A Look at Nature
"Little Rascals"

Sometimes we see them and sometimes we don't. Some of us feed them and some of us won't. We can joyfully waste away time in a late summer afternoon watching them fill their cheeks full of sunflower seed, to be stashed away in a secret place for winter. Or we may wage a war trying to rid them from our homes and protect our gardens. We may hear them at night scurrying in the walls of our cabins, and maybe even step on a dead one in the morning that was laid there by an industrious house cat. We may only see their little "calling cards" left behind on the ground or in our homes.

I am speaking of our small mammals, the little mice, chipmunks, voles, shrews, squirrels, gophers, rabbits, and woodrats that inhabit our valley. Within the food chain of life, they are located someplace in the middle. They normally eat vegetation, though some will eat insects and small invertebrates, and all can become a meal for larger carnivorous mammals, hawks and owls. They are the middlemen converting plant and smaller animal material into little bundles of protein. Many of them help aerate and mix the soil. Some help distribute plant seeds, particularly the seeds from caches that never get eaten.

Our smallest critters include mice, shrews, and voles. Deer mice are the widest ranging and commonest small mammals in North America. If you have a house cat, you have probably seen a dead deer mouse. They have fairly conspicuous ears and eat a variety of foods. Shrews are mouse-like, but their snouts are longer and more pointed. They are terrestrial and generally live in shallow tunnels or form runways in the litter of the surface of the soil. Most are found in moist habitat and favor insects for food. Voles tend to be stockier with blunt noses and small ears and eyes. They are mostly herbivores and make a living at the interface of soil and vegetation; look for their runways and burrow holes on the surface. In spring when the snow melts, you may discover little circular mounds of shredded, dead vegetation: these were probably some of the winter homes of voles.

While we rarely see mice, shrews and voles, all of us probably commonly see the next group of small mammals – squirrels. Our most common tree squirrel is the pine squirrel, also called a chickaree or red squirrel (this latter name is what they are called over much of their range, but the squirrels of Colorado lack any red coloring). They spend much of their time in the branches of conifer trees. They will nest in trees, constructing their homes out of twigs, leaves, and grasses. Nests around Eldora seem to also contain a fair amount of pink insulation, taken from our homes. They are active year-round and feed on a variety of foods, especially parts of plants with seeds of conifers and mushrooms being some of their staples. You have probably come across large middens (trash dumps) of tree cone debris on the forest floor; chickarees will store green cones in the cool middens, which keeps their seeds viable and available for food at a later time.

My most unusual experience with chickarees came one winter while skiing near Devil's Thumb Lake. I noticed two squirrels in a frantic chase heading right toward me. The lead squirrel started to go between my skis, then all of a sudden jumped onto my pant leg and waited for the chasing squirrel to go through my legs, after which the first squirrel jumped down from me and took off in the opposite direction. From the squirrel's viewpoint, I guess I was in the right place at the right time!

Two other tree squirrels may be seen in or near Eldora. Abert's squirrels may occasionally make it up to Eldora, but are more common at lower elevation, as they are restricted

to ponderosa pine forests. They are sometimes call “tassel-eared squirrels” which refers to their characteristic ear tufts. They have different color phases, some gray, brown, or jet black. Fox squirrels are also showing up in the valley. They are larger than our two native squirrels, with a very bushy tail and gray brown to reddish brown fur. They are an eastern species that has been expanding to the west. Fox squirrels live very well around people and are common in urban settlements. It is possible that their appearance in Eldora, and western Boulder County in general, is due to people trapping them from the city and releasing them in the mountains. We think there are currently only a few in the valley, and apparently some are now making it through the winter. Fox squirrels tend to out compete the native squirrels. If you want to trap them and take them back to Boulder, that would be fine.

We also have two types of ground squirrels. Golden-mantled ground squirrels look similar to chipmunks and are regularly seen with them around feeders and campgrounds. They are slightly larger and have white and black stripes that extend from their shoulders onto the back. But the head has no stripes (which chipmunks have) and is colored reddish brown. They will frequent areas where birdseed has fallen to the ground. Wyoming ground squirrels (formerly called Richardson’s ground squirrel) live in small colonies in meadows. They are colored a drab buffy gray and have long tails. They are not too common around Eldora, but small colonies exist up on Caribou Park and on the Arapaho Ranch. Ground squirrels hibernate for the winter.

Chipmunks are some of our most entertaining little critters. They have black and white stripes on their head and back. They spend much of their time darting on the ground in search of seeds, flowers, fruits, insects, and berries: they can store large amounts of food in their cheek pouches, which they transport to caches. Two types of chipmunks are locally found: least and Uinta. The least chipmunk, as one would guess from its name, is smaller. Typically, the black stripes on the back of the least are darker than the Uinta. And the least tends to be more nervous in action, racing around the ground with short, rapid bursts of speed. Chipmunks are dormant in winter.

Pocket gophers are rarely seen, but the signs of their work are highly visible in meadows. They almost exclusively live below ground in an extensive system of burrows and tunnels as they search for the roots, bulbs, and stems of plants to eat. They are generally found in meadows that have fairly deep soils. What we see on the surface is the excavated soil. In summer the diggings are pushed to the surface and placed in mounds. In winter the gophers remain active and excavate the soil from below ground tunnels into above ground tunnels in the snowpack. When the snow melts we see the round earthen ridges (casts or “eskers”) on the surface. Because of their continual digging, gophers greatly influence the soil structure and plant succession of meadows. They increase the mixing and vertical cycling of soil components, such as organic matter, as well as the infiltration of water. Their presence in meadows leads to a mosaic of early to late successional forbs and grasses, the pattern being influenced by where the excavated soil is placed and what plants are eaten. I vividly remember while eating lunch in a meadow one day, seeing a flower in front of me disappear into the ground. The gopher was having lunch as well!

If there is one small mammal synonymous with mountain cabins and old mining camps, it is the bushy-tailed woodrat, better known as the pack rat. They are squirrel size, with bushy tails, fairly large ears, and dark (gray to black) in color with white feet. Their diet is vegetarian, eating the leaves of many forbs and shrubs. They have an affinity for collecting things, especially bright colored objects. Their nest sites, in tree cavities, under a fallen tree, in an abandoned cabin or in the crawl space of an occupied cabin, will often contain a wide variety of small human artifacts: buttons, cans, silverware, bottle caps and old rags. My guess is there are really only a

handful of pack rats in Eldora, which we keep moving around in our efforts to rid them from our own cabin. Pack rats have been known to use the same nesting area for long periods of time, with some of the oldest dating back 40,000 years. This has provided some interesting scientific information regarding the vegetation that was present in the area long ago based on the seeds found in the pack rat middens.

Four types of lagomorphs (rabbits, hares and pikas) may be found in and around our valley. The mountain cottontail is our resident and most common rabbit. They are gray-brown in color, with fairly large ears and a white tail shaped like, as their name implies, a ball of cotton. They are active year round. Snowshoe hares are also found in the valley and their numbers increase in the higher, denser forests of the Indian Peaks. Overall they are larger than the cottontail, especially their hind feet, hence the name "snowshoe." Their large feet allow them to travel on top of the deep winter snow. They turn white in winter, except for the tips of their ears, which stay black; this allows them to blend into their surroundings and better avoid predators. A rarely seen hare of our area is the white-tailed jackrabbit. They are much larger than our other lagomorphs. They are a species of open country and more commonly seen on the prairie, but may also be seen in mountain parks and on the tundra. In 25 years of doing field research in western Boulder County, I have seen only a single jackrabbit on the tundra, near Niwot Mountain.

Our last lagomorph is the American pika (sometimes called cony or rock rabbit). They are small, gray, with short rounded ears and no visible tail. They inhabit the talus slopes of the tundra and subalpine forests. They are active year round. To get through winter they "harvest" grass and forb stems, which they place in piles under overhanging rocks; these haypiles serve as emergency food supplies. Knowing their call, a high-pitched bark, is a good way to know where they live from a distance.

The yellow-bellied marmot (also called "rockchuck" and "whistle-pig") is one of our larger small mammals. They are large-bodied ground squirrels with bushy fur and short tails. They sometimes live alone, but are more commonly found in colonies. They generally live in rock outcroppings and boulder fields from the tundra to the foothills. Much of their time is spent underground; almost 80% of a marmot's life is spent in its burrow. In winter they hibernate. Much like the pika, their vocalizations can help us find them. A variety of whistles are used to communicate with other marmots within the colony.

Without healthy populations of small mammals, many of our predators would not be here. The smaller small mammals can be eaten by the greatest variety of predators. Mice, shrews, voles, chipmunks, and pocket gophers are prey for coyote, fox, bobcat, badger, weasel, sharp-shinned hawk, Cooper's hawk, northern goshawk, American kestrel, red-tailed hawk, northern pygmy-owl, northern saw-whet owl, long-eared owl, boreal owl, and great horned owl. Mice, shrews, voles and pocket gophers are particularly important because they are active year round and at night. They are the favorite prey of owls. Some predators get very specific: the favorite prey of boreal owls is northern red-backed vole. As prey species get larger, so do their predators. Rabbits, hares and marmots are prey for coyotes, badgers, bobcats, eagles, and great horned owls. One time when Diane and I were cross-country skiing near the Haul Road (West Magnolia) we suddenly saw flying up the trail toward us a great horned owl with something large and white in its talons. The owl ended up dropping a dead showshoe hare right in front of us. I doubt it was intending to share it.

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