

The Problem with the Pika

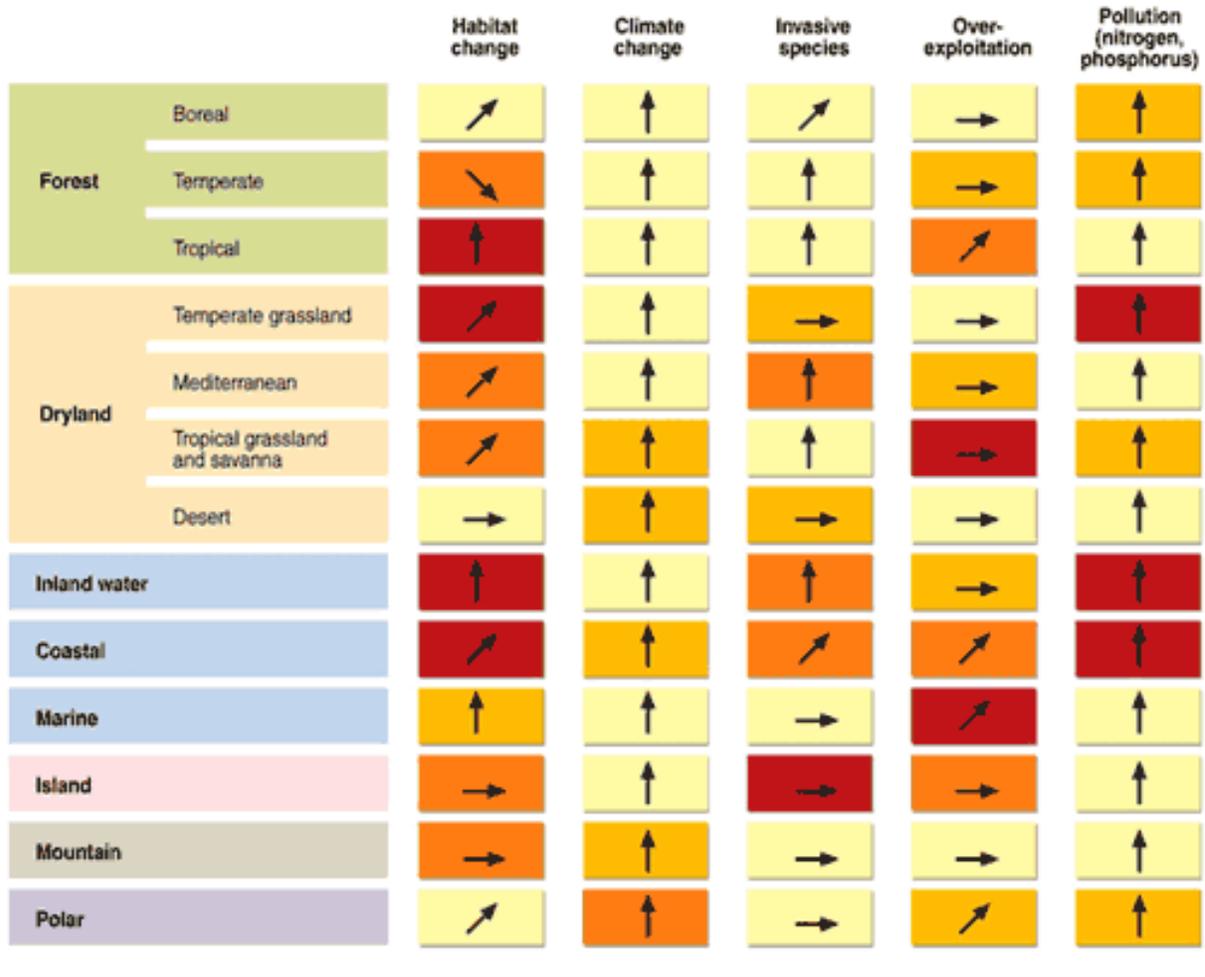
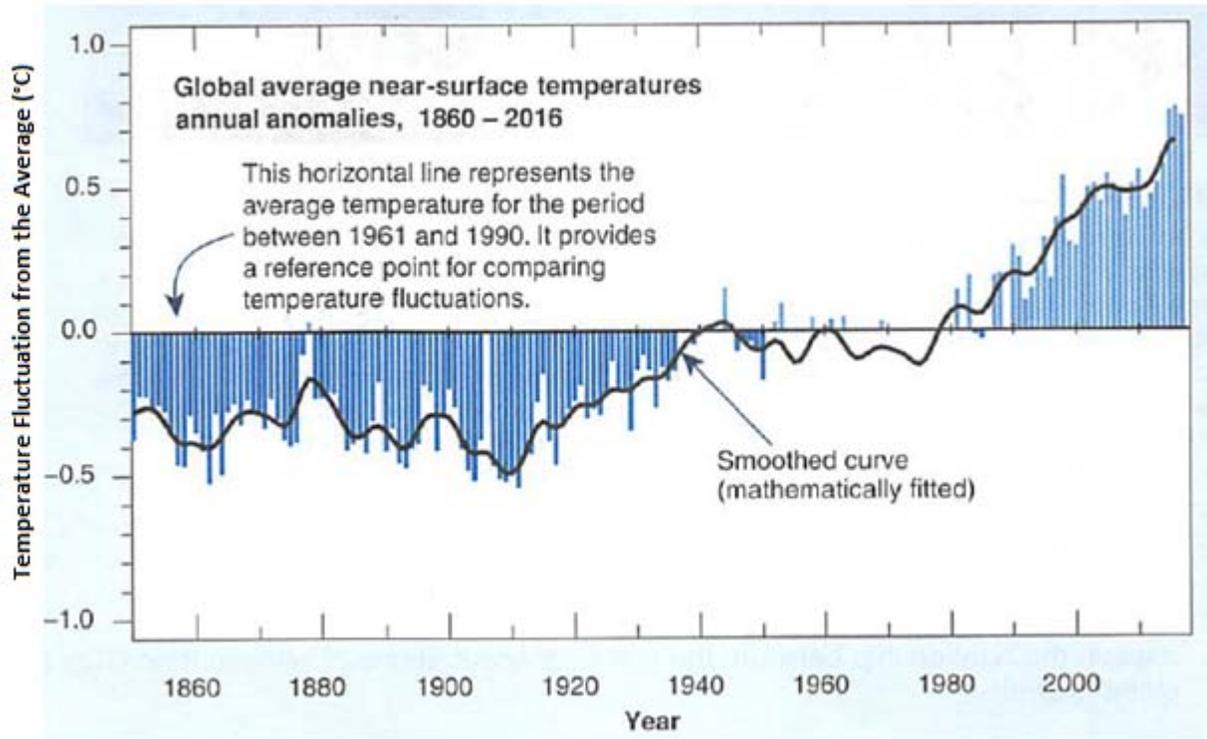


Diagram 1. The diagram lists the global ecosystems and the five major threats to each ecosystem. *Source: Unknown*

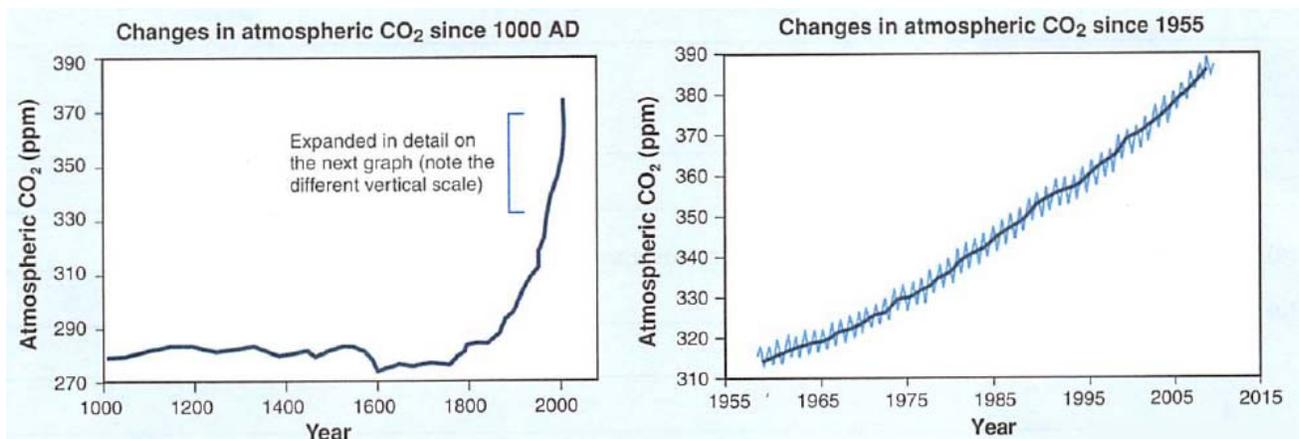
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Changes in near-surface temperature



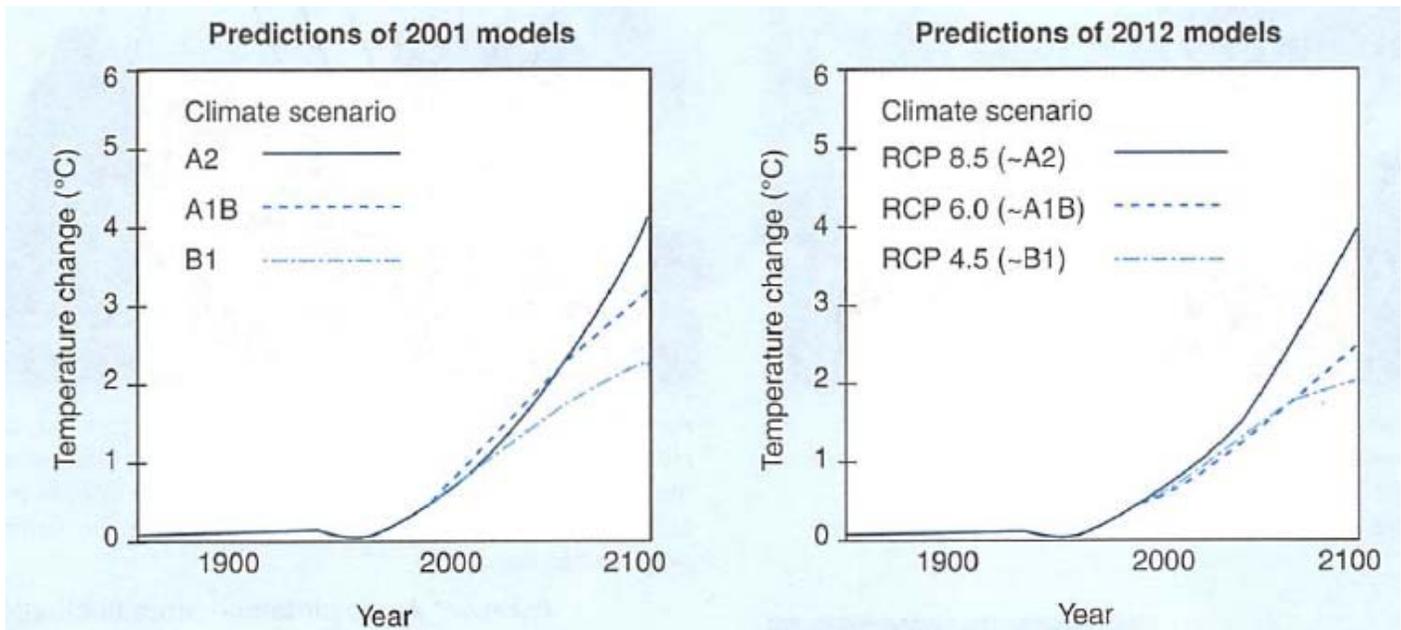
Graph 1. The graph shows the mean temperature for each year from 1860-2010 (bars) as compared to the average temperature from 1961-1990 (horizontal line). *Source: Hadley Centre for Prediction and Research*

Changes in atmospheric CO₂



Graphs 2 and 3. The graph compares the historical levels of CO₂ since 1000 and just between 1955 and 2015. In total humans have emitted 545 billion tons of CO₂ and in 2012 alone, the world emitted a record 34.5 billion tons of CO₂ from fossil fuels. *Source: NASA Goddard Space Flight Center; NOAA/CMDL*

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- **A1** assumes rapid economic and technological growth, a low rate of population growth, and a very high level of energy use. Differences between "rich" and "poor" countries narrow.
- **A2** assumes high population growth, slower technological change and economic growth, and a larger difference between countries and regions than in other scenarios. Energy use is high.
- **B1** assumes a high level of environmental and social consciousness and sustainable development. There is low population growth, high economic and technological advancement, and low energy use. The area devoted to agriculture decreases and reforestation increases.
- **B2** has similar assumptions to B1. However, there are more disparities between industrialized and developing nations, technological and economic growth is slower than in B1, and population growth is greater (but less than A2). Energy use is midway between B1 and A2. Changes in land use are less dramatic than in B1.

Graphs 4 and 5. The graphs above represent two models of predicting climate change from 2001 and then again in 2012. The scenarios listed above and could also be a combination of more than one scenario (e.g. A1B).

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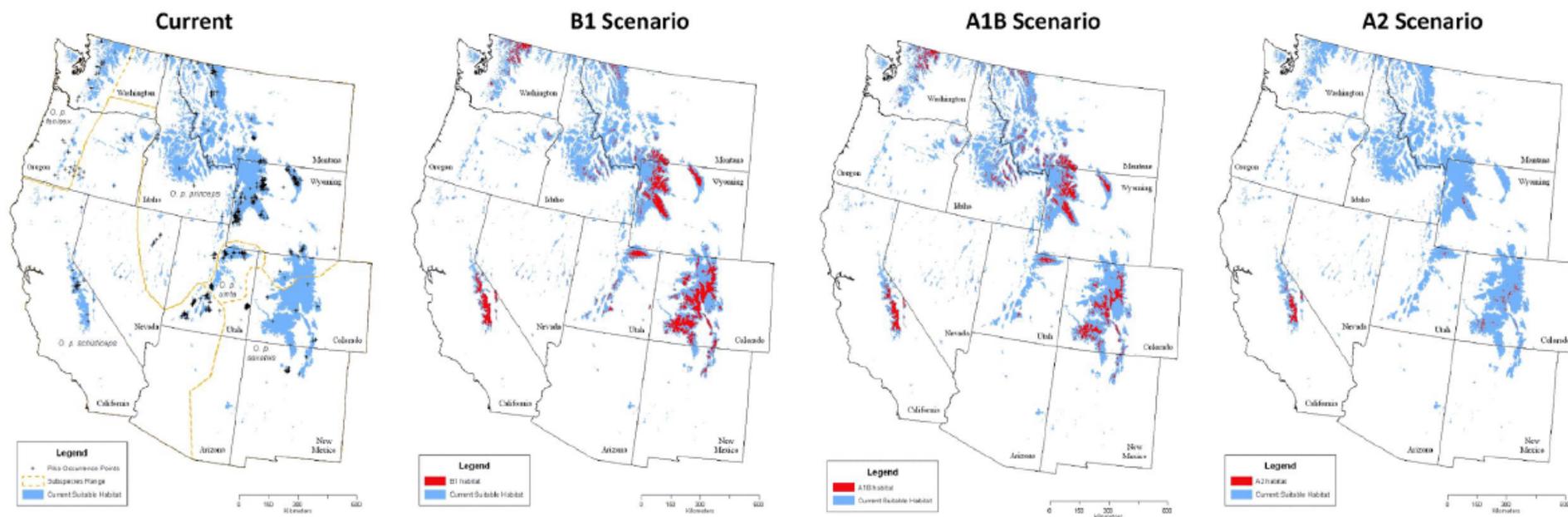


Diagram 2. These four maps show how Pika habitat and conservation status will change under three different climate scenarios; B1 (low future warming), A1B (medium future warming), and A2 (high future warming).

WHAT IS THE PIKA?

Description

American pikas are small, rodent-like mammals. Although they look like a squirrel or guinea pig, they're actually more closely related to rabbits and hares. Pikas have short, stout bodies with big, round ears. They do not have a visible tail. Pikas have brown and black fur. The fur is colored to camouflage with rocks. Pika fur is thick to keep them warm in the winter. During the summer, they put on a much lighter coat of fur--however, the fur is still thick enough that a pika might overheat if exposed to very high heat for long periods of time.

Size: Pikas are about 7-8 inches long.

Diet: Pikas are herbivores. They especially love grasses, weeds and tall wildflowers that grow in their rocky, high mountain habitat. Pikas like to be prepared! In the winter months, there are a lot less grasses and flowers growing in the mountains. To prepare for the lean times, pikas like to save up food during the summer. A pika will collect a pile of extra wildflowers and grasses and lay them out in the sun. The sun's heat dries the plants so they do not get moldy. The plants are stored in the pika's den until winter.

Typical Lifespan: American pikas can live around 6-7 years. Many die after 3 or 4 years.

Habitat

American pikas are found in alpine terrain, above the tree line, on mountains. They live on rock faces, talus and cliffs near mountain meadows. Talus is a rocky area on the side of cliffs, slopes or hillsides.

Range: American pikas live on high-elevation cool mountains west of the Rocky Mountains. They can be found in Montana, Wyoming, Colorado, Idaho, Washington, Oregon, California, Nevada, Utah and New Mexico.

How Pikas Communicate

American pikas are often heard before they are seen. They make calls and sing to define and protect their territory, alert others to the presence of dangers and attract mates. The call sounds like the bleat of lamb, but more high-pitched and squeaky.

Life History and Reproduction

American pikas have adapted to living in very inhospitable environments. They live where most other mammals do not venture to go--the treeless slopes of mountains. It is very cold, rocky and treacherous for the tiny pika. Pikas help protect themselves by living in colonies. They live near other pikas and will alert the group to predators by sending out a warning call. Weasels, hawks and coyotes can prey on pikas. Although pikas live in colonies, they are very territorial over their den and surrounding area. They will give off territorial calls to define the boundaries between each pika neighbor. They make their dens among rocks. Pikas are active in the daytime and they do not hibernate in winter. They are active throughout the year, but they tend to spend most of their time inside the den in the winter. Pikas eat stored grasses to survive and venture out to forage when the weather permits. In early to mid-spring, American pikas begin to breed. Many pikas breed twice--once in spring and summer. The female is pregnant for a month before giving birth to a litter of 2-6 young. When born, the young cannot function on their own and they depend on their mother for care. It takes about a month for the young to be weaned and 3 months to reach an adult size. After a year, the young develop into breeding adult pikas.

Adapted from National Wildlife Federation:

<http://www.nwf.org/Wildlife/Wildlife-Library/Mammals/American-Pika.aspx>

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