

Cycles of Man and Mouse

By CHRISTOPHER NORMENT

FOR THE PAST 23 years, my students and I have studied white-footed mice in a nearby campus woodlot. Each May and September we scatter small metal boxes beneath sugar maples and American beeches and go “mouse hunting.” In the evening we bait the traps with oats, and return the following morning to mark and measure any mice that have wandered into our traps. If a trap contains a mouse, I release the back door, shake the frantic animal into a plastic bag, and maneuver it into a position where I can grasp it by the scruff of the neck, like one would hold a squirming kitten.

The white-footed mice in the College at Brockport’s woodlot weigh a bit less than an ounce. Adults run six to seven inches from nose to tail, with a dark dorsal stripe that fades to lustrous brown along their sides. With their large black eyes and huge ears, white-footed mice are the epitome of “cute,” like some character out of a Beatrix Potter story. Each receives a numbered tag in its right ear, applied with specialty pliers that plunge a small prong through a hole in the metal tag. The mice startle and squeak as the point cuts through cartilage, and their tiny protestations remind me of the thin prick of pain I felt when a jeweler drove a small pin through my ear: brother and sister mammals, we share similar pain receptors, the same neural sensations signaling “danger!”

Once a mouse is tagged we note its sex and reproductive condition, check for parasites, record the trap location, and as a farewell gesture weigh the mouse with a spring scale, which often elicits another high-pitched squeak of alarm. Finally we release the mouse and watch it scurry through the leaf litter, sprint up a tree, or plunge down a hole, in pursuit of the same security that all of us, human and mouse alike, crave.

Twenty-three years of research have shown me that it is difficult to be a white-footed mouse in the Brockport woods. Most marked mice disappear after their first capture; adults appear to have only a 10-percent chance of surviving from May to September, and less than a 1-percent chance of living for a year. In some Septembers many individuals are infested with larval botflies, nasty-looking parasites that can weigh 5 percent of an adult mouse. They find their home just beneath the mouse’s skin, mostly in the groin, where they cut a small breathing hole and gather their sustenance. Weasels,

owls, snakes, and winter starvation take their toll, and in eight Mays the population has crashed to the point of extinction. Yet the mice always recover, their numbers climbing to an autumn peak over two to three years, pushed by immigration, high birth rates during the spring and summer, and favorable times when mouse-living is an easier business. The mice endure — tenacious, clinging to their small woodlot, invisible to almost everyone who lives and works just a few hundred yards away.

I have come to know the Brockport white-footed mice and their country well, and so when I look at a plot of mouse-numbers against time I see more than a series of connected points, and the highs and lows of their boom-and-bust years. For me there’s a compelling story there — of life and death, of individuals of sex and blood going about their business, of tough winters and benign summers, of setting traps and marking mice for year after year. And I have run this study for so long that its mechanics have become a pleasing ritual that bookmarks each academic year.

As we work the woodlot in early September the air is hazy, humid, and autumnal; it carries hints of dying days, drifting leaves, long upstate New York winters, and the avalanche of coming work — lectures and labs, papers and tests, meetings and seminars, advisement and assessment.

But in May the woodlot air is clear and crisp, the light lambent, the maples breaking into leaf. Grading and annual reports are done, and the promising summer beckons — the lovely flush of life, fieldwork, time to think and travel, to recoup after the long, demanding year.

The white-footed mice help delimit

the cycle of my academic life and anchor me in time and place.

In contrast, my students work with the mice for only a season before vanishing into the widening world of jobs, graduate school, families, and someplace other than the College at Brockport. They slowly surrender their youth, just as I slowly abandon my middle-age years, and it’s always a surprise to see one of them 15 or 20 years later, because in memory most of my students remain perpetually trapped in their early 20s. And occasionally one of my former students will ask, “Are you still trapping mice in the woods?” I tell them that, yes, I still am marking mice, and that it remains good work.

The years have accumulated, as have the mouse data, and it is hard to believe that so much time has passed since I began. Twenty-three cohorts of environmental-science students have come and gone, along with 50 or more generations of white-footed mice. And soon it will be time for me to go, too: into retirement and most likely far away from Brockport. For age and recent changes in academe are propelling me into what sometimes feels like an alien country — obsession with assessment and student-learning outcomes, the seduction of online courses and instructional “efficiency,” and declining financial support for public higher education. And in my own discipline of ecology, I have the sense that the increasing emphasis on complex mathematical models has done little to enhance (but instead sometimes obscures) our understanding of and appreciation for the natural world.

And so in the not-too-distant future a young assistant professor will claim my office and lab, while none of the newly

matriculated environmental-science students will recognize my name or care about what I accomplished during my time at Brockport. Give it a few more years and my colleagues will forget me, or at best see me as irrelevant. In the larger world a few people occasionally might cite one of my technical papers or read one of my books, but for the most part I will fade into obscurity and face what I think of as academic extinction.

But contrary to what “academic extinction” might imply, I do not mean to sound morbid or depressive. For I have been very happy to participate, fully, in an educational process and system that will endure its own “bad winters” and fluctuating fortunes. The academic world shall persevere, as will its legions of students, faculty, and staff.

The solace of this conviction has come from many places, not the least of which are the white-footed mice that I have studied for so long. For it is of great comfort to know that the Brockport-woods mice will go on, stubbornly clinging to their tiny island of trees, beyond the concerns of humans. Somehow, this knowledge — this experience — has granted me the hope and perspective that will help carry me forward, into my final years of work, retirement, and what eventually comes to us all. ■

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