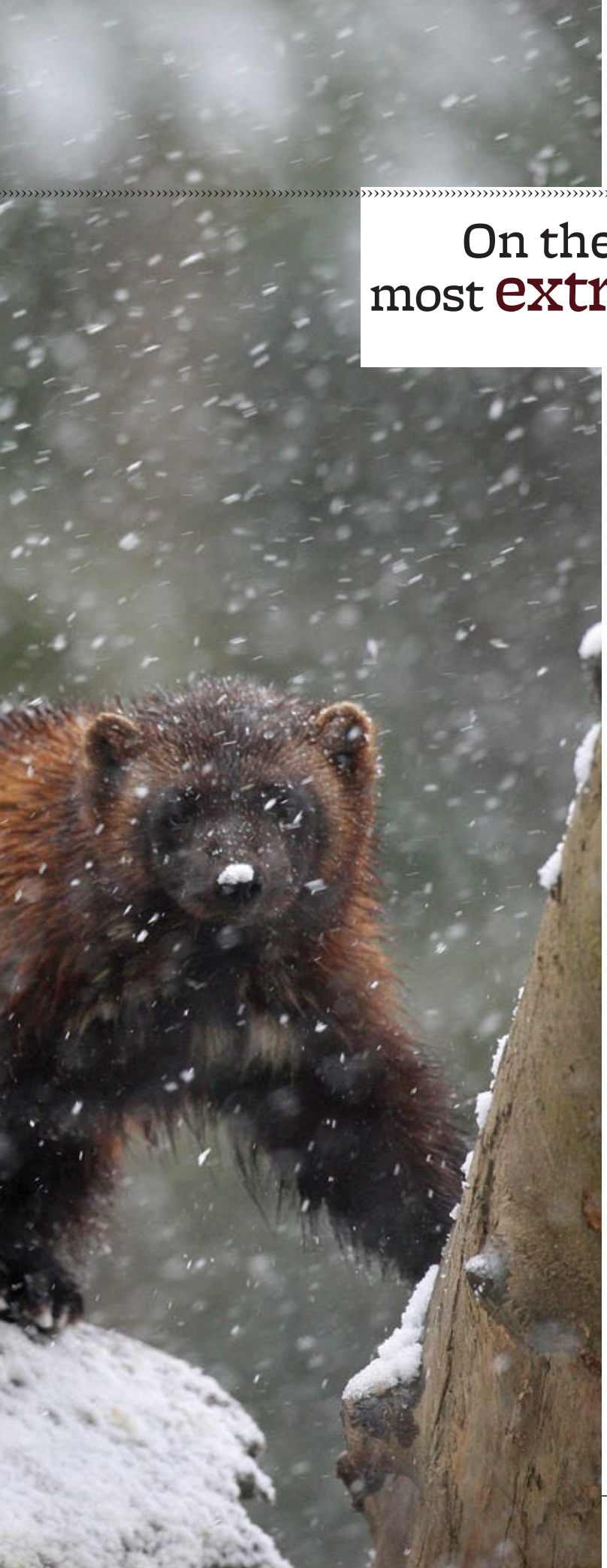
Wolverines!



On the trail of the wild kingdom's most extreme critter in Montana's Glacier National Park

by **Brian Schott** | photograph by **Dale Pedersen**

I'm sitting on the shoulders of wildlife biologist and author Douglas H. Chadwick, wiring a disembodied deer leg to a tree. Moments ago, Chadwick drove a half-inch thick lag bolt through leg bone into the trunk of this white pine. I'm wiring the furry appendage to make sure it stays hoof-up. Fellow volunteer Dave Murray steadies me as I work. The deer leg—roadkill from town—is wolverine bait. I smile as I imagine the strong jaws of the animal that the Native Americans called the Bone Eater, tearing into the ripe meat.

We're quite literally stuck on the trail in Montana's Glacier National Park. A wet, raging storm has stopped us in our tracks. Above us, distant peaks disappear into a cover of clouds. Below us, snow swirls across an alpine lake. We're leaving a sacrifice of sorts in this cathedral of mountain ranges. Glacier in winter. As close to god as I ever get.

Our goal had been to traverse the ridge a few miles above us, descend to the lake, ski across the ice, and set the bait station on the far shore. But the deep slushy snow has won, and we've opted to leave the leg o' deer here after we equated hours-to-darkness to miles-of-trailbreaking. We'd also rather not become bait ourselves for a mountain lion—or a warm-spell-awakened grizzly bear. No one is getting paid for this.

Sheets of slush weep down on us as Chadwick, 62, and Murray, 52, screw cylindrical gun-cleaning copper brushes into the tree below the bait, an effort to collect the DNA of any wolverine looking for a rotting treat. For the final touch they smear stinky goo over the meat—an Oscar the Grouch demi-glace of sorts—and then it's time to head back down the trail to camp. They'll be back in two weeks to remove what's left of the bait and check for hairs or wolverine signs. Somewhere in the distance, the side of a mountain cuts loose with the roar of an avalanche.

"I can't imagine how impressed you are with the glamorous aspects of this volunteer gig," Chadwick says as we retrace our posthole tracks. "Some days you feel lucky, enjoying these big views. Other days you think, man, I've got to get a real life. But I guess if it were easy, we'd know a lot more about wolverines."

Murray, who broke his leg chasing wolverines through the backcountry a few winters back, pipes in: "A wolverine was probably sitting up there laughing at us. *Look at those humans! They got a quarter mile up the trail in one hour. Let's go kill them! Those have got to be the most useless critters ever invented!*"

This past January, I obtained a backcountry camping permit for the northwest corner of Glacier. I was on a mission to track these two wolverine volunteers and learn more about what is likely the toughest animal, pound-for-pound, that walks the planet.

The wolverine is a super animal of sorts. It's a mysterious carnivore with oversized, webbed (and heavily clawed) paws, two thick layers of fur, and jaws so strong that they devour (actually eat) the thick bones of moose and elk carcasses. A wolverine will fight a grizzly bear or a wolf for rights to a feast. They move like weathered mountaineers in the high peaks,

Photograph by **Chris Peterson**

capitalizing on micro-terrain features to make travel easier. Technically the wolverine is a member of the weasel, fisher, and badger family, but it looks more like a small wolf-bear to me.

Glacier's Chief Carnivore Biologist John Waller jokes that Mother Nature cut the wolverine out of the space between a standing grizzly bear's legs. Made out to be angry gluttons through folklore, what I see through the stories and photos I have immersed myself in is this beautiful, rare animal that is cute as a panda and tough as a hyena. So few people in the world have ever seen them, they're bound to be misunderstood. Do an image search for wolverines and a majority of the hits are from *X-Men* with metal claws shooting from human hands. Look up polar bear—an equally fierce predator—and you'll see cuddly cute white puffballs. Public perception can get a little warped.

What's it like to be a wolverine? You can't stop. You get up every morning and you go find something to eat. Period. And you cover huge areas of backcountry—up to 250 square miles for a male. In February, female wolverines burrow deep into dens to birth two or three stark-white kits. Weaned by mid-May and independent of mom by the time winter rolls along, it's eat or starve to death.

The Latin name, *Gulo gulo*, means glutton glutton, but these 30-pound animals aren't so much gluttonous as they are perennially hungry. Their hyper-drive metabolisms let them cover hundreds of miles with their noses down. On the scent of a kill, they'll burrow dozens of feet into the snow to hunt marmot—or jump 50-feet down a cliff in a few bounds to nail one. They scale big peaks in winter to sniff the air before tearing down avalanche chutes at speed. They aren't gluttons, they're nature's extremists. "It was the baddest thing ever looking into my first trap," Murray says. "The growls coming out sounded like an animal a thousand times bigger than what it was."

Glacier is the stronghold for this fierce and under-understood beast. And it's considered the source of dispersal of the species to the Intermountain West. When I say stronghold, biologists think there might be 40 here. Maybe 45. But they're not quite sure. The animal has become increasingly rare in the lower 48—perhaps surviving in numbers no more than 250 to 300. But really, no one knows. The hard data does not exist. What's clear, though, is that with the wolverine's near superpowers come super population problems—caused by trapping and poisoning, the unrelenting shrinkage of wild lands, and the fragmentation of formerly untamed acreage. All courtesy of this human race.

What I know about wolverines comes from the stories of friends who have been lucky to glimpse them in the backcountry, and from Chadwick, who has been talking excitedly about them since we met three years ago. A *National Geographic* correspondent for 30 years, he's traveled the globe, but he gravitates to Glacier, the place that gives his soul room to breathe. Give him a second of silence and something wise—or a wisecrack—emanates from his mouth. His brain is constantly whirring. He stands about six-feet tall and ambles down the trail in a hunker reminiscent of Neanderthal man. In dim camp light he looks like Chevy Chase.

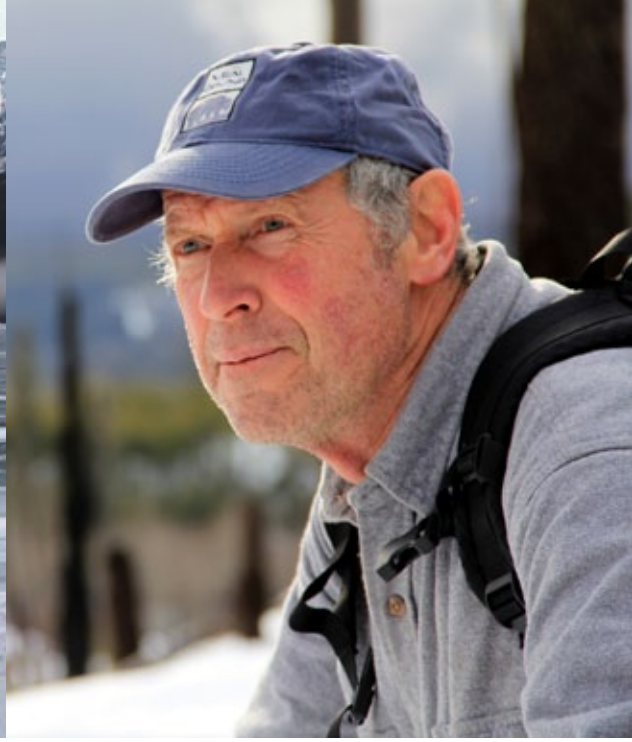
When we began this journey, wolves were howling in the distance as we skied from the Polebridge Ranger Station, dragging sleds behind us. By the time I huffed up the second climb, my heart was practically breaking from the exertion of dragging my load, which kept tipping over. (I brought Italian roast coffee, pastrami, chocolate, pack boots, winter tent, cook gear, snowshoes, shovel, and food enough to last a month.) Chadwick and Murray, on the other hand, were traveling light, relying on the gear in the Patrol Cabins reserved for Rangers and volunteers. "I was trying to be tough like a wolverine dragging a heavy carcass," I rationalized later, out loud. "Yeah, and you've got a brain about the same size," replied Chadwick without hesitating.

Chadwick's favorite way to anthropomorphize his beloved animal is the "wolverine pledge," which he weaves through his wonderful book, *The Wolverine Way* (Patagonia Books, 2010). "Wolverines won't unnecessarily complicate their lives. They won't equivocate or trade in partial truths." I have a hunch this is how Chadwick lives his life too. That, and he believes most people deal in partial truths.

"The nature of people is that we'll run on momentum and history and do that until there's a problem," Chadwick says, as I sit chewing on pine needles from the melted snow we drink. "How about in this case we learn more about wolverines before we have a big-ass debate about them. After that, we ought to be a great enough society to help with their long term survival."

Without getting maudlin, I started to think that being ultra-content when I'd make camp epitomized everything that is wrong with my busy, modern life. Unbalanced and overloaded, I am suffering for my wanting. I thought of the vitality of the wolverine and about my mother, sick back in Boston with Alzheimer's. I tried to breathe in the forest and live up to the wolverine pledge.

"Here's why we need intact functioning ecosystems," continued



From left: Big rockered feet make for fast travel. Some tasty roadkill on a stick. Murray hauling a sled. And Chadwick talks wolverines. Photographs by **Brian Schott** (3)

Chadwick. "The animals have the answers. Sure, wolverines are badass and wildflowers are cute, but they are repositories for all these things they have invented over time. How does the wolverine find enough to eat and have such a refined sense of smell? There are metabolic secrets we can draw from."

Like Chadwick, Murray is addicted to helping them. It's an obsession—an emotional affair—that Murray admits has caused some marital complaints at home. "*They are* beautiful," Chadwick agrees, like he's talking about an old sweetheart. "The wind blowing that long guard hair fur. But Murray's wife is cute. She's great company. Why a guy would leave his home to do shit like this is beyond me."

Using the momentum of biologist Jeff Copeland's 2002–2007 Glacier Wolverine Project, which trapped wolverines and implanted them with GPS devices, this past winter, Glacier's Carnivore Biologist John Waller recruited more than 20 volunteers to install and monitor 31 bait stations across Glacier's million-acre grid. The volunteers collect hair every two weeks through March—when the grizzly bears wake up. No sense dragging food into the backcountry to feed bears.

Copeland's study sought to understand wolverine home ranges, habitat, reproduction, and survival (only 50 percent of kits survive year one). Waller's field work will deliver the first complete count of a wolverine population in the lower 48. "Part of what's fascinating about these animals is that we know so little about them," says Waller. "You could fill my office with scientific literature on white tail deer. With the wolverine, it would barely fill a manila folder."

At the national level, the U.S. Fish and Wildlife Service has twice denied listing the wolverine as an endangered species because of this same lack of information. As Chadwick notes, that's like a lifeguard deciding not to swim after a drowning victim because you can't see him anymore under the waves. In December 2010, the Obama administration moved *Gulo gulo* to the status of "warranted, but precluded." Which basically means they should be listed, but we're busy.

In the meantime, Montana continues to allow wolverine trapping. The limits have gone down from what state Fish Wildlife & Parks once labeled conservative—every trapper could kill only one. Still, Montana is the only state in the lower 48 that allows it. It's not a big number—five per year. But as that thin manila folder the biologist Waller referenced would seem to imply, the science just hasn't proven that removing even one animal from the population is sustainable. How can providing recreation for sportsmen be sporting when there's no evidence they aren't helping to push wolverines to extinction?

Saving the world is hard work, and Chadwick knows it, but looking for answers in tough issues is what brought him to biology and writing in the first place. "One hundred years out from today, have we established a reliance with nature?" he asks. "Or does nature just exist in little pockets? I'm too removed from society to understand what I am fighting anymore. You have to be able to understand people to talk to them—and I find people harder and harder to understand. We take a lot for granted, because we have a lot. But we're still at a rudimentary level of understanding about how nature works."

Wolverines are important pieces in the puzzle. The easy term is "indicator species," meaning their success or failure speaks to the health of the ecosystem as a whole. But the greater understanding—a lesson we learned by turning many of our national parks into island ecosystems—is that wildlife corridors are the key to wolverines, wolves, grizzlies, golden eagles, and beyond. To protect the natural world we need to protect those connections. That's the core belief of conservation biologists like Chadwick. Connect the wilderness areas with the national parks and nature takes care of itself.

Skiing back down the trail, I follow in Chadwick's tracks and think about the interrelationships of life. This trip has given me renewed hope. One week later, I get a phone call from my Dad and fly to Boston. I visit with my Mom, hands shaking in the hospital, her brain betraying her. That same week, researchers returning to their bait stations find coarse, black hairs on the wire brushes. Chadwick calls to tell me he's just followed wolverine tracks to our bait post—the leg was obliterated, bone and all, and the lag bolt was bent at a 90-degree angle. "It's no joke," he muses. "The strength it would take to bend that bolt is awesome. These animals really are badass!"

On my flight home to Montana, I can't help myself from wondering if maybe some secret of the wild—the toxic skin of a rainforest frog, the blood thinning agents of an arctic cod, the whirring metabolism of a wolverine—could one day spur a scientist to discover a process that could help flush the brain of the sticky proteins that cause Alzheimer's. Or perhaps, remembering the greater connectivity of life, in saving wolverine habitat we'll somehow save ourselves. Or maybe wolverines are just cool as cool can be—and we should do everything we know how to help them.