

Snakebites surge under extreme climate conditions, scientists learn

By Los Angeles Times, adapted by Newsela staff on 10.02.15

Word Count **531**



Biologist Rodrigo Aymerich prepares a Velvet Killer (*Bothrops asper*) to extract its venom at the Clodomiro Picado Institute in San Jose, Costa Rica, June 6, 2003. Photo: AP Photo/Mariano Matamoros

A new research study says weather changes could lead to an increase in snakebites.

The weather changes are caused by El Nino. El Nino is a weather pattern where the oceans get warmer for a period of time. The warmer oceans cause quickly changing weather, making it go from hot to cold outside. It can also cause more rain storms.

Snakebite: Another Climate Change Worry

Scientists studied how often people were bitten by snakes in Costa Rica. They found that there are more snakes biting during El Nino. There are more snakebites in both the hot and cold parts of El Nino, the study said. It also said that the problem is more likely to affect poor people who live far from cities.

The findings of the study were reported in the journal Science Advances. They are another example of the results of climate change, the heating up of the Earth's climate. It can affect animal behavior, the study showed. It can also affect how disease spreads among humans.

Research already shows that warmer weather changes the ways diseases are spread. The researchers for this report wanted to look specifically at snakebites.

"A Major Problem"

Ecologist Luis Fernando Chaves wrote the report. He said snakebites do not get enough attention. "They are a major problem," he said.

Snakebites affect 2.5 million people around the world each year. Of those people, 400,000 people can have serious problems caused by the snake bites. Some of them can even die.

Snakes are coldblooded. This means the air around them controls their body temperature. For humans, our body controls the temperature of our bodies.

Because snakes have less control of their body temperature, their behavior is more affected by the weather.

Snakes And El Nino

The scientists chose to look at Costa Rica, a country in Central America. In Costa Rica, doctors have to keep track of how many people were bitten by snakes. Most snakebites in Costa Rica come from one type of snake.

El Nino also has a large effect on Costa Rica. The weather there will change a lot because of El Nino.

From 2005 through 2013, 6,424 snakebites were reported in Costa Rica. The scientists found that more people were bitten by snakes when El Nino caused hot weather.

The scientists think that is probably because snakes become more active in hot weather. They might wander farther from their home as it gets warmer, perhaps running into humans.

Snakebites, Poverty, Climate

Scientists were surprised that snakes also bit more humans when El Nino made the weather colder. This was a mystery. Scientists think maybe one reason was that cold weather meant that snakes could not find as much food nearby. Maybe they had to wander further from home to find food.

This snakebite increase seems more likely to affect people living in poor, rural areas, Chaves said. These are areas that are not near cities. They are closer to the places where snakes live.

The question is what can be done to lower the chances of snake bites for poor people, Chaves said.

More research needs to be done on the relationship between snakebites, poverty and climate change, the scientists said.

Quiz

- 1 Based on the section "A Major Problem," which statement about snakebites is true?
- (A) Most people bitten by snakes get sick.
 - (B) Most people bitten by snakes do not get sick.
 - (C) People should watch out for snakes when the weather gets warm.
 - (D) People should watch out for snakes when the weather gets cold.

- 2 Aside from El Nino, what other factors might lead to an increase in snakebites?
- (A) rain storms
 - (B) living in cities
 - (C) climate change
 - (D) scientific studies

- 3 Read the paragraph from the section "Snakebites, Poverty, Climate."

Scientists were surprised that snakes also bit more humans when El Nino made the weather colder. This was a mystery. Scientists think maybe one reason was that cold weather meant that snakes could not find as much food nearby. Maybe they had to wander further from home to find food.

Which word from the section gives a hint to the meaning of the word "surprised?"

- (A) weather
- (B) mystery
- (C) food
- (D) wander

4 Read the sentence from the section "Snakebites, Poverty, Climate."

"This snakebite increase seems more likely to affect people living in poor, rural areas, Chaves said."

Which answer option gives the BEST definition of "rural?"

- (A) near a city
- (B) far from a city
- (C) far from snakes
- (D) near many snakes