

Bat and Bird Inspection Survey Report

St Pauls Church, Berry Lane,
Longridge, Preston PR3 3WA

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1 Summary

- This report contains the results of a building inspection survey undertaken on the belfry at St Pauls Church Longridge, Preston located at National Grid Reference SD 606 373. The survey was undertaken by Christine Parkinson AIEEM (CP Ecology).
- St Pauls Church is located within the town of Longridge. The surrounding rural landscape comprised of tree and hedgerow lined semi improved fields which were potentially suitable for foraging and commuting bats.
- The inspection survey undertaken on 12th January 2012 revealed no current or historical signs of bats within the belfry. The structure of the belfry appeared unsuitable for roosting bats. There is a high possibility for birds to nest on the externals of the belfry and there was recent evidence of old discarded nest material removed from the louvres within the tower.
- The belfry is likely to support nesting birds, and it is recommended that any works that may potentially impact on breeding birds and their nests and eggs be undertaken outside of the main bird breeding season which is typically March to September.

2 Introduction

2.0 *Background*

Christine Parkinson (CP Ecology; See Appendix Six for experience) was commissioned to undertake a bat and bird inspection survey of the belfry tower of St Pauls Church, Longridge National Grid reference SD 606 373. This report details the results of the survey. The proposals are to install a series of equipment and antennas (See Appendix One) within the belfry tower. The antennas are to be installed on the periphery of the roof, on internal of the walls and within the tower. There is also likely to be a cable leading through the floors of the belfry which will connect the equipment leading to the sub meter contained on the ground floor. There is likely to be a moderate amount of disturbance while the proposed work is being carried out.

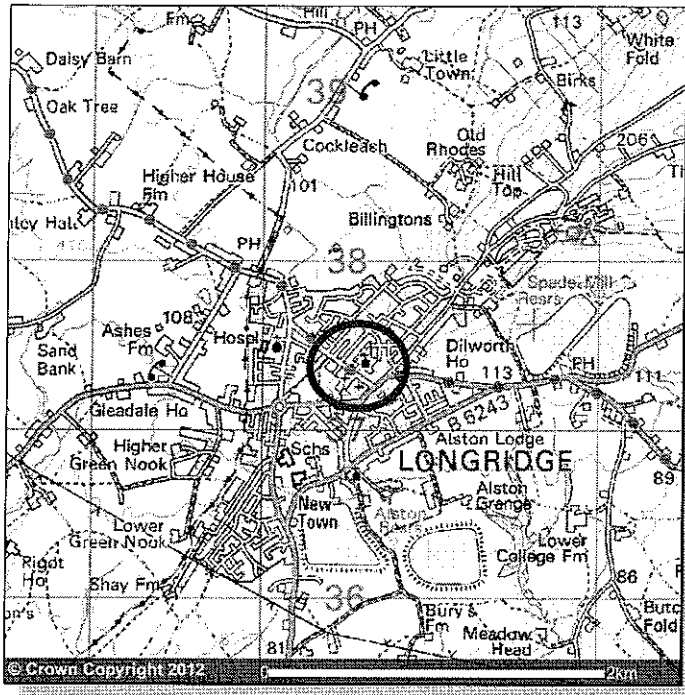
2.1 *Scope of this report*

This report is based on a building assessment methodology using the guidelines as contained in the Bat Conservation Trust – Survey Guidelines (2007) and Bat Mitigation Guidelines (2004). This approach is most commonly used for identifying presence/absence of bats within a building structure. The potential for birds to nest internally or externally will also be assessed.

2.2 *Site Description*

Longridge is a small town and civil parish in the borough of Ribble Valley in Lancashire. It is situated 8 miles (13 km) north-east of the city of Preston, at the western end of Longridge Fell, a long ridge above the River Ribble. Its nearest neighbours are Grimsargh and the Roman town of Ribchester (Bremetennacum), 3.5 miles (6 km) to the southeast.

Longridge is situated within a rural landscape. The surrounding area was mainly pastoral and semi improved fields. Nestled between these fields were shrub and tree lined hedgerows. Two major woodlands within the area Bullsnape wood and Kidsnape wood were located to the north west of the town, while to the south and east were three reservoirs. Longridge golf course is situated to the north east.



2.3 *Aims of survey*

As the proposals are to install a series of telecom equipment it is possible that disturbance to bats or birds within the belfry could occur. In order to determine whether bats or birds are currently using the belfry as a nesting/roosting site, a inspection survey will be undertaken. The survey will identify possible entry and exit routes and will identify whether the tower is suitable for roosting or nesting birds.

3 Methodology

3.0 *Desk Study*

A data search was carried out for information relating to records of bats and birds that exist within the relevant 10km grid square (SD63). This search was conducted through the National Biodiversity Network Gateway (www.nbn.org.uk).

3.1 *Bat and Bird Building Inspection Survey*

An inspection survey; (National Grid Reference SD 606 373) was conducted on the 12th January 2012 by Christine Parkinson (CP Ecology). The survey followed the guidelines as in Bat Conservation Trust – Survey Guidelines (2007) and Bat Mitigation Guidelines (2004).

External survey

The external elevations of the belfry were assessed for features that could provide suitable access points. The potential for birds and bats was assessed using the criteria as contained in Appendix Two. Features relevant to the belfry comprised of:

- Gaps and crevices in degraded mortar;
- Gap between the louvres and the walls of the belfry;
- Gaps within the roof structure

During the survey evidence that bats were using these features was also sought. Such evidence included:

- Staining caused by mammalian fur oils within potential access points;
- The presence of bat droppings within or below access points;
- Scratch marks around the access points;
- Visual sightings/ historical sightings of roosting bats.

Indications that access points had not been recently used may include the presence of cobwebs and general detritus across potential access point openings.

Internal Survey

The internal survey was focused on roof voids and other cavities where bats could potentially roost. During the survey evidence of current or previous occupation by bats was sought. Such evidence comprised:

- The presence of dead or alive bats;
- Concentrated piles or scattered bat droppings;
- Food remains such as insect wings fragments;
- Urine staining on woodwork, stored items or pipe work.

3.2 *Tree Inspection Survey*

The habitats contained within and around St Pauls Church were assessed for their suitability for bat roosts by surveying the trees and identifying features such as fractures, cracks and loose bark. Any trees displaying any of these potential access points would then be further investigated for signs of bat droppings, feeding remains such as moth wings, urine and fur oil stains. The trees on the site were classified as to their suitability (Appendix Three) for roosting bats using criteria recommended in Bat Surveys – Good Practice Guidelines (Bat Conservation Trust 2007).

3.3 *Limitations*

The inspection survey provides a preliminary view of the likelihood and occurrence of bats and birds occurring within the belfry, based on the suitability of the tower; known distribution of the species in the local area provided in response to any enquiries and any direct evidence in and around St Pauls Church. Therefore it is only valid at the time the survey was carried out.

4 Results

4.0 Desk study

Records of bats

The NBN website revealed records of bat species (Table 1) from the relevant 10km grid square (SD63)

Table 1: Closest records of bat species recorded within 2 km of the site.

Species	Distance from the site	Direction from the site	Date
Pipistrelle species <i>Pipistrellus pipistrellus sensu lato</i>	Within 2 km	East	1986
Common pipistrelle <i>Pipistrellus pipistrellus sensu stricto</i>	Within 2 km	East	2007
Long-eared bat species <i>Plecotus</i>	Within 2 km	South	1986

4.1 Building Inspection Survey

The tower was inspected on 12th January 2012. The results of the external/internal surveys are summarised below.

St Pauls church was built in 1886 and the belfry tower was built in 1937. The tower consisted of three levels with a stone stairway leading to the 2nd floor. It was not possible to inspect the roof of the tower at the time of survey due to the limited accessibility; however from observation the roof appeared to be relatively flat with no slates or tiles. Internally the tower was lined with brickwork that appeared relatively intact with no obvious gaps or crevices. The top floor of the tower consisted of the bell room which held the louvres. The louvres allow amplification of the bell when in use. The six metal louvres were located around the peripherals of the tower.

External survey

It was not possible to undertake a close inspection of the belfry due to the height of the tower. The gaps between the stone louvres (Photo 2) provided clear access points that birds or bats could use to enter the belfry. No other obvious gaps or crevices were observed on the exterior of the tower.

Internal survey

The internals of the belfry revealed a concrete based roof with no entry holes for birds or bats. There were no beams or crevices within the roof space which made it highly unsuitable for roosting bats. There were no visible signs of bats such as dropping, stain markings or food remains. There were large gaps between the louvres and the walls of the belfry, however these gaps were enclosed by wire netting (Photo 5) and it was not possible for birds or bats to enter through these gaps.

Within the belfry were the remains of old crow nests which had been taken away from the louvres. At the time of survey birds were noted to be within the externals of the louvres. It is highly possible that birds will be nesting within the external basin of the louvres when the nesting season commences.

4.2 Tree Inspection survey

Semi mature trees were located towards the west of the belfry (See Appendix One). The trees were assessed as having a low potential to support bats and there was no visible signs of roosting bats on the exterior of the trees.

4.3 Summary of Results

There are historical records of bats within the area and Longridge is set within a rural landscape with good habitat for foraging and commuting bats, in the form of pastoral and arable fields with good connecting hedgerows to the near woodlands and surrounding areas.

The external and internal investigations of the belfry showed no current occupation or roosting activity of bats. There was no potential for bats to enter the belfry for roosting or foraging purposes. The roof structure appeared highly unsuitable for roosting bats and there was no cracks or crevices in between the walls of the belfry. The gaps between the stone louvres were suitable for nesting birds and there is current evidence of birds nesting due to discarded old nest material that has been found.

5 Discussion

The survey conducted on 12th January 2012 followed standard methodologies (Bat Conservation Trust, 2004) and survey protocols. The report provides an accurate assessment of the potential for birds and bats to use the belfry for roosting and nesting purposes. Sometimes bats leave few or no signs and therefore a lack of signs of bats does not necessarily imply that bats do not use a building. This constraint is obviously reduced by experienced surveyors. Bats can also use a variety of roosts and their absence in one survey does not confirm that they will not be present at any other times.

Bats and their roosts, whether they are occupied or not are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats &c.) Regulations 1994 (as amended). Should a bat roost be located within a structure a European Protected Species licence (EPSL) may be required for works involving destruction or disturbance to a roost. Such a licence would require mitigation in the form of a retained or alternative roosting site. No roosting activity was associated with the roof of the belfry and there was no potential for bats to use the buildings for foraging and roosting purposes. The semi mature trees located on site revealed a low potential for roosting bats and therefore no further surveys in connection with this is required.

Wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). It is illegal to take or harm them, their nests (whilst in use or being built) or their eggs. Additionally for some species it is an offence to intentionally or recklessly disturb the adults while they are in and around their nest or intentionally or recklessly disturb their dependent young. Recent evidence of birds nesting within the exterior of the louvres was clearly evident in the form of old nesting material. At the time of survey birds were also heard within the structure of the louvres.

6 Mitigation

Bats

The surveys identified no roosting activity associated in or around the belfry where works have been proposed and therefore a Natural England licence will not be required. However as a precautionary measure as with all structures where building works could potentially disturb bats, best working practises and procedures are recommended to be applied during all work operations. Undertaking such applications will help avoid and minimise any potential disturbance that could occur to singular crevice dwelling bats that may roost during the summer and use as occasional roosting sites.

It is recommended that the following work practices and procedures should be undertaken during the proposed works to the belfry.

- All work personnel involved in the installation of the telecoms equipment at St Pauls Church should be aware that there is always a potential for a singular roosting bat to be found under slates, ridge tiles or within crevices.
- Any effect on the structure of the belfry should be undertaken in a controlled manner. This application should ensure that if there are bats roosting within the belfry then there is no possibility that they are injured or killed. In the event that a roosting bat is observed during any of the work operations, work should cease immediately and a suitably licensed ecologist should be contacted.

Nesting birds

It is highly likely that birds will nest within the louvres on commencement of the nesting bird season. In order to ensure legal compliance, any works directly affecting potential bird nesting habitat should be carried out outside of the main breeding season (March to August inclusive) if at all possible. Any works during this period would require prior checking for active nests by an ecologist.

7 References

- Bat Conservation Trust. 2007. Bat Surveys – Good Survey Guidelines. Bat Conservation Trust, London.
- Mitchell-Jones AJ (2004). *Bat Mitigation Guidelines*. English Nature.

8 Appendix 1 – Proposals at St Pauls Church



9 Appendix 2 – Criteria for calculating bat roost potential in buildings

Bat roost potential	Features of Buildings
Increased	• Disused or little used; • Largely undisturbed Large roof void with unobstructed flying spaces • Large dimension roof timbers with cracks, joints and holes • Uneven roof covering with gaps, though not too draughty • Entrances that bats can fly in through • Hanging tiles or wood cladding, especially on south-facing walls • Rural setting • Close to woodland and/or water • Pre-20th century or early 20th century construction • Roof warmed by the sun
Decreased	• Decrease probability Urban setting or highly urbanised area with few feeding places • Small or cluttered roof void (esp. for <i>Plecotus</i>) • Heavily disturbed Modern construction with few gaps around soffits or eaves (but be aware these may be used by pipistrelles in particular) • Prefabricated with steel and sheet materials • Active industrial premises • Roof shaded from the sun

10 Appendix 3 – Criteria for calculating bat roost potential in trees

Bat roost potential	Features of trees
High	Cavities and crevices present. Major dead limbs present. Good flight lines to trunk. Heavily ridged and lifting bark. Trunks covered by ivy on mature trees.
Moderate	Visible holes or crevices or small superficial holes beginning to form. Minor dead limbs but no obvious cavities / lifting bark / splits. Flight lines to trunk slightly obscured. Lifting bark on main trunk. Trunks covered by ivy on semi-mature trees / clean trunks.
Low	No visible holes or crevices. No major dead branches. Flight lines to trunk highly obscured. No or very little ivy on the trunk.

11 Appendix 4 - Site Photographs

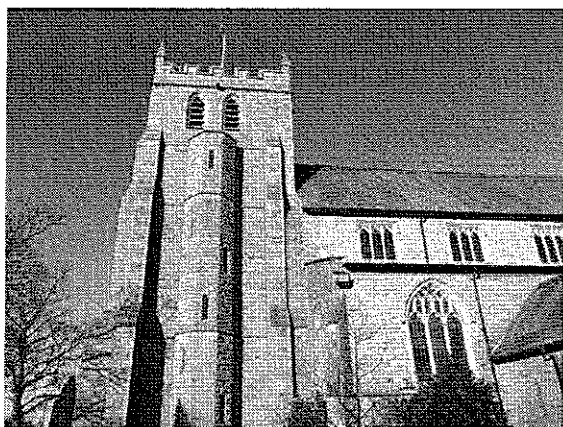


Photo 1 – St Pauls Church, Berry Road Longridge

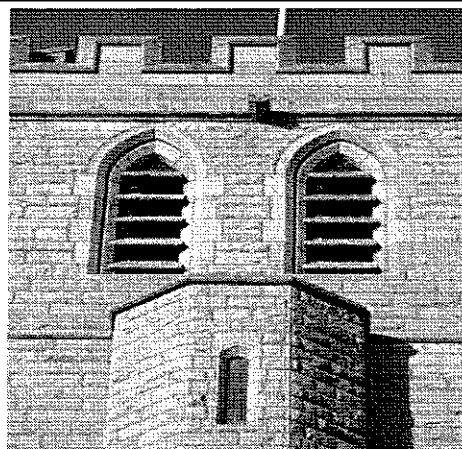


Photo 2 – A close up of the belfry tower showing the stone louvres. Gaps within these louvres provided easy access for nesting birds.

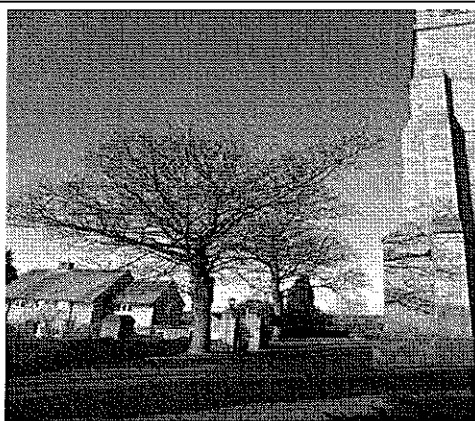


Photo 3 – A tree located to the south of the church. The tree was assessed as having low to medium potential for roosting bats.

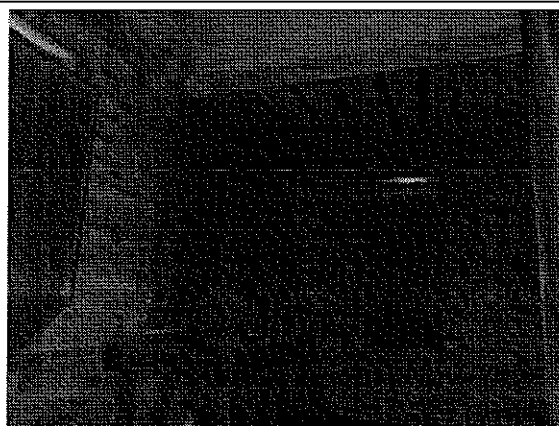


Photo 4 – A photo of the inside of the belfry, showing the metal louvres

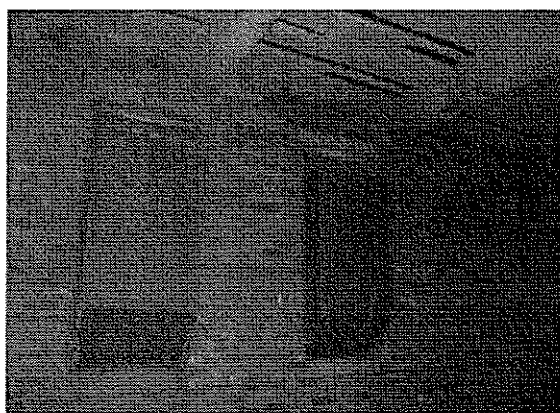


Photo 5 - A close up of the louvres. There was metal netting surrounding the gaps between the louvres and the inside of the belfry

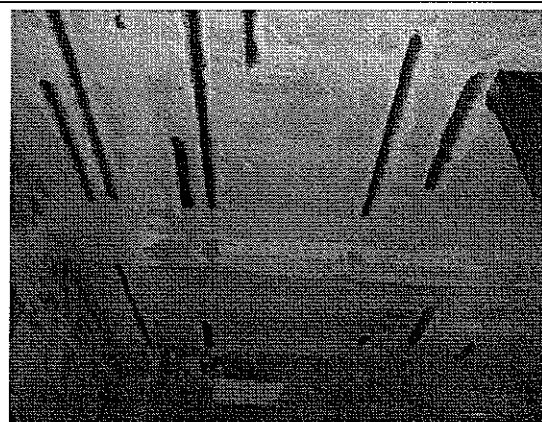


Photo 6 – The roof of the belfry tower. The construction of the roof was highly unsuitable for roosting bats

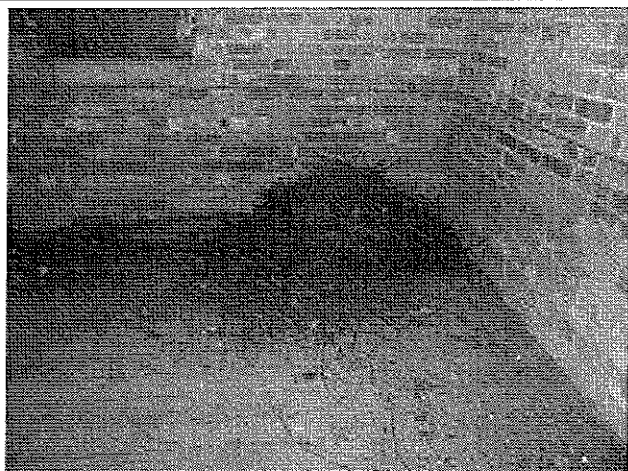


Photo 7- The inside of the belfry showing old discarded material from nests which had been constructed on the outside of the belfry. The nests are likely to be made by crows.

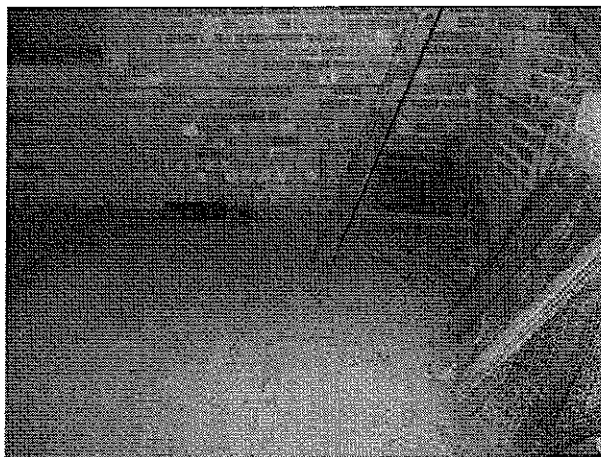


Photo 8- There was no evidence of birds or bats within the internals of the belfry. The walls of the belfry were completely sealed and there were no gaps or crevices in the brickwork leading to the exterior.

12 Appendix 5 – Legislative context

Bats

All British bat species are fully protected through their inclusion in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and in Schedule 2 of The Conservation (Natural Habitats, &c.) Regulations 1994 as European protected species. Under the legislation, it is an offence to intentionally kill, injure or take a bat as well as intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a bat.

Birds

Wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). It is illegal to take or harm them, their nests (whilst in use or being built) or their eggs. Additionally for some species it is an offence to intentionally or recklessly disturb the adults while they are in and around their nest or intentionally or recklessly disturb their dependent young.

13 Appendix 6 – CP Ecology Experience

Christine Parkinson has been a professional ecologist since 2006 working alongside experienced bat ecologists in professional consultancies such as Hyder Consulting (formerly Cresswell Associates); Mouchel; Clear Ecology and ADAS. She has approximately 5 years of undertaking bat activity surveys and inspection survey which included assessments for buildings, trees and bridges. She has also been an accredited bat worker under licences.