

Backyard Briefs

A weekly column

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Nature's Underground Excavators

Moles are the mammals of the underground. They are serious about excavating tunnels and have two systems of pathways. One is a series of tunnels just below the surface, used for finding food. The other complex may be several feet down and used for sleeping and nesting. Moles are very well built for a life underground. Their bodies are long and compact with stout-clawed, shovel-like forelegs. When digging these critters brace their back feet on the walls of the tunnel, while digging with forepaws, one at a time, scraping backward like a paddle. With such efficient digging, a mole placed on the ground's surface will disappear below in about 5 seconds. The eastern mole, found in this region, has been observed digging about 13 feet of tunnel per hour.

Moles have small eyes and in some species, like the eastern mole, the eyes are completely overgrown with skin. Since these moles spend almost all their time underground eyes are of little use. Other moles, such as the star-nosed mole that is also found in this region, spend some of their time above ground and in water; so they have small bright eyes providing an important source of added information. All moles make a variety of sounds, some audible to humans, and their sense of hearing is useful in detecting predators and prey. It also appears that moles can smell the slime of worms, but it is the sense of touch that is most important in these underground excavators.

Much of this sense of touch is concentrated in their sensitive snout, which is densely covered with nerve receptors and furnished with a rich supply of blood. Such a "schnoz" is very sensitive to touch, vibration, pressure changes and perhaps even heat. In addition to such a special nose, moles also have sensitive whiskers on the snout, paws, back, and tail that detect the conditions around them.

Living life in tunnels has other difficulties, especially if you are a fur-covered animal. Moles have special hair, with no nap. If rubbed in any direction it will lie sleekly in place. The hairs have two sections, a round segment, and a flat segment close to the skin that acts like a hinge, allowing the hair to bend in any direction, so moles can run either way in their tunnels without the hair causing friction.

In my next column I look forward to telling you about the very different lives of two types of moles that live in our region.