

## Abstract

A United States Geological Survey (USGS) researcher has been studying impacts of climate change on American Pika (*Ochotona princeps*) from the mid 1990's through 2017. This project aims to contribute to research on the American Pika by building a geodatabase to store and provide access to data on pika populations throughout the Great Basin region of the Western United States. The geodatabase contains pika presence and absence data for locations of talus, which includes habitat areas that have been previously surveyed or may be potentially surveyed in the future. The project used formatted data provided from field surveyed talus that have been digitized on [www.caltopo.com](http://www.caltopo.com), digitized new talus that have been more recently surveyed, and imported GPS points for presence/absence captured in Excel spreadsheets.

The end result of this project was a geodatabase that housed presence/absence points, talus polygons, site locations, temperature sensor locations, and temperature/relative humidity data. Several queries were completed that show proper importation and relationships of all data. Working closely with project researchers, this study allows for database expansion as needed for future research needs.

Studying presence/absence of American Pika allows for further understanding of climatic impacts in niche habitats that are especially susceptible to environmental change. This project also provides the opportunity for improved analysis and long term data storage relating to these presence/absence locations throughout the Great Basin region. The end result supports expansion of the database structure for future field seasons and data inclusion.