

SolveClimate Blog

# Could This Tiny Mountain Mammal Force the US To Fight Climate Change?

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*By Mara L. MacKinnon*

During my six-month internship with the Student Conservation Association, I had the opportunity to collect data for a field study on the habitat effects of climate change.

Our crew of four searched for pikas while backpacking along the rocky slopes of California's Eastern Sierra Nevada. We learned to identify the tiny [American pika](#) (*Ochotona princeps*) by its adorable snowball shape and distinctive squeaky call.

We also came to understand several other traits of the pika that could make this elusive alpine mammal an important ally in the movement to stop climate change.

The pika's high-altitude habitat is at great risk from global warming. Adapted to cold, alpine environments, pikas can die from just a few hours of exposure to temperatures of 78 degrees Fahrenheit or higher. Climate change also threatens pikas by shortening the period available for them to gather food, by changing the species of plants in the alpine meadows where they feed, and by reducing the snow-pack they need to use as insulation during the winter.

There is no solid estimate of the total number of American pikas, but a study in the [Great Basin](#) mountains of Nevada and Oregon found that more than a third of documented pika populations had gone extinct over the last 100 years. There are strong signs that the rate of the pika's disappearance has accelerated in recent years, along with the rise in global temperatures.

Relatives of the American pika in Asia and Russia are facing similarly bleak outlooks. Recent research has found that China's Ili pika (*Ochotona iliensis*) has declined by nearly 50 percent due to habitat destruction caused primarily by climate change.

Faced with lethal changes to their living conditions, the American pika's only chance for survival is to inhabit zones higher up the mountain slopes.

Erik Beever of the U.S. Geological Survey and colleagues have traced the pikas' movement to [higher elevations](#) in



the Great Basin mountains. In Nevada's Ruby Mountains, for example, they found that pikas, recorded at 7,792 feet in 1956, were rare below 9,000 feet by the 1990s.

"At the current rate, pikas could pop off the top of the highest peaks in the Basin within 100 years," Beever and his colleagues [write](#).

If we do not take action quickly to slow global climate change and protect the pikas' habitat, this unique species will likely face extinction, with enormous numbers of other species to follow.

In 2007, the Center for Biological Diversity [petitioned](#) and — after a court appeal — succeeded in nominating the pika for protection under the federal [Endangered Species Act](#) (ESA). If the pika is listed, it will become the first mammal in the continental United States to be added to the list as a direct result of global warming.

Why is this significant? The ESA, to date, remains one of the strongest environmental laws in the United States. The “endangered” designation supports legal actions, like setting aside areas deemed to be “critical habitat” for a species' survival.

Under the ESA, federal agencies are prohibited from funding, authorizing or carrying out acts that “destroy or adversely modify” critical habitats. The hope is that the pika's presence on the Endangered Species List would force the federal government into taking action to reduce national emissions of greenhouse gases.

Even though the [polar bear](#) was listed as a threatened species under the ESA in May of 2008, it prompted no national action to reduce greenhouse gas emissions. Despite the role of these pollutants in the polar bear's decline, the Bush Administration's Department of the Interior exempted greenhouse gas emissions from being targeted for increased regulation.

Where the mighty polar bear did not succeed, the little pika may be just the creature that we need. Unlike the polar bear, the pika would likely be listed as endangered (rather than threatened) and its habitat range encompasses more than one U.S. state.

These differences, along with political changes brought by the Obama Administration, make the pika a better bet as a catalyst for emissions reduction.

The decision on the American pika's endangered species status is due from the U.S. Fish and Wildlife Service in February 2010.

For ways to help the pika and the myriad other species imperiled by rising temperatures, check out the activist links on the Center for Biological Diversity web site. For information on getting involved with conservation research and field positions, across the country, go to the Student Conservation Association website.

The tiny American pika may be a big ally to the movement against climate change.

