



Name:

Mammals feel the heat

Scientists predict some animals won't be able to keep up with Earth's increasing temperatures

By [Stephen Ornes](#) / June 5, 2012 (Adapted)

It's getting hotter: The average temperature on Earth has been rising for more than 200 years, with the steepest climbs in recent times. When our planet adjusts like this, so does everything that lives on it. In a new study, scientists from the University of Washington in Seattle set out to investigate how 493 different kinds of mammals might respond to Earth's warming climate.

The researchers came back with grim news: Many **mammals** in the Western Hemisphere, which includes North and South America, could face serious problems.



Scientists say squirrel monkeys may not be able to move to new habitats fast enough to keep up with climate change.

Until now, many biologists assumed that if the environment of some creature became uncomfortable, the animal would move somewhere similar to its preferred habitat — if such habitats continued to exist elsewhere. For this new study, the scientists examined how possible it would be that a species would be able to move to a better site.

Animals that live in parts of the Amazon rain forest may be particularly hard-hit: Nearly half of the mammal species there may not be able to relocate fast enough to keep up with the changing climate of their habitat.



A recent study found that many mammals might have a hard time adjusting to climate change. But scientists say the three-toed sloth has a good chance of relocating to a new home with more suitable temperatures.

If species can't move to a new locale, "they're going to go extinct. That's the bottom line," geographer Nina Hewitt told *Science News*. Hewitt, of York University in Toronto, studies how plants and animals might respond to climate change. She was not involved in the new work.

Mammals don't usually move until they're ready to have offspring. In the new study, the scientists estimated how far each type of mammal would be able to move to make a new home. They also used a computer program to estimate how the climate would likely change between now and the year 2100. The scientists then compared the possible speed of the mammals' movements with the speed at which their environments would change.

Monkeys, shrews and moles will fare the worst, the researchers reported, while armadillos, anteaters and sloths will be able to cope well. In any given place in the Western Hemisphere, about 9 out of every 100 mammal species may be left homeless within this century by climate change. The animals that

do move to more comfortable homes may have to face new predators. They may also have a harder time finding food. These factors could make their chances of survival far worse.

Of course, the study didn't look at every possible scenario and is not the first to predict how climate change will affect the lives of animals. But it does give biologists some idea of where to look for species that have to find a new place to live.

Key words

climate change Long-term, significant change in the climate of Earth. It can happen naturally or in response to human activities, including the burning of fossil fuels and clearing of forests.

mammal A warm-blooded, vertebrate animal with hair or fur, the secretion of milk by females for the nourishment of the young, and (typically) the birth of live young.

climate Weather conditions prevailing in an area in general or over a long period.

species A group of living organisms consisting of similar individuals.

1. What do scientists believe has happened to the Earth's temperature over the last 200 years?

2. What is the term that scientists use to describe this change in the Earth's temperature?

3. What do all mammals have in common with one another?

4. List six mammals

5. What impact does the Changing Earth's temperature changing have on mammals? Explain why this is so.

6. A) Will the effect be the same on all mammals? _____
B) Can you suggest a reason for this difference?

7. List factors that can affect the population of an organism.

8. This article is based on a study.

a) What do you understand a study to be? _____

b) Give one reason why studies are useful

c) What is a problem with information collected from studies?
