



Living With Wildlife

Gray & Red Squirrels in Massachusetts

Gray Squirrel



Both gray and red squirrels are common and abundant in Massachusetts. Gray squirrels are found everywhere, including Martha's Vineyard and Nantucket, while red squirrels are absent from both islands. Red squirrels are sometimes called "pine squirrels" or "chickarees"; the gray squirrel is also known as the "eastern gray squirrel." Both are members of the squirrel family (Sciuridae), along with flying squirrels, chipmunks, and woodchucks.

Description: Gray squirrels (*Sciurus carolinensis*) are medium-sized, tree-climbing squirrels. The sexes look similar, with adults averaging 15-20 inches in total length and tails averaging 6-9½ inches. They weigh about ¾-1½ lbs. Typically grizzled or light gray, they have white on the chin, throat, and belly. Melanistic (black) individuals occur in the northern parts of the gray squirrel's range. Black squirrels are common in the Westfield area of Massachusetts and occasionally found elsewhere. Population clusters of black squirrels are found in Westfield, Amherst, and Concord, with reports of individual black squirrels sighted in a number of other towns across the Bay State.

Red squirrels (*Tamiasciurus hudsonicus*) are small- to medium-sized tree squirrels. As is true for gray squirrels, the sexes look the same, adults are between 10½-15 inches long with tails averaging 3½-6 inches. They weigh about ½-5/8 lbs. True to their name, red squirrels are typically rusty red or reddish brown on the back and white or gray-white on the belly. The tail is rusty, sometimes tinged with yellow. Melanistic red squirrels are uncommon.

Habitat: Gray squirrels are tolerant of human presence and often live in urban or suburban areas with large, mature shade trees. Gray squirrels are also typically found in extensive mature hardwood forests—especially oak-hickory—often with dense understory vegetation. They are found less often in coniferous forests. Red squirrels are found primarily in coniferous forests—pine, spruce, or fir—with mature trees preferred. In suburban areas, they are often found in small pine plantations or woodlots interspersed with some hardwoods.

Foods: Squirrels live in the habitats that contain their preferred foods. Gray squirrels have diverse diets and feed on those items that are seasonally available. However, nut crops, such

as oak acorns, hickory nuts, beechnuts, and walnuts, may comprise three quarters of their annual diet. They also eat berries, fruits, seeds, buds, and flowers, as well as cultivated grains. Infrequently they even consume some animal foods, such as eggs or bird nestlings.

Red squirrels are also opportunistic, but most commonly feed on conifer seeds. In the northeastern states, one can often find piles of cone fragments directly under feeding perches, rather than heaped in "middens" as occurs in the west. Red squirrels also eat fungi, buds, and the inner bark of trees. They also occasionally eat nuts and seeds, fruits and grains, and insect larvae and bird nestlings.

As with all wildlife, homeowners should be careful not to artificially supplement the natural foods of gray or red squirrels, whether through direct feeding with stale bread or other baked goods, or through carelessly hung birdfeeders that spill or are easily raided. For further information and helpful cautions, visit the *MassWildlife* website at http://www.mass.gov/dfwele/dfw/wildlife/living/pdf/living_with_suburban.pdf.

Reproduction: Gray squirrels use both leaf nests and natural cavities for shelter and for rearing the young. Leaf nests are most commonly constructed in hardwoods; cavities in live trees are preferred over those in snags. Gray squirrels usually breed at about 10-14 months of age. Usually, yearlings have only one litter per year, but adults may breed twice annually, depending on food availability. Winter breeding occurs in January-February, and summer breeding from May to July. The two to three feeble young are born after a 44-45-day gestation period and are weaned at 8-10 weeks. Red squirrels tend to prefer tree leaf nests over cavities, but sometimes use rock dens and burrows. Age at first breeding is 10-12 months. Red squirrels typically have a single litter (two are rare), with one to seven young born during March-May after a 31-35-day gestation period. The young are weaned at 7-8 weeks.

Activity: Gray squirrels are crepuscular (active at dawn and dusk) in spring, summer, and autumn, but are active only during midday in winter. These squirrels may be especially active in fall, when nuts are available, because squirrels cache food items. However, frequency of squirrel sightings may also relate to changes in population size. Young squirrels disperse from spring through fall, usually traveling no more than two miles from their birthplace. Gray squirrels are not territorial, but may defend the immediate area around a nest site. Red squirrels, on the other hand, are active during the daytime, but may rest during periods of intense midday heat. In severe winter weather, they may remain inactive in their nests. Juveniles establish home ranges on, or adjacent to, that of their mother. They are territorial and defend their areas against other red squirrels.



Photo © by Bill Byrne

Preventing Conflicts

Gray squirrels are responsible for more damage than are red squirrels, especially in urban or suburban areas, but red squirrels will sometimes chew maple syrup lines. Squirrel damage to home vegetable or flower gardens, or to orchards, is often difficult to control. When populations are high, and food sources are abundant, new squirrels will quickly replace any that are removed. To avoid or reduce damage and make your property less attractive to squirrels, consider these options:

Exclusion: Electrified netting or other small electric fences may be useful in keeping squirrels out of gardens and small orchards. Contact your local farm supply business or a *MassWildlife* District office (see the *MassWildlife* website at <http://www.mass.gov/dfwele/dfw/facilities/districts.htm> for phone numbers and directions) for information on electric fences. A small dome or cage of chicken wire placed over individual plants or small rows can protect individual plants until they get large enough to be uninteresting to the squirrels.

Buildings: Gray squirrels will enter attics, crawl spaces, or sheds for nesting or shelter. In doing so, they may damage the structure, pull apart insulation, or chew electrical wires. Inspect your property regularly to be sure that squirrels have not entered or attempted entry. Close openings with heavy-gauge ½-inch wire mesh or other appropriate carpentry repairs. Be careful not to block squirrels inside as they may do considerable damage trying to get out. Trim branches and trees within 6-8 feet of the building, to prevent squirrels from jumping onto your roof. Prevent squirrels from walking on wires by installing 2-foot sections of 2-3-inch plastic pipe over the wire. The piping will rotate on the wire, causing the squirrels to fall off. Do not place pipes on utility wires without permission from the utility company.

Bird Feeders: Bird feeders that hang from wires may be protected with rotating piping (see above). Feeders on poles may be protected with commercial conical squirrel guards that prevent a climbing squirrel from getting past the cone. Remember that spilled seed attracts mice and squirrels to the ground below the feeder; predators may then be attracted to the rodents. In general, you should carefully consider the pros and cons of feeding birds, especially in the warmer seasons when they do not need supplemental food.

Repellents: Mothballs may sometimes discourage squirrels from using crawl spaces or other enclosed spaces, but do not use mothballs in human-occupied dwellings. One of the commercial taste repellents (Ro-pel® or any other similar product*) can be applied to seeds, bulbs, flowers, shrubs, fences, and siding to discourage squirrels. Consult with your local agriculture extension specialist and follow all instructions. Effectiveness may vary. *Do not* use anticoagulants containing warfarin such as D-Con® or any other similar product*: These are formulated for and are legal only for use on rats and mice inside buildings. Squirrels may only be sickened by warfarin, and dead squirrels may cause secondary poisoning of raptors, domestic pets, and other scavengers. Further, it is illegal to use poisons to eliminate wildlife, even if the animals are in a dwelling or other building.

Trapping: Traps may be effective in removing squirrels trapped within an attic or other confined space. Before attempting to trap squirrels, be aware that in Massachusetts wildlife may not be live-trapped and relocated elsewhere (see the *MassWildlife* website at http://www.mass.gov/dfwele/dfw/wildlife/living/moving_wildlife.htm for more information). Do not trap squirrels unless you are willing to release them outdoors on site (such as an animal removed from

*Please note that brand names are used for illustrative or comparative purposes only. This is not a specific recommendation by the Division of Fisheries and Wildlife.



a cellar) or to destroy them humanely. Gray squirrels can often be captured in wooden or wire box traps 24 inches in length by 10 inches in height. Apple slices, peanut butter, or sunflower seeds are good baits. Wire traps are more effective when covered with canvas or other dark material. The squirrel may then be released outside the building, but be sure that the animal's original entryway is blocked.

Shooting: Shooting is quick, simple, and effective in areas where firearm discharge is safe and legal. A .22 caliber rifle or a shotgun with #6 shot is suitable. This method may be most effective when targeting a few persistent animals. During population peaks, or in areas where foods are particularly attractive, new squirrels will quickly replace those that are removed.

Squirrels are an important natural resource in Massachusetts. They are classified as a game species, with established, regulated hunting seasons (see the current Abstracts, or the *MassWildlife* website at http://www.mass.gov/dfwele/dfw/regulations/abstracts/hunt_fish_abstracts.pdf, for dates and specific regulations).

If you have questions or are experiencing problems with gray or red squirrels, contact your nearest *MassWildlife* District office (see the *MassWildlife* website at <http://www.mass.gov/dfwele/dfw/facilities/districts.htm> for phone numbers and directions).

Further information on squirrels and other wildlife is also available at http://www.mass.gov/dfwele/dfw/wildlife/wildlife_home.htm.

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For more information contact ***MassWildlife*** at:

Western Wildlife District, Dalton: (413) 684-1646

Connecticut Valley Wildlife Dist., Belchertown: (413) 323-7632

Central Wildlife District, West Boylston: (508) 835-3607

Northeast Wildlife District, Ayer: (978) 772-2145

Southeast Wildlife District, Bourne: (508) 759-3406

Field Headquarters, Westborough: (508) 389-6300

or visit our website at www.mass.gov/dfwele/dfw/facilities/districts

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