

If this heat isn't bad enough, new study says snakebites are another risk

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It's hot out there. How hot? Hot enough to scald a lizard. Hot enough to fry an egg on the sidewalk. Hot enough to make you want to live right.

Georgians have no shortage of ways to describe the insufferable dog days of summer.

Now, courtesy of Emory University researchers, there's a new saying to add to the list, at least when talking about how hot it is today as opposed to yesterday: Hot enough to get a snakebite.

The researchers have found that the likelihood of a Georgian going to the [emergency room](#) for a snakebite jumps roughly 6% for every 1 degree Celsius rise in temperature—that's a 1.8 degree increase on the Fahrenheit scale.

To make a long study short, the analysis found that if the maximum temperature today is warmer than the maximum temperature yesterday, [snakes](#) are more likely to show their fangs. For instance, if it reaches a high of 87 degrees Fahrenheit one day, and 96 degrees the next day, you have about a 32% increased chance of getting a snakebite that requires an emergency room's attention.

The percent rise is an average over the year, so while the summers have the highest number of snakebites in total, it's actually the spring months that show a stronger correlation between [warmer temperatures](#) and snakebites.

Snakes are more active with higher temperatures; they lay low and become lethargic in the winter. A warmer body allows a snake to move faster when trying to catch prey. Researchers pointed out that as the weather warms, humans are more active outdoors too, increasing the number of encounters with snakes.

All of that said, snakebites are still a pretty rare occurrence in Georgia, home to 46 snake species, second only to Texas.

The study found that, from 2014 to 2020, there were 5,032 people treated in the state's emergency rooms for snakebites, including 3,908 for venomous ones. Georgia Poison Control said the number of calls

concerning snakebites has been steadily increasing. Last year, the agency received 533 calls for snakebites, up from 476 in 2018.

Noah Scovronick, an assistant professor of environmental health at Emory's Rollins School of Public Health and the study's lead author, said the report should be viewed as educational, to better understand snake behavior and habitat to avoid a snakebite. One of the impetuses for the study was that, around the world, "tens of thousands of people die from snakebite envenoming every year, yet little is known about how environmental factors contribute to the pattern and frequency of bites," the authors wrote.

As a snake lover, Scovronick wouldn't like the analysis to be used as a reason for anyone to turn against these reptiles that play an important role in the food chain and ecosystem—such as controlling populations of disease-carrying rodents.

Snakes are usually not aggressive and generally will bite only when frightened or provoked, experts say.

That might be something that many people know in the back of their minds. But, when actually confronted with the reptiles, a lot of folks become less thoughtful, said Mark Robison, aka the Atlanta Snake Guy, a native of Michigan who now lives in Buford. The fear of snakes leads some to reach for the garden hoe first and to ask questions later.

"People just lose their minds here over snakes," Robison, who has long held a fascination for the slithering creatures and is part of a network of volunteers on call to remove and relocate them. "Leave the snakes be, and they won't mess with you."

In college, Scovronick adopted someone's neglected pet snake, a ball python, and he and his roommates let it roam freely in their house. He's

drawn to snakes because they are "fascinating, and they are a little bit scary," he said. "It's a special experience when you see them."

In Georgia, there are plenty of opportunities to see them, as anyone with a Facebook account can probably attest. As the weather warms, social media feeds are filled with photos taken by people wondering whether a snake is friend or foe.

So, here's some information that might prove useful. Of the species of snakes known in Georgia, only seven types are venomous: copperheads, northern and Florida cottonmouths, eastern diamondback rattlesnakes, timber/canebrake rattlesnakes, pigmy rattlesnakes and eastern corals.

Snake bites in the U.S. are rarely fatal, with about five deaths each year, according to the Centers for Disease Control and Prevention. The number of deaths would be much higher if people did not get medical care, according to the CDC.

Most of the [venomous snakes](#) in the state are rodent eaters, the exception is the coral snake, which eats mainly other snakes and lizards.

Copperheads, the most common venomous snake in Georgia, are found throughout the state, including metro Atlanta. The only place in the state where they don't reside is around the Okefenokee Swamp, said Lawrence A. Wilson, an ecologist and herpetologist at Emory University and one of the study authors.

Another tidbit on snakes: They are ectothermic—which means they rely on external sources of heat for warmth and find cooler resting areas to keep cool. They are able to regulate their body temperature by moving in and out of shade.

The creatures live in a wide variety of habitats where they can find cover, sunlight and, of course, food. In the metro area, several

snakes—including black racers, ribbon snakes and copperheads—love dense, low-growing cover like English ivy, an invasive plant that provides an ideal environment for both rodents and snakes, said Wilson.

On a recent early evening in Johns Creek, after a scorcher of a day, Uzay Kirbiyik was startled to see at the entrance of his garage a tan-colored snake with a triangular-shaped head and hourglass-shaped bands of dark brown.

Kirbiyik snapped a photo from a distance and called his wife and a friend for guidance. They found a phone number for Robison, who identified it as a copperhead. He arrived within 30 minutes and found the snake still curled up in a corner of the garage, perhaps seeking a sliver of shade in the sizzling heat.

Robison, who works as a vice president of sales of a technology company, took the copperhead to a nearby wildlife reserve.

Many of his calls require less urgent attention.

In one case, a couple called because a snake made daily visits to their deck around 11 a.m. It turned out to be a harmless black rat snake. But "they were afraid to go on their deck," he said. "You could see the holes in the deck, and there were many chipmunks and baby rabbits, and I told them, 'You have a buffet for the snake.'"

He thought it best just to leave it be, but the couple was so worried about it that he ended up taking the [snake](#) to the woods.

Snakes and people can live compatibly with each other, Robison said. But people should try to understand the reptiles' habitats and needs.

Emory's study on snakebites examined short-term changes in ambient

temperature. So, it's unclear whether climate change could lead to higher risks in the future. If temperatures get exceedingly high, it could change the behaviors of snakes; dangerously high temperatures might make snakes sluggish. And people might spend less time outdoors in the sweltering heat. The result could be fewer encounters between people and snakes and ultimately fewer snakebites.

Federal data show average temperatures in Atlanta have climbed roughly 3 degrees since 1930, with similar increases observed in other parts of the state. Atlanta also experiences each year around six more heat waves—a stretch of two or more days with abnormally warm temperatures—than it did 60 years ago, according to the data.

"Our results show that we need to spend more effort understanding the potential health burdens from [snakebite](#) in the context of climate change," Scovronick said. "The large temperature effects we found, combined with the fact that snakebites often affect populations without access to adequate health care, particularly in other parts of the world, indicates that rising temperatures are a reason for concern."

Kirbiyik said he is grateful for the Atlanta Snake Guy and other volunteers who are eager to help educate people about snakes. And to move them.

"It gives me confidence in humanity," said Kirbiyik. "People helping each other and people helping nature."

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