Vampire Bats

A bat in flight.

Does a flapping of wings outside your window mean a vampire is near? Well, in Java there is a bat called the flying fox that has a wingspan of 1.7 metres and a body length of 42 centimetres. During the day it hangs upside-down from tree branches in groups of hundreds and thousands. When these bats finish their daytime rest and fly off into the night, it is a frightening spectacle, especially for those who have read *Dracula*. But there is really no reason to be afraid because these bats eat fruit, not blood.

Then there is a bat with large claws and big teeth, but this one eats fish. What about blood? Isn't there a bat that eats blood?

Well, among the more than 1,000 species of bats in the world, there are three that drink blood. They all live in the American tropics. They are a lot smaller than the flying foxes of Java, being only

around 8 centimetres long. They are incredibly agile though, even when they are not flying. They can run on all four legs, or standing up on their back legs, and they jump very well too.

They feed on the blood of both birds and mammals, but they especially like to feed on domestic animals like cows, horses and goats.

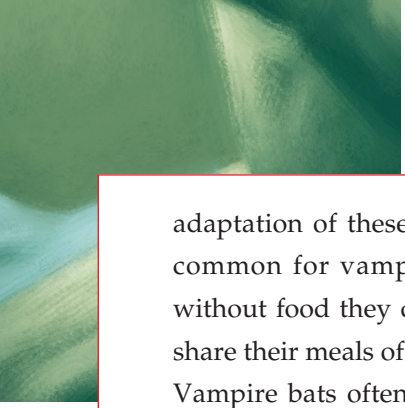
Like most bats, vampire bats locate their pray using echolocation, or sonar; they emit acute sounds that bounce off objects around them and return to the bats as echoes. This sonar system of bats is so sophisticated that we can say that bats 'see acoustically'. When a vampire bat has located a sleeping cow, for example, it generally lands on the ground near the animal. Then with great agility it runs quickly and quietly towards the animal, and then jumps on it like a frog. It then looks for an area with little fur, like on the legs or around the ears. Vampire bats also have special cells in their noses that are used as infrared detectors – in this way they can find where the blood of an animal is closer to the surface. Then the vampire bites the animal with its razor-sharp teeth. This bite is almost painless and the sleeping animal is not

A bat hanging from a tree with wings wrapped around its body.

A vampire bat.

awakened. Once the animal is bitten, the blood comes out and the vampire bat licks it up. Also, there are special proteins in the bat's saliva which prevent blood from coagulating. Recent studies have shown that these proteins, which have been named 'draculin' after the famous fictional vampire, may be very useful in treating people who have had heart attacks and strokes.

But this is not all. These animals have other special adaptations for their blood-eating life. Once a vampire bat has consumed its meal of blood, it weighs 50% more than usual, and it is now too heavy to fly. However, after about 2 minutes a bat eliminates much of the liquid part of blood. Even now, though, the vampire weighs about 20% more than usual, and so vampire bats are the only bats that have the ability to jump up straight in the air and then fly. Another interesting



adaptation of these fascinating little mammals is social. It is fairly common for vampire bats not to find food, and after two days without food they die. So vampire bats, which live in groups, often share their meals of blood with those that did not eat.

Vampire bats often bite people, especially those people who sleep outdoors. They generally bite people on the cheeks or toes. The vampire bite is not particularly dangerous in and of itself. People who have been bitten say that it feels like a razor cut when you are shaving. Still, there is the danger of getting rabies, a fatal viral infection. This is why vampire bats are dangerous and farmers try to destroy them, but without much luck. In fact, the increase in the number of domestic animals has surely helped vampire bats to increase their numbers. So, a flapping of wings at the window, at least in tropical America, may really mean a vampire is near.

1 Comprehension check

Answer the following questions.

1 What do flying foxes eat?
2 How many different kinds of bats are there in the world?
3 Where do vampire bats live?
4 How big are vampire bats?
5 How do vampire bats find their prey?
6 What do vampire bats use their infrared detectors for?
7 What is 'draculin'?
8 Why do vampire bats eliminate the liquid content of their meal of blood so quickly?
9 Why are vampire bats dangerous to people?