



# Bats in roofs

a guide for surveyors

English Nature is the Government agency that champions the conservation of wildlife and geology throughout England.

This is one of a range of publications published by:  
External Relations Team  
English Nature  
Northminster House  
Peterborough PE1 1UA

[www.english-nature.org.uk](http://www.english-nature.org.uk)

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Printed on Evolution  
Satin, 75% recycled  
post-consumer waste paper,  
Elemental Chlorine Free.

ISBN 1 85716 006 1

Catalogue code IN4.2

Designed and Printed by  
Status Design & Advertising,  
10M.



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The 16 species of British bats are all small harmless mammals which feed only on insects. During the day, bats use a variety of places, including house roofs, for roosting and they form colonies at some times of the year. Bats do not damage property and there is no known health risk associated with them in the UK.

Many bats are endangered or threatened, so both UK and European legislation gives them very full protection. It is illegal to intentionally kill, injure or take any bat or to recklessly damage, destroy or block up their roosts or disturb them. Because bats tend to return to the same roosts each year, these sites are protected whether the bats are present or not.

In dwelling-houses that are used by bats, the legislation allows building maintenance or remedial operations to be carried out. However, English Nature must have been notified in advance and allowed time to advise on whether the operation should be carried out and, if so, the method and timing of the work.

Where structural, demolition or conversion work is proposed to buildings that are not dwellings (e.g. churches and barns) it is necessary to consult the Department for Environment Food and Rural Affairs (DEFRA) about licensing implications before any work can proceed.

This explanation should be regarded only as a guide to the law, and the

Wildlife and Countryside Act 1981 (as amended) or the Conservation (Natural Habitats &c.) Regulations 1994 should be consulted if in doubt.

Many species of bat are dependent on buildings for roosting, though they may not be present throughout the year. When they are present, bats are usually concealed in crevices, behind roofing felt, in cavity walls or under ridge tiles and are not often seen in the roof space. Of the 16 British species only the two horseshoe bats, both rare, sleep hanging free by their feet. The remainder rarely do this but cling on with thumbs and feet or squeeze themselves into crevices.

**Further information about the legal position can be obtained from the DEFRA Licensing Manager on tel: 0117 372 8291**

### Identification of roosts

Because bat roosts are protected even if the bats are absent, it is important that surveyors are able to recognise roosts even if they see no bats. The key identification feature is the presence of droppings. These are dark brown or black and vary between 4 and 8mm long. They look very similar to mouse droppings but with one identifying difference - bat droppings crumble into a fine powder when crushed. This is because they are made up of fragments of insects. The quantity of droppings readily



Pipistrelle



Long-eared



Serotine



Rat



Mouse

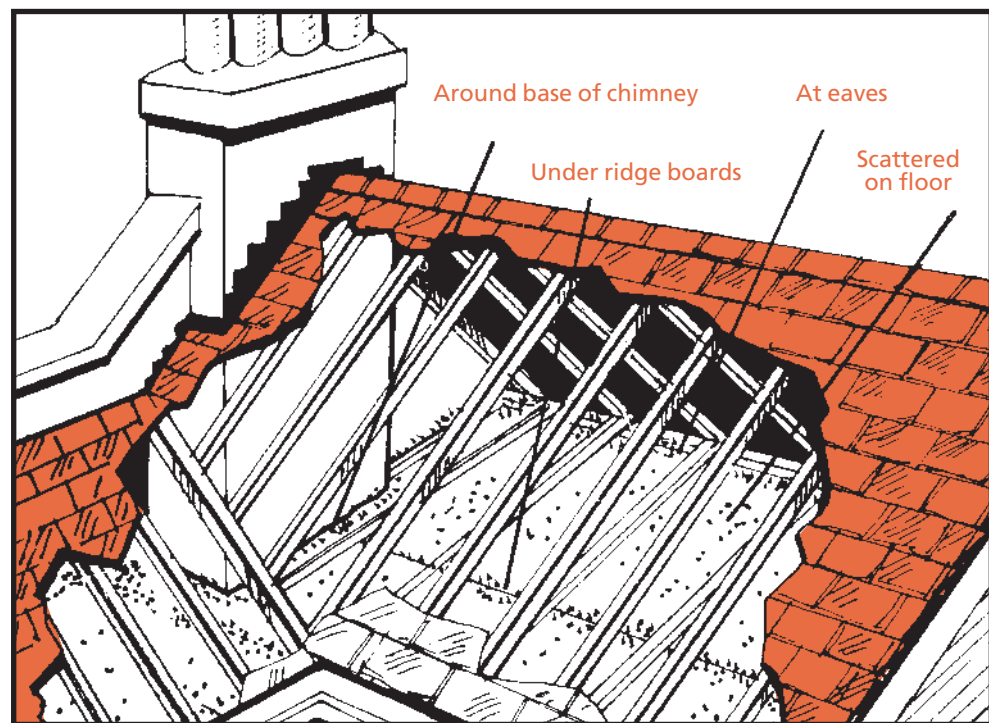
visible in the roof does not necessarily provide a guide to the number of bats using the roost. Bats may spend the majority of their time tucked away in crevices so only a small number of droppings might be visible. However, the accumulation of droppings into piles beneath ridge-boards, hips and around the chimneys or gable ends is typical of bats. In a well established roost, droppings may be several centimetres deep. Rats or mice rarely produce such an accumulation in these places.

Although droppings are the most certain identification feature, other occasional clues to the presence of bats may include a characteristic



A pipistrelle bat entrance hole needs to be no bigger than this

odour and the presence of large numbers of moth wings which have been discarded by feeding bats. A polished or clean surface near a place where light enters may also indicate habitual usage by bats, as does a lack of cobwebs in the areas they regularly use.



## Species and roost sites

The most commonly occurring species in houses are pipistrelles. These highly gregarious small bats use roofs for breeding during the summer and, in general, the bats disperse during the autumn. Particularly favoured roosting sites are at gable ends, above soffits, at the top of cavity walls near chimneys or behind bargeboards, and in many cases, there is no sign of their presence. The most likely places to find droppings in the roof void are at the gable end wall and along the eaves. In some cases, the bats may roost beneath ridge tiles, on top of the ridge-beam or even under insulation close to the eaves and, of course, many other sites may be used. If a roost is suspected, check for the presence of droppings on the outside of the house; they are most commonly found on window ledges or stuck to walls, particularly beneath the gable apex. Pipistrelles are also widespread in churches. Church cleaners often know if bats are present and it is usually easy to spot droppings stuck to interior walls or in places that are not regularly cleaned.

The brown long-eared bat is probably the next most common species in Britain but is the one most likely to be encountered in roof voids and may occasionally be seen clinging on to timbers near the apex of the roof. Like pipistrelles, highest numbers

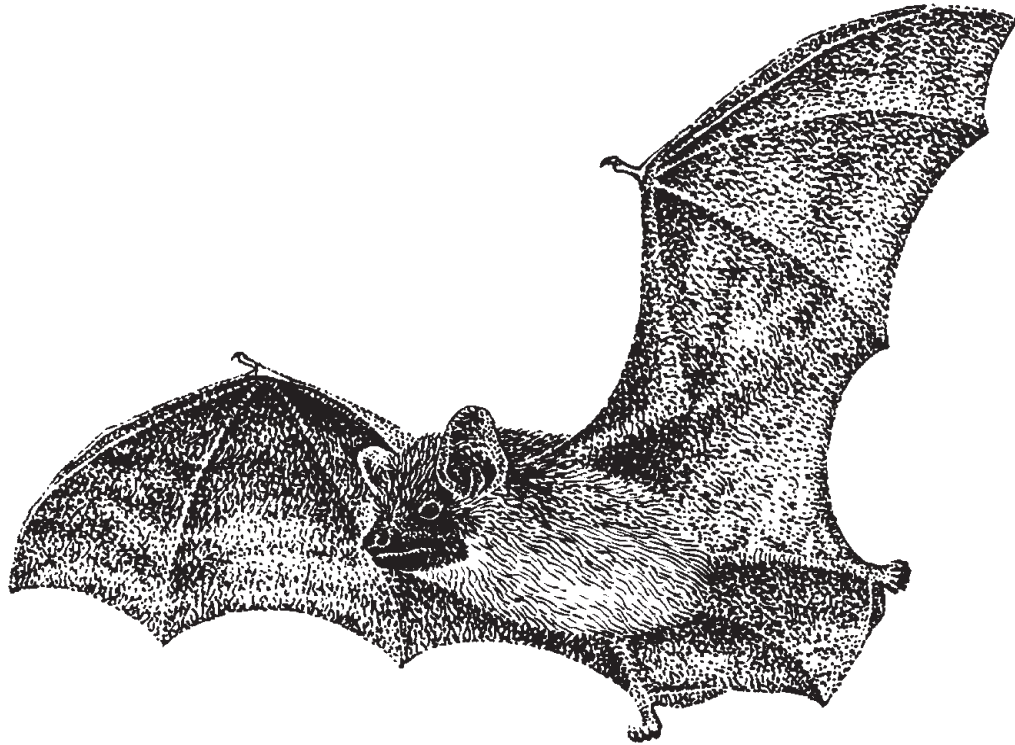
may be seen on hot days between June and September, when breeding colonies may be present. During the autumn and in cool weather, bats remain concealed in crevices or hollow walls but may appear on mild days or if disturbed. Brown long-eared bats tend to fly around in the open roof void and hang from the ridge during the night, so droppings are usually found scattered over the floor or concentrated in piles beneath favoured roosting areas, typically beneath the ridge beam. In hipped roofs, piles of droppings may also be found beneath the junction between two hips.

A number of other species are dependent on house roofs, but these are all much less common or confined to one area of the country.

The serotine is one of our largest bats, about the same weight as a large mouse, and is most common in southern England, though known to occur as far north as Yorkshire. Serotines seem to be very dependent on buildings and, like all bats, are faithful to their traditional roosts. Being large bats, they can give rise to large piles of droppings. Roosting position is variable but they often live in hollow walls or brick chimney stacks.

The greater horseshoe bat is very rare but its close relative, the lesser horseshoe bat, is still reasonably common in Wales and south-west England.





When torpid or asleep, horseshoe bats hang free by their feet with their wing membranes wrapped round the body and can often look like pears or plums hanging from the roof. Droppings are typically in piles beneath the ridge-beam. Bats of the Myotis family are all superficially similar in appearance and a number of species - whiskered, Brandt's, Natterer's, Daubenton's - may be found in house roofs or churches, though they are not particularly common. Roosting position is variable but they will be found in the same sorts of places as the other species.

### Bats and surveyors

Bats can be found in all kinds of buildings, usually in the roof but also in other areas. All professional surveyors, particularly those involved in any form of pest control, should be aware that any roof or building is a potential bat roost and should therefore check automatically for the presence of bat droppings or bats. In a small roof, five minutes spent specifically on this check would find any established roost but in a larger building about the same time should be spent on each roof section. The search can then be continued at the

same time as other work, as most of the areas where bat droppings may be found are those that will be examined for signs of rot or insect attack.

A suggested search technique for houses is:

- Ask the occupier whether they are aware that they have bats or if bats have ever been found in the house.
- Check for the presence of bats by listening for their 'chittering' noises in warm weather and by shining a light along the ridge beams and over brickwork. However, it must be stressed that bats are rarely seen during the day.
- Examine the floor for droppings, concentrating on the area beneath the ridge, the junction between two ridges, down hips and over bays, around chimneys and gables and all around the eaves. Much of this can be done during the course of a normal survey.

If evidence of bats is found in a dwelling-house and any action is proposed which would affect bats or their roosts, then English Nature must be informed and allowed time to advise on any special precautions

that may be necessary. Such actions would include renovation, demolition, re-roofing, conversion or any application of pesticides such as for cluster-fly control or remedial timber treatment. Avoiding the unnecessary killing of bats or destruction of their roosts can best be achieved through early consultation, preferably at the survey stage, but in urgent cases advice can often be provided by telephone.

Churches and other large non-domestic buildings may require a different technique, but the same principles apply. Ask staff about bats and check for droppings on walls, floors, pews, altar cloths etc. If signs of bats are found, consult DEFRA about possible licensing requirements.

Greater horseshoe bat

