

THEY'RE CREEPY AND THEY'RE KOOKY, MYSTERIOUS AND SPOOKY, AND ALTOGETHER....

Some of Humans BEST FRIENDS!

Fall in New England brings thoughts of apple picking, pumpkin spice, beautiful foliage and of course, Halloween. While fantasy frights like zombies and vampires make great movies and tv shows, we all know they're not real. But there are some creatures associated with Halloween that are real, and that people often truly misunderstand and therefore fear. Let's shine a light on some of these dark and mysterious critters!

Did you know? The terms "poisonous" and "venomous" are often used interchangeably to refer to the toxin produced by animals like spiders and snakes. While the word "poisonous" gets the point across, it is not accurate. "Poison" is something that causes harm if ingested - eaten or drank. "Venomous" is the term used for a toxin that is injected (into the skin), which is the means of delivery for these creatures.



Although spiders, snakes and bats top many peoples list of fears, we cannot live without them. These vilified creatures are critical parts of the ecosystem all over the world. They protect us from rampant disease and starvation, and without them the human race would not survive. So, while we try to exterminate them, they are busy saving our lives. Perhaps after reading this poster, you will keep these critters in your heart, not just in your Halloween decorations!



Black Widow



Brown Recluse

Spiders:

Arachnophobia - the fear of spiders - is one of the most common fears. An estimated 75% of people say they have a fear of spiders to some degree. But while many may fear them, we could not live without them, literally. Spiders eat primarily insects, insects that can potentially destroy crops, causing mass starvation. If there were no more spiders on Earth, humans could die off in a matter of months! Even house spiders help us by eating flies, ants, and bed bugs. Although there are approximately 45,000 known species of spider worldwide, only **25** are capable of harming humans. Of those, the CDC only lists the Black Widow spider and the Brown Recluse spider as being threats in the US. Your chance of dying from a spider bite? 1 in 50 Million.

Snakes:

Though not always associated with Halloween, snakes are among the most feared animals in the world. Approximately 30% of the population worldwide has some fear of snakes. Many don't even know why; there's just "something about them" that many people can't get past. However, snakes are one of humanities best friends because they are a major predator of rodents, rodents which can destroy crops, infest homes and worse - transmit disease. Heard of the Black Plague? Caused by rodents. Lyme disease? Yup, rodents are the primary transmitters. If all the snakes were to disappear from the earth, people's fear of them would quickly be replaced by **musophobia** - the fear of rats and mice! Not only are snakes important predators, they are also an important food source for many other animals like raccoons, foxes and eagles. Without them, many species could die off, while many others see a population explosion. Snakes help keep everything in balance!

There are nearly 4,000 species of snakes in the world and of those, only about 200 pose a threat to humans. Very few of those even live in the US, and here in Massachusetts we only have two, the Timber Rattlesnake and the Copperhead. Both of these snakes are rare and endangered, with very small, reclusive populations. The 12 remaining species here are *totally harmless* to humans. Your chance of dying from a snake bite in the US? About 5 people per year. You have a greater chance of being struck by lightning!



Timber rattlesnake (Photo Tom Palmer)



Copperhead



Hairy-legged Vampire Bat

Bats:

Let's just get this out of the way - Yes, vampire bats exist, and NO, they are absolutely no threat to humans. Or really to anything for that matter. Of the more than 1,400 bat species in the world there are only 3 species of vampire bats. These small mammals range from Mexico to South America and feed on the blood of birds and animals by making a small incision in the skin and lapping up the blood, before moving on and leaving the prey perfectly alive. The process is so mild the "victim" often isn't even aware it's been bit!

The only real threat posed by bats is transmissions of rabies and even that is incredibly low - less than 1/2 of 1% of bats get infected with it. And since rabies in humans is completely preventable with proper treatment after a bite, there's nothing to be afraid of! It's the bats themselves who need to be afraid as approximately 40% of the global population is considered some degree of threatened or endangered, due largely to disease and habitat destruction. Sadly, of the 9 species of bat here in Massachusetts, 5 are listed on the MA Endangered Species list.

And bats do so much for us! They are critical pollinators of plants around the world (over 300 types of fruit!) and help spread seeds for various plants such as cacao, the plant chocolate comes from. But even more important than helping us get chocolate, bats are the number one predator of night flying insects which would otherwise destroy crops and spread disease. Bats eat thousands of insects *every night* if they are not hibernating. And what's one of their favorite foods? Mosquitoes. What is the deadliest animal in the world? Yup, mosquitoes!



Little Brown Bat

For more information on Massachusetts Endangered Species, go to:
[List of Endangered, Threatened, and Special Concern species | Mass.gov](https://www.mass.gov/info-details/list-of-endangered-threatened-and-special-concern-species)
<https://www.mass.gov/info-details/list-of-endangered-threatened-and-special-concern-species>



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