

## The misunderstood vampire bat

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Last night was Trick or Treat and chances are that you saw plenty of vampires in your neighborhood. These fictional, mythological creatures are said to require the blood of others, whether living or dead, to exist. Legends say that they pierce a hole in their victim's neck with their teeth or fangs and suck blood from the area. They are generally nocturnal and are able to transform into a bat. We all know that vampires are not real, but their stories have been told since the days of early man. However, there is a bat that does share a few of these attributes. The Common Vampire Bat, *Desmodus rotundus*, does feed on blood, but rarely if ever attacks human beings.

In fact, the vampire bat is a very unique creature even when it comes to bats! They are believed to be the only type of bat in the world to adopt young or infant bats if the mother dies or is not able to care for them. They share a very strong family bond within their colonies. They also share food with each other, which is critical to their survival. Since vampire bats cannot live more than two days without nourishment from a blood source, often they will beg another bat for food. If feeling generous, the bat that has recently had a good meal, may regurgitate some of the pre-consumed blood to sustain the needy member of the colony. This transfer is done in a way that looks very much like mouth to mouth or kissing.

Vampire bats differ visually from other bats. They have a short, conical muzzle and are equipped with specialized thermoreceptors on their noses, which allow them to locate areas where blood flows close to the skin. They have small ears and a short tail. Vampire bats have specialized front teeth for cutting, while their back teeth are much smaller than those of other types of bats. Vampire bats can live up to 19 years in captivity and nine years in the wild.

Like their mythical namesakes, vampire bats hunt only at night. They emit low-energy sound pulses which help them locate prey. Once the creature hones in on a host, which may be a sleeping mammal, it will land and approach the unsuspecting victim on the ground. It then locates a place to bite the unfortunate prey, using its infrared sensors. It then creates a small incision with its razor-like teeth and drinks the blood that oozes out.

These bats use their canine and cheek teeth like a barber's blade to shave away hair. They use their incisor teeth, which lack enamel, to make the deep cut. The absence of enamel keeps these teeth sharp for cutting and piercing. The bat's saliva, which has a unique compound that encourages bleeding, is injected into the victim. This substance is called draculin and serves as an anticoagulant that prohibits clotting and constriction of blood vessels near the wound. This is most likely where the name "Dracula" stems from. Though Dracula is famous for his "I want to suck your blood" line, vampire bats do not actually suck blood; they lap it up.

A female vampire bat usually weighs about 2 ounces and may consume half its weight in blood in a 20 minute period! These bats have anatomy that allows them rapid processing and digestion

and enables them to fly very soon after they eat. The stomach lining quickly absorbs the blood plasma, which is then transported to the kidneys then to the bladder for excretion. Most vampire bats will be able to urinate about two minutes after they eat.

Vampire bats are social animals and tend to live in colonies. They love dark places such as caves, wells, buildings and hollow trees. These bats range in area from Central to South America and live in arid to humid, tropical and subtropical areas. The size of the colony can range from one bat to thousands. Often they will roost with other species of bats. The females will usually have only one baby per breeding season. Ordinarily, only one reproducing male will be in a colony. He will be surrounded by as many as 20 females and their young.

These tiny, blood-thirsty creatures have a bad reputation. They are generally regarded with superstition, fear and uncertainty. Often they are said to be “dirty disease carriers” or “bloodsuckers.” In reality, the amount of blood that these creatures need to make a meal would not kill most creatures. The substance in their saliva, draculin, has been used on people with good results as an anticoagulant.

Chances are that you will never see a vampire bat and even if you do, there’s no need to fear. These creatures have such tiny teeth that many of their victims don’t even feel the bite. They rarely attack people and seek out much smaller prey. Since vampire bats have a body barely the size of your thumb and a wingspan of only 8 inches, it’s plain to see that many of the myths and legends about the creature are as far fetched as those of Count Dracula.