



Pika Research and Monitoring at Grand Teton NP



A technician conducting a pika survey (above) and a pika at Grand Teton National Park (lower left).

A Species Vulnerable to Climate Change

The American pika (*Ochotona princeps*) is considered an indicator species for detecting ecological effects of climate change. Results from recent studies suggest that in some areas pikas are being lost from lower elevations in response to increased warming and a subsequent reduction in suitable habitat. The National Park Service has a unique opportunity to assess the vulnerability of pikas to climate change by studying pika populations within western U.S. parks. Grand Teton National Park provides classic talus pika habitat and is one of eight National Park Service units included in a 3-year research project, titled “Pikas in Peril.” Additionally, the park will be using this information to establish a long-term pika monitoring program.

Project Objectives

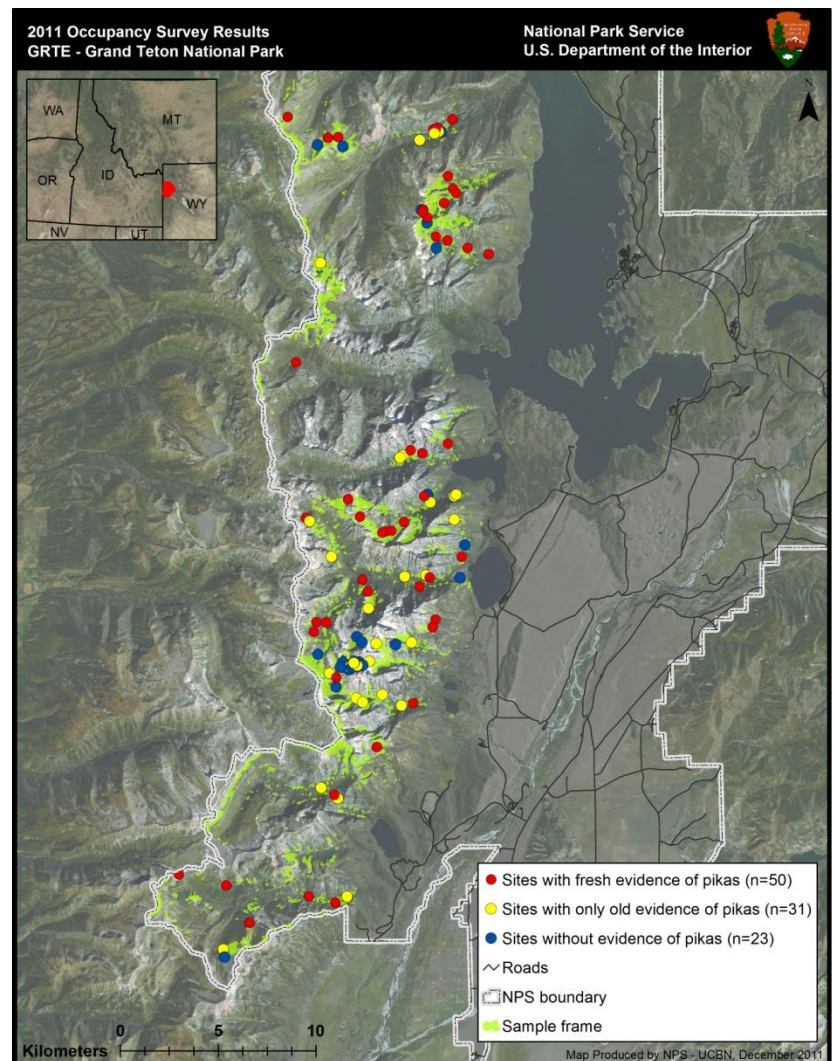
1. Document pika occurrence patterns and predict pika distribution across eight park units.
2. Measure gene flow and model connectivity of pika populations within five park units (Grand Teton NP included).
3. Project climate change effects on the future distribution, connectivity and vulnerability of pika populations in each park unit.

Methods and Preliminary Results

From July to September 2011, 104 randomly-selected sites were searched for evidence of pika occupancy in the form of visual encounters, calls, fresh fecal pellets, and fresh food caches found within the site. Of these sites, 50 (48%) were considered occupied. Of the 2010 sites that were resurveyed (n=37), 10 sites changed occupancy status (i.e., “turned over”) with three previously unoccupied sites being colonized and seven previously occupied sites being lost in 2011. Occupied sites covered the range of elevations sampled. Additionally, 384 fecal pellet samples have been collected at the park over the two years for genetic analysis.

Timeline and Future Plans

Summer 2011 was the 2nd and final year of field data collection for the research project. Data analysis will continue in 2012 and a final research project report is due in 2012. Additionally, the park hopes to monitor these sites over time to detect trends in pika site occupancy. Further details and results for Grand Teton NP and the other parks will be available on the website listed below.



Map of 2011 survey results for Grand Teton National Park

Contact Information

Susan Wolff, Grand Teton National Park, Susan_Wolff@nps.gov