

Chipmunks

The eastern chipmunk is a small, brown, burrow-dwelling squirrel. It typically measures 5 to 6 inches long and weighs about 3 ounces. It has two tan and five blackish longitudinal stripes on its back, and two tan and two brownish stripes on each side of its face. The longitudinal stripes end at the reddish rump. The tail is 3 to 4 inches long and is hairy but not bushy.

Chipmunks sometimes are confused with red squirrels. Chipmunks are very vocal and emit a rather sharp “chuck-chuck-chuck” call. The red squirrel also is very vocal but has a high-pitched chatter. Red squirrels spend a great deal of time in trees; chipmunks, although they can climb trees, spend most of their time on the ground.

General Biology

Eastern chipmunks typically inhabit mature woodlands and woodlot edges, but they also inhabit areas in and around suburban and rural homes. Chipmunks are most active during the early morning and late afternoon. Population densities of chipmunks are typically two to four animals per acre, although densities may be as high as ten animals per acre if sufficient food and cover are available. The home range of a chipmunk may be up to 1/2 acre, but adult animals defend a territory only about 50 feet around their burrow entrance. Consequently, home ranges often overlap among individuals.

The diet of chipmunks consists primarily of grains, nuts, berries, seeds, mushrooms, insects, and carrion. Chipmunks also prey on young birds and bird eggs. Chipmunks spend most of their time on the ground, but regularly climb trees in the fall to gather nuts, fruits, and seeds. Chipmunks cache food in their burrows throughout the year. By storing and scattering seeds, they promote the growth of various plants.

Chipmunk burrows often are well hidden near objects or buildings (for example, stumps, wood or brush piles, basements, and garages). The burrow entrance usually is about 2 inches in diameter and is not surrounded by obvious mounds of dirt, because the chipmunk carries the dirt in its cheek pouches and scatters it away from the burrow. In most cases, the burrow’s main tunnel is 20 to 30 feet long. Complex burrow systems occur where cover is sparse, and normally include a nesting chamber, one or two food storage chambers, various side pockets connected to the main tunnel, and separate escape tunnels.

With the onset of cold weather during late fall, chipmunks enter a period of inactivity that continues through the winter months. They do not enter a true hibernation as woodchucks do during the fall, but instead rely on the cache of food they store in their burrows. Some individuals become active on warm, sunny winter days. In Pennsylvania, chipmunks emerge from their burrows from late April to early May, although they can be observed above ground in early March during a brief breeding season.

Chipmunks mate two times a year, in early spring and again early in the summer. After a 31-day gestation period, they give birth to two to five young in April to May and again in August to October. The young are sexually mature within one year. Adults may live up to three years in the wild.

Damage Identification

Chipmunks present in large numbers can cause structural damage by burrowing under patios, stairs, retention walls, or foundations. They also may consume flower bulbs, seeds, or seedlings, as well as bird or grass seed and pet food not stored in rodent-proof containers.

Legal Status

Chipmunks are not protected by federal law, but are protected by the Pennsylvania Game Commission. Pennsylvania law allows landowners to take chipmunks when they are causing or about to cause damage to property.



Damage Control

Exclusion

Exclude chipmunks from buildings wherever possible. Use caulking, hardware cloth with 1/4-inch mesh, or other appropriate materials to close openings where chipmunks could gain entry. Hardware cloth also may be used to exclude chipmunks from flower beds. Seeds and bulbs can be covered by 1/4-inch hardware cloth, and the cloth itself should be covered with soil. The cloth should extend at least 1 foot past each margin of the planting. Where high populations of chipmunks exist, exclusion often is less expensive than trapping.

Habitat Modification

Where chipmunks are a problem, landscaping features, such as ground cover, trees, and shrubs should not be planted continuously connecting wooded areas with the foundations of homes. Cover provides protection for chipmunks that may attempt to gain access to the home. It also is difficult to detect chipmunk burrows that are adjacent to foundations when wood piles, debris, or ground cover plantings provide above-ground protection. To prevent spilled bird seed from attracting and supporting chipmunks near homes, place bird feeders at least 15 to 30 feet from buildings. Keeping the grass cut short around the edges of buildings will provide less cover for the chipmunks and cause them to use the area less frequently.

Repellents

Taste repellents containing bitrex, thiram, or ammonium soaps of higher fatty acids can be used to protect flower bulbs, seeds, and foliage not intended for human consumption. These repellents are labeled for use against squirrels. Multiple applications of repellents are required. Repellents can be expensive and usually do not provide complete damage reduction to horticultural plantings.

Toxicants

No toxic baits are registered for controlling chipmunks.

Fumigants

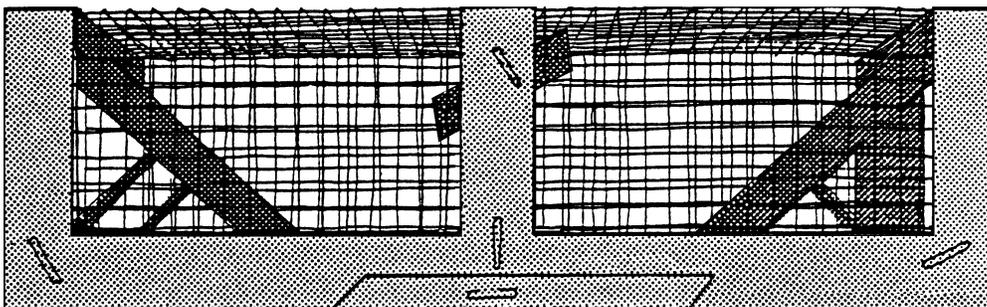
No fumigants are registered for controlling chipmunks.

Trapping

Trapping is the most practical method of eliminating chipmunks from many home situations. Live-catch wire-mesh traps or common rat snap-traps can be used to catch chipmunks. Live traps can be purchased from local hardware stores or pest control companies, or rented from local animal shelters.

A variety of baits, including peanut butter, nutmeats, pumpkin or sunflower seeds, raisins, prune slices, or common breakfast cereal grains can be used to lure chipmunks into live traps. Place the trap along the pathways where chipmunks have been seen frequently. Secure the trap so it does not move when the animal enters. Trap movement may set off the trap prematurely and scare the chipmunk away. It is helpful to "prebait" the trap for 2 to 3 days by wiring the trap doors open. This will condition the chipmunk to associate the new metal object in its territory with a new free food source. Set the trap after the chipmunk is feeding actively on the bait in and around the trap. Check traps frequently to remove captured chipmunks and release any nontarget animals caught in them. Avoid direct contact with trapped chipmunks. Transport and release live-trapped chipmunks several miles from the point of capture (in areas where they will not bother someone else), or humanely euthanize them.

Common rat snap-traps can be used to kill chipmunks if these traps are isolated from children, pets, or wildlife. They can be set in the same manner as live traps, but hard baits should be *tied* to the trap trigger. Prebait snap-traps by not setting the trap until the animal has been conditioned to take the bait without disturbance for 2 to 3 days. Small amounts of extra bait may be placed around the traps to make them more attractive. Set the snap-traps perpendicular to the chipmunk's pathway or in pairs along travel routes with the triggers facing away from each other. Set the trigger arm so that the trigger is sensitive and easily sprung. To avoid killing birds in rat snap-traps, place the traps under a small box with openings that allow only chipmunks to gain access to the baited trap. The box must allow enough clearance so the trap operates properly. Conceal snap-traps that are set against structures by leaning boards over them. Place small amounts of bait at the openings as an attractant.



Chipmunks can be captured with live-catch wire-mesh traps.

Materials and Suppliers

The following are suppliers of control products. Many of these products can be purchased in local garden supply stores, feed mills, and department stores. If products are unavailable locally, they can be ordered from the following companies. This list is not necessarily complete. Before beginning control activities, consult local laws regarding certain tools and techniques.

Repellents

Ro-pel® (Denatonium Saccharide)
Burlington Scientific Corp.
222 Sherwood Ave.
Farmingdale, NY 11735
(516) 694-9000
Fax: (516) 694-9177

4 the Squirrels Repellent (Polybutenes)
B & G Chemicals and Equipment Co., Inc.
10539 Maybank
Dallas, TX 75354-0428
(214) 357-5741
(800) 345-9387
Fax: (214) 357-4541

Cage or Box Traps

Animal Management, Inc.
720 Eppley Rd.
Mechanicsburg, PA
(800) 745-8173
Fax: (717) 790-9347



H. B. Sherman Traps, Inc.
Box 20267
Tallahassee, FL 32316
(904) 575-8727

Tomahawk Live Trap Co.
Box 323
Tomahawk, WI 54487
(715) 453-3550
(800) 27A-TRAP
Fax: (715) 453-4326
<http://www.livetraps.com/>

Wildlife Management Supplies Critter Control, Inc.
640 Starkweather Rd.
Plymouth, MI 48170
(313) 453-6300
(313) 451-6544

Acknowledgments

Portions of this fact sheet were adapted from *Prevention and Control of Wildlife Damage*, a two-volume manual edited by Scott E. Hygnstrom, Robert M. Timm, and Gary E. Larson and published by the University of Nebraska's Cooperative Extension Division, USDA APHIS-ADC, and the Great Plains Agricultural Council's Wildlife Committee. Carolyn Mahan provided helpful comments on this fact sheet. Partial funding for this fact sheet was provided by the Wild Resource Conservation Fund.

This publication was prepared by:
Shannon T. Falker, assistant wildlife extension specialist,
and Margaret C. Brittingham, associate professor of
wildlife resources

Chipmunk drawing at left by John Sidelinger.

This publication is available from the Publications Distribution Center, The Pennsylvania State University, 112 Agricultural Administration Building, University Park, PA 16802. For information telephone (814) 865-6713.

Penn State College of Agricultural Sciences research, extension, and resident education programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

Where trade names appear, no discrimination is intended, and no endorsement by Penn State Cooperative Extension is implied.

Issued in furtherance of Cooperative Extension Work, Acts of Congress May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture and the Pennsylvania Legislature. T. R. Alter, Director of Cooperative Extension, The Pennsylvania State University.

This publication is available in alternative media on request.

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. The Pennsylvania State University does not discriminate against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, The Pennsylvania State University, 201 Willard Building, University Park, PA 16802-2801; Tel. (814) 865-4700/V, (814) 863-1150/TTY.

PENNSSTATE



College of Agricultural Sciences • Cooperative Extension