

Stealth Chipmunks?

A few weeks ago, a pile of dirt appeared outside a new tunnel in my yard. The tunnel was too small to be the work of Clover, the woodchuck living under the woodpile, but I couldn't think who else would create such an impressive mound. I didn't have to puzzle for long. The tunneller soon appeared, tossing earth before her with her pointy chipmunk snout. I wasn't surprised that a chipmunk was digging a tunnel, but I was surprised at the mess she was making. Most chipmunk burrow entrances are neat round holes about two inches in diameter. I have read that these entryways are so tidy because chipmunks carry the dirt from their burrow in their cheek pouches. I have always imagined them scattering this soil throughout their territory, like inmates distributing earth from their escape tunnel in the yard of the prison. I imagined their motives for this behavior to be similar, "Nope, no hole digging going on around here. You lookin' for tunnels? Not in these woods."

This was the third such dirt pile I have seen around the house in the past year, and I have attributed these piles to the work of chipmunks with a genetic anomaly. I decided to settle in

and watch this chipmunk. She soon reappeared, again pushing earth with her nose. She continued along a trough in the pile, tossing the loose soil before her with the aforementioned proboscis, and dumped it over the edge. As she returned to the burrow, she kicked loose dirt behind her like a digging dog. For several days the dirt pile grew, and then one day the entrance was gone, blocked by soil. Six feet away, I saw a chipmunk emerge from a little round hole.

Are there differences in the way chipmunks make burrows, or is the idea of chipmunks carrying dirt in their cheeks a bunch of malarkey? I searched the internet for answers. Sure enough, on popular sites, chipmunks are reported to carry dirt from their diggings in their cheeks. Since these sites all used the same language, my malarkey alarm began buzzing. I turned to the scientific literature online and came up empty-handed. Yes, people have studied chipmunk burrow systems and almost everything else about chipmunks, but I found no documentation of chipmunks carrying soil in their cheeks to conceal tunnel entrances. Where did this crazy idea come from? In support of the dirt-in-cheeks theory, I see many tidy

chipmunk holes and very few random piles of dirt. Is this simply because most chipmunk burrows have multiple entrances and only one pile of dirt? Are there, in fact, many piles of dirt around that I have never paid attention to because there is no longer a tunnel entrance visible? Or, are there two or more ways that chipmunks manage dirt? I think it likely that the soil is so riddled with tunnels that many chipmunks only need to do a light refurbishing when they move in.

My library includes a New York State Museum Bulletin published in 1938, a 100-page booklet on *The Habits and Life History of The Eastern Chipmunk, Tamias striatus lysteri*. The authors were as intrigued by this question as I am. Their best resource was John Burroughs. The aptly named naturalist spent many hours observing and writing about chipmunks. He went back and forth on the question of wheelbarrow cheeks until he observed a chipmunk burrowing in just the way I did. He concluded that chipmunks do not use their cheek pouches for soil transport. The authors of the bulletin conducted their own research. They observed chipmunks excavating tunnels in a steep bank where the dirt removed simply tumbled down the hill. Among the evicted soil they found many balls that were the dimensions of chipmunk cheek pouches, "indicating rather conclusively that the

chipmunk had carried these pellets of earth in her cheek pouches."

Maybe I have been picturing this cheek transport idea all wrong. Maybe chipmunks do sometimes carry the earth in their cheeks but they don't scatter it around. Instead, they cart it all to a remote pile. On the other hand, perhaps all remote piles were once at the entrance to a closed excavation site and long-distance earthmoving is not a part of chipmunk behavior.

I am hoping you can help. This time of year, young from the late summer are setting out on their own and will need a home. If they aren't lucky enough to find an unoccupied burrow, they will need to dig. If you happen upon a chipmunk in the act of construction, for the sake of science, watch for a few minutes. Chipmunks quickly become habituated to human presence, so if you give them some space and seem unthreatening, you might be able to gather vital evidence. Any chipmunk seen scampering away from a burrow with full cheeks must be moving soil. Oh. Unless they're a marauder stealing seeds. For confirmation, see if you can spot a destination. Do they dive down another hole? Spit dirtballs onto a distant pile? Stick their hands in their pockets and stroll around for a few minutes whistling innocently?