior to the nesting season of the following year (the initiation of nest building is considered the point at which the sites are protected from disturbance). Alternatively a check could be carried out immediately prior to the works and if no active nesting is underway then works could continue.

2. SURVEY METHODOLOGY**2.1 Site Survey***Visual Inspection*

A visual inspection survey of the building was undertaken by Jason Gillingham (a Natural England licensed bat surveyor), on the 17th January 2024. The buildings were searched visually, using binoculars, endoscope and a high-powered torch, for field evidence of bats and breeding birds with particular attention being paid to sheltered areas such as window ledges and stored items where bat droppings might lie undisturbed from the weather. The roof spaces, interiors and floors were inspected in detail for bat droppings, urine staining or actual bats. The buildings were assigned a category for their potential to support a bat roost on the basis of Table 1 of Appendix 1.

The presence of current, or deserted bird nest sites were noted during survey.

2.2 Survey Limitations

The only potential limitation with regard to bats at the site is the effect of the lime mortar on the loft floor. This may have caused the rapid degradation of any bat field signs such as droppings or dead bats, or recently fallen mortar may have covered field signs.

3. RESULTS

3.1 Description

Wall construction	The farmhouse and barns were of predominantly solid stone wall construction
Roof construction	The farmhouse roof was of king post roof truss construction with a covering of Delabole slate with a torched lime mortar lining. The barns' roof coverings were also Delabole slate with a partial lime mortar lining



Photograph 1: Front elevation of the farmhouse



Photograph 2: Typical patch repairs



Photograph 3: Roof space interior showing detaching lime mortar



Photograph 4: Donor barn 1



Photograph 5: Donor barn 2

3.2 Findings

Bats

The farmhouse had sections that dated from the 15th century with some later additions. The roof spaces were formed around a small central courtyard that had scaffolding erected which enabled a roof and wall top inspection. There were numerous potential access points due to slipped slates and larger holes that had rudimentary patches of roofing membrane and sandbags placed over them. The water ingress from the roof appeared to be impacting the lime mortar lining which was detaching and falling onto the loft floor. Despite the many potential access points no bats or bat droppings were noted within the roof space of the farmhouse, and inspection of the wall tops via endoscope from the scaffolding did not show any sheltering bats using these areas. It is probable that the poor condition of the roof created unfavourable conditions for roosting bats. Anecdotal evidence of observed summer bat use of a more recent single storey annex to the main farmhouse (unaffected by the re-roofing proposal) was given by the tenant who had watched the bats emerge from beneath the gutter boards. These areas were in sound condition and offered sheltered crevice roosting potential (there were no roof voids in this area). This area would be available to bats throughout any future re-roofing works.

The donor barns both had roof coverings that were in very poor condition (refer to Photograph 6). Large holes existed in both roofs which gave high internal light levels and high air movement. No bat droppings were noted in either barn and both were assessed as being of low bat roost potential due to the roof covering condition.



Photograph 6: Donor barn 2 roof covering condition

Breeding birds

Occasional Swallow nests were noted in the attached workshops and donor barns. In addition Barn owl pellets were noted in donor barn 2 but these were considered to be from the owls that had fed and roosted in the barn but that had used the Barn owl box in an adjacent more modern agricultural building for breeding.

4. CONCLUSIONS*Bats*

It could be concluded that neither the farmhouse roof space nor the donor barns had any evidence that they had been used as bat roost sites. This conclusion is based on the very poor condition of the roofs of all structures and the absence of any bats or field signs during the visual inspection survey.

The anecdotal evidence given of bats using an attached single storey annex to the main farmhouse enabled the conclusion that any roofing works to the main farmhouse would not impact on this bat roosting presence.

Breeding birds

It could be concluded that Swallows had used areas of the workshop and donor barns as nest sites and would probably return in future breeding seasons.

5. RECOMMENDATIONS

5.1 Bats

Legislative recommendations

There are no legislative recommendations made with respect to bats due to their absence from the farmhouse roof and the two donor barns, however it should be noted that bats use a variety of roost sites throughout the year and individual bats may adopt the roof space or wall tops on an occasional basis in the future. If bats are discovered during works then all activity in the vicinity should cease and JG Ecological Surveys Ltd be contacted for further advice on 07909920283.

The only potential issue with regard to bats at the site is the effect of the lime mortar on the loft floor. This may have caused the rapid degradation of any bat field signs such as droppings or dead bats, or recently fallen mortar may have covered field signs.

There appear to be two methods to deal with the issues created by the roof damage, one is to patch repair the roof as soon as is reasonably possible. This would ensure limited potential disturbance to any potential undetected bat use at the site and deliver a rapid positive outcome to the tenant. The second option would be a full re-roofing. If this option is to be chosen it should be preceded immediately prior to commencement by a full re-inspection of the roof space to ensure no adoption by bats has taken place. To further ensure no unfavourable bat outcomes no breather membrane must be used. Instead bitumen felt should be used. This is because bats have been identified as roosting in an adjacent roof space and may in time prospect for potential roost sites within the farmhouse. Cloth backed breather membranes have been shown to pose a risk to bats as fibres pill from the surface and can entangle bats as they crawl across it. In addition to the above it is advised to avoid the period from end May to mid August to ensure no inadvertent disturbance of a maternity colony takes place (there is no evidence to suggest that bat use of this type takes place on site however the local bat presence in the adjacent annex raises the potential issue of a colony moving into the farmhouse roof space). If this period is unavoidable then an emergence survey should be undertaken during May to July to confirm bat absence from the roof space ahead of works commencing.

5.2 Nesting Birds

Legislative recommendations

The works would be ideally timed to commence outside of the bird breeding season, which is generally considered to be between March to August inclusive, although it is important to note that depending upon the weather conditions and/or food supply nesting can extend outside this period. Nesting is determined as being from when birds first initiate nest building up until the point when fledglings stop returning to the nest. If these timing constraints cannot be adopted then a check immediately prior to works commencing should be carried out and if any active nest/breeding sites are identified these nests, and the immediately surrounding area, should remain undisturbed until all the young have fledged naturally. If no nests were present then works could continue through this period. If the donor barns can be slate stripped during February/early March this will further ensure no potential disturbance of nesting birds will take place.

6. References

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

Mitchell-Jones A. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

APPENDICES**Appendix 1**

Classification criteria for assessing the potential value of buildings

It should be noted that the grading system below only reports on the situation at the time of survey; should bat activity levels change after the initial survey, or should the buildings be modified (for example if roof tiles are removed or fascia boards develop cracks), the category may need revision.

Please note: Intermediate categories (for example Low – Moderate value) may apply.

Category (Potential value)	Description
No/negligible value	Buildings with no or very few features capable of supporting roosting bats. Often buildings are of 'sound' well-sealed structure, or have a single skin and no roof void. They tend to have high interior light-levels, and little or no insulation. Buildings without any roofs may also fall into this category.
Low value	Buildings of largely unsuitable construction, but with few features of potential value to bats (e.g. gaps above windows, apparently shallow crevices). No supporting evidence (e.g. droppings / staining) found. Buildings may be surrounded by poor or sub-optimal bat foraging habitat, as is often the case in urban-centre locations.
Moderate value	Buildings usually of brick or stone construction with a number of features of obvious potential value to roosting bats e.g. loose roof / ridge tiles, gaps in brickwork, gaps under fascia boards, and/or warm sealed roof-spaces with under-felt.
High value	Buildings with a large number of features of obvious potential value to bats (as above). Bats may be suspected to roost within the building (at least at certain times of year), but no supporting evidence found.
Confirmed roost	Bats discovered roosting within the building, or recorded emerging from / entering the building at dusk and / or dawn. Building found to contain conclusive evidence of occupation by bats, such as bat droppings. A confirmed record (as supplied by an established source such as the local bat group) would also apply to this category.

Table 1. Appendix 1

