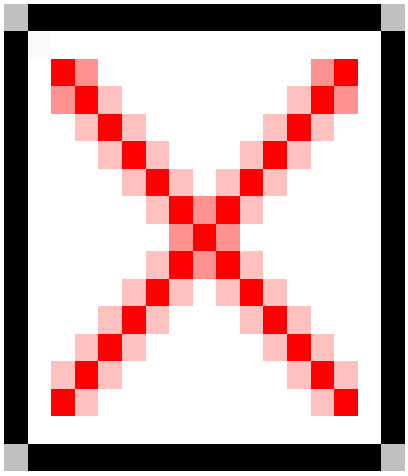
Bats (British)



There are sixteen species of bat in Britain and all are protected under the Wildlife and Countryside Act.

Bats are quite remarkable animals worthy of our interest and respect. They are the only mammals capable of controlled flight - and their aerobatic skills have to been seen to be believed! British bats eat insects and nothing else. This makes them valuable friends and allies even if we are a little slow in recognising their virtues.

Bats have their own exclusive Order which is known as Chiroptera (meaning hand wing). They have been separated from the other insect eaters because of their ability to fly.

The 'hand-wing' description is very apt, as one can see when studying the structure of a bat's wing. The bones which support the wing membrane are simply extended 'fingers', with the thumb forming a protruding hook. If we stretch out our fingers as wide as possible and then imagine the skin between them extending out to the finger tips, this will provide some idea of the bat's wing structure. While the front limbs of the bat have been specially developed for flying, the hind limbs look quite insignificant and almost useless. However, the hind limbs are essential to the bat when it comes to roost, as it hangs upside down from its chosen resting place with its hind legs acting as a firm anchor by gripping whatever object or surface is available.

The most common bat seen in Britain is also the smallest of our fourteen species and it is known as the

pipistrelle

. This little bat (wing span about 22 to 25cm) is often mistaken for a dusk-flying bird as it flits among the trees

and hedgerows seeking insect prey.

Among the larger bats are the
noctule
(wing span up to 38 cm) and
greater horseshoe bat
, with a wing span of similar size. Bats are difficult to identify in flight as one does not get much opportunity to observe them properly, but the pipistrelle can usually be recognised by its small size, while the
long eared bat's
ears can be spotted if the light is not too bad.

Although bats have reasonable eyesight they catch their food (flying insects) by using a remarkable form of 'radar', developed millions of years before man appeared on this planet! As the bat flies through the air it emits a series of ultrasonic squeaks (about 12 - 15 per second). These high-pitched sounds are usually out of range of human hearing, although some lower frequency calls are certainly audible. The sound waves from each squeaking call are projected out in front of the flying bat. As these sound waves come into contact with objects along the flight line they bounce echoes back to the bat's receiving gear - so allowing the bat to avoid obstacles or to home in on insect prey.

Our bats are divided into two distinct groups. The twelve species of
earlet bats
have a long ear post, or tragus, through which they receive their echo signals. The other two species are known as
noseleafe
or
horseshoe bats
. The greater and lesser horseshoe bats have a strange horseshoe-shaped growth on the nose. As a horseshoe bat flies it utters ultrasonic squeaks through its nose. It does not move its head but moves the parts of the nose to change the direction of the sounds. At the same time the bat waggles its ears backwards and forwards, up to 60 times a second, in order to receive the echoes.

Hibernation

All British bats hibernate. They build up fat during the autumn and find a cool, humid, sheltered place such as a crevice in a cave. All their body systems slow down in order to save energy and their heart rate drops to 20 beats per minute when hibernating - compared with 1 000 beats per minute in flight. During mild spells in

winter, bats may wake up and fly to feed or move to a different site.

Bats and Humans

Bats were once very common in the British Isles, but now, for a number of reasons, they are in decline. Up until 1990, we had fifteen species of bat - and then the last remaining
mouse-eared bat
in Britain died, reducing the total number of species to fourteen.

The worrying reduction in bat numbers has been attributed partly to loss of roosting sites, such as hollow trees. Although most species of British bat have adapted to roosting in buildings for at least part of the year, trees are still used at other times. Some bats, such as the noctule and rare
Bechstein's bat
depend almost entirely on trees. Another reason for their decline is increased use of insecticides, thus depriving the bats of their insect food. Also chemical timber treatments in buildings can poison bats.

Helping Bats

Bats often choose houses for their summer roosts, perhaps choosing lofts or crevices behind roof tiles. Some people dislike the idea of bats living in their house, but they do no harm at all. Bats are protected by law and it is illegal to disturb a roost unless you are a licensed bat worker.

It is very exciting to have bats living at close quarters, giving you the opportunity to watch them flitting round your garden on summer evenings, catchng flying insects. Pipistrelle bats seem to prefer modern houses, whilst older houses with larger lofts attract long-eared bats.

If you are not lucky enough to have a roost, you can attract bats into your garden by growing stongly-scented flowering plants , such as honeysuckle, sweet briar and white jasmine. These will attract insects, which in turn attract bats.

If you do not have a garden, the best places for bat-watching are ponds and lakes. An easy way to watch bats at night is to watch street lights. Bright street lights attract insects and the bats, particularly pipistrelles, get to know about this food supply.

If you would like to find out more about bats and how to help them, then visit the Bat Conservation Trust
.