

# Bat Conservation Trust

## Serotine bat

*Eptesicus serotinus*



### Introduction

The serotine is one of Britain's largest bat species and usually one of the first to appear in the evening, often emerging in good light. Its broad wings and a leisurely, highly manoeuvrable flapping flight with occasional short glides or steep descents are distinctive.

### Vital statistics

Head & body length:	58mm - 80mm
Forearm length:	48mm - 55mm
Wingspan:	320mm - 380mm
Weight:	15g - 35g
Colour:	Fur dark brown above, pale underneath; face and ears black.

### General

Most of the food is caught within 2km of the roost although serotines may forage up to six kilometres. Having caught a large beetle, a serotine will fly around slowly, chewing its prey and dropping the wing cases and legs; sometimes it will take the prey to a feeding perch.

It flies at about tree-top height (to about 10 m) often close to vegetation, and will sometimes flop, wings outstretched, on to the foliage to catch large insects. The serotine will feed around street lamps and even catch prey from the ground.

### Habitats

Serotines roost mainly in buildings with high gables and cavity walls. They can be found in much older buildings and churches, but are less often found in modern buildings. The access to the roost is usually at or near the gable apex or the lower eaves. The serotine is one of the most building-oriented species and is hardly ever found in trees.

They roost hidden in crevices around chimneys, in cavity walls, between felt or boarding and tiles or slates, beneath floorboards and sometimes in the open roof space at the ridge ends or occasionally elsewhere along the ridge. Droppings are often present in large amounts at gable ends or around a chimney base, although some long-established colonies show no obvious signs of occupation where the roost is in a cavity wall. The point of access is not well-marked, though sometimes it is slightly discoloured and there are likely to be a few droppings underneath.

Serotines sometimes roost in the same building as pipistrelles or long-eared bats, and they have also been known to associate with natterer's, whiskered and noctule bats.

Very few serotines are found in winter, but it is likely that most hibernate in buildings. It is possible that at least part of the summer colony may remain in the same building for some, if not all, of the winter period. Hibernating serotines have been found inside cavity walls and disused chimneys. Very rarely they have been found in the coldest parts of caves, either in roof crevices or in accumulations of boulders.

### Diet

In spring, mainly flies and moths; in summer, particularly chafers and dung beetles.

### Reproduction & life cycle

Maternity colonies consist almost exclusively of female bats and start to build up in May. Numbers in smaller maternity colonies are often stable from the end of May. A colony usually remains at a single roost site during the breeding season, although larger colonies sometimes change roosts. Females normally give birth to a single young in early July, though births as late as mid-August have been recorded. The baby is occasionally carried by its mother for the first few days. At 3 weeks the young are able to make their first flight and at 6 weeks they can forage for themselves. The colony usually disperses by early September, but a few bats may remain in the roost until early October.

The males probably remain solitary or in small groups but are occasionally found with females in spring or autumn. Mating normally takes place in the autumn, but almost nothing is known of the mating behaviour. Males and females reach sexual maturity a year after their birth.

### Echolocation

The echolocation calls of serotine bats range from 15 to 65kHz and peak at 25 to 30kHz. On a bat detector a sound like irregular hand-clapping is heard.

### Distribution & conservation

The serotine is one of our less common species, occurring mainly south of a line drawn from The Wash to parts of South Wales.

The decline in serotine numbers is probably due to loss of feeding habitat where large insects such as chafers can be found. As the serotine roosts almost entirely in buildings, it is subject to the effects of building work and the use of toxic chemicals in remedial timber treatment.

