

SOLITARY
SURVIVOR



IT WAS 7:30 in the morning, February 21st, 2016, the groomed trails at Tahoe Cross Country Ski Area firm and fast when I sliced around a curve and came to a quick stop because there was an animal in the trail I didn't recognize, 50 feet or so ahead. About as big as a medium-sized dog or a bear cub, he had dark brown fur, with a lighter, tawny curved streak along his side, and a distinctively bushy tail. We exchanged a look of mutual surprise at the fact that we weren't alone, a look of *who are you?*

I often see bears in my Tahoe backyard. I've encountered them at the Nordic Center and at various places around the lake. Coyotes too. If the animal in the trail were either of these Tahoe Forest regulars, I would've been delighted, but not awestruck, not — I admit — breathless in the face of the unknown. We studied each other for a few moments before the animal disappeared over the berm left by the grooming machine and I realized what I'd seen — a wolverine.

I was born in Michigan, home of the University of Michigan wolverines. Wolverines are the mascot of the Tahoe City High School near where I ski. I associate them, vaguely, with an athletic ferocity. But could I say what one looked like? Did I know anything about them? Back home, a Google search ruled out fisher and marten (smaller members of the weasel family) and solidified my confidence. I read that a wolverine can take down an animal many times its size if defending territory or rights to food. With their snowshoe-like paws and hooked claws, wolverines can cross snowfields and scale massive peaks. Their fur markings and coloration vary widely. They have huge territorial needs and a very low reproductive rate, among the lowest of all mammals. The current population in the entire lower

48 states is estimated to be less than 300.

Wolverines were once relatively abundant in the Sierra Nevada but the population was decimated by excessive trapping. But in 2008, a wolverine was caught on camera near Lake Tahoe. The story made national news because it was the first time a wolverine had been seen in California since 1922. The camera was set up by a graduate student hoping to capture images of American martens. What showed up instead on this and multiple other cameras north of Lake Tahoe was one lone wolverine, lured to the site by chunks of raw chicken nailed to trees. Wildlife biologists matched fur samples from the camera sites and analyzed samples of the animal's fur to trace the wolverine to a population originally from Idaho's Sawtooth Range in the Rocky Mountains. One Sierra wildlife biologist, Amanda Shufelberger, nicknamed him Buddy.

Soon after the wolverine disappeared into the trees, I regretted that I hadn't photographed its tracks or retrieved fur samples, the way a doctoral student in wildlife biology at University of California, Davis, did when he spotted five-clawed prints in a signature loping gait pattern at nearby Donner Summit on a hike in the fall of 2010. A research lab matched DNA and confirmed that the samples gathered by the graduate student belonged to Buddy.

Have you ever seen a shooting star and tried to get the attention of people you are with only to have them look a second after the blazing stream of light disappears? Coming across the wolverine was like that. I knew I was lucky to have

seen it, but I had nothing to show for it. In scientific circles, having something to show is important. So I expected to be dismissed or ignored when I emailed Shufelberger later that day. But she wrote back telling me she hadn't seen Buddy on camera yet that winter and was concerned that maybe he'd died. (She actually said "passed on.") "You've given me hope!" she wrote. "It absolutely could have been a wolverine that you saw, so let's keep our fingers crossed."

For the Wolverine, The Time Is Now

IN APRIL OF 2016, a Montana judge ordered the US Fish and Wildlife Service to reconsider its previous decision not to list the wolverine for protections under the Endangered Species Act (ESA). The scientists and environmentalists who filed the lawsuit successfully argued that a diminishing snowpack and snow season such as the Rockies and Sierra Nevada have experienced in recent years is a direct threat to wolverines, who build dens deep in the snowpack to raise their young.

Wolverines are solitary and notoriously elusive, but this particular Montana judge had spotted wolverines himself in the wild. I can't help but suspect that those experiences helped him render his sympathetic decision: "No greater level of certainty is needed to see the writing on the wall for this snow-dependent species standing

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squarely in the path of global climate change...” the judge wrote. “It is the under-*signed’s* view that if there is one thing required of the Service under the ESA, it is to take action at the earliest possible, defensible point in time to protect against the loss of biodiversity within our reach as a nation. For the wolverine, that time is now.”

After several drought winters, the 2015-2016 winter was supposed to be a big one in the Sierra Nevada, but the much-hyped El Niño forecast didn’t deliver. It did snow more than in past years, but when I spotted the wolverine, Tahoe was in the middle of a month-long February dry spell — a grim lull familiar to anyone who’s spent time in Tahoe the past few years. There are many reasons to lament the pattern of weak winters. Water conservationists fret about California’s reservoirs. Local businesses in a tourism-dependent economy suffer a bruising loss of business. And winter sports enthusiasts like me worry that we’ll lose a cherished activity. Should the winters in Tahoe keep trending milder and milder, how can a Nordic Center that depends on nature-made snow survive? Will we have to trek hundreds of miles north to find snow?

This may sound selfish — putting a recreational pursuit on a par with the welfare of a species with origins in the Pleistocene Epoch. I’m not equating the two, but I am connecting them. What’s bad for Tahoe is bad for Buddy and vice versa. Wolverines have been around since the last Ice Age. They survive in low numbers in places “where ice age-like conditions persist” and serve, like polar bears, “as a land-based indicator of global warming,” according to the Montana case file. The plight of wolverines is our shared plight. We sink or swim on this warming planet together.

That Buddy travelled so far from his birthplace, an estimated distance of between 600 and 800 miles, is remarkable not because of the distance, but because wolverines hadn’t been seen in California in almost a century. The elusive animal hadn’t been seen in North Dakota since the late 1800s either — until April of last year, when a ranch hand shot another well-traveled wolverine he believed to be threatening his cattle.

Presence on the Landscape

THAT NORTH DAKOTA WOLVERINE was M56, a radio-tagged animal who made a 500-mile trip from northern Wyoming to Colorado in 2009, a year after cameras picked up Buddy’s image in California. On May 9, 2016, researcher and blogger Rebecca Watters wrote about M56 on her “Wolverine Blog” (egulo.wordpress.com). Watters had tracked M56 near Wyoming’s Togwotee Pass in early 2009, before he left for Colorado. She saw no tracks but heard him on her telemetry receiver. “I loved him even then simply for being out there,” she writes, “for his presence on the landscape, which, even before his tremendous journeys, seemed huge.”

Based in Bozeman, MT, Watters is an inspiring combination of rational and lyrical, passionately committed but flexible. Raised by historians, she’s a scientist who believes “it’s important not to be too entrenched in certainty, but rather to embrace impermanence and uncertainty.” On her blog, there are numerous undocumented wolverine sightings. Watters acknowledges and appreciates each one — even the improbable, like the wolverine in an Indiana soybean field, reported by one reader in 2011.

Watters gets frequent emails about M56 from school kids and wolverine watchers. She says he’s “genuinely famous.” But unnamed animals die unmourned all the time, she reflects in the May 2016 post, so why should M56’s death matter so

much? Her answer to her own question is that “storied wolverines...hint to us of all the wild and unseen and amazing lives that go on beyond our awareness. That’s something worth thinking about. So take a moment to remember M56, to consider his life, and those unknown lives, and what it means to have them out there. It means more than I can express, probably more than any of us can express — but let us keep trying.”

When people railed against the North Dakota ranch hand who killed M56 in the comments to her post, Watters encouraged her readers to avoid “exacerbating cultural divides over wildlife by focusing on them...You’re not going to convert everyone to placing a value on wildlife. Some people just don’t care. I tend to think that these people are missing some piece of their soul, but that’s not something I can fix. So let’s talk about wolverine science and conservation, and focus on what we can do at the research and policy and outreach levels.”

I’m with Watters. Hardening lines of division does not improve policy or restore the soul. To save the wolverine, we need activism that is a balance of passion, reason, empathy and wonder.

The Merits of Simply Experiencing

THE DAY I SAW THE WOLVERINE, I was too caught up in the moment of glimpsing something fantastic and rare and locking eyes with it to document. That may make me a lame citizen scientist, but as a Zen student, I trust the merit of simply experiencing, without grasping for something to hold on to. I want to be open to experience that doesn’t have a name.

I’m not suggesting that evidence doesn’t matter. Thank goodness for the people who trudge into remote camera sites then spend hours sifting through the images, for the meticulous data gatherers among us. It’s critical that someone do this work that is the backbone of conservation. I just want to suggest that there is also value, in the age of instant and pervasive documentation, to simply witnessing what Watters might call “presence on the landscape.”



I wish I could have furnished the kind of evidence that bolsters Shufelberger's and Watters' work. But at that moment, I was just out for my morning ski, alone in the woods, dazzled by an unexpected encounter with the unknown. One wolverine sighting is likely all I'll get in this life, so I'm grateful to have crossed paths ever so briefly. But seeing the wolverine lit a fire in me. It led to my education. And now I'm telling you, who may or may not live in a state where wolverines can be seen, but who are likely concerned about the changes we humans have wrought on our planet, about any threat of extinction, because the loss of the wolverine is connected to our shared future. Because there's a glimmer of hope in an encounter between two beings — one wild and the other, a lover of wild things — even if it's undocumented and unverified.

Proof and Hope

BEFORE THE JUDGE handed down his ruling in Montana, there were attempts to discredit the science of climate change and

to over-emphasize the unpredictability of its effects. One especially cynical federal employee is quoted arguing that we'll have to start protecting everything from the effects of global warming if we protect the wolverine. It may be that the wolverine will not be able to adapt to global warming, but it's our duty to try to save it. We can't just give up. Not when wolverines like Buddy and M56 are demonstrating such tenacity.

When she talks with kids, Watters tells me, she emphasizes potential over problems — the opportunities that living in a changed climate might present, for creative innovation, for example. But she admits to living with a lot of anxiety and despair “about wolverines in particular, of course, but also more broadly.” She reminds herself that she's “not entitled to have an anxiety-free and entirely happy existence...If wolverines are going to disappear, at least I'm going to sing their praises in the moment we're both here.”

North Dakota Game and Fish Department plans to exhibit M56's body at its

headquarters in Bismarck. As for Buddy, no one knows why or how he came to California from Idaho. And I'll never know if it was Buddy I saw, though Chris Stermer of the California Department of Fish and Wildlife, who caught the wolverine on cameras north of Lake Tahoe on February 19th, told me that the 14 to 16 miles between the camera sites to the Nordic Center would be “a long, but not unreasonable, distance for this wolverine to travel.” That same night, one of Tahoe Cross Country's groomers spotted a similar-looking animal on a nearby trail. Could it have been Buddy, or, even better, a prospective mate?

When I contacted Shufelberger again in May 2016 asking if she'd seen Buddy and expecting her to say no, she replied immediately, “I did! I got him on camera in March!” She hadn't yet completed testing to confirm that the fur collected at the camera site was Buddy's. She didn't yet have proof, but she had hope. And to take care of this planet, in both the short and long term, we need both. **WH**