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In this Issue: Pikas!

Dr. Embere Hall was one of the first grantees of the Meg and Bert Raynes Wildlife Fund. Her studies of how mountain pikas are adapting to a changing climate earned her a PhD at the University of Wyoming, where she continues her career as a Science, Research and Analysis Section Supervisor with UW/Wyoming Game & Fish Department Co-operative Unit in Laramie. In July the Jackson Hole Bird and Nature Club hosted her as their speaker and she presented some of her findings, which we share in this newsletter.

Embere began her work on pikas in this region, with a survey sponsored by the Bridger-Teton National Forest. It wasn't long before she made friends with Bert Raynes. They shared an interest in knowing more about the smaller and often overlooked wildlife and using science as support for conservation. This happened just as the Raynes Fund was forming and both the Forest Service and Grand Teton National Park were taking steps to understand the habitat needs and populations of pikas.



“It was a gift of a lifetime to know and interact with Bert,” Embere said recently. “The support that he gave and the grants the Meg and Bert Raynes Wildlife Fund gave was truly fundamental to do any of this work.”

Over three field seasons, Embere and her crew set up remote cameras to observe pika behavior and conducted detailed analysis of hay piles, forage species, and characteristics of habitats used by pikas from the Teton Wilderness to the southern Wyoming Range. In these areas pikas faced a choice: spend more time and energy looking for

the most advantageous foods, or get out and get back quickly with whatever is at hand, thus minimizing exposure to heat stress. The contents of their haypiles helped to show that both strategies were employed.

One item the team discovered was a surprise: foraging behavior, while retaining the goal of gathering high-quality food efficiently, varied widely by individual. Some pikas did nearly all their foraging during the cooler periods, while others spread their work over time.

Embere concludes from her work that even if a pika gathers the best foods, it could risk heat stress and predation if it has to forage widely. Pikas that spend less time foraging have less stress and thus use fewer calories, regardless of the plant species harvested.

Embere credits her early Raynes Fund grants for giving her confidence that her work with pikas was important. “The funding I received was essential, pivotal, central to conducting my work and finding a way forward with my PhD, she says. “It showed early buy-in to other funders and it enabled me to get preliminary data for ‘proof of concept’ such as determining if the remote cameras were going to work.”

Her research suggests that pikas can adapt, and ‘work smarter’ to reduce their heat stress as long as we protect their habitat. Her work has value not only as science, but also as guidance for public land management. “I have always been interested in the nexus of research and management,” she says. “How do you use the best available science to conserve all the wildlife? This is the interest driving my career.”



photo: Embere Hall

Read more about our grantees and their work at www.rayneswildlife.org