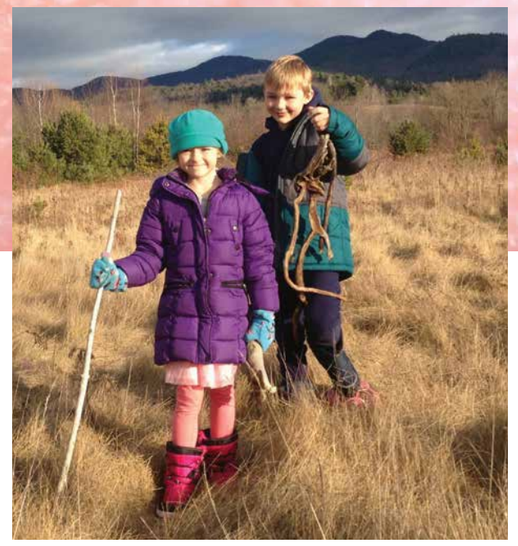
TIME OF THE TICK

Co-existing with the Adirondacks' most dangerous predator

BY ANNIE STOLTIE



JAY MEADOW PHOTOGRAPH COURTESY OF THE AUTHOR. TICK PHOTOGRAPH FROM ISTOCK

In the nymph stage a blacklegged or deer tick (*Ixodes scapularis*) is the size of a poppy seed. Nymphs—the most potent carriers of Lyme disease—are active from May through mid-July. Adults are most active in fall.

LATE LAST FALL I was sick in bed, so feverish my skin hurt. It wasn't influenza, my doctor had assured me, but another respiratory virus that, with time, would run its course. I have two young kids; for several days my husband assumed all childcare responsibilities, which included some kind of daily adventure. During my sickest, I heard my phone ping. I reached for it on the bedside table and studied the photograph my husband had texted me: my kids in smiles and with walking sticks and driftwood trophies they must have found along the Ausable River. I recognized the swampy meadow and the mountain silhouette—they were downriver from the Jay covered bridge, likely following herd paths marched flat by local deer.

I felt a wave of worry.

Ticks.

And then I recognized my sadness that a time had come when seeing the beauty of my children or the magnificence of an Adirondack backdrop was overshadowed by the consequences of a bite from a speck-sized parasite.

BLACKLEGGED TICKS are arachnids that feed on warm-blooded animals. These blind, multi-legged creatures rely on smell, hitching a ride—not jumping or flying—on prey. They're bloodsuckers. Unlike mosquitoes that grab a quick meal, ticks take their time, chomping and then burrowing with powerful jaws, sometimes feeding for days until they engorge to the size of a large corn kernel. Ticks thrive with moisture. They can live through a hot-water cycle in the washing machine. They can handle winter, especially temperatures in the 40s, though insulating snow and duff can protect them from subzero snaps. Ticks are survivors. And, according to Paul Smith's College natural sciences professor Curt Stager, they're the most dangerous creature—"other than humans"—in the Adirondack Park.

That's because of the pathogens they carry and spread. Ticks are notorious vectors of Lyme disease, an ancient bacterial infection. Blood samples from Ötzi, the 5,300-year-old "iceman" discovered in a glacier in the Alps, indicate he was infected with the bacteria that causes Lyme.

Lyme grows in the small-mammal population, and ticks move it from one animal to another. These creatures don't get sick from Lyme, but the bacteria knows how to evade the immune systems of humans and dogs. Lyme can affect all the organs in the body—most terrifying, it can cause arthritis, neurological damage and other chronic issues that experts struggle to understand. The infection is particularly insidious because it mimics other afflictions, leading to dangerous misdiagnoses and, consequently, treatment delays. And with each new tick bite you can become infected again and again.

About 14 years ago, when I brought my dog to a veterinarian in Jay, she recommended a Lyme vaccine. Some local dogs were getting sick, she said, testing positive for Lyme. Soon after that I pried a pair of ticks from my husband's backside, so he visited a Lake Placid doctor. He was refused antibiotics; the doctor insisted the Adirondacks was Lyme-free. After my husband's next tick encounter—this one resulting in that cartoonish telltale bull's-eye—he sent photos of his rash to a doctor friend in Boston. She called in an intensive regimen of doxycycline.

Lyme was, obviously, in Jay.

But for years conflicting reports about ticks and Lyme in the Adirondacks continued. Now, research by Lee Ann Sporn—a Paul Smith's College biology professor with training in toxicology and infectious disease—confirms that ticks and Lyme have been recorded across our northern counties. Through her New York State Senate–funded fieldwork, in collaboration with the state Department of Health, Sporn and a team of Paul Smith's students tested ticks in Clinton, Essex, Franklin and St. Lawrence Counties. Tupper Lake, Saranac Lake, Lake Placid, Wilmington, Elizabethtown—Lyme was everywhere. Also present in 20 percent of the ticks tested was Babesiosis, a malaria-like parasite that can cause headaches, fever and muscle pain. "Often ticks are affected by both," says Sporn, which means they can infect you with "both at the same time."

Because, she says, "ticks and Lyme are on the move," Sporn is studying "emergence, driven by climate change and changes in land use." She speculates that we've witnessed the first wave of Lyme—"burning hot at the edges"—in places like the Champlain Valley. But human cases in all our northern counties are on the rise, particularly in Essex County, where it's "circulating like a hurricane." Last year "was supposed to be the tick apocalypse," says Sporn, "but it really wasn't." This year, after "all that crazy warm weather [last fall], ticks are going to be going crazy."

She says, "We've seen a huge transition. I never would have guessed" ticks and Lyme would be "so widespread in higher elevation sites." It's an ecological and epidemiological shift in a blink that "changes the way we interact with the landscape."

Protecting ourselves from ticks—full-body checks, light-colored clothing, tucking in pants—is critical. The threat isn't going away any time soon.

We live in the Adirondacks for the fresh-air freedom. But these days when my kids ask to play outside and explore their surroundings, I can't help but hesitate.