# BATS AND BRIDGES


## SUMMARY


- **All bridges should be surveyed to determine if bats are present, before any work takes place. The survey should be carried out by an appropriately qualified person.**

- **The best time of year to carry out work on bridges with bat roosts is spring (mid-March to end of April), before the young are born, or autumn (September to late October), after the young are weaned and independent and before hibernation.**

- **If bats are discovered during the course of any work, particularly in winter, stop work and contact Natural England or the Natural Environment Team immediately. If the bats are thought to be in danger, they maybe be carefully collected up with gloved hands and put into a box.**


## Background

Bridges can be important roost sites for bats at any time of year. They can roost in any crevice or fissure that occurs in a bridge structure, under arches (particularly near the apex) and in the walls. For example, nursery roosts may be located in bridges where relatively large, deep crevices exist to allow large numbers of females to congregate. Such crevices may also offer hibernation sites, if sufficiently isolated from external temperature fluctuations. Most bats seem to prefer masonry arch bridges, over water, for roosting, but other types of bridges may also be suitable, if they provide the right conditions. In autumn, bats may also use bridges for mating.

The habitat adjacent to bridges may also be important for some bat species, particularly Daubenton's bat. Trees along river courses form effective shelterbelts which create areas of high local insect abundance that can be exploited by foraging bats. Site lines are also created by lines of trees, along which bats may navigate and commute between roost and foraging sites.

### Bridge Works

In some instances, bridge strengthening and maintenance procedures, such as hand grouting, pressure grouting, shotcreting, saddling and demolition, can pose a threat to bat roosts. For example,

- Nursery roosts - if a bridge is known to hold a nursery roost it is vital that they are not disturbed in June and July when the young are born and have not started to fly. If major strengthening works are carried out at this time young bats cannot escape and will be killed during the pressure grouting process. Loss of nursery roosts could have serious consequences for the survival of the population.

- Hibernating bats – it is important that bats should are not disturbed if they are hibernating. The process of arousal from hibernation uses up critical fat reserves needed to sustain them through the winter months.

If appropriate steps are taken at an early stage (i.e. consulting Natural England or the Natural Environment Team), damage to roosts can be prevented. For example, individual or small numbers of non-breeding bats may be excluded temporarily to allow maintenance work to continue.

In addition, if at all possible, crevices between stones should be left for bats near the apex of the underside of an arch where this can be achieved without affecting the load capacity of the bridge.

Evidence of bat presence – what to look for:

- Obvious cavities and crevices, particularly close to/at the apex of an arch
- Droppings – bat droppings in crevices, stuck to walls and on the ground below suitable crevices (crumble to a powder of insect fragments)
- Staining – stonework surrounding the entrance of frequently used crevices can become stained with oil from the bats' fur, urine and faeces
- Bats visible – bats seen during surveys
- Bats audible – noise (squeaking or chittering) coming from the hole, especially in summer at dusk

## Additional Information

- Birds

There are certain bird species known to nest on ledges and in cavities of bridges, such as the dipper, grey wagtail, pied wagtail, wren and some tits (family Paridae). All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), whilst they are actively nesting or roosting. Bird nesting season is from 1st March – 31st July inclusive, although nesting may start before this and extend beyond it, in many cases (for further information refer to Advice Note 1 – Bird Nesting).

Maintenance work to bridges can eliminate ledges and crevices used by birds to place their nests. If possible, nesting ledges should be provided after the works have been completed.

- Crayfish

White-clawed crayfish, present in both the Rivers Allen and Piddle and Tadnoll Brook, are a protected species under Schedule 5 of the Wildlife and Countryside Act 1981. This means that any crayfish surveys or removals of white-clawed crayfish for construction works need to be licensed by Natural England.

- Other Mammals

Signs of other mammals have also been recorded in/near bridges, including otters, water voles and mink, which leave droppings as territorial scent marks in prominent places on/near bridge structures.

Otters – Otters are protected under Schedule 5 of the Wildlife and Countryside Act 1981 and the Conservation of Habitats & Species Regulations 2010 (for further information refer to Advice Note 5)

Water voles – Water voles are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (from April 2008)

**This advice note should be read in conjunction with 2. Bats General Advice Note.**

Please contact the Natural Environment Team for more information: 01305 224290 Email: net@dorsetcc.gov.uk or Natural England – 0300 060 2570