

SPECIES OF THE WEEK



Soprano pipistrelle

Pipistrellus pygmaeus
Laltóg shopránach

The soprano pipistrelle is one of Ireland's smallest and commonest bat species, and is most likely to be seen flying around soon after dusk in both urban and rural areas. The bats emerge about 20 minutes after sunset, earlier on warmer nights. They have a rapid, twisting flight, usually 5-10m above ground level, as they forage around woodland and wetlands pursuing midges, mosquitoes and small moths. Pregnant females forage once a night for a long period. Once the young are born females make two shorter foraging trips. A single pipistrelle, weighing no more than 5-6g, may consume as many as 3,000 of these insects in one night. Prey is caught and consumed during flight.

There are four stages to the foraging behaviour of pipistrelles: search flight, approach flight, capture and retrieval of prey. Changes in the echolocation call were correlated with these changes in flight behaviour. There is a shallow-modulated component in the echolocation call during search phase which may enable better detection of prey. This shallow-modulated component is not found in the echolocation call during the approach phase. During the approach phase a steep frequency-modulated call is used to assess the distance to the prey item. In this phase the pulse interval and duration decrease as the target is approached. During the terminal phase steep frequency-modulated calls are used to locate the prey item precisely. Again, the pulse interval and duration decrease as the target is approached. The information contained in the call per unit time is increased through the use of a high call repetition rate. By altering the duration of the echolocation call, pipistrelles are able to avoid

overlap between emitted signals and returning echoes. In addition to echolocation calls, the soprano pipistrelle emits two types of social calls; a complex song-like call when at the mating roost and in the foraging habitat, and a cheep-like call during flight.

Soprano pipistrelles often choose habitats with semi-natural woodland or tree lines and tend to avoid open habitat such as farmland, moorland and grassland.

The fur is dark to chestnut brown on the back and head, with paler fur underneath. It has short, triangular ears with a rounded tip. The tragus (a fleshy prominence at the front of the external opening of the ear) is four times as broad as it is long.

In summer Pipistrelles are frequently found roosting in houses in cracks and crevices in new and old buildings, behind paneling, shutters and eaves. They also roost in other locations such as tree holes and will occupy bat boxes if these are provided in suitable locations. Female soprano pipistrelles tend to form nursery (or maternity) roosts with 25 – 50 individuals.

Mating occurs from the spring through to autumn, but mainly in September and November. A single offspring is born at the end of June or the beginning of July. Rarely twins are born. Males occupy territories year-round and defend them during the mating season when special social calls are emitted, and the bats smell strongly of musk.

Mixed sex winter roosts are inhabited from mid-November to early March. These are in trees or buildings. They rarely roost underground.

The soprano pipistrelle was only formally separated from the common pipistrelle (*Pipistrellus pipistrellus*) in 1999. The two are called common and soprano because the latter echolocates at a higher frequency peaking at 55kHz, compared with the former which echolocates at a peak frequency of 46kHz. The social call of the soprano pipistrelle has three components. This can be used to distinguish the soprano from the common pipistrelle, which has a social call of four components.