

Beautiful Bats

A talk by Bernard Baverstock

Bernard, a Trustee of the Blackwater Valley Countryside Trust, Chairman of Camberley Natural History Society and founder member, and former Chairman, of Surrey Bat Group gave a lively and informative presentation on this fascinating and much misunderstood animal.

There are 18 species of bats living in the UK, of which 17 species are known to breed here. The rarest is the greater mouse-eared bat which is on the verge of extinction, with only one known example



Alcahoie Bat

left in England. As recently as 2010, a new species was discovered, the Alcahoie, which is so similar to other bats that it was only identified using DNA. Bats are divided into two groups: mega bats and micro bats. The smallest British bat is the pipistrelle, common in the Blackwater Valley, which weighs 4-7 grams and has a wingspan of just 18-25 cm. Our largest is the noctule, which can up to 40 grams with a wingspan of 33-45 cm.

There are a number of myths associated with bats, not least the saying 'bats in the belfry' to describe madness.

In fact a belfry would be too cold to provide bat habitation. Different bats choose different places to roost: hollow trees, caves, buildings. Far from giving an impression of madness, they are clean, sociable animals, who will spend hours grooming each other. They appear to enjoy human contact, too, since Bernard has nursed injured bats in the past who became quite tame and would purr when stroked.

Another myth is that bats are blind. They are not, but they do not like the light, hence their nocturnal habits. In the darkness, they use their ears to 'see' with echolocation. The pipistrelle, for example, can hear sounds up to 55 KHz in frequency.

And, contrary to popular belief, bats do not gnaw through materials.

Bats are the only mammals that can fly, and they have remained largely unchanged for millions of years; skeletons dating back 40 million years are remarkably similar to those of modern bats.

They have a very slow reproduction cycle. Males call the females to mate before hibernation. The females store the sperm until spring, when they release it for fertilisation. As gestation progresses, female bats form maternity roosts, which must be clean and at a constant temperature, and each gives birth to a single young, which will start to fly at 3 weeks. Until then, mothers can go hunting secure in the knowledge that the roost will care for their young.



New-born Pipistrelle Bat

Bats are surprisingly long-lived, with some ringed individuals known to be up to 30 years old.

They like to be high up, so bat boxes are situated high in the trees. Once occupied, they become protected sites, and nowadays gloves have to be worn when handling bats. Some bat boxes have been put up in the Victoria Road cemetery.

During hibernation, for which bats need a stable temperature around freezing, their heart rate drops to 4/5 beats per minute. They have to spend the autumn building up a layer of brown fat in order to survive the winter, and all bats, whether they eat insects, fruit or nectar, have huge appetites. The common pipistrelle, for example, can eat over 3,000 tiny insects in a single night!

There are four species of water bats, which fly over water at a constant height to catch insects, and have been known to catch small fish and frogs.



Long-eared bats have ears that are nearly as long as their bodies, with which they can hear the beat of the moths' wings. However, moths have been seen to drop to the ground to avoid being caught. So sensitive is the hearing of long-eared bats that they can hear a caterpillar crawling along a leaf.

The mouse-eared bat was once common in Europe and its droppings were valued as fertiliser, but the introduction of insecticides resulted in whole colonies being wiped out. Although the use of such chemicals is no longer legal, bat populations continue to fall and they need our protection because of loss of habitat and of roost sites.

The Bat Conservation Trust has set up a Bat Helpline (0845 1300 228) that offers help and advice to property owners who have bat roosts. Further information is available at their website:

www.bats.org.uk