

Nature in the Neighborhood

Bat Appreciation Month

In case you didn't know, October is Bat Appreciation Month. Given that October is considered the spookiest month of the year, I can't think of a better month in which to celebrate these fuzzy flying mammals. Bats have long been associated with the underworld, magic, and superstition, so it's fitting they be a posterchild for October and, of course, for All Hallows Eve, which comes at the month's end.

There are more than 1,400 species of bats worldwide, and they're found on every continent but Antarctica. Here in Massachusetts, nine species reside, with the two most common being the little brown bat (*Myotis lucifugus*) and the big brown bat (*Eptesicus fuscus*). Bear in mind that the big brown bat is only "big" in relation to other bats -- it weighs only 0.5 to 0.9 ounces, the weight, say, of a mouse.

With fuzzy faces, big ears, and bright eyes, some bats bear a striking resemblance to little dogs. But they are unrelated to either mice or Chihuahuas. Being in the species order *Chiroptera* they are, in fact, more closely related to primates -- that is, to us. Indeed, the structure of a bat's wing is very similar to a human hand, just with a stretchy skin between the "fingers" that enables it to fly.

Bats are the only mammals that truly fly, unlike the glide of flying squirrels. But fear not, they won't, as the old myth claims, fly into your hair, get stuck, and build a nest. Their ability to use echolocation (emitting sound waves and listening for the echo) helps them navigate. While bats are not, as another old adage claims, blind (some actually have better eyesight than we do), echolocation lets them avoid crashing into objects and also find night-flying insects to eat.

The big brown bat can emit sounds at 138 decibels (think sirens and jet engines). As Ed Yong points out in his amazing book *An Immense World*, "these are among the loudest sounds of any land animal and it's a huge mercy that they're too high pitched for us to hear."

While often disparaged as being “rats with wings,” rather than being pests themselves, bats actually help keep insect pests, such as mosquitos, beetles, and moths, in check. It has been reported that a single colony of big brown bats can eat over a million insects in a year. The non-toxic pest control they provide translates into billions of dollars. And eating insects isn't the only service they provide; they also pollinate plants and distribute seeds.

So why do bats get such a bad rap? Being cave-dwelling creatures of the night doesn't help. Often misunderstood, bats have long been associated with darkness, mystery, and the unknown. And, of course, there is the folklore of bats turning into vampires.

There are, in fact, vampire bats, three species out of the 1,400 (and none this far north), but they do not transform into Bram Stoker's Count Dracula, bite you on the neck and turn you into the undead. Preying mostly on livestock, bats don't actually suck their victim's blood but make a small cut and lap up the flowing blood with their tongues. The bat's saliva contains an anticoagulant to prevent the blood from clotting. Interestingly, the drug Draculin (yes, named after the Count) is an anticoagulant developed from vampire bat saliva and is being tested for use to treat stroke and heart attack victims.

But, what about bats transmitting diseases to humans? As with any other wild animal, rabies should always be a concern, even though it is estimated that only about 1% of bats have this viral disease. You can get rabies if a bat bites you or you come into contact with its saliva -- not by their merely flying around overhead. You should never touch a bat, especially one you see during the day and is acting strangely, and if you come into physical contact with a bat, you should seek medical attention.

Bats almost certainly harbor the ancestor of SARS-CoV-2, the virus that causes COVID-19, but according to scienceinsights.org, whether the virus jumped directly from bats to humans or passed through another animal remains unresolved. Currently, it's generally understood that the pandemic

started with just one spillover of SARS-CoV-2 from an unknown animal host to a human. After that first transmission, all other cases came from the virus spreading from human to human.

Researchers point out there is much to learn from studying bats from their ability to tolerate deadly diseases, such as coronaviruses, to the way they resist aging and cancer.

Bats likely have more to fear from us than we do of them: loss of habitat, poisoning from pesticides, and the disrupting effects of artificial light. One of the lessons of the COVID-19 pandemic is that disturbances to wildlife and destruction of natural habitats make it more likely for viruses to spill over into humans.

Unfortunately, bats are also suffering from White-nose Syndrome, a fungal disease that has killed millions of bats in North America in the past decade, and for which there is, as of yet, no cure.

Learn More!

If you want to learn more about these interesting and sometimes awfully cute (yes cute!) flying mammals, the Conservancy will be hosting a presentation on the ecological importance and conservation of bats, given by Dr. Charles C. Chester, an Assistant Professor of Global Environmental Politics at Brandeis University and at the Fletcher School of Tufts University, as well as Board Chair of Bat Conservation International. **This free event will take place at 7:00 pm on October 28, 2026, at the Unitarian Universalist Church of Greater Lynn, a co-sponsor of the event, located at 101 Forest Ave., Swampscott.**

There's much to celebrate about these winged mammals and much to be done to help conserve the world's bats - including those in our neighborhood: You can welcome bats in your backyard by hanging a bat house, planting night blooming plants, avoiding pesticides, turning off limiting outdoor lighting, and leaving the cat indoors.

So, by all means, overcome any tendency you may have to chiroptophobia and celebrate bats in the neighborhood this month!

To help you celebrate, the Conservancy has added bat-themed t-shirts and hoodies featuring the bats of the Bay State which can be purchased at Bonfire.com (search for Swampscott Conservancy on the website). The Conservancy also has a limited number of bat houses built by Swampscott High School students for sale (inquire at info@swampscottconservancy.org).

Happy Halloween from the Conservancy!