

LIVING WITH WILDLIFE

Humane, Effective Solutions to Human-Wildlife Conflicts

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

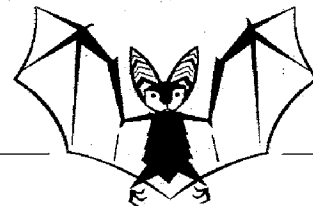


Illustration by Chris Hill

Bats: How to Kindly Remove Unwelcome Guests

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.

Bats are intriguing mammals that seldom cause problems for humans. On the rare occasions when bats do create conflicts, we should take care in removing these animals humanely.

Misunderstood Creatures

There is nothing to fear from the presence of these graceful creatures.

Bats are very beneficial to have around because they consume large numbers of insects each night during flight. Bats are nocturnal and use echolocation to find their way as they fly in the dark. They also have excellent sight to find prey. They migrate annually and usually have one baby each year.

Humans are bats' biggest threat, along with habitat degradation and pesticide use.

If conflicts with bats do occur, they can be safely, humanely, and effectively resolved.

Possible Conflicts and Solutions

Conflicts with bats usually concern a bat either accidentally entering living areas or roosting in buildings or homes. Bats typically roost in

higher places—thus the term “bats in the belfry”—so the attic is the most common place to find them. If you should accidentally encounter a bat, remain calm and remove children and pets from the area. Bats are not normally aggressive and will try to avoid contact with humans.

If a bat is in your home while you are sleeping or while children or mentally ill persons are present, call your physician as well as your local board of health, animal-control officer, or state department of public health for assistance. Do not let the

entered the area, and seal the entrances you find.

Bats often enter rooms through an open window or door, but they can also enter through places such as chimneys, openings in interior walls that lead to attics or basements, or openings in outer walls of the house. If you find one bat inside your home, check and make sure there is not a bat colony living somewhere else in the house. Bats do not make or enlarge holes but, rather, use preexisting openings to enter buildings. They can enter a

hole as small as a half inch wide!

Look outside at higher points on the structure. A hole that is used by bats is often discolored from body oil residue.

You can also find out where bats are roosting by watching for them at sunset when they emerge to feed.

If you have located a bat colony in your home and you decide to exclude the animals, first find all the points where they are gaining entry. Seal all these entryways with hardware cloth or sheet metal, except the largest or most often used. Once all but one of the entryways are sealed, attach bird netting or flexible plastic strips with staples or duct tape over the last opening (leave the bottom open) to create a one-way exit. The bats will leave to feed and not be able to regain entry. Leave the one-way exit in place for several nights to be sure that all bats are gone, as not all bats leave the roost every night. After all bats

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bat get away. But if a bat has entered your home and you're certain that it has not had contact with anyone, allow it a way out by opening all windows and closing interior doors.

Bats often fly in a U-shape when they are confined indoors, so it is advisable to keep as near to the walls as possible when moving around a room. Bats will most likely land somewhere they can hang, such as in curtains or on a houseplant. Be sure to examine the room carefully to determine how the bat

have left, permanently seal the remaining hole.

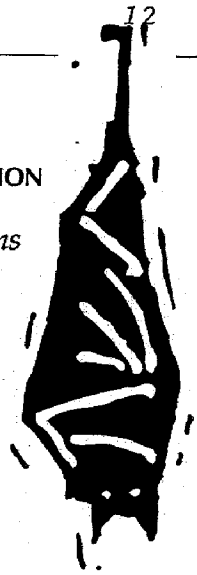
The months of May through August are not a good time to try to solve bat colony problems because it is likely that young bats will be present and they can't leave the roost. The ideal time is winter, after the bats have left to hibernate. Before this, you can try to harass the bats into leaving by lighting the area continuously and using fans to cool the attic, which can make the temperature inhospitable to them.

Public-Health Concerns

Although bats have been commonly associated with the transmission of rabies, the incidence of rabies in bat populations in the Northeast has been estimated to be less than one-half of 1 percent. Bats with rabies generally are not aggressive and do not bite unless provoked. Read the MSPCA's *Issues and Answers* on rabies for more information.

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Areas that contain large accumulations of bat or bird droppings may harbor histoplasmosis fungi spores, which can cause infection in humans. To prevent exposure, avoid soil contaminated with bat droppings. If it is necessary to be in such areas, wear gloves, work boots, and a face mask or self-contained breathing apparatus, and

keep exposed clothing in a bag until washing.

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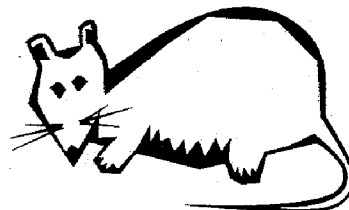


Illustration by Accent Design

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.

With both mouse and rat problems, it is important to locate and eliminate their food and shelter sources and then permanently exclude them.

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.

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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. Homemade 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.

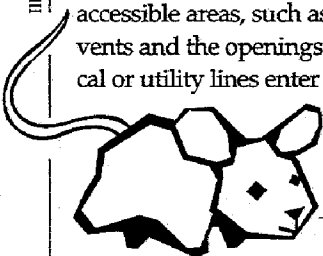
Killing is not a humane, long-term, effective, or economically sensible solution to problems with mice and rats. As with most problems of animals in buildings, remember that unless proper exclusion, habitat management, and sanitary measures are taken, it probably won't be long before new animals move 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.

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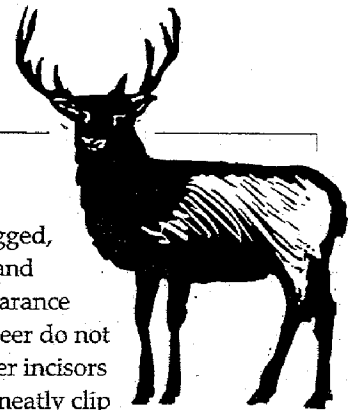


LIVING WITH WILDLIFE

15

Humane, Effective Solutions to Human-Wildlife Conflicts

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Take Preventative Steps to Keep Deer Away

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.

As herbivores, deer feed on a variety of plant material throughout the seasons, sometimes damaging landscapes and helping themselves to the fruits of gardeners' labor. Here are some things that you can do to encourage deer to keep off your property and minimize—and even eliminate—damage to your property.

General Information

One of the ungulates, or hoofed mammals, deer are among the best-known of animals. The white-tailed deer, one of the most common species, can be found throughout the United States except for parts of the Far West.

Adult male deer, called bucks, can weigh more than 400 pounds and usually live in small groups. Does, adult female deer, can weigh up to 40 percent less than bucks and live in larger groups including offspring.

Mating season, known as the rut, occurs between October and January, with one to three fawns usually born in May or June. Deer can jump over fences eight feet high and can run up to 40 miles per hour.

They are often found living at forest edges where they can retreat into the forest for shelter and escape and can browse in open areas or fields.

Agricultural lands with woodlots, fields, and streams are common areas for deer. Deer have home ranges that are used by related females and exclude sexually mature related males. White-tailed deer are most often active at dusk and dawn, when there is less danger. Herbivores, they feed on a variety of plant material throughout

have a ragged, squared, and torn appearance because deer do not have upper incisors and can't neatly clip plants. Areas with high deer density may show a "browse line," where vegetation has been trimmed from the ground up to the deer height (usually around three to six feet). Sometimes damage to tree bark can occur when bucks rub their antlers along tree trunks.

Repellents can be used to discourage deer; they work by either directly making the plants distasteful or by deterring deer from an area using sight, smell, or sound.

the seasons, including flowers, shrubs, acorns, cultivated plants, and ornamental shrubbery. They will even eat grass if need be. The feeding habits of deer can vary widely depending on location.

Possible Conflicts and Solutions

It is usually not difficult to determine deer damage, especially in gardens and landscaped areas. Tracks and droppings are good signs of their presence. Another easy way to tell if the animal is a deer is to look at twig ends. Plants or trees that are browsed by deer

There are a variety of techniques that can be used to minimize and even eliminate damage done by deer. Landscape design, including careful selection and placement of plants, is helpful. Planting native species of shrubs and trees can help, as well as beginning preventative measures against deer damage before it begins, especially in the spring. Consulting with local nursery or landscaping companies about appropriate plants is a good first step, as they often have listings of deer-resistant and deer-attracting plants and know what kinds of plants are being eaten in various areas and at different times.

If deer browsing is heavy, deer-proof fencing is the most effective and long-term way to protect resources such as crops or landscape plants.

A range of fencing designs is available, from high-tensile strand wiring, which may be angled for

better effectiveness, to standard mesh-woven wire, chain-link designs, and various types of electric wiring. Fences should be at least eight feet high and extend underground to prevent fawns from crawling underneath them. Very simple fencing designs can be used if there are other food sources available in the area, but if food is in high demand, deer can jump fences even ten feet high. Fencing individual plants is often effective if fencing an entire area is too expensive (netting can sometimes be used, too). Trees can be protected from buck rubs by wrapping them with corrugated plastic sleeves or surrounding the trees with two-inch wooden stakes four to five feet high.

Repellents can be used to discourage deer; they work by either directly making the plants distasteful or by deterring deer from an area through sight, smell, or sound. Repellents work well in smaller areas and gardens. Homemade repellents can be made by placing human hair, soap, or garlic in netting or stocking and tying it to tree branches or fences around an area that needs protection. Commercially made contact repellents are also

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available that can be sprayed directly onto plants (many cannot be used on food crops, however).

With any kind of repellent, the key is to begin using it as soon as you see deer damage, and change or reapply them often, especially after rain or when new growth appears.

Another kind of harassment technique that may repel deer is the use of scarecrows and effigies (especially ones that move). Motion-sensing lights, scare tape, balloons, mirrors, strips of tinfoil, and even wind chimes and radios can be effective in frightening deer away from an area. Varying these devices and using them in combination with other strategies can ensure that they remain successful.

Public-Health Concerns

Deer can be hosts to the ticks that carry Lyme disease, although there is debate about their role in contributing to the spread and prevalence of this disease. The adult tick can live on deer or other hosts at this stage of its life cycle. Declining deer densities do not affect the production of new ticks.

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Here are some tips to help you judge just when a young animal needs help.

Birds

Fledglings. Chances are, you've come across one of these before: a young, fully feathered bird sitting on the ground, usually below a tree. Most likely, the bird jumped or fell from the tree while training for future flights. But that doesn't mean that it's stranded on its own. The parents will usually continue to feed the fledgling on the ground for a few days until it learns to fly. Often discovered in yards, fledglings are aided most by your absence: parents will not come around if you or anyone else is nearby. It's equally important to keep cats and dogs away for the grounded bird's safety.

If the bird looks ill or unalert, before calling for help observe it from a distance for a couple of hours to be sure the parents—its best caretakers—are not around. Seek assistance immediately if the animal has been injured by a cat or dog.

Nestlings. Unlike fledglings, these baby birds lack all or most feathers. They can sometimes be found on the ground below their nest after a windstorm. They also fall out of the nest occasionally, and a weak bird may be pushed out by siblings.

A bird that lacks feathers or can't stand or perch needs to be returned to its nest. If you can't reach the nest, then take a small, clean container (a berry basket, a planter with drain holes, or a similar clean container with holes punched in the bottom), line it with natural, nonabsorbent material (pine straw, for example), and place it securely on a shaded limb of the tree or shrub closest to where you found it. Then gently place the bird in the makeshift nest. Contrary to popular belief, human scent on a baby bird won't cause the parents to reject it. Observe the nest from a well-concealed, distant spot. If the parents do not return within an hour, call for assistance.

Most birds jostled from their nests are still alert and gaping for food when found, but if that's not the case or if you observe obvious injuries, call for help immediately.

Small Mammals

Rabbits. Routine mowing and raking sometimes turn up rabbit nests, lined with fur and built in small depressions in the grass. If the rabbits have been injured by your activity, get help. If they're unharmed, leave them alone. Don't be alarmed if you watch the nest all day and don't see the mother. She'll feed her babies in early morning and at dusk, leaving them alone for the rest of the day to avoid attracting predators. Even if the nest is interfering with your yard plans, it's best not to move it; the mother is unlikely to find it. You'll only have to wait one or two weeks until the babies are gone. In the meantime, keep pets away from the nest.

If you've found a fluffy baby outside a nest, don't

assume it's lost or abandoned: if it's about five inches long, it's already on its own.

Squirrels, Chipmunks, and Groundhogs. These babies are found far more rarely. Baby squirrels are sometimes knocked out of tree nests, and groundhogs can be washed out of burrows during rainstorms. A baby squirrel or chipmunk appearing ill may have wandered out of the nest after its mother was killed, or the squirrel may have suffered a concussion falling. The best course of action is to call for assistance and describe the animal and its situation. Rodents are not common carriers of rabies, but it's important to remember that in parts of the country where rabies is a threat, wild mammals should be handled only by experienced caretakers.

Raccoons, Skunks, and Foxes. Most baby raccoons, skunks, and foxes seen alone are playing, with their mothers watching nearby. If a mother has been killed, however, the babies may be seen away from the den; they will cry and look ill and need attention. Never pick up these animals with your bare hands; rabies is a strong concern. Call for assistance.

Opossums. Truly orphaned babies are usually found foraging for food near a mother who has been killed, often along a roadside. Young opossums about 8 to 10 inches long (tail not included) are already on their own.

Seals. People living in coastal areas may encounter baby seals alone on the beach. Their mothers are probably not far off at sea. Again, it's critical not to disturb a baby. A common mistake is to chase the baby seal back into the water, but this lessens its chances of being refound by its mother. Unless it is visibly injured, leave it alone. If it is injured, call for assistance.

The list of animals frequently, and often mistakenly, brought to rehabbers or shelters in spring doesn't stop here, although these are perhaps the most common. Anything from baby bats to bears, bobcats, deer, and elk are likely to arrive at a rehabber's door in what's come to be known as "baby season."

Sadly, an estimated 75 percent of these newborns aren't orphaned or injured at all. To avoid separating an animal needlessly from its parents, always remember the following:

- Never try to raise a wildlife baby yourself. Even licensed and trained wildlife rehabilitators consider themselves a distant second to a natural mother when it comes to raising young.
- Animals allowed to imprint on a human cannot be returned to the wild and therefore often must be destroyed. If they are returned to the wild, their chances of survival are minimal at best.
- Finally, it's illegal to have most birds and mammals in your possession without proper state and federal permits—yet another reason to call in the experts when the need arises.