

Fact Sheet - Microbats (sub-order Microchiroptera)

Bats from this group are found on all continents across the world except Antarctica. In Australia there are many species of microbats ranging from the carnivorous ghost bat, the largest, weighing up to 150 grams, to tiny forest bats weighing 3 grams.

Why are microbats important?

Microbats are important because they eat vast numbers of insects thus contributing to the control of insect populations in the natural environment. This is important to modern society because they also control many insect pests of crops and insects that spread disease such as malaria.

What do microbats eat?

Each species eats different sized food including mice, frogs, other bats, small birds, fish, large grasshoppers, moths, caterpillars, beetles, bugs, spiders, scorpions, cockroaches, flies, ants, mosquitoes, termites and gnats. On the American continents there are microbat species which also feed on fruit, flowers and blood.

What sounds do microbats make?

Microbats are able to find their way in the dark and catch their food using echolocation. High frequency sound pulses made in the larynx (voicebox) are emitted either through the nose or mouth. Echoes of these sounds reflected back to the bat's ears allow it to know the position, relative distance and character of objects in its environment. The echo-location sounds are nearly all above the hearing range of people. Microbats use other sounds for communication particularly in the roost.

Where do microbats go in the daytime?

Some microbat species live in caves in large colonies. Other species roost in hollows in trees, under bark, in small holes in logs or fence posts, in birds nests, under bridges, in the roofs or walls of buildings. Radio-tracking of individual microbats has shown that they use a number of different roosts in an area. Microbats rarely move about in daylight.

Where do microbats go during the night?

They go hunting for food. Most catch prey in flight but a few species hunt on all fours for ground living invertebrates.

What do microbats do in the winter?

In winter there are few insects about so microbats, in cold climates (e.g. southern Australia), save energy by hibernating. They roost in a cold sheltered place, and are able to drop their body temperature close to that of their surroundings and slow their heart rate. Disturbance of hibernating bats can cause them to return to operating temperature. This uses up fat reserves, which they need to survive until there are enough insects to feed on. Disturbance of hibernating bats can cause them to die. Microbats can also use torpor which is similar to hibernation, but used only for a few hours or days to conserve energy when food is scarce.

When and where do microbats have their babies?

Microbat babies are born in the Spring/Summer when days are warm and food is plentiful. Most species give birth to one young per year. Newborn microbats are not furred and their eyes are closed at first. By 6-8 weeks, they are fully developed and able to fly and feed with adults. Some species give birth in maternity caves where the shape of the cave roof traps the body heat of the adults so that the unfurred young are able to survive when the mothers leave them to feed at night. Some maternity caves are known to contain hundreds of thousands of bats. Other species form maternity colonies in the hollows of big old trees or in buildings. Mother microbats, which roost in tree hollows, carry their babies from one hollow to another. This behaviour may be to avoid predators or it might be to avoid a build up of parasites, or both.

