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Chipmunks

Biology and Habitat

The Eastern Chipmunk (*Tamias striatus*) is a small ground-dwelling squirrel that is native throughout the eastern United States and west to the Mississippi River and in southeastern Canada. Chipmunks live in forests and forest edges as well as suburban and urban settings where trees and shrubs provide food and protection.

Chipmunks are eight to ten inches long and weigh two to five ounces. They have short, pointy heads with two stripes, one above and one below the eye, and short, rounded and erect ears. The chipmunk's back has five black lines with white striping. In summer, its coloring is chestnut brown with scattered black and white hairs; in winter, it is grayish to tawny brown. The tail is flattened and well-haired with blackish hair above and rust below. Both males and females are similar in appearance. Chipmunks sit upright and hold their food with their front feet.

Chipmunks spend most of their lives on the ground and in their burrows—though they can climb trees. They are solitary, except during the breeding season, with each chipmunk living in a separate den. The burrow systems include nesting chambers and food storage rooms and may extend for 30 feet in length and to three feet in depth. The entrance is about two inches in diameter and is kept clear of freshly dug dirt to conceal it from predators. The adult chipmunk defends its territory for about 50 feet around the entrance, but its range may be up to one half acre.

In late October, chipmunks enter restless hibernation—sleeping for long periods and occasionally waking up to eat stored foods. On warm winter days, they may go outside for brief periods. They emerge from burrows in late winter and breed, and after a 31 day gestation period, the young are born. They breed again in late July to August. Typically, there are four to five young per litter. At birth, chipmunks are blind, naked and helpless and remain in the burrow for about six weeks. At eight to ten weeks young chipmunks are independent and leave the female. They reach sexual maturity when they are about one year old and may live up to three years.

Chipmunks are most active in the early morning and late afternoon while searching for food. They are omnivores as their diet includes nuts, grains, berries, seeds, mushrooms and other fungi, insects, worms, salamanders and other small animals. Chipmunks have special cheek pouches to carry large amounts of food. They contribute to the health of forests and suburban/urban environments by moving seeds around, and they are a food source for many predators including hawks, snakes, weasels, foxes, raccoons, owls, coyotes and bobcats.

Management of Nuisances

Chipmunks generally do minimal damage—enjoy them as resourceful and important members of the local environment. They may become nuisances if they consume flower bulbs, seeds, fruits and seedlings or make burrow entrances under patios, stairs, retention walls or foundations or in stone walls and rock gardens. They may be managed by methods of habitat modification, exclusion, trapping and repellents.

Landscape modification is the most effective long term management method. Ground covers, trees and shrubs should not be planted in a continuous fashion connecting wooded areas to foundation plantings. Rock walls and gardens and firewood piles should be sited away from the house because these features provide cover for chipmunks. Locate bird feeders more than 15 feet away from the house as spilled seed attracts chipmunks.

Exclusion is an important management strategy. Keep chipmunks out of vegetable and flower gardens by using ¼ inch mesh hardware cloth buried to two feet. Prevent chipmunks from digging up flower bulbs by constructing a wire-mesh box out of chicken wire. Use a cardboard box as a form to shape the cage the size of the area you would like to plant—it should be about eight inches tall. Excavate an area deep enough for the wire box, plant bulbs inside it, backfill with soil and cover with mulch or compost. Avoid fertilizing with bone meal or fish emulsion that attract chipmunks.

Keep birdseed and seed for future plantings in metal containers. Prevent chipmunks from entering the house by identifying entrances (dryer vents, crawl spaces, wall voids, vents, and to a lesser extent, uncovered chimneys, holes in fascia boards, deteriorated roofs, eaves) and sealing with appropriate materials.

Trapping is the most practical method for reducing chipmunk populations quickly. Common rat snap traps and box traps may be used. Place traps perpendicular to the chipmunk's pathways or in pairs with the triggers facing away from each other. The trap needs to be securely placed so that it is not prematurely set off. Bait traps with peanut butter, nut meats, sunflower seeds or raisins. For snap traps, tie hard baits on the trigger. Small amounts of bait may be placed near the trap as an attractant. Before setting the trap, pre-bait it for two to three days so the chipmunk becomes accustomed to the food source. Set the trap after the chipmunk is actively feeding. The rat snap trap will kill the chipmunk. Isolate it from children, pets and wildlife by placing the trap under a small box with openings so that only chipmunks enter but large enough for the trap to operate correctly. Place dead animals in a plastic bag and in the trash. Frequently, check box traps to remove captured chipmunks and release any non-target animals. Release captured chipmunks on the property where they were trapped; chipmunks, like other wildlife, may not be possessed or transported in New York State without a special license.

Taste repellents containing bitrex, thiram or ammonium soaps of fatty acids may protect flower bulbs, seeds and foliage that will not be consumed by humans. Repellents require multiple applications and do not provide a 100 percent protection. Follow all application instructions and safety precautions as directed by the product label. Moth flakes/balls (Naphthalene) should **not** be used as a chipmunk repellent as they may attract children and pets, and the EPA has classified naphthalene as a possible human carcinogen.

Sources:

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Hort 46 12/2010