



**MA Department of Conservation and Recreation
Bureau of Resource Protection
Best Management Practices**

Human-wildlife Conflicts

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Beaver damage by Halie Parker

Goal: To provide guidance for dealing with the most common human-wildlife conflicts throughout DCR-operated State Parks, Forests, and Reservations.

Overview:

Massachusetts is home to a diversity of wildlife. Each species plays a unique role in their ecosystem and making accommodations for wildlife benefits both people and wildlife. This best management practice (BMP) is designed to cover potential human-wildlife conflicts that might occur throughout the Massachusetts state parks and forest system. With over 150 State Parks, Reservations, and Forests, human-wildlife conflicts are likely to occur. Throughout this BMP we will discuss ways to minimize and avoid human-wildlife conflicts with beavers, bats, birds, and other small mammals in urban settings. We will also cover what to do if you find sick or injured wildlife, as well as wildlife behaving strangely.

General rule: It is illegal to relocate wildlife in Massachusetts. The links below provide information about why moving wildlife is ineffective and not permitted.

[MassWildlife: Problems with Wildlife](#)

[MassWildlife – Moving Wildlife: Harmful, Ineffective, Illegal](#)

[MassWildlife – Moving wildlife](#)

Best Management Practices:



Beavers

Beavers (*Castor canadensis*) provide many ecological benefits by creating wetlands: they actively dam flowing rivers and streams, which in turn provides habitat for a diversity of plants and wildlife. However, when these activities are done in proximity to structures such as buildings, parking lots, and roads they can cause damage through flooding. Additionally, beaver activity may cause damage to planted or naturally growing vegetation (e.g., trees and shrubs) either directly through chewing and eventually removing the vegetation, or indirectly by causing extended periods of inundation. Exclosures can be used to prevent beavers from disturbing vegetation, but they should be at least four feet tall and flush with the earth, so that beavers are not able to climb over or under the fencing. The links below provide information about the best ways for preventing conflicts with beavers. **Please note permits are required for any disturbance to dams or beaver trapping; therefore, said activities should not occur without prior approval and the appropriate permits.**

[MassWildlife: Living with Wildlife – Beavers in Massachusetts](#)
[MassWildlife: Prevent conflicts with beavers](#)



Bats

Massachusetts is home to nine bat species; five species are state endangered per the Massachusetts Endangered Species Act (MESA) and two are federally listed under the Federal Endangered Species Act (ESA). Massachusetts bats live in a wide range of summer and winter habitats. Summer habitat includes buildings, trees, talus rock, caves, and mines. Winter habitat includes buildings, caves, mines, and rock crevices. Bats provide a variety of ecosystem services, one of which is pest management. Unfortunately, White-nose Syndrome (WNS), a deadly fungal disease discovered in the US in 2006, ravaged bat populations throughout the country. In Massachusetts the Little brown bat (*Myotis lucifugus*) experienced a 99% population reduction due to WNS. With that being said, conflicts with bats need to be handled very carefully to prevent further declines, in addition to keeping people safe. Similar to other wildlife, the best way to keep bats out is to exclude them by sealing off all potential entrances. However, please keep in mind this may only occur during certain times of the year to avoid negative impacts to already residing bats. The links below provides information about ways to prevent and avoid conflicts with bats.

[MA DCR: Bat Stewardship](#)
[MassWildlife: Living with Wildlife – Bats in Massachusetts](#)
[MassWildlife: Bats in the Home](#)
[Mass Audubon - Bats](#)



Birds

Birds are one of the most fun and diverse groups of wildlife to watch. Massachusetts is home to a diversity of avian species due to the array of ecosystems and geologic features throughout the state. Some birds choose to nest along our coasts or within our forests, and others choose to

nest on buildings and other artificial structures. These areas can be particularly attractive to nesting birds as they provide shelter, stability, and protection from predators. Some of these nests can prove to be problematic if they occur in undesirable locations. It is possible to make nesting areas less attractive or completely unusable by using netting to exclude the space or changing the surface from flat to angled. Additionally, blocking openings or entranceways after the birds have left or before they arrive for the breeding season can prevent them from accessing the area. However, please be extremely careful before altering an area to be unsuitable for birds and ensure there are no nests, eggs, or young. The link below from Mass Audubon provides valuable information on how to exclude nests inside buildings and on exterior flat surfaces. **Please note it is illegal to destroy, relocate, or possess wild birds, their nests or their eggs and most birds are protected by federal (Migratory Bird Act of 1918) and state laws.**

[Mass Audubon – Nests In & On Buildings](#)

Geese

The Canada Goose (*Branta canadensis*; hereafter geese) is a large waterfowl species, some of which reside in Massachusetts year-round and others that pass through on the way to their wintering or breeding grounds in fall and spring. Because of their full-time residence in the state, high population numbers, and their ability to nest in a variety of locations, they are a common source of human-wildlife conflicts. Perhaps the biggest issue with large flocks of geese is their droppings; a goose can produce over a pound of droppings in a single day. Geese droppings can not only be an unpleasant sight; in addition, if prevalent enough, they can prevent the public from using certain areas and even affect water quality. There are several ways to avoid conflicts with geese, but each requires patience and persistence as geese can be difficult to deter. One of the simplest and most effective methods is prohibiting the feeding of geese. Feeding geese attracts them to the area and encourages them to stay. Placing signage and passing out pamphlets can be useful tools to advise the public not to feed geese and to inform them why doing so is harmful to the geese and the environment. Allowing vegetation such as grasses and forbs to grow taller (i.e., not mowing) or planting them in areas adjacent to water bodies can make the space less attractive to nesting geese as it limits their ability to graze and detect predators. Other tactics such as hazing, which includes noisemaking devices and visual deterrents like flags or reflective objects can be more time consuming but will likely be more effective for geese that are not so easily deterred. Decoys, such as coyotes or swans, that are placed around water bodies and moved regularly can also prove effective. However, hazing and deployment of decoys are more time intensive. For more information about dealing with geese visit the links below.

[MassWildlife: Living with Wildlife – Canada Geese in Massachusetts](#)
[MassAudubon – Don't Feed the Ducks](#)



Other Mammals in Urban Areas

In addition to the beavers and bats described above, there are several small mammals that are common throughout Massachusetts. These critters can be a joy to see for most, however if they have taken up residence in a building, regularly investigate the trash, or dig holes, they can become problematic. A general rule of thumb for dealing with mammals is to keep garbage and other food items (e.g., bird seed) in a secure and inaccessible location. For example, avoid putting trash out the night before trash pick-up and opt for putting it out the morning of.

Dumpsters and trash bins should have tight fitting lids that completely cover the trash receptacle. If necessary, use bungee cords to secure the lid onto the trash receptacle. Additionally, securing entry points around buildings and sheds will help prevent wildlife from occupying artificial structures, but exclusion must be done properly to avoid trapping animals in or excluding adults with young still inside. Wildlife view some human structures as shelter; therefore, the best way to prevent an unwanted occupant is to proactively exclude them. Keep in mind, some small mammals have very maneuverable handlike paws and exclusion measures must be done meticulously.

Raccoons

Besides Nantucket, raccoons (*Procyon lotor*) are abundant throughout the state. Like many other mammals, raccoons are opportunistic omnivores and eat a variety of foods. On top of their abundance in the state and opportunistic feeding habits, they have nimble, handlike paws that can reach and maneuver into places that other animals cannot. This makes them the perfect nocturnal garbage thief. Securing trash bins with bungee cords on the lids and leaving them outside for as little time as possible will help prevent raccoons from getting into trash and viewing it as a food source. However, besides getting into trash, it's also possible for them to take up residence in a house, garage, shed, etc. The most effective way to prevent conflicts is to seal off entry points where raccoons may be accessing the area. A raccoon may view a chimney, attic, or crawl space as the perfect den. Close off these potential areas with mesh hardware cloth or boards, but ensure they are flush. Be very careful, however, that you are not trapping animals inside. Vegetation, such as English ivy (*Hedera helix*), on buildings and tree limbs that hang close to structures may help facilitate raccoon movement. In Massachusetts, raccoons are the primary carrier for rabies. **Do not attempt to handle raccoons.**

[MassWildlife: Living with Wildlife – Raccoons in Massachusetts](#)

Squirrels

Perhaps two of the most conspicuous, wide-spread, and acrobatic mammals to watch are the gray squirrel (*Sciurus carolinensis*) and red squirrel (*Tamiasciurus hudsonicus*), which are found readily throughout the state. Gray squirrels are found on Martha's Vineyard and Nantucket, while red squirrels are not. Gray squirrels can be found in a variety of habitat types including mature forests, but also trees in suburban or urban areas or those within parks. Red squirrels, however, are not seen as frequently in urban settings as they prefer coniferous forests. That said, they can still be found in suburban settings that maintain small patches of forest. Squirrels can cause damage to siding, insulation, chimney flashing, exhaust fans, and even electrical wires. Like other wildlife, the best way to prevent squirrels from inhabiting artificial structures is by closing off all potential entryways. Inspect the area from both the inside and outside. If a potential entrance is spotted, you can use wire mesh or hardware cloth; keep in mind squirrels are agile and can fit into small spaces. **Be very careful, however, that you are not trapping animals inside.** Other preventative measures include keeping all trees and branches that are within jumping distance (6-8 feet) away from the building.

[MassWildlife: Living with Wildlife – Gray and Red Squirrels in Massachusetts](#)

Opossums

Virginia opossums (*Didelphis virginiana*) are a common resident in Massachusetts with the exception of Martha's Vineyard and Nantucket. They are America's only marsupial and are opportunistic eaters. Because of their high adaptability in various settings and opportunistic appetite, they may consume human garbage. Unlike other mammals, they do not hibernate, which can contribute to them seeking out garbage in the winter. Some general tips for dealing

with opossums include keeping trash and other food items clean and secure. Additionally, tightly sealing entry points to buildings, particularly around chimneys, porches, and sheds will help prevent opossums from taking up residence in artificial structures. **Be very careful, however, that you are not trapping animals inside.**

[MassWildlife: Living with Wildlife – Virginia Opossums in Massachusetts](#)

Skunks

The striped skunk (*Mephitis mephitis*) is common throughout the state but is absent from the Elizabeth Islands and Nantucket. Like many other animals that utilize urban settings, they are versatile and can be found in woods and farmlands, but also near wetlands, beaches, and even parks and are most active at night. They can become a nuisance if they rummage through trash; therefore, trash bins must be secured with tight fitting lids. Skunks can be frightening to encounter for fear that they will spray their musk, which can extend as far as 10 feet. However, bear in mind, skunks will exhibit several warning signs before resorting to spraying. Warnings can include stamping their feet, raising their tail and shaking it, and growling/hissing. In the event you come across a skunk it is best to move away slowly and avoid making loud noises. Skunks generally have poor eyesight, therefore moving too quickly or making loud noises could startle them. If you have moved a safe distance away, but need the skunk to leave the area you can make some noise to encourage it in another direction.

[MassWildlife: Living with Wildlife – Striped Skunks in Massachusetts](#)

Woodchucks

The woodchuck or groundhog (*Marmota monax*) is found throughout Massachusetts except Nantucket and Martha's Vineyard. They often inhabit the interface between open areas, such as fields and pastures and more structurally diverse areas like hedgerows and woodlands. Groundhogs, as their name implies, are most well-known for their extensive and sometimes problematic burrows. Their burrows can have 2-5 entrances and provide shelter from weather and predators, as well as a space for rearing young, sleeping, and hibernating. Woodchucks can become problematic when they create burrows under man-made structures such as porches and sheds, which can affect the building's structural integrity. Fencing and other enclosure methods such as mesh or chicken wire can prevent groundhogs from accessing particular areas. Fencing will need to be installed at least 10-12 inches into the ground to prevent them from digging underneath it.

[MassWildlife: Living with Wildlife – Woodchucks](#)

Wildlife Exhibiting “Odd” Behavior

While most wildlife encounters are exciting, relatively quick once the animal sees you, and unassuming, some can be more alarming. There are numerous reasons an animal may be exhibiting “odd” behavior. Remember, some behaviors might not be odd at all. For example, the Canada Goose is known to be confrontational if you approach them or their young. Although this behavior can be scary, it is not unusual.

There are some wildlife behaviors, however, that are concerning and should be handled with caution. Some general behaviors and signs to watch out for include:

- Aggression with seemingly no reason for attacking
- Lethargic, confused, walking in circles or with no real sense of directional movement
- Excessive drooling

- Staggering
- Obvious sign of injury, hair loss, etc.

The animal could potentially have rabies, a serious disease that affects the brain and spinal cord of mammals. Using common sense when encountering potentially problematic wildlife is important. If you think an animal is exhibiting odd behavior do not approach it. It may seem harmless from a distance, but when provoked or in fear of being attacked it could become aggressive. If you encounter an animal that is exhibiting odd behavior, you should contact the local police department and Massachusetts Department of Public Health at 617-983-6800.

If you find sick or young wildlife, please click the link “What to do if you find a wild animal that might be sick or hurt” below that discusses what to do for different types of wildlife encounters. **Do not attempt to capture wildlife before seeking advice and guidance from a wildlife professional.** If a fawn is visibly injured, call MassWildlife at 508-389-6300. Fawns cannot be cared for by wildlife rehabilitators.

[MassWildlife: What to do if you find a wild animal that might be sick or hurt](#)

[MassWildlife: Find a wildlife rehabilitator](#)

[Massachusetts Bureau of Infectious Disease and Laboratory Sciences: Rabies](#)

[MassAudubon: Wildlife & Public Health](#)