“Pikas in peril: multi-regional vulnerability assessment of a climate-sensitive sentinel species” is a Rocky Mountain, Upper Columbia Basin and Greater Yellowstone I&M Networks project with partners including University of Colorado Boulder, University of Idaho, and Oregon State University. These investigators are working with park and I&M staff to survey pika habitats, distribution and gene flow in park units including: Great Sand Dunes, Yellowstone, Grand Teton, Rocky Mountain, Craters of the Moon, Crater Lake, Lava Beds and Lassen Volcanic. These are among the sixteen western US national park unites that have pika populations. This project will also complement an existing citizen science, pika monitoring project at Glacier NP. Products from this three-year project will include improved websites, distribution maps and habitat connectivity models, and climate change vulnerability assessments for pikas across two NPS regions, with involvement two CESUs: RM-CESU and Pacific Northwest CESU.

Pikas (Ochotona princeps) are members of the rabbit family that live in mountainous and rocky habitats throughout western North America. American pikas have been identified as a "sentinel species" that responds to changes in climate and habitat disruptions. They do not hibernate, and are sensitive to temperature extremes. There is evidence that pika populations in the Great Basin ecosystems have been extirpated due to changing climate.

In previous studies by University of Colorado Boulder surveys and modeling results indicate that pika populations in the southern Rockies may be affected by low annual precipitation. The NPS I&M Network researchers, along with University colleagues monitored pikas in the lava landscapes of Craters of the Moon National Monument and Preserve, Idaho. These 2007-2009 population surveys showed that pikas were present generally above 1600 meters in areas of forb abundance, and that these lava habitats may
serve as refugia for this species. However, accelerated climate change may affect the size of these "habitat patches".

The NPS Climate Change Response Program study will augment and extend these surveys, and will develop models of future distribution, connectivity and vulnerability of pika populations in each of the park units.

For more information on this project, please see handouts and other information at:
http://science.nature.nps.gov/im/units/ucbn/monitor/pika/pika_peril/docs/PikasInPeril_ResourceBrief_20100928.pdf and
http://science.nature.nps.gov/im/units/ucbn/monitor/pika/pika_peril/index.cfm