

Botta's Pocket Gopher (*Thomomys bottae*)

Rodent, Pocket Gopher Family

Gophers are little miners, and they live underground. We rarely see them, but their mounds of pebbled soil are proof of their presence. Once in a while we may spot the trembling tops of a thistle being gnawed at the roots, or even disappearing, feet first, down into oblivion. With luck, we may see Gopher's head and shoulders poke out of an open hole, feeding or pushing soil. But mostly they stay hidden, except at night, when they come above to feed.

Gophers are rusty brown, with cute flat heads, small ears, and orange-stained rodent teeth. They are stocky, six to eight inches long, with a brushy peg of a tail. They can live to be five years old. The name Gopher comes from the French, *gaufre*, meaning honeycomb, referring to the way they honeycomb the soil with their tunnels and mounds. Pocket refers to their large, fur-lined cheek pouches, which they use to haul food and vegetation into and around in their burrow. Botta was a Dutch zoologist who explored the West in the 1800's.

Pocket Gophers are New World mammals, found mostly in the American West and in Central America. Botta's Pocket Gopher, our local species, ranges throughout lowland, foothill California and into Oregon, Idaho, Colorado. Northern Mexico and Baja. They live in grasslands, where there is plenty of vegetation to eat, in deep soil areas that allow for good tunneling but do not flood in the rainy season.

Gophers lead solitary lives, each within their own network of tunnels, except for breeding when they mingle. In good soil, each gopher's territory occupies an area between 1,300 and 2,500 square feet, the size of the footprint of a medium to large house. Once a gopher has established a territory, it remains there for life, with only minor boundary shifts. An acre of grassland may be home to twenty-five or more gophers, each in their own little domain. These tunnel networks represent a tremendous amount of labor, and they are occupied by many successive generations.

Each territory has thousands of feet of tunnels, six to eighteen inches underground, with specialized chambers. One is a round nest, six to eight inches in diameter, lined with shredded plant fibers. (The annual brood comes in spring, averaging four to five young, who are raised there.) There are also chambers for food storage and compartments for droppings.

To extend a tunnel or a chamber, Gophers dig the soil with their sharp front claws and use their teeth to gnaw through any roots in the way. These new workings create tailings, which must go above ground. For this, Gopher digs a vertical chimney to daylight and then pushes up soil with his front feet and chin, in batches, like a little bulldozer. One Gopher can move up to five pounds of soil a day. The mound on the surface grows in a fan shape, as many loads go up and out. When a job is complete, Gopher pushes up a final batch of soil to plug the hole. From the top, this plug looks like a low, spherical cap at the base of the mounded fan.

An open hole means Gopher is active close by, and if you can wait quietly for a few minutes, you may see him. Gopher will be back soon, because he only keeps his hole open to the surface for excavating or feeding, and then for the shortest possible time. To leave the burrow open is to invite unwanted visitors, like Gopher Snakes.

Gophers are vegetarians. They eat roots, bulbs, seeds and the tender bases of growing plants. They get their water from the plants they eat. Gophers dig feed holes to the surface and strip off all the vegetation around the entrance, as far as their head and shoulders can reach. These feed holes, packed level to the ground with chummed earth, pock mark vast areas of grassland. In Acorn Time, Gophers often move under the oaks, for the acorns. At night, they venture above and Gophers have been seen then feeding a hundred feet from their burrow.

Despite their hidden lives, Gophers fall prey to many animals. Snakes, Gopher Snakes and Rattlesnakes, sometimes find an open passage and enter the burrow. Adult gophers can run away or bite back, but the babies in the nest, if found, they are doomed. Coyotes and badgers will dig up a gopher nest if they can find one, or lay in wait outside an active hole. Skunks, Foxes, and Wildcats eat gophers, too. The sky can also bring death. By day Red Tail Hawks cruise the fields, looking for their chance at an exposed head and shoulders. By night, Owls – Barn Owls and Great Horned Owls - perched and waiting, watch for Gophers when they venture out to feed.

Many other lives depend on Gophers and their workings. Their mounds provide seed beds for annual wildflowers. And their abandoned burrows become homes for many creatures: Tarantulas, Yellowjackets, and those essential pollinators, the Bumblebees.

2/02/01