

Updated: 02/12/2019

Bats in Churches Project

Summary Sheet for:

St Lawrence, Willington, Bedfordshire

Contact List:

Engagement Officer	Honor Gay
Church Representative	Alison Witchell
DAC	Emma Critchley
Architect	Mathew Stevens
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Historic Significance Architect	Neil Burton
Local Bat Group	Bob Cornes
National Trust	Stuart Warrington

Light Touch Survey:

31/08/2019

Pipistrellus maternity roost. Hibernation roost

Brown long-eared maternity roost. Hibernation roost

Historic Data:

Soprano pipistrelle maternity roost

VBRV 2016 dead pups

Baffle boards erected below roost in the past.

Listed Building Status:

Grade II

Dovecote: Grade I

Stables: Grade I

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Church Meeting: 05/07/2019

Surveys dates:	Number of Volunteers
30/05/2019	1 (BBG)
31/05/2019	2 (BBG)
08/07/2019	8 (7 BBG)
15/08/2019	0

Summary of Survey Results:

30/05/2019 Dusk

Soprano pipistrelle emergence count 95+ from ventilation gap at apex of window in south west corner of chancel. Bats roosting in nave roof timber at west end.

31/05/2019 Dawn

133 soprano pipistrelle re-entered church via ventilation gap at apex of window in south west corner of chancel. Bats roosting in nave roof timber at west end.

No activity noted around stable of Dovecote.

2 barn owls out of bat box in church yard.

05/07/2019 (meeting)

2 Juvenile soprano pipistrelle found below roost.

08/07/2019 Dusk

Emergence count from window 114, re-entry recorded. Internal roost emergence count of approx. 160.

One brown long-eared inside stables.

Bernwood

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One brown long-eared inside Dovecote (west section) with hot spot noted on thermal imaging suggesting roost point near roof access point.

15/08/2019

30 +/- Soprano pipistrelle emerged – lower numbers evident

Video summary of activity at church: <https://studio.youtube.com/video/5AiUc8HIAiY/edit>

Summary of Church Position:

Issues with droppings and cleaning.

Would like to be able to use the church for outreach work throughout the year with emphasis to using the west end (catering facilities).

Summary of Options:

(record options considered and decision process to address No Satisfactory Alternative requirements)

1: Secure alternative access to existing maternity roost point (2019) in roof beam. Box in existing roost point. Will require substantial work to masonry or lead roof.

Issues/ Opportunities Raised at workshop:

- Core drilling through the external walls is unlikely to be an option due to thickness of the walls and potential to affect building structure. Creating an access point through lifting the lead flashing is a more realistic option.
- Concerns that the 'boxing in' of the beam would impact the ability to inspect the beams. Currently it is already difficult to inspect them but a design solution i.e. small access hatch etc could allow remote cameras/ endoscopes to be used.
- Potential issues from boxing in could be a reduction in ventilation (leading to dampness affecting the beam) and not being able to remove dropping accumulations. There should be ways of designed the feature so that ventilation is maintained (i.e. small gaps, mesh) so this is unlikely to be a major obstacle.
- When sealing off the beam it may be difficult to tell if the entire area is completely sealed to stop bats entering the wider church. Surveys may be needed to make sure this is the case.
- It is important to access the roof as well as the beam as this will influence decisions on design and feasibility. The beam needs inspecting from a structural point of view to check integrity.

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2: Create new artificial roost box above bat access point. Funnel bats into new bat box provision. Look at heated bat box provision. Initial idea would be to replicate the same shape and size of the new retractable screens hung high on chancel arch (see picture).

Issues/ opportunities raised at workshop:

- Generally agreed that with a careful design the box would not be a significant problem to the church appearance or heritage as it would be high up in the chancel, out of sight from most of the church and no worse than the existing retractable screens.
- The box could be designed to fit in with the architecture of the church to reduce its visual impact (i.e. paint it white) or become a desirable church feature (wooden, with similar carving designs to the pews, organ, pulpit etc).
- The potential to install a remote video camera could increase interest in bats amongst the church community.
- The design of the box will have to be carefully thought about. It needs to have the following features:
- Suitable for both maternity and hibernation roosts.
- Be able to be temporarily open to the rest of the church for next summer and then be sealed.
- Able to have a 1-way exclusion device when the time comes to sealing off box from rest of church.
- Heated with thermostat, at least part of the box should be cool and stable enough for hibernation in winter.
- Self cleaning and odour control?
- Possible access for maintenance and video camera.

3: Provide additional bat enhancement by working with National Trust to create new artificial roost points in the Stables building.

Issues/ opportunities raised at workshop:

- Needs to be agreed with National Trust.
- Agreed this option alone would not be enough to maintain FCS- should be seen as an enhancement.
- Positioning and design of boxes to be confirmed.
- Cost of box to be met by Bats in Churches project.
- Could have video camera to show public (although no electricity in building - potential to use solar panel?).

Note:

Comfortable that the bat access point in the apex of window in south west corner of chancel is probably the only bat access point to the church.

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Previous research suggests that soprano pipistrelle will have alternative roost that will probably be used in the short term after mitigation has been carried out. It will be important to establish this in terms of measuring if FCS has been met.

Workshop Date: 09/10/2019

Workshop Attendees 09/10/19:

Rev. Fiona Gibson, Vicar

Bob Cornes, Bedfordshire Bat Group

Judy Endersby, National Trust

Alison Witchell, Church Warden

Church Environment Officer

Emma Critchley, DAC

Matthew Stevens, Michael Dales Partnership

Chris Damant, Bernwood

Josh Sowden, Bernwood

Summary of workshop:

Chris introduced three design options developed with the aim of maintaining FCS of the soprano pipistrelle population utilising the church whilst also seeking to reduce the impacts of the bats on the church heritage and congregation:

- Option 1 is to create a new external access point through lead roof to the maternity roost (roof beam), 'box in' the roost by sealing up internal access to the church.
- Option 2 would install a bespoke bat box above the existing access point to the church with a funnel leading from the existing gap in the window to the box.
- Option 3 is to provide additional bat enhancements on the nearby National Trust owned stable building.

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The design options were largely positively received, with a general consensus that a combination of the three would be a good way to proceed in order to maintain FCS of the bats and reduce the negative impacts (urine damage/ staining and droppings) on the church building and users. It was suggested that a phased approach (initial two-way access that is closed after the next maternity period) would give the mitigation installed (i.e. bat box and sealing up beams) the best chance of success. Details on the designs of the mitigation features are now required, as well as planning on phasing the project and securing funding.

- Action: Feasibility study and drawings- Architect and Ecologist (21/10/2019).
- Action: Identify licensee from church community.
- Action: *Engagement Officer to establish budget available so viability can be assessed.*
- Action: Heated bat box. Fire safety risk assessment needs to take place.
- Action: Copy of scale plans for church to use with applications.
- Action: Speak to National Trust regarding installation of bat box.

Important Dates:

DAC papers submission	7/11/2019
DAC Meeting	21/11/2019
Draft programme prepared	02/12/2019

DAC Meeting:

The proposals were 'recommended' by the DAC at their meeting on the 20th November 2019. The next stage is for a 'public notice' to be issued and displayed at the church, while at the same time carrying out consultations with external bodies.

To meet the project time scales for carrying out the work in spring 2020 (see attached programme) a EPS licence registration will need to be submitted in January 2020. The following actions will also be required;

1: Post notice at church (weekend of 30 November 2019)

2: Design of internal bat box

Window access junction

Closable 2 way bat access

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Fail safe heating system (fire safety checks)

Hanging system

Cleaning / maintenance regime

3: Design of external roof bat access

4: Contract Specifications & Costings

5: PCC & BiC to complete Collaborative Agreement

6: Tender

7: Monitoring strategy including;

Design of specialist remote monitoring (bat count) systems for the bat box and external roof access

IR camera system

Temperature monitoring

Activity surveys and/or need to radio track bats

8: EPS Licence registration

Submit registration once 28 day notice period is complete (January 2019)

Identify church licencee