

Pika Project Summary 2021

The Independence Pass Foundation continued to help the Colorado Pika Project (formerly known as the Front Range Pika Project) this year by surveying the pika sites located on Independence Pass. There are 8 total sites on the pass, and 7 were surveyed this year by summer intern Amanda Crow. One of the sites was inaccessible due to avalanche debris from the historic 2019 avalanche cycle. The Colorado Pika Project is a citizen science driven research project that aims to monitor pika populations and gauge the impacts of climate change on these furry alpine creatures. The American pika lives in high alpine talus fields. They are adapted to the harsh environment, and climate change is a concern for this species. If snow melts earlier due to warmer temperatures, the American pika will lose insulation under the talus and be exposed to colder temperatures than it is adapted to. Warmer summer temperatures in the summer may lead to more time spent under the talus and less time collecting hay for their winter food stock. According to the Colorado Pika Project the Colorado population of pikas is stable for now. However in states like Oregon and Nevada declining pika populations have been directly linked to climate change. More information about the Colorado Pika Project and the American pika can be found at <https://pikapartners.org/>

IPF's summer intern attended a pika survey training, hosted by the Colorado Pika Project, before conducting surveys at the sites on Independence Pass. The survey begins with a five-minute silent observation period where the surveyor looks and listens for pika and pika calls. This is followed by a 20–30-minute systematic survey within the 24-meter diameter plot where the surveyor looks for pika sign. Pika sign types include pika sighting, pika call, fresh hay pile, old hay pile, fresh scat, and old scat. Then the surveyor continues to fill out the Colorado Pika Project data sheet on various site characteristics. Percent cover for grasses, forbs, shrubs, trees, bare ground, and rocks within the plot is estimated. Evidence of other wildlife within the plot is recorded, weather is recorded, and talus characteristics are recorded. Data collection for this project is heavily dependent of citizen scientists who volunteer their time to be trained and conduct surveys on their own time. At the end of the field season all the volunteers submit their data to the Colorado Pika Project to be compiled and analyzed.

There were no fresh pika signs observed within the site located along Grizzly Lake trail during the 2021 survey. Pika calls were heard approximately 50 m west of the plot center. Old scat was observed in several spots within the plot. This site did not seem suitable for pikas due to the shallow depth and instability of the talus. However, fresh scat and a fresh hay pile was observed during the survey in 2020. There is no data for this site from 2018 or 2019.

There were no fresh pika signs observed at the lower elevation Tabor trail site during the 2021 survey. Pika calls were heard approximately 10 and 50 m outside the plot, but no pikas were seen. Old scat piles were observed within the plot. This site also had a shallow and somewhat unstable talus. The same observations were made during the 2020 survey. Old scat was seen within the plot, and pikas were seen and heard outside the plot. There is survey data for this site from 2019. Old scat and an old hay pile were observed.

Fresh signs of pika were observed at the higher elevation Tabor trail site during the 2021 survey. A fresh hay pile, a pika call, and a pika were observed within the plot. This talus was deep and very stable/

established. Available forage was within and very close to the plot. A pika was sighted outside of the plot eating the available forage. Similar observations were made in 2019 and 2020. The only difference being fresh scat was observed these years but not in 2021.

There were no fresh pika signs observed at the site up Midway Pass trail during the 2021 survey. Numerous pika calls were observed coming from all directions outside of the plot. There were no fresh pika signs observed in 2019 or 2020. However, fresh scat and old scat were observed during a survey in 2018.

The pika site across the road from the Weller trailhead parking lot has not had fresh signs of pika for the last three years of observations. This site is lower in elevation and is located on a south facing slope. It doesn't seem suitable for pikas since they are sensitive to hot temperatures.

The Brooklyn site was not surveyed in 2021 due to difficulty accessing the site. There was thick avalanche debris all along the route, and the survey could not be conducted due to the safety risk. During the 2020 survey only pika calls were observed, and they were coming from outside of the plot. There is no data for this site from 2018 or 2019.

There were no fresh pika signs observed at the site located on the Lost Man trail during the 2021 survey. Pika calls were heard approximately 40 m outside the plot on multiple occasions. Pikas were seen on the talus on the hike to the designated site, but none were seen near or in the actual plot. Runoff could be heard under the talus in both 2020 and 2021, but there was no readily available forage in or around the plot. This talus was too high up. There is no data for this site from 2018 or 2019.

There was no fresh pika sign observed at the training site during the formal 2021 survey. Old scat and old hay were present, and pika calls were heard approximately 70 m away. Numerous piles of marmot scat were observed on the plot center rock. Fresh scat and a fresh hay pile were informally observed during the pika training in mid-July, so it seemed interesting that was gone in mid-September. Fresh scat and fresh hay piles were observed during the 2019 and 2020 surveys.

Overall, there doesn't seem to be any drastic changes to these pika sites between 2020 to 2021. However, the Grizzly site and the training site had fresh pika sign in 2020 and no fresh pika sign in 2021. It is too soon to tell if this trend will continue. It will be important to keep monitoring the pika sites on Independence Pass so that any changes in pika activity can be used to determine their adaptation, or lack thereof, to a changing climate.