

## Tales of the Shrews, Mighty and Tiny

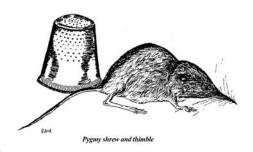
Here in New England we are often lucky enough to see a shrew. They are small, they look like mice at first glance, and they mainly go about at night. This time of year that is likely to be under the snow but still we can see their tunnels, sometimes so close to the surface that there is some cave-in along the pathway. Other times they may scamper about on top of the snow. (For an example of a mysterious trail on top of the snow, which may or may not have been made by a shrew of one kind or another, see below)

Most people feel they know mice pretty well, and though mice will make a mess and even shred up some of our possessions for nesting material, they are still "household familiars." We know what we are dealing with, living with, when it is mice. A mouse is just a mouse, 100%.

Shrews on the other hand have inspired fear in folks, and been attributed with the power both to damage and to protect. Back in the day, or in the centuries, some English people believed shrews caused illness in cattle. As recently as 1770, farmers would make a charm to ward off these ailments by hanging a dead shrew around the neck of a cow or horse.

People would fix up a certain ash tree by drilling a hole in the trunk and stuffing a hapless shrew in there alive, then plugging the hole. It was believed that now this "shrew-ash" could cure cattle of lameness, which they believed to have been caused by shrews in the first place. The shrew-ash was also a place folks would bring children to cure them of whooping cough. One British scientist, writing in 1957, tells of a shrew-ash in Richmond Park, in Surrey, where "within the life-time of people still living . . . people brought children to the shrew-ash."

The Inuit people also had fears of the water shrews in their part of the world. In 1887, E.W. Nelson wrote in his *Natural History* (of Alaska) Collections Signal Service for the U.S. Army: "People believe there to be a kind of water shrew living on the ice at sea. If disturbed by a person, the shrew would dart at the intruder, burrow under the skin, work about inside at random, finally enter the heart and kill him." Nelson says the hunters "are in mortal terror if



they chance to meet a shrew on the ice at sea. In one case, a hunter stood immovable on the ice for several hours until a shrew he happened to meet disappeared from sight, whereupon he hurried home and his friends all agreed he had had a very narrow escape."

Other observers report that shrews have a sweet twittering song, so high pitched that it is not easily heard. A naturalist named Herrick was sleeping outdoors in November in Pine County, Minnesota, hoping to stay awake enough to see a shrew. His account: "The half-somnolent reverie which forms the prelude to slumber was broken by faint melodious sounds in an excessively high key-distinctly musical. Turned my eyes upon the fire-lit circle . . . within a few feet of my head, upon a decayed log, raced a pair of shrews, so minute as to escape my observation at first." He goes on to describe a shrew running right across his face, waking him, so he was alert and then heard a sharp crack overhead, so jumped aside just before a big tree trunk fell, right where he had been lying. Thanks to the shrew, this naturalist lived to tell the tale.

One remarkable power of the shorttailed shrew is that it has a poisonous bite. A neurotoxin is secreted by glands in the mouth and mixes with the saliva so that any creature bitten will receive some of this toxin. When meddling scientists injected some of this mix into mice, it produced a "state of semi-torpor in less than a minute." The heart was slowed, blood pressure lowered, and breathing inhibited. The toxic bite of a shrew is said by most to pose no danger to people, but one of those scientists did get bitten and experienced "instant burning sensation, then shooting pains in the arm, followed by considerable discomfort which lasted for over a week." I read also that this neurotoxin is the type that is found in cobras.

Shrews don't see very well, and it is hard for us to find their tiny eyes, or their ears. We

may get a close look at a shrew if some predator, even a house cat, catches one and kills it. The instinct is strong to grab any little mouse-like animal, but shrews have a musky smell which makes most predators not want to eat them. (The exceptions being those hunters who swallow a shrew whole, like owls, hawks, or big fish.) Our cat sometimes leaves a killed shrew right outside the door. I have had to use a hand lens to find the ears and eyes of a pygmy shrew. These creatures are three and a half inches long, nose to tip of tail, and weigh about one-tenth of an ounce. The nose is long and slim with thirty whiskers on each side. The whiskers near the tip are short and curved forward, the ones farther back are much longer. Many shrews use echolocation to find their way about, and maybe that's why they sing their twittering song.

Because they can't see well, they have strategies for keeping together on a family outing. The mother goes first, and then the babies follow in a line close behind, each one holding on to the next by taking a mouthful of fur on the rump. They travel like a small furry train. Shrews are about the size of honeybees when they are born.

Shrews are the smallest mammals. They are extremely active, all the time, with a heart that beats 1,200 times per minute. If they have to go more than four hours without anything to eat, they will starve. How can we identify with shrews? Just think of them, under the snow, with all their strategies and abilities. They were meant to live here, they fit right in. They do not cause illness in cattle. — Bonner McAllester

