

American Pika (*Ochotona princeps*)**Species Status Statement.**Distribution

The range of American pika encompasses many of the mountainous areas of western North America, including the Rocky Mountains, Great Basin ranges, Sierra Nevada Mountains, and the Cascade Mountains (Smith and Weston 1990). In Utah, American pika occurs from the Bear Lake and Uinta Mountains in northern Utah, to the Markagunt Plateau and the La Sal Mountains in the south. Utah hosts four of the five described American pika subspecies (Hafner and Smith 2010). One of them, Uinta pika (*O.p. uinta*), is considered endemic to Utah and is found in the Uinta Mountains, Wasatch Plateau, Fishlake Plateau, and Boulder Mountain.

Table 1. Utah counties currently occupied by this species.

American Pika	
BEAVER	SALT LAKE
DAGGETT	SAN JUAN
DUCHESNE	SANPETE
EMERY	SEVIER
GARFIELD	SUMMIT
GRAND	UINTAH
IRON	UTAH
KANE	WASATCH
PIUTE	WASHINGTON
RICH	WAYNE

Abundance and Trends

Several studies concluded that many historically-documented pika colonies have experienced extirpation or local extinction (Beever et al. 2003, Beever et al. 2011, Beever et al. 2016). These conclusions include purported pika extirpations in Zion National Park and Cedar Breaks National Monument (Beever et al. 2016). However, UDWR completed monitoring surveys employing multiple visits at randomly selected sites in predicted pika habitat during 2008, 2011, 2014, and 2017. The estimated probability of occupancy of Utah sites was high and stable over that period. Through that research, UDWR also documented pika in all historically recorded mountain ranges in Utah. While acknowledging local extirpations, many other studies have also noted pika persistence and adaptability (see review in Millar et al. 2018).

Statement of Habitat Needs and Threats to the Species.

Habitat Needs

American pika is a habitat specialist that generally requires broken rock habitat and associated grassy feeding areas (Smith and Weston 1990). Because such habitat is highly discontinuous and patchy, pika occurs in isolated or disjunct colonies (Hall 1981, Smith and Weston 1990, Hafner 1994, Hafner and Sullivan 1995). Vegetation communities at occupied sites include sage-steppe shrublands, woodland communities, montane forests, wet and dry montane meadows and shrublands, subalpine forest zones, and diverse alpine communities (Millar et al. 2018).

Threats to the Species

Studies have suggested that global warming is the primary causal factor in pika colony extinctions (Beever et al. 2003, Beever et al. 2010, Beever et al. 2011, Beever et al. 2016, Stewart et al. 2017).

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species' entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

American Pika
Medium
Habitat Shifting and Alteration
Droughts
Temperature Extremes

Rationale for Designation.

Many people interested in wildlife consider American pika an indicator species for the effects of climate change. As such, environmental advocates repeatedly petition this species for ESA listing. Although found not warranted for listing in 2010 and again in 2016, American pika continues to receive conservation attention, and additional petitions focused on individual subspecies or distinct populations are likely. Given that concern, it is essential to continue Utah's commitment to pika monitoring and management.

Economic Impacts of Sensitive Species Designation.

Sensitive species designation is intended to facilitate management of this species, which is required to prevent Endangered Species Act listing and lessen related economic impacts. Although the main goal of advocacy groups petitioning for pika listing appears to be the

increased regulation of anthropogenic greenhouse gas emissions, listing could result in local land-use restrictions. Nearly all pika populations in Utah are found on US Forest Service lands. The ESA listing of some or all American pika populations in Utah could have impacts to recreational development, including ski resort operations. Forest management could also be complicated. A partial mitigating factor is the fact that many pika populations occur within designated Wilderness Areas.

Literature Cited.

- Beever, E.A., P.F. Brussard, and J. Berger. 2003. Patterns of apparent extirpation among isolated populations of pikas (*Ochotona princeps*) in the Great Basin. *Journal of Mammalogy* 84: 37–54.
- Beever, E.A., C. Ray, P.W. Mote, and J.L. Wilkening. 2010. Testing alternative models of climate-mediated extirpations. *Ecological Applications* 20:164–178.
- Beever, E.A., C. Ray, L.L. Wilkening, P.F. Brussard, and P.W. Mote. 2011. Contemporary climate change alters the pace and drivers of extinction. *Global Change Biology*.
- Beever, E.A., J.D. Perrine, T. Rickman, M. Flores, J.P. Clark, C. Waters, S.S. Weber, B. Yardley, D. Thoma, T. Chesley-Preston, K.E. Goehring, M. Magnuson, N. Nordensten, M. Nelson and G.H. Collins. 2016. Pika (*Ochotona princeps*) losses from two isolated regions reflect temperature and water balance, but reflect habitat area in a mainland region. *Journal of Mammalogy* 97(6):1495-1511.
- Hafner, D.J. 1994. Pikas and permafrost: post-Wisconsin historical zoogeography of *Ochotona* in the southern Rocky Mountains, U.S.A. *Arctic and Alpine Research* 26: 375–382.
- Hafner, D.J., and R.M. Sullivan. 1995. Historical and ecological biogeography of Nearctic pikas (Lagomorpha: Ochotonidae). *Journal of Mammalogy* 76: 302–321.
- Hafner, D.J., and A.T. Smith. 2010. Revision of the subspecies of the American pika, *Ochotona princeps* (Lagomorpha: Ochotonidae). *Journal of Mammalogy* 91: 401–417.
- Hall, E.R. 1981. *The Mammals of North America*, 2nd edition. Vol. I. John Wiley and Sons. New York, New York, USA.
- Millar, C.I., D.L. Delany, K.A. Hersey, M.R. Jeffress, A.T. Smith, J. Van Gunst, and R.D. Westfall. 2018. Distribution, climatic relationships, and status of American pikas (*Ochotona princeps*) in the Great Basin, USA. *Arctic, Antarctic, and Alpine Research* 50: 1.
- Salafsky, N., D. Salzer, A.J. Stattersfield, C. Hilton-Taylor, R. Neugarten, S.H.M. Butchart, B. Collen, N. Cox, L.L. Master, S. O'Connor, and D. Wilkie. 2008. A standard lexicon for biodiversity conservation: unified classifications of threats and actions. *Conservation Biology* 22: 897–911.
- Smith, A.T., and M.L. Weston. 1990. *Ochotona princeps*. *Mammalian Species* 352: 1–4.

Stewart, J.A.E., D.H. Wright, and K.A. Heckman. 2017. Apparent climate-mediated loss and fragmentation of core habitat of the American pika in the Northern Sierra Nevada, California, USA. *PLoS ONE* 12:e0181834.

Utah Division of Wildlife Resources [UDWR]. 2015. Utah Wildlife Action Plan: A plan for managing native wildlife species and their habitats to help prevent listings under the Endangered Species Act 2015-2025. Publication Number 15-14, 385 pp.