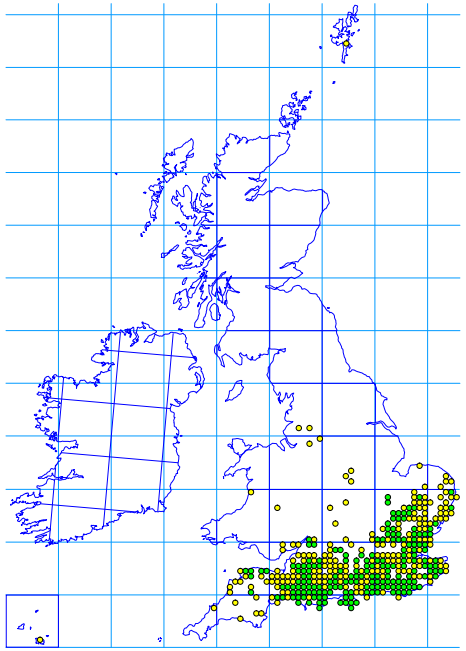
Status and distribution

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



Map includes records of serotine bat roosts (UK)

Conservation

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.

Bats and the law

Bats and their roosts are protected under the Wildlife and Countryside Act 1981, the Conservation (Natural Habitats, etc.) Regulations 1994, the Countryside and Rights of Way Act 2000 and the Nature Conservation (Scotland) Act 2004.

Should any work be planned that could result in the disturbance of bats or their roosts, the relevant Statutory Nature Conservation Organisation – English Nature, Countryside Council for Wales, Scottish Natural Heritage or the Environment and Heritage Service (Northern Ireland) – must be consulted. Local bat groups will also be happy to give help and advice.

Further information

The Bat Conservation Trust
15 Cloisters House
8 Battersea Park Road
London SW8 4BG
Bat Helpline 0845 1300 228
www.bats.org.uk

English Nature
Telephone 01733 455000
www.english-nature.org.uk

Countryside Council for Wales
Telephone 01248 385500
www.ccw.gov.uk

Scottish Natural Heritage
Telephone 0131 447 4784
www.snh.gov.uk

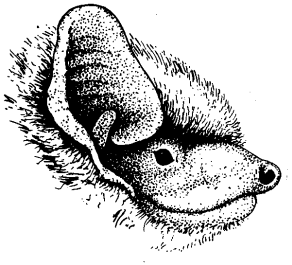
Environment and Heritage Service
(Northern Ireland)
Telephone 02890 546558
www.ehsni.gov.uk

The Bat Conservation Trust is grateful to the organisations listed above for their support of our work.
Map from Distribution atlas of bats in Britain and Ireland, compiled by Phil Richardson for the Bat Conservation Trust in 2000.
Illustrations by Joan Childs and Tom McOwat.

Bat Conservation Trust

Serotine bat

Species information leaflet



Serotine
Eptesicus serotinus

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.

It flies at about tree-top height (to about 10 metres) 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.

Bat facts

Description	Head and 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
Life cycle	Mating period	September - October
	Maternity colonies	Established late spring. One young born end of June to early July, weaned at six weeks
	Average colony size	15 to 30 bats (occasionally up to 60 or more)
	Longevity	Up to 19 years
Habitat/food	Summer roosts	Buildings
	Winter roosts	Probably buildings
	Feeding habitat	Pasture, parkland, open woodland edge, tall hedgerows, gardens, suburban area
	Food	In spring, mainly flies and moths; in summer, particularly chafers and dung beetles

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

Breeding

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.

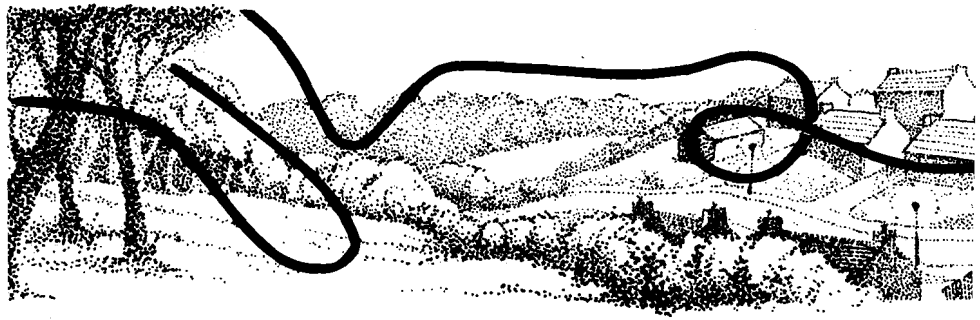
A colony usually remains at a single roost site during the breeding season, although larger colonies sometimes change roosts. Females normally give birth to a single young in early July, though births as late as mid-August have been recorded. The baby is occasionally carried by its mother for the first 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.

Summer roosts

Serotines roost mainly in buildings with high gables and cavity walls such as many built around 1900. They can be found in much older buildings and often occur in churches, but are less frequently 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 hardly ever found in trees, which presumably provided the original natural roost sites.

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.



Once the colony has built up in late spring there may be much squeaking before the bats emerge at night. Most of the colony emerges in the first ten minutes and all will have left within about 40 minutes. In the spring the bats return after about 30 minutes and groups of bats will circle around the roost before entering. As the season progresses, some may return to the roost in the middle of the night, while others spend more time away from the roost. There may be a secondary peak of activity around dawn.

The roost building is sometimes shared with pipistrelles or long-eared bats, and serotines have also been known to associate with Natterer's, whiskered and noctule bats.

Winter roosts

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.

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.