

BATS AND SWIFTS IN HEREFORDSHIRE'S CHURCHES



Herefordshire's Bats and Swifts

Project Summary

Bats have been associated with churches for centuries and with continuing habitat loss, inappropriate woodland management, and the increasing number of barn conversions, bats are becoming reliant on many church buildings. At the same time, with declining church congregations, churches have to find new ways to make their buildings more community-friendly and economically viable and with bats present inside the church this can be a difficult task.

In 2014, the Bats and Swifts in Churches Project was started to investigate the extent to which bats are causing problems in Herefordshire churches. The main objective of the project was to focus on churches where bats are using the interior of the building and to offer assistance and support by suggesting ways to provide alternative roosting and nesting opportunities for bats and swifts. Since 2014, 45% of churches in Herefordshire have been surveyed for bats and 52% for swifts. Ten churches were selected for a Heritage Lottery Funded (HLF) Bats and Swifts Box Installation Project awarded in 2015. Since 2016, additional churches have requested boxes for both bats and swifts.

Churches directly involved in the HLF project were Canon Pyon, Donnington (Diocese of Gloucester), King's Pyon, Letton, Norton Canon, Pembridge, Staunton-on-Wye, Wellington, Weston Beggard and Wigmore. Additional churches such as Docklow, Coddington, Weobley and Cradley joined the project but funding for boxes was obtained from elsewhere. All these churches have important bat and/or swift populations using the church buildings and in some cases there is significant usage of the interior by bats. Swifts nest outside the building but occasionally they can accidentally access the church via the eaves if gaps extend into the church. Once the birds are inside the church they cannot find a way out. The aim of the HLF project is to provide bat and swift boxes for these rare and protected species, as well as working with local people by providing training and advice about these species.



Bat box being installed inside a church tower



Swift boxes are installed under the eaves

FACTS ABOUT SWIFTS

- They arrive in the UK at the end of April or early May and migrate in early August, spending our winter in the Congo and East Africa.
- Swifts pair for life, migrating separately, but meeting up each spring at the same nest site.
- They eat, mate and sleep in the air. After leaving the nest, juveniles keep flying non-stop for three years until they pair and breed. They have tiny feet and legs and are not able to perch on wires.
- Swifts are reliant on church buildings. Their nests are found high up under tiles, in holes in walls or under the eaves.
- The nest is built using any material that can be gathered on the wing, including feathers, paper, straw, hay and seeds. It is cemented together with saliva, and renovated and reused year after year.
- Swifts fly low and fast around buildings, screaming loudly, and swoop fast into their nests.
- Swifts hunt for insects over gardens, fields and water. They eat huge quantities of aphids and gnats. Parent swifts gather insect snacks for their chicks, carrying as many as 1,000 at once in a food ball.
- Swifts are faithful to their old nest sites and fail to breed if they lose them so maintaining them is essential during repair work.
- Swifts will often fight over nest sites so providing additional nest boxes is important and will prevent conflict.



FACTS ABOUT BATS

- In Herefordshire we have at least 16 out of 17 UK breeding bat species.
- Bats are nocturnal and have a highly developed navigation systems called echolocation, which enable them to “see in the dark” with their ears.
- Bats are biologically and physically similar to humans; they have one pup per year and suckle their young. Their arms and extended fingers are covered in a membrane which forms a wing.
- Female bats gather together in groups called maternity colonies, to give birth and raise their young.
- Bats are long-lived and can live up to 15 or even 40 years. Bats have been here for over 70 million years.
- Bats eat insects; they are efficient pest controllers, consuming many hundreds of insects every hour.
- There are approximately 1,200 species of bats worldwide, accounting for approximately 20% of all known mammal species on Earth.
- The only known zoonotic disease associated with bats in the UK is the rabies-like European Bat Lyssavirus. This disease has only been found in 11 UK bats, all of them being Daubenton’s bats. It can only be transmitted via a bite or a scratch, so there is no risk if you do not handle bats. Histoplasmosis, a disease caused by the fungus *Histoplasma capsulatum*, has never been found in UK bats, or their droppings.
- All bat species and their roosts are legally protected because of the huge historic declines in bat populations.



WHAT CHURCHES CAN DO TO REDUCE PRESSURES ON CHURCH BUILDINGS FROM WILDLIFE

Churches are primarily places of worship, but they are also safe havens for wildlife, and in some cases they are mini nature reserves for many species, particularly bats and swifts. Rural churches are particularly favoured as they are peaceful places with very little disturbance. Many churches in Herefordshire are close to insect rich foraging habitat, such as rivers or brooks. So far, church surveys carried out have shown that wildlife, particularly bats, are unable to access less sensitive areas of the church, such as the tower or porch due to meshing. This can result in bats looking for access to other areas of the building such as the nave and chancel. Swifts are heavily reliant on the eaves of the church for safe nesting places and in some cases, these are being blocked or meshed over, preventing birds access.

Even if bats and swifts are not present in and around your church, it is advisable to make some small changes to pre-empt any future uptake. Just making a few modifications may encourage bats into areas that will not cause the church congregation any issues in the future. Once bats find a way into the worship space inside the church, it is more difficult to persuade them to use less sensitive areas.

WHAT CAN THE CHURCH DO TO HELP WILDLIFE?

Are there any funded repairs or timber treatment planned for the future?

Care must be taken during any repair works to prevent access points for bats or swifts being blocked, particularly at the eaves, between stonework where mortar is missing and under roof tiles.

Every church is entitled to a free bat survey for minor works or timber treatment which is provided by Natural England volunteers. A bat survey can be arranged via the Bat Conservation Trust. However, should works be extensive then a professional ecologist will need to be appointed.

It is always recommended to plan well ahead as bat activity surveys are carried out between May and the end of August and this could seriously delay scheduled works if bats are not considered early enough.

In the event that repair works will require funding, then this is a good time for the Church to consider opening up areas for bats such as enclosed roof voids (chancel) and/or by installing raised roof tiles or ridge tiles specifically manufactured for bats and swifts, which could be incorporated in the grant application.



Purpose-made gap under a ridge tile allowing access for crevice dwelling bats

Do you carry out minor repairs to the church?

If any repairs are carried out to areas, which could be used by bats, a Natural England Roost Visit should be requested, no matter how minor the repair. This free survey service for churches can be arranged via the Bat Conservation Trust. The same would apply in the case of any DIY timber treatment.

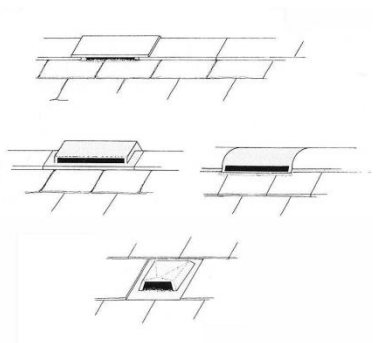
For more information about this service please call 0345 1300228 or go to the Bat Conservation Trust's website and search for Natural England roost visits.



Should bats be found under a ridge tile during minor repair work, advice will be provided by a Natural England roost visitor following a call from the Church Warden.

Does your church have a vestry with an enclosed roof void?

Enclosed roof voids provide an ideal roosting area for both brown long-eared and Natterer's bats. Opening up these areas could be considered if the roof voids are separate from the interior of the church. This can be done by opening up a lancet window or by installing special bat roof tiles as shown here. For more information contact the Bat Conservation Trust.



Is the bell tower meshed?

Small gaps to allow bats access into the tower, whilst preventing access to large birds, can be created by folding back wire or mesh by a couple of centimetres. It is important to make sure there are no sharp points or edges which can damage bats' fragile wing membranes.



Canon Pyon Church Tower with its new opening allowing bats entry

Does your church have a disused boiler room or undercroft?

Many churches have disused boiler rooms or an undercroft, which may be suitable for roosting or hibernating bats. Small modifications can be made to the door to allow bats access. Wooden bat boxes can be installed in these areas to create alternative roosting sites which may prevent bats using the interior of the church.



The undercroft at Yazor church has a purpose made cut-out allowing bats access

Does the church have precious artefacts?

Protective measures such as cotton or polythene sheeting should be placed on the altar, on alabaster figures, and brasses etc if bats are present inside the church.

Laying carpets or rugs on tiled floors where bats are present can exacerbate problems and should not be considered.



Weston Beggard Church where tiles have been permanently stained by bat urine, made much worse by the addition of a carpet that absorbed the urine.

Are the bell tower and nave connected?

Internal doors should consistently be kept either closed or open at all times to avoid the risk of entombing bats or birds. Windows, if opened during the day, should be closed at night. This particularly applies to areas where the ringing chamber links to the nave by open apertures or broken window panes.

Do you want to prevent birds accessing the church interior?

The eaves of any building are important to many species of bird such as the sparrow, swallow, house martin and swift. Meshing or blocking the eaves will have a detrimental effect on these species, particularly swifts, as they are heavily reliant on church buildings and are loyal to their nest sites. To prevent birds accessing the interior of the church it is recommended that mesh is inserted inside the church not the exterior. The eaves can be restricted to

30mm which will allow swifts and other small birds access whilst restricting pigeons and jackdaws. For more information contact Swift Conservation.



Eaves meshed at a Herefordshire church where swifts were observed locally

Are there any planned developments or renovations taking place in the village (traditional barns and other agricultural buildings)?

The Parochial Church Council (PCC) should be mindful of any developments within the village, particularly barn conversions where bat colonies may be present. Mitigation specified in protected species licences is usually designed only to preserve the conservation status of the individual bat populations found there. Such mitigation is not always effective and may lead to situations where bat roosts are displaced and take up residence in the local church, which may provide higher quality roosting habitat. This is a point that should be raised as part of any planning comments made on behalf of the church.

Would you like to reduce labour intensive churchyard management whilst enhancing biodiversity?

Wildlife corridors around the church are really beneficial for providing habitat for much needed invertebrates, such as butterflies and moths, so why not set aside areas for wild flowers to flourish and reseed. One single annual cut is all that is required at the end of the summer. However, prior to cutting, it is important to check the area for wildlife!



Photos in this section have been provided by *Caring for God's Acre*, Shropshire

Mown paths look very attractive through long grass as well as being less labour intensive for church volunteers.

Leaving areas uncut, particularly on the boundary, will benefit many small mammals such as bank voles, enabling them to commute safely to other areas.



Small mammals are vital to the survival of higher predators such as barn owls and kestrels. Leaving areas unmown, particularly near the boundary will also reduce fuel-use, noise pollution and carbon emissions, whilst creating a much more pleasant atmosphere.

For more guidance on managing churchyards, check out Caring for God's Acre's website and search for their action pack for managing churchyards and burial grounds.

What other wildlife measures can you consider?

Compost heaps, log piles and rubble piles in shady areas will provide safe habitat for invertebrates, small mammals, amphibians and reptiles.

Swallows and owls hunt and forage around churches and they also use them for nesting and roosting, particularly the porch. However, both these species create droppings underneath the nest or roosting site. Fitting a deflector board or laying a



piece of cardboard under the nest site has proved successful in reducing mess in churches.

Encourage the local community or school groups to build bug hotels, bird boxes, bat boxes and hedgehog houses. Install them around the church grounds in appropriate places and then stand back and enjoy the results.

For more information on building bat and swift boxes please contact the Bat Conservation Trust and Swift Conservation.



Do you know the dangers that strimmers, hedgecutters and lawn mowers cause to wildlife?

Every year, there are many terrible injuries and deaths caused to wildlife, particularly hedgehogs, because of garden machinery. Those animals that are killed outright are probably the lucky ones as the injuries can be horrific! In good weather, hedgehogs will sleep out in long grass during the day or in hedgerows as will small mammals, frogs, toads and snakes. Most animals are able to escape very quickly if they hear someone approaching, but a hedgehog will just curl up. Sadly the spines are no protection against a flaying wire or sharp blades. **Always check for hedgehogs and other wildlife before using a strimmer or other garden machinery!**

Useful Contacts

Herefordshire Bat Research Group
www.bats.org.uk/support-bats/bat-groups/west-midlands/herefordshire-bat-research-group

Bat Conservation Trust
www.bats.org.uk

Swift Conservation
www.swift-conservation.org

Caring for God's Acre
www.caringforgodsacre.org.uk/btck