

Upper Columbia Basin Network Inventory and Monitoring

National Park Service
U.S. Department of Interior

Pacific West Region



Pika Monitoring

Crater Lake National Park, Craters of the Moon National Monument and Preserve, Lassen Volcanic National Park and Lava Beds National Monument



Talus slope at Crater Lake National Park

Why is Pika important?

The American pika (*Ochotona princeps*) is a charismatic climate-sensitive species. Evidence of recent localized extirpations and range contractions in some areas, particularly in the southern portion of its range in the Great Basin, have led to concerns about the impact of climate change on this heat-intolerant species. Four park units in the Pacific West Region, Crater Lake National Park (CRLA), Craters of the Moon National Monument and Preserve (CRMO), Lassen Volcanic National Park (LAVO), and Lava Beds National Monument (LABE) have formed a partnership with the Upper Columbia Basin Network to monitor the occupancy dynamics of the American pika using a shared protocol that supports comparative analyses.

Why do we monitor pika?

- To determine current patterns and future trends in pika site occupancy
- To find out if the status and trends of pika site occupancy patterns vary along the elevational gradient within and among the four parks

How do we use the monitoring data?

- To establish a baseline for detecting changes in pika populations when compared with data provided by future monitoring efforts
- To provide valuable information on the status, trends, and determinants of pika distribution for park management considerations and potential future listings

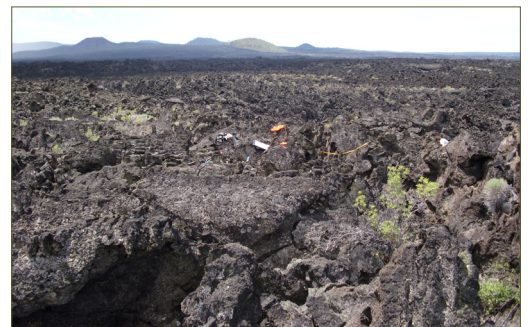
What have we found?

Monitoring is accomplished by determining pika occupancy at randomly selected sites. A site is occupied if pika sightings, pika calls, fresh food caches (haypiles), and/or fresh fecal pellets are recorded within established 12-m radius plots. Monitoring has been conducted from 2010 to 2014 in all four parks. Over the five years of monitoring, occupancy was most stable in CRLA, and lowest and least stable in CRMO. There are no apparent declining trends; although, patterns of very low site occupancy in CRMO during several years of the study may warrant concern. In 2014, the percentages of sites occupied were: 21% in CRMO, 43% in LAVO, 61% in LABE and 71% in CRLA. The percentage of sites considered to be occupied were higher in 2014 than any other year for all four parks. With the exception of LABE, all parks had at least one year where a decrease in the percentage of sites that were occupied was documented. Future analysis will evaluate rates of turnover in pika occupancy with climate data, providing more information on how pika populations in each park are affected by climate change.



Photo by Michael Durham

Pika (*Ochotona princeps*) at Craters of the Moon National Monument and Preserve



Above: Technician setting a monitoring plot at Lava Beds National Monument

Below: Technician searching for pika at Lassen Volcanic National Park



Upper Columbia Basin Network

105 East 2nd St., Suite #5

Moscow, ID 83843

<http://science.nature.nps.gov/im/units/ucbn/monitor/pika.cfm>