

11 Bats Incredible!

by Arlene Schnippert

Many people are afraid of bats. Are you one of them? There really is no good reason to fear them. As you'll learn in this selection, bats really are quite incredible!

Bats! Hundreds of thousands of bats spiraled upward out of the dark mouth of the cave like a black cloud of living flesh. What would your reactions be to such a sight? Fear? Revulsion? Thoughts of vampires and dank caves?

The bat would probably never make the "pet of the month" club. However, when you look into the life and habits of bats, you will soon see that this creature is indeed amazing and incredible!

Our whole family became interested in the subject of bats when my middle daughter was assigned a research report and chose bats as her subject. Soon we were all "ooing" and "aahing" over pictures of bats. To our surprise, we found the bat to be a complex, interesting animal.

Then, on a trip last summer through New Mexico, we stopped at Carlsbad Caverns. We spent the day touring this natural wonder, and then came back at dusk to watch the bats in flight. Nearly 300,000 bats leave the cave at sundown to feed throughout the night and then return near dawn to their cave roost. It was a sight to see these Mexican freetail bats come swarming out of the cave, at a rate of about 5,000 bats a minute, for nearly an hour.

Bats are the only mammals that can fly, and they make up the second largest group of mammals in the animal world. There are more than 900 species of bats. They only come out at night to feed. During the day they hang upside down in sheltered places such as caves and trees. Most bats live in

colonies that may have as many as several million members.

The size of a bat can be from a few inches to several feet in length. The largest bats have a wingspread of more than five feet, and a body the size of a pigeon. Some bats can fly as fast as 15 miles an hour, but most travel at only about half that speed.

Even though some bats depend on their vision and sense of smell to navigate at night, most use a phenomenon called echolocation. The bats make a series of short, high-pitched sounds as they fly. These sounds are reflected back to them from prey or other objects as echoes. From the echoes, the bats can figure out the direction and distance of objects in the area.

Most of these sounds bats make are too high-pitched for humans to hear. As the bats came out of the Carlsbad Caverns, we heard nothing but the soft swish of their wings.

Most people have heard of vampire bats and get the idea that bats in general will attack humans and feed on their blood! Only a few of the hundreds of types of bats live on blood. The bat that is called the vampire bat is found in parts of Central and South America, and it feeds mainly on small animals. Only rarely will it bite a human. And it doesn't suck all the blood from an animal, but only takes about one tablespoon.

Most species of bats feed either on insects, fish, small rodents, plants, or fruit. Actually they do little harm and instead they benefit humans by eating large numbers of

destructive insects. They may eat as much as half their weight in food each night! Bats often rest during their night flights, digesting one meal, and then eating more.

Unlike many mammals, a bat's body temperature, breathing rate, and heartbeat vary greatly. They depend on the bat's activities and the temperature. Many bats hibernate or migrate during winter because of low temperatures and poor food supplies. They spend each winter in the same cave and each summer in the same roost.

Many times, the males and females occupy totally different roosts. Then for a few weeks each year, they come together for the mating season.

Most female bats have only one or two babies a year. These newborns from the start must cling to their mothers or to the roost because bats do not build nests. A baby bat may cling to its mother for perhaps its first week, even while she is flying and feeding at night.

Even though you may not want to cuddle up to a bat or have one roosting in your closet, you can still appreciate some of its amazing qualities.

If you see some bats flying at dusk one evening, instead of feeling fear or disgust, you may think to yourself, Bats really ARE incredible! ■

✓ Enter your reading time below. Then look up your reading speed on the Words-per-Minute table on page 130.

Reading Time _____

Reading Speed _____

Enter your reading speed on the Reading Speed graph on page 131.

Comprehension

Put an **X** in the box next to the correct answer for each question or statement. Do not look back at the selection.

- The bats leave Carlsbad Caverns at
 - a. midnight.
 - b. dusk.
 - c. closing time.
- What kind of bats live in the Carlsbad Caverns?
 - a. Mexican freetail bats
 - b. vampire bats
 - c. miniature bats
- Bats are the only mammals that can
 - a. fly.
 - b. swim.
 - c. climb.
- How large can bat colonies get?
 - a. several hundred bats
 - b. several thousand bats
 - c. several million bats
- Vampire bats feed mainly on
 - a. small animals.
 - b. insects.
 - c. humans.
- Bats benefit human beings by
 - a. eating insects.
 - b. flying only at night.
 - c. providing a source of food.
- A bat's body temperature, breathing rate, and heartbeat
 - a. depend on its size.
 - b. depend on its activities.
 - c. are determined by its diet.

8. How many babies do most female bats have each year?
- a. five
 - b. three
 - c. two

_____ Number of correct answers
Enter this number on the Comprehension graph on page 132.

Critical Thinking

Put an **X** in the box next to the best answer for each question or statement. You may look back at the selection if you'd like.

1. The author probably wrote this selection in order to
 - a. inform you about the habits and qualities of bats.
 - b. persuade you that bats can be dangerous.
 - c. entertain you with scary bat stories.
2. How can bats hear sounds we can't?
 - a. They hear at higher frequencies than we do.
 - b. They make high-pitched sounds.
 - c. They use echolocation.
3. Most bats use echolocation instead of their vision because
 - a. they are often blind.
 - b. they fly in swarms.
 - c. it is more useful in the dark.
4. Choose the word the author uses to describe bats.
 - a. vicious
 - b. interesting
 - c. frightening
5. Many people believe bats will attack humans and feed on their blood because they
 - a. have read stories about bats attacking humans.
 - b. have seen bats attack people on TV and in the movies.
 - c. have heard of vampire bats and think all bats are like them.
6. Which of the following is a statement of opinion rather than fact?
 - a. The bat would probably never make the "pet of the month" club.
 - b. The size of the bat can be from a few inches to several feet in length.
 - c. The bat that is called the vampire bat is found in parts of Central and South America.
7. Which of the following statements best expresses the main idea of the selection?
 - a. Bats are amazing mammals that do little harm and benefit people.
 - b. Bats make up the second largest group of mammals in the world.
 - c. Many people have feelings of fear and revulsion when they see bats.
8. Which of the following does not fit with the other two?
 - a. Carlsbad Caverns
 - b. Central America
 - c. New Mexico

_____ Number of correct answers
Enter this number on the Critical Thinking graph on page 133.

Vocabulary

Each numbered sentence contains an underlined word from the selection. Following are three definitions. Put an **X** in the box next to the best meaning of the word as it is used in the sentence.

- What would your reactions be to such a sight? Fear? Revulsion?
 - a. anger
 - b. joy
 - c. disgust
- You will soon see that this creature is indeed amazing and incredible!
 - a. not describable
 - b. frightening
 - c. hard to believe
- During the day they hang upside down in sheltered places such as caves and trees.
 - a. protected
 - b. scattered
 - c. shaded
- Even though some bats depend on their vision and sense of smell to navigate at night, most use a phenomenon called echolocation.
 - a. fly
 - b. find direction
 - c. communicate
- Only rarely will it bite a human.
 - a. not very often
 - b. in anger
 - c. in fear
- They spend each winter in the same cave and each summer in the same roost.
 - a. area
 - b. resting place
 - c. tree
- Many times, the males and females occupy totally different roosts.
 - a. return to
 - b. live in
 - c. abandon
- You can still appreciate some of its amazing qualities.
 - a. deny
 - b. obscure
 - c. enjoy

_____ Number of correct answers
Enter this number on the Vocabulary graph
on page 134.

Personal Response

What was the most surprising or interesting thing you learned about bats in this selection?

What would you say to someone who says that bats are terrible, disgusting creatures?
