

Bats in Bridges



Bats, a protected species in the UK and across Europe, have been found to use a wide variety of bridges as roost sites. Anyone involved in maintaining bridges should be aware of how their work can affect bats, and should be familiar with the procedures to follow to minimise disturbance to these animals during bridge works.

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Bats and the law

All 17 species of bat in the UK are protected by law. This differs slightly from country to country, but in summary it is illegal to:

- kill, injure or disturb bats**
- obstruct access to bat roosts**
- damage or disturb bat roosts**

because of the following legislation:

- Wildlife and Countryside Act 1981: *England, Scotland and Wales*
- Wildlife (Northern Ireland) Order 1985: *Northern Ireland*
- Wildlife Act 1990: *Isle of Man*
- Countryside and Rights of Way (CROW) Act 2000: *England and Wales*
- Nature Conservation (Scotland) Act 2004: *Scotland*
- Habitats Directive (Council Directive 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora.

Under the law, a roost is any structure or place used by bats for shelter or protection. Because bats tend to re-use the same roosts year after year, **the roost is protected whether or not bats are present at the time**. A survey for bats should be carried out before any bridge work goes ahead.

In order that legislation is not contravened, any structural maintenance or other operation that needs to be carried out where there are bats or evidence of bats must be notified to the relevant Statutory Nature Conservation Organisation (SNCO) or government department in order that it can advise on whether the operation should be carried out and, if so, the method to be used and the timing.

Where bats are likely to be affected by works to bridges, an application for a Habitats Regulations Licence should be made to the relevant government department of that country. This application should be made well before the works are due to be undertaken, to allow time for any necessary survey work.

Where do bats roost in bridges?

All species of British bat are small, and training is required to recognise and identify roosting bats or potential roosting sites. Stone bridges are the most likely to provide suitable roost sites, particularly if over water, but concrete bridges may also be used and the abutments of steel and wooden structures can contain crevices which may be utilised by bats.

Most bats squeeze deep into crevices for shelter. The optimal crevices are probably those that are at least 400mm deep and between 17mm and 35mm wide. However, almost any crevice greater than 50mm deep and 12mm wide can be used as a roost or to gain access to a bigger chamber behind.

Crevices include:

- gaps between stones or bricks where mortar has fallen out
- drainage holes
- expansion joints
- other gaps and cracks between the various elements of the bridge structure
- voids and gaps in concrete structures

When do bats use bridges?

Bats require different roost conditions as the seasons change. They may therefore use bridge roosts at any time of year and may use different bridges and different crevices at different times, depending upon the micro-climatic conditions provided by the various roost sites. Numbers roosting may vary between one and many hundreds. Bats may use the site day or night.

Minimising the effect on bats of works to bridges

The effects on bats of such work can range from direct killing (through crushing or entombment) to disturbance which, if occurring during the summer breeding season or winter hibernation period, can indirectly result in the death of bats. Even operations such as painting or timber treatment may affect bats if the roost is close by.

Most bridge repairs or maintenance have the potential to disturb or damage bat roosts, particularly work involving:

- re-pointing
- pressure grouting
- re-building
- re-saddling
- demolition

If works like these disturb, injure or kill bats, or damage the area in which they have been roosting, the works will be illegal unless the correct procedure has been followed.

Current information on bat roosts in bridges is scant in most parts of the UK. In view of this lack of information, bridge managers should ensure that measures are implemented to avoid damage or disturbance to potential bat roosts. These measures should be:

- ensuring awareness of the possibility of finding bat roosts during bridge inspections
- noting signs of bat roosts, or potential bat roosts, in bridge registers and works schedules
- passing promptly any relevant information concerning roosts or potential roosts to the local office of the relevant Statutory Nature Conservation Organisation (SNCO) or the local bat group, as well as to related contractors and office personnel
- consulting the relevant SNCO at the earliest opportunity prior to any works which could result in damage or disturbance to a bat roost

Prior knowledge of the presence (or possible presence) of a bat roost is necessary in order that correct procedures are followed and consequently the impact on bats is kept to a minimum. Prior knowledge also minimises delays and expense as the presence of bats can be properly planned for and works carefully timed. Bat surveys carried out by trained surveyors enable bridge works to be planned to minimise or prevent adverse impacts on works schedules and bats themselves.

If a bridge has a bat roost within it then a Habitats Regulations Licence must be applied for. A survey for bats must also be carried out by a bat specialist who will also apply for the Habitats Regulations Licence. The survey will need to make proposals for mitigation which will include some or all of the following:

- careful timing of works, especially if breeding or hibernating bats are present
- hand pointing in sensitive area, eg around crevices that are to be retained
- preserving roosts wherever possible
- creating new roost sites, especially where roosting crevices are being lost. Bat bricks or boxes can often be incorporated into a bridge to replace lost crevices.

Even if a bridge is not known to be a roost, contractors should be aware that every bridge is a potential bat roost, and that work should always proceed with caution. If bats are found during the work, despite pre-works inspections, contractors should cease work immediately and obtain advice urgently from the relevant SNCO.

Procedure to ensure that works do not break the law

When the bridge is first surveyed, note needs to be taken of any places where bats may roost (see above). If there is a possibility that the bridge may contain a bat roost, a survey needs to be undertaken by an experienced bat worker. Use of a fibrescope may be necessary to investigate the cracks that 'turn corners' or open into cavities. If there is evidence that bats use the bridge as a roost, even if the bats are not present at the time, a Habitats Regulations Licence must be obtained prior to the works commencing.

SNCOs (Statutory Nature Conservation Organisations)

Natural England

1 East Parade, Sheffield S1 2ET

Telephone 0114 241 8920

www.naturalengland.org.uk

Countryside Council for Wales

Maes Y Fynnon, Penrhosgarnedd, Bagnor, Gwynedd LL57 2ND

Telephone 0845 1306 229

www.ccw.gov.uk

Scottish Natural Heritage

12 Hope Terrace, Edinburgh EH9 2AS

Telephone 01463 725 000

www.snh.org.uk

Environment and Heritage Service (N. Ireland)

Environment Services, Commonwealth House, 35 Castle Street, Belfast BT1 1GU

Telephone 02890 395 264

www.ehsni.gov.uk

In practice, the system works best if bridge managers contact their SNCO well in advance, preferably outlining the next financial year's programme of works. This allows sufficient time for surveys to be undertaken and advice to be given.

The Bat Conservation Trust

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Bat Helpline 0845 1300 228

www.bats.org.uk

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The Bat Conservation Trust (BCT) is the only national organisation solely devoted to the conservation of bats and their habitats in the UK.

BCT runs a Surveying Bridges training course, please contact Kit Stoner for more details.

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