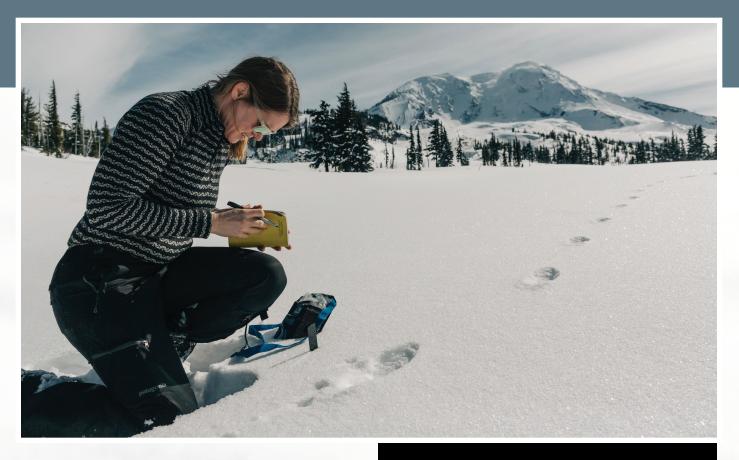


Jocelyn Akins has found her life's work by going deep into the Cascade Mountains to study some of the rarest animals that live there

Story by DAVID HANSON
Photos by MICHAEL HANSON and courtesy of JOCELYN AKINS

SNOWMOBILE WON'T START. AGAIN. The pink and purple Atari-like graphics on the sled's hood give away the machine's advanced age. No surprise it's refusing to crank. Strapped to the back of the sled are touring skis, a small backpack, and a frozen, sinewy beaver carcass, its pelt removed. Jocelyn Akins, a Hood River-based wildlife biologist, is 10 miles in to the Mount Adams backcountry, in the sub-alpine's black and silver forest of burned fir trees. A useless snowmobile would set off a series of extremely problematic steps to return home. Akins calmly retrieves her greasy tool kit and peels back the hood with a smile on her face confirming that this is nothing new.

With a fresh spark plug and an aggressive yank on the pull cord, she gets the 1996 Phazer humming again and she's off, higher up the flank of Mount Adams. Just before reaching tree line (and the wilderness boundary) she parks the sled and clips into backcountry skis to climb another 500 feet to what seems to be the mountain's highest pocket of stubby sub-alpine fir trees. Then the science begins.



Akins, 43, founded the Cascades Carnivore Project (CCP) in 2008 to study the presence and conservation needs of some of the rarest animals in the Cascades: wolverine, Canada lynx, fisher, and the Cascade red fox. In 2018 she discovered Pepper and her two kits (offspring), the first wolverines reproducing in Washington's South Cascades in a century. Akins documented the wolverine Joni and her mate Van who reproduced two kits in 2020 on Mount Rainier, the first time in the national park in a century, and then reproduced another two kits in 2021.

"These discoveries have been incredibly exciting," Akins says. "A single animal is not a population, but females and their kits give hope that wolverines are gaining ground in the region."

From the Columbia River to the Canadian border, Akins ventures deep and high into the mountains where she finds trees to construct imaginative scaffolds, planks and ladders leading to bait — beaver carcass, deer head, elk femur. She mounts wildlife cameras on nearby trees and sets them to trigger with an animal's movement. The traps' custom designs accomplish three things: attract the animal; encourage the animal to climb in a way that exposes its chest and throat so the camera can capture identifying characteristics; and catch the animal's fur (DNA) on strategically placed rough spots. For Akins, the better she knows the animals, the better her research can speak up for them and what they need to thrive as climate changes and recreational pressures increase in the mountains.

The wolverine was extirpated from Washington state in the 1920s due to fur trapping and accidental deaths from traps meant for other predators. They have recently trickled back in to the Washington Cascades from British Columbia and Alberta. Akins estimates their numbers in Washington to be only 40-50, and other researchers estimate between

Jocelyn Akins notes Pacific marten tracks in the Mount Adams backcountry, *above*, and prepares to set a wolverine monitoring station with bait on the north side of the mountain, *below*.



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290-1,000 live in the contiguous U.S. By necessity they are extremely elusive, solitary animals. Their oversized paws act like snowshoes as they travel over territories of roughly 50 square miles. For winter shelter, they burrow 15 feet into snow, and they'll use other snow pits as freezers to bury carcasses for later consumption, the frozen meat torn from the bone thanks to a unique sideways-aligned molar.

The Cascade red fox is perhaps more threatened than the wolverine, though neither are listed as threatened species (the red fox might be listed in Washington by 2022). A product of the Ice Age when it roamed the frigid present-day Midwest, the cold-weather-adapted fox evolved to become distinct from the lowland red fox. As the Ice Age glaciers receded and temperatures warmed, the Cascade red fox, distinguished by its white-tipped tail, followed the cold. The Cascades now act as sky-island refuges for the furtive species. Akins picked some hard animals to know.

"I'm definitely driven by the fact that these animals live in super

rugged places," Akins says. "I can go out and do the research where maybe others can't or aren't willing to."

There's a romance to the wildlife biology profession: Goodall (apes), Birute Galdikas (orangutans), Darwin (everything). But to do it right requires near complete commitment to a particular species, which requires being in their habitat as much as possible.

From a young age Akins' dad would coerce her and her siblings onto early morning slogs ascending through dark forests to dewy wildflower meadows until they reached her dad's Shangri-La, the rugged alpine, a place as unforgiving as it was liberating.

"It wasn't fun at all as a kid," Akins recalls. "But when you left the forest, things opened up, and then it's like the Sound of Music up there, walking along ridge tops. My dad only liked the alpine. The forest was too hemmed in."

Grizzly bears were her first love. Akins followed them into Alberta

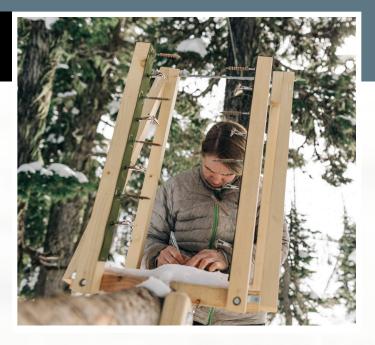
At right, Akins with a custom designed wolverine monitoring station, and below, setting a camera at a multi-species monitoring station.

and greater Yellowstone. That research contributed to listing the grizzly as threatened in Alberta. But bears hibernate, so what to do in the winter? Akins spent some months tracing the writings of Alfred Russel Wallace and David Quammen in Indonesia. She went to the Canadian Arctic eight times with a geologist to find diamonds. Ultimately, she completed her doctoral research on the Cascade red fox. She directed her career toward that species, coupled with wolverine, ensuring she'd be spending her time where she first learned to love the outdoors as a kid.

"A lot of science is about asking the question and then seeking an answer," she says. "But what if that answer is hidden in some tropical jungle on the other side of the world? I decided to base my work in the place where I wanted to be."

There's an obvious parallel between Akins and her four-legged scientific subjects. They seek the rugged places for the solitude. Being able to survive up high in winter affords the wolverine and Cascade red fox an advantage since they don't have to compete with other animals for food up high. Akins, too, benefits from the scarcity of science in her chosen field: as they say, *if it was easy, everyone would do it.*





Her work is physically challenging, but it's unconventional in a professional way, as well. Akins ensured scientific autonomy for herself by creating CCP, her own nongovernmental research organization. With CCP she has near-complete freedom to answer the questions she wants to ask. But it's risky. She has to develop and maintain funding. Sometimes she has to rely on cranky old snowmobiles. And she has to continue venturing deep into the mountains, regardless of weather or available resources or the variabilities of being a mom herself (now, like her dad, "encouraging" her own kids into the alpine). She's running a small business dictated by the rigors of science and a belief in the value of presenting, with evidence, indisputable facts.

"This is a total life's work for me," Akins says. "To understand the natural history of these species and how they fit into the overall mountain ecosystem. And how climate change is impacting them because things are changing fast in the mountains."

Cascades Carnivore Project has opportunities for community volunteers to participate in carnivore monitoring and research — both in the field and from home. Donations are also welcome: cascadescarnivore.org

David Hanson is a writer, photographer and video producer based in Hood River. Find his editorial and commercial work at ModocStories.com and weddings at CascadiaStudios.com.



Cascade red fox



Wolverine "Joni" and kits



Wolverine "Wildy"



Wolverine "Wildy"



Wolverine "Joni" and kits



Wolverine "Pepper"

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