

LIVING WITH WILDLIFE

Humane, Effective Solutions to Human-Wildlife Conflicts

A Program of the Massachusetts Society for the Prevention of Cruelty to Animals



Illustration by Accent Design

Mice and Rats: How to Humanely Keep Out These Common Intruders

In cities, suburbs, and small towns across Massachusetts, people are noticing a change in their neighborhoods. Some think it's good. Some think it's bad. But everybody seems to be talking about it: more wild animals are making their homes in and around people's yards and houses, in parks and playgrounds, in business developments, even right on Main Street.

Mice and rats are all-too-familiar unwanted guests in and around human homes and industrial areas. Killing is not a humane, long-term, effective, or economically sensible solution to problems with these little creatures.

General Information

Mice and rats are widespread throughout North America. Both rats and mice are nocturnal. Mice can enter holes the size of a dime, and rats can enter holes the size of a quarter. When dealing with these creatures, it is important to realize that the widespread killing of them at problem sites is not an effective solution, for, as long as there is viable habitat, the likelihood that more will arrive, and in a relatively short period of time, is high. Mice and rats breed year-round, with mice having about eight litters of 4 to 7 young annually; one female rat can give birth to about 20 young each year. There are two kinds of mice that are likely to cause problems for homeowners: native mice such as the white-footed mouse and the deer mouse (more common in rural areas) and the house mouse (anywhere there are buildings).

Exclusion techniques are the same for all of these mice. House mice prefer to live in comfortable areas between walls, behind appliances, and in unused drawers, and often the only signs of them are gnawed food items or their small droppings the size and shape of grains of rice. Native mice often seek the shelter of homes in early fall or winter. Mice are omnivorous, preferring grains and seeds, and can live without water if the food they eat is moist.

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As with mice, there are two kinds of rats that cause most problems for people, the Norway, or brown, rat and the black, or roof, rat. Norway rats are common in dense areas of human settlement and live in 18-inch-deep burrows underground or in lumber piles or similar environments. In the United States, black rats are most often found in coastal areas of the South, Southeast, and West. Black rats are excellent climbers and live higher off the ground, usually in the upper levels of buildings or nesting in trees or vines. Rats are good swimmers and jumpers, capable of leaping three

vertical and four horizontal feet. Like mice, rats are omnivorous, eating a variety of plant and animal foods. Rats do need access to a water supply. Signs of rats in and around your home can include three quarter-to half-inch droppings, gnawed holes in baseboards or door frames, and burrows (although these can be confused with burrows of squirrels and chipmunks).

Possible Conflicts and Solutions

The most common problems resulting from rats and mice are contamination of human food sources from urine and feces, and gnawing damage to electrical wiring. With both mouse and rat problems, it is important to locate and eliminate their food and shelter sources and then permanently exclude them. Here are some suggestions:

- Clean kitchen areas well, clean up spills quickly, and store food in the refrigerator or in sealed metal, glass, or heavy plastic containers. A diluted bleach solution will get rid of any scent trails that are present.
- If possible, human or pet food should not be stored outside, and if it is in a garage or basement, it should be placed in sturdy plastic, glass, or metal containers. Always feed pets indoors and thoroughly clean up the area afterward.
- Trimming and clearing away brush and debris within 18 inches of house or building foundations can help eliminate protective cover and expose the animals' burrows and

entry points. To find entry points for mice inside, sprinkle powder along the perimeters of walls. This will show where there is mouse activity and where exclusion is needed.

- Eliminate indoor mouse nesting areas, such as old clothing, books, or papers in bags or boxes (store them in plastic).

The entryways rats and mice use must be sealed for permanent exclusion from dwellings. To avoid trapping the animals in your home, it is best to deter them before beginning any exclusion work. This is especially important if their entryway does not lead outside but goes into a wall. The most effective deterrents are cleanliness, placing cat hair around entryways, and moistening rags with pure peppermint oil (a natural repellent to mice and rats). To exclude mice, find their entryways (making sure to check in hard-to-reach places such as behind the dishwasher and stove, under the sink and cabinets, near where utility pipes and wires lead into the house, and cracks in the foundation) and seal them. Steel wool, copper wire mesh, or quick-drying cement works well for smaller openings; for larger ones, balling and stuffing galvanized window screening and covering it with caulking or cement can do the trick. Expanding foam insulation is often also effective. Attach rubber or metal runners at the bottom of doors if that is where the mice are gaining access. After you have cleaned areas well and removed old woodpiles, ground cover, and trash, rats can be excluded with heavy quarter-inch hardware cloth or heavy-gauge screening. Check all accessible areas, such as heating vents and the openings where electrical or utility lines enter a building.

Indoor holes in walls and floors can be sealed with caulking and

foam sealants, but because rats can chew through these materials, they need to be combined with copper wire mesh or aluminum window screening. If rats have an obvious exit way, place food outside it for them and seal the hole after the animals have left. When rat infestation is a problem around buildings, blocking the foundation with hardware cloth or a concrete L-shaped footer can prevent burrowing. Be sure to bury the footer at least a foot deep and extend it at a 90 degree angle outward for another foot.

THE LIVING WITH WILDLIFE MISSION

The MSPCA Living With Wildlife program aims to protect wild species, now and in the future. The program promotes peaceful coexistence between people and wildlife in urban, suburban, and rural Massachusetts communities by helping to resolve human-animal conflicts in a humane, nonlethal, long-term, and cost-effective manner.

Live trapping is another option for eliminating mice and rats, but it should be used only as a last resort. The reasons for this are that trapping can break up family groups, trapped-and-relocated animals can find it hard to survive in new surroundings, and, unless conditions are made less appealing, new animals will simply move into the home or building to take the place of those caught in traps. If all other efforts to deter mice or rats fail, humane box traps (Hav-a-Hart is a common brand name) can often be found at grocery and hardware stores. These traps catch mice without harm and enable them to be released elsewhere. Trap and release mice only in warm weather, and release mice in an area close by the home or building where they were caught (this increases their chances of surviving both the elements and unfamiliar territory). Traps should be

placed in areas where mice are present, and close to walls, since mice like to travel along a wall or barrier. The traps can be baited with appealing substances, such as peanut butter, popcorn, or sunflower seeds. Home-made traps can also be made by tilting a small bathroom or kitchen wastebasket on its side with bait in the bottom of it and a ladder of bricks or books on the outside leading up to the top of it. Mice are likely to climb up the ladder, slide or jump into the bottom to get the bait, and not be able to climb back out. Any traps should be checked every few hours. Traps and wastebaskets can be cleaned with a mild bleach solution (1:30) and used again.

Killing is not a humane, long-term, effective, or economically sensible solution to problems with mice and rats. As with most problems of animals in buildings, remember that unless proper exclusion, habitat management, and sanitary measures are taken, it probably won't be long before new animals move in to take advantage of the available habitat. Poisons and sticky glue traps, which are especially inhumane, causing intense suffering of target nontarget animals, and should not be used. They can take days to kill and often cause an agonizing death.

Public-Health Concerns

Both mice and rats can carry a number of diseases that are transmittable to humans, such as hantavirus and salmonellosis. It is important to clean with a mild bleach solution areas that have come into contact with mouse or rat droppings and to see a doctor if you are ever bitten by a rat.

For more information about humanely solving human-wildlife conflicts or about the MSPCA's Living With Wildlife program, call (617) 522-7400, visit www.livingwithwildlife.org, or e-mail lww@mspca.org.

Illustration by Chris Hill

