COOPERATIVE EXTENSION SERVICE UNIVERSITY OF KENTUCKY • COLLEGE OF AGRICULTURE





Chuck-chuck, heard ringing throughout Kentucky during warm weather, is the sound of the eastern chipmunk (*Tamias striatus*), Kentucky's only striped squirrel. Common throughout the state, it is often called a ground squirrel. It should not be confused with the thirteen-lined or Franklin's ground squirrel which does not live in Kentucky but can be found in bordering states. Chipmunks often come into conflict with humans when they burrow around sidewalks and destroy valuable vegetables, flowers, or seeds.

Chipmunk Facts and Biology

Chipmunks are small squirrels (family: *Sciuridae*). A fully grown chipmunk stretches 8 to 10 inches, tail included. Adults weigh 2 to 5 ounces. They are easily recognized by dark chocolate or russet fur with five dark stripes and two light stripes on the back (Figure 1). Close examination reveals several facial stripes and prominent internal cheek pouches used for collecting and carrying seeds. They have a flattened, well-haired (bushy) tail which they hold straight up in the air when they scurry across a lawn.

Chipmunks can be found in a variety of habitats, including woodlands, lawns, gardens, parks, and brushy areas. They seem to like areas with varied terrain, including rocks, fallen logs, and woodpiles. Often seen in trees, chipmunks are agile climbers but prefer to spend most of their time on the ground close to their burrows.

Chipmunks live in underground burrows that can be up to 6 feet long and 2 to 3 feet deep. Burrow entrances are often overlooked and difficult to find because no soil is piled up

and the entrance can be concealed with leaves and other debris. A burrow system usually has more than one entrance and usually includes a nest chamber (up to 12 inches in diameter) lined with leaves and a food-storage chamber that can hold 9 gallons of food.

Primarily solitary animals, chipmunks come together to breed in March and April and again in July and August. After a gestation period of one month, two to eight young are born in the underground nest chamber. The young are born naked and helpless. The young emerge from the nest when they are about two-thirds grown, and they can breed the first year.

Chipmunks are territorial and have small ranges (typically less than 100 yards). Numbers usually do not exceed two to four per acre. They can live three to four years in the wild and up to eight years in captivity.

Chipmunks eat the seeds and fruits of oaks, maples, hickories, beeches, elms, and many other trees, shrubs, grasses, and flowers. They also relish bulbs, dried grain, raspberries, and blackberries. While primarily herbivorous, chipmunks also eat

insects, small reptiles, and amphibians, and even an occasional bird egg.

Chipmunks become very active collecting and storing food as cold weather approaches. At this time, they stuff seeds in cheek pouches using their forefeet. Then they carry these seeds to a food-storage area. Although they are true hibernating animals, relying on the stored food as an energy source, they do not get overly fat in the fall like other hibernating animals. Every couple of days they awaken during the winter to feed. During warm, sunny winter days, they may be seen scurrying above ground.

The chipmunk often chooses a raised spot (stump, rock, log) to feed, which enables it to look out for potential predators. If disturbed, it scurries for the burrow, tail raised, emitting a series of high-pitched calls. Chipmunks are popular food items for hawks, weasels, rat snakes, and, in particular, house cats and dogs.

Preventing and Controlling Chipmunk Damage

Chipmunks can become pests by burrowing in gardens and lawns, digging up newly planted seeds, eating fresh garden or flower stems and fruits, and gnawing on tree bark and buds. Homes in heavily wooded areas or landowners feeding birds during the summer may experience more problems because chipmunks may be attracted to these areas. A clear, well-kept yard will probably have fewer chipmunk problems.

Before deciding on a control measure, ask yourself these questions:

- 1) Can I keep the chipmunk from digging in the garden by erecting a fence or other exclusion device?
- 2) If I can't erect an effective barrier, can I repel them from the site? Often visual, sound, or chemical repellents are available.
- 3) Can I move the animal safely and effectively? Often trapping is effective in removing problem animals.

The most effective types of chipmunk control are exclusion, trapping, and shooting. Each method has advantages and disadvantages, and homeowners must decide which method will work for their particular problem. Be patient. Animal damage problems are rarely solved quickly.

Exclusion

In wooded areas where chipmunks are abundant, the best long-term solution is to exclude them from important areas. In these situations, trapping becomes never-ending, and exclusion is cheaper and less time consuming.

Hardware cloth is one of the best exclusion materials available. Use 1/4-inch material and be sure to bury it 6 inches to 8 inches deep to keep chipmunks from digging under sidewalks and around gardens or other important areas.



Figure 2. Clockwise from the bottom: a rat snap-trap, a body-grip trap (in set position), a Sherman live-trap, a cage trap (in set position), and a leg-hold trap.

Trapping

Chipmunks can be easily trapped using steel leg-hold traps, live-traps, or rat snap-traps Figure 2). Your chances of catching several chipmunks in a short period are increased if you place bait on or in an unset trap for three to four days before setting the traps. Good baits include a mixture of peanut butter and oatmeal, sweet corn and high-quality grains, including wheat, barley, oats, or peanuts.

A simple burrow-entrance live-trap can be constructed out of hardware cloth (Figure 3). Use a 12 x 20-inch piece of 1/4-or 1/2-inch hardware cloth. Bend it three consecutive times to form a rectangle (3 x 3 x 20 inches). Crimp the edges together using hog rings. Close one end of the box with a 3-inch piece of hardware cloth. Construct a door of hardware cloth (2 3/4 x 8 inches) and attach one end to the top of the trap so that it can move freely. Bend the opposite end so that when the door is closed, approximately 2 inches comes in contact with the floor.

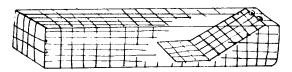


Figure 3. A burrow-entrance live trap can easily be constructed from either rigid welded wire mesh or hardware cloth.

For best results, set the trap in a burrow where chipmunks have been seen entering. Wedge the door end firmly into the entrance and prop the trap into position with a block of wood. Gravity will hold the door closed until the chipmunk enters as it leaves the burrow and traps itself.

Other live-traps can also be effective. Prebait these traps and block open the door. Place the trap close to the burrow entrance in a runway. You can increase your trapping success by covering wire live-traps with canvas, cardboard, or some other dark material.

Steel leg-hold or jaw traps can also be used effectively. Use a number 0 or 1 trap. Near the burrow entrance, excavate a small area in a runway just large enough to place the trap (Figure 4). Set the trap with the pan slightly below the soil surface so that when covered with soil it will be flush with the surrounding area. Put a piece of waxed paper over the trap pan and under the jaws. Cover the trap with very fine soil and conceal it so it does not look unnatural. No bait is necessary.

Shooting

In rural areas, chipmunks can be easily controlled by shooting with a .22 caliber rifle or pellet gun. They are active during the day, and a patient homeowner can be very effective in controlling small populations of them. Remember you must contact your local conservation officer before you begin shooting, and you must have a valid Kentucky hunting license to shoot any wild animal.

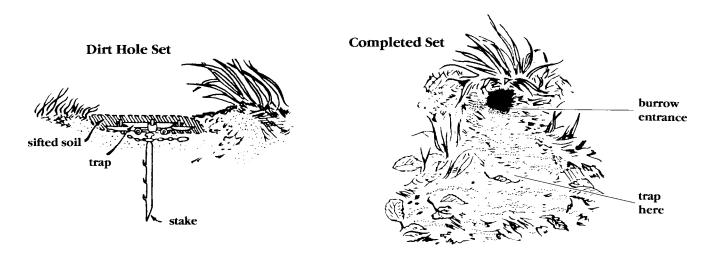


Figure 4. Near the burrow entrance, excavate a small area in a runway just large enough to place the trap.

