An Expeditious Beast

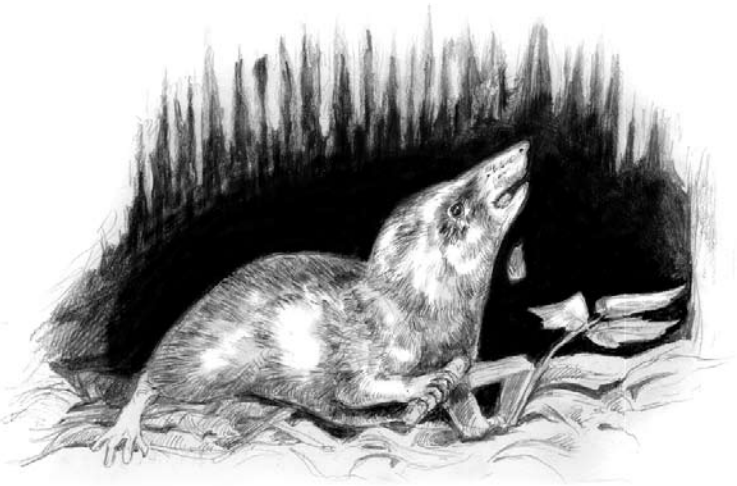
Used to say, "I don't care if I never grow old.
Gonna flame, gonna burn, take one quick turn
And be gone, like James Dean." — Greg Brown

Somewhere not far from where you sit now, let's say within 100 yards, there is likely to be a fellow mammal with a heart racing at the speed of 20 beats per second and a respiration rate of rate of 12.5 breaths per second (just try it!) You can bet that animal is in motion, and that is will burn through life quickly. You might also be betting that the animal is a shrew, and that among the five possible species in our region, it is most likely the cosmopolitan short-tailed shrew. Shrews are renowned for their metabolic extravagance. A shrew that hasn't dined in the past few hours is in on the brink of starvation. One captive short-tailed shrew ate 170% of its body weight in food per day. If you weigh 150 pounds, you would need to eat 255 pounds of food in a day to rival that feat. Most species of shrew live just through the summer of the year after they were born. By the end of that time they become elderly and lose their territories to young shrews, although short-tailed shrews have been known to live to the advanced age of 2-3 years.

If these creatures are so abundant and active, why are they so seldom seen? One reason is that they are largely fossorial, which is a fun way of saying that they live underground. Further, many who do see shrews label them with the more familiar "mouse" or "mole" tag. Any tiny dark mammal that scurries at high speed on very small legs is probably a shrew.

Shrews and moles make up the Order Insectivora. Among their shared characteristics are their subterranean habits, the velvety fur that can be pushed forward or backward as the animals switch direction underground, the tiny eyes with little functional value, and very inconspicuous ears. If you have an adult shrew in one hand and an adult mole in the other—the shrew will be the smaller animal, and the mole will be the one with giant clawed flippers for front paws.

Shrews have a number of features that aid them in their quests to survive and reproduce. To procure and protect the food they need, shrews are fiercely territorial. When borders are breached, shrieks and fisticuffs ensue until the



intruder is driven away. Shrews are smelly little beasts, especially the males, and researchers believe scent-marking helps reduce territorial skirmishes and encourages females to permit the proximity of a male for the important business of mating. Some shrew species have been shown to navigate using echo-location. Short-tailed shrews, one of only two known mammals with toxic saliva, can paralyze or kill small prey with a bite. While invertebrates have the most to fear from shrews, even amphibians and small mammals must tremble when they encounter these fierce hunters.

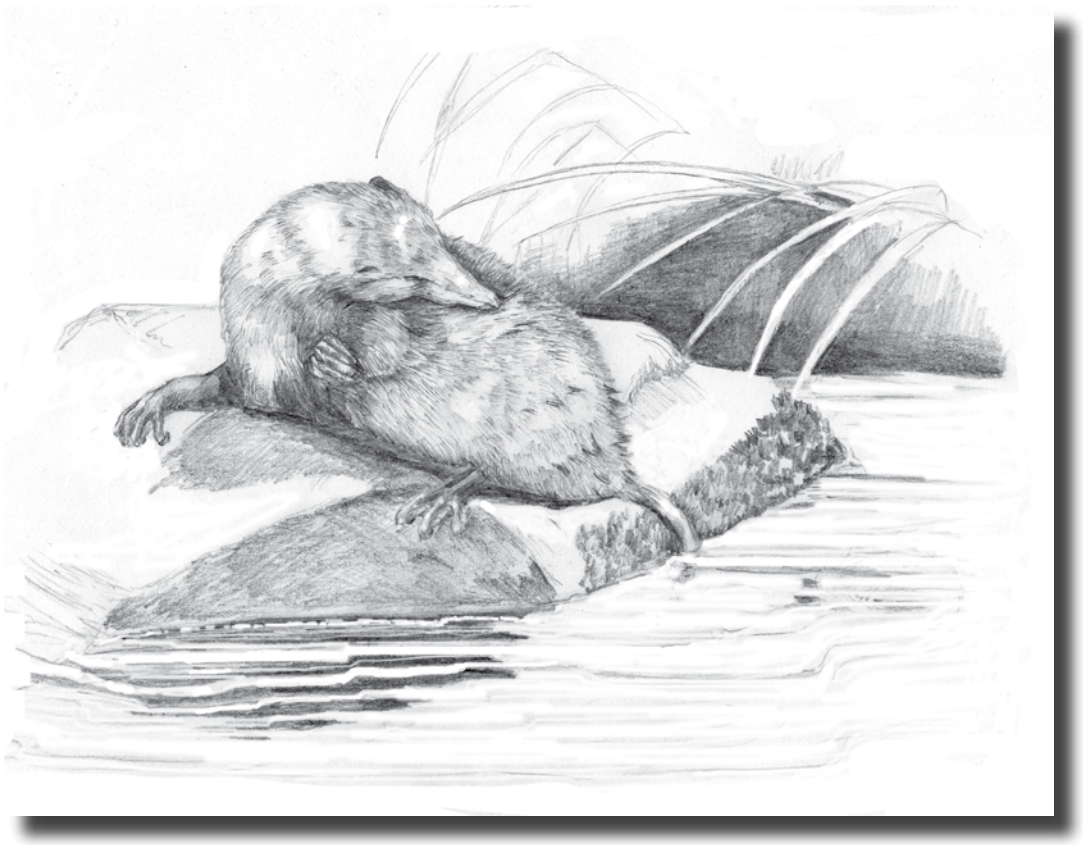
My own favorite feature of shrew morphology is the nose; shrews have long, pointed, muscular snouts that take a very active role in guiding these animals through life. One night, while sitting near a beaver pond, I placed a couple of small piles of sunflower seeds near my seat to see what I might lure in. I soon heard a rustling in the leaf litter, and the swiveling snout of a short-tailed shrew emerged. Once it detected the direction of the sunflower seeds, the entire shrew zipped from its lair, grabbed a seed, and dashed the twenty inches back again. This act was repeated a few times, and then I heard a sound coming from within the soil that could only have been the sound of shrew teeth severing small tree roots. Within a few minutes the little snout appeared again, this time right next to the sunflower seeds, which then disappeared one by one, a little twitter of triumph marking each heist.

Our shrew species also include three that are smaller than the short-tailed shrew—the masked shrew, the smoky shrew, and the tiny pygmy shrew, until recently ranked as the world's smallest mammal. Our fifth shrew

species is about the same size as the short-tailed shrew. I met a representative of this tribe while sitting on an old beaver lodge on a remote wooded hillside. While waiting for the appearance of large rodents, I noticed fans of tiny ripples emerging from below the undercut bank. I watched with little curiosity for the frog or insect to reveal itself, but instead, a small black furry ball skittered across the surface of the water and leapt ashore—the elusive water shrew. As I watched, this shrew worked her way around the pond alternating forays ashore with saintly perambulations across the water. At last she reached the old beaver lodge where I sat and busied herself three feet away. Oblivious to my scrutiny, the shrew continued her manic search for insects, inserting her mobile snout into every crevice before disappearing, finally, into a tiny hole in the surface of the beaver lodge.

Water shrews frequent mountain streams where they take advantage of the abundance of aquatic and terrestrial insects. Their buoyancy is so great that it is only by kicking vigorously that they are able to dive down to explore the caves and crannies of a stream's bottom. As soon as they stop kicking, they pop back up. Their jaunts across the water are made possible by a combination of this extreme buoyancy and by stiff hairs on the sides of their feet that trap air bubbles beneath them.

Would you like to catch a glimpse of your own remarkable neighborhood shrews? Head to almost any bit of untamed vegetation with a handful of sunflower seeds and a good book. Make yourself comfortable. You probably won't need to wait long.



Water Shrew