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Bats – Misconceptions, Importance, and Facts

Introduction to Bats



Bats are mammals that can fly.

Bats¹ are mammals. Some people think that they are rodents, but they are a different kind of mammal. They are called chiropterans. In fact, they are more closely related to primates (e.g. gorillas, people) than to rodents. Bats are the only mammals that can truly fly.

Did You Know?
There are more than
1000 different bat
species!

Most bat species eat insects, but some eat fruit, nectar, other small animals (including mammals, birds, lizards, frogs, and fish), or blood. In fact, there are three species of blood-eating bats, called vampire bats.

Ecobottle Sample



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In the winter, some bats migrate south, some hibernate, and some enter a state of **torpor**² (low body temperature; low heart and breathing rates; and inactivity).



Most bats are nocturnal.

Bats are almost completely **nocturnal**³, which means they only come out at night. One bat, the Samoan flying fox, comes out during the day. A common myth is that bats are blind. Like many other mammals, bats do have difficulty seeing at night. To help with this, they rely on a special skill called echolocation, which helps them fly safely and locate food in the dark.

¹ **Bats:** mammals that can fly and are in the order Chiroptera.

² **Torpor:** low body temperature; low heart and breathing rates; and inactivity that lasts a long time.

³ **Nocturnal:** only come out at night.

Ecobottle Sample



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The time it takes for an echo to return and the size of the reflection tells the bat three things:

- 1) That something is up ahead
- 2) The size and shape of the thing
- 3) How far away it is



Bats echolocate to navigate and find food.

Bat Echolocation

Bats make a high frequency noise with their mouth or nose and wait for the sound waves to return. If there is no echo, then they know they can fly forward safely. If the sound creates an echo, then either an obstacle or food is ahead. Their abilities are so specialized that they can “see” very small things, even something as thin as a human hair.

Misconceptions

Bats are very misunderstood. In addition to the misconceptions about bats being rodents and bats being blind, many people are also afraid that bats will get tangled in their hair or suck their blood, making them into vampires and/or giving them rabies. None of these things are true. Given their echolocation and good flying, bats would not run into a person; they’re just too good. In addition, there are only three out of more than 1,000 species of bats (0.3%) that drink blood. Only one of these feeds on the blood of mammals. All three species live only in Latin America. None of them actually suck blood (they make a small cut and drink the blood that wells up to the surface of the skin). The ones that drink mammal blood target livestock, not people. Finally, while bats can get rabies, not all bats are rabid. Most of them aren’t. This doesn’t mean you should handle a bat, but you don’t need to be scared of them.



Bats pollinate flowers, disperse seeds, and fertilize plants.

Importance of Bats

Bats are very important to the environment. They eat many pests and other bugs. They

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Bat Conservation

Bats are threatened by many human activities. They reproduce slowly, with most giving birth to only one pup a year. This means they cannot recover quickly from population crashes. They are hunted for food and because people are afraid of them. They are driven from their habitats by mining, logging, tourism, and guano harvesting. In addition, wind turbines have been known to kill hundreds of thousands of bats. A deadly disease called White-nose Syndrome is sweeping North American bat populations. Over 5.7 million bats have been killed by this disease since its discovery in 2006. Bats are affected by this disease, caused by a fungus, while they hibernate. It spreads throughout a cave of hibernating bats, sometimes killing the entire colony.



White-nose Syndrome, responsible for many bat deaths, is caused by a fungus.

Educating people about bats, making protected areas for bats, and adopting safer means of generating wind power (e.g. idling blades on calm nights to reduce the danger to bats) can help preserve this important species.

Reading Comprehension Questions:

- 1) What ability do bats have that other mammals don't?
- 2) How
- 3) How
- 4) What is echolocation?
- 5) Name
- 6) Name three threats to bats.

Extension Questions:

- 7) Draw a
- 8) Research current technologies humans have come up with that use echolocation so that blind people can "see".
- 9) Imagine you are trying to

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