Tree Squirrels & Chipmunks

Squirrels are a common sight throughout Rhode Island landscapes; eastern gray squirrels and chipmunks dominate parks and neighborhoods, red squirrels chatter away in forested areas and southern flying squirrels silhouette the night skies. While each of these species occupies a different niche in the ecosystem, each one has adapted well to living with humans. Squirrels are also well adapted for surviving New England winters. In order to prepare for the season, squirrels bury nuts and seeds in small holes in the ground in the fall. This provides a helpful service to our ecosystem: seeds that are abandoned by squirrels can take root and grow into new trees, helping to maintain healthy woodlands. Just like these animals have learned to live with humans, we must also learn how to coexist with wildlife.

Food Habits: The Rhode Island squirrel species share similar diets, consisting mainly of tree buds in the spring, fruits and berries during the summer, nuts and seeds in the fall, and tree bark in the winter, which is then supplemented by cached seeds and nuts gathered in the fall. Chipmunks store food in their nests, while tree squirrels bury it throughout their home range. In addition to these staples, they will eat whatever is available, often including insects and other animal matter. Flying squirrels commonly include insects, mushrooms and bird eggs in their diets. In areas with humans, squirrels take advantage of gardens, orchards, and birdfeeders and discarded food scraps. Some squirrel species, particularly gray squirrels, may occur at much higher densities in urban and suburban areas because they are able to take advantage of human food sources and lack natural predators.

Disease: Squirrels carry very few diseases that affect humans. Like all mammals, squirrels can become infected with the rabies virus, however, rodents have a very low susceptibility to the virus. Occasionally, there are reports of squirrels with fibromatosis, a virus that causes lesions and raised nodules or growths on the squirrel’s body. Severely infected squirrels often die but there are no health implications for humans or domestic animals. Tree squirrels and chipmunks can also have skin swellings due to tree squirrel bot flies. These are parasites that lay their eggs under the animal’s skin, but this particular species is an obligate parasite and therefore does not infect human or other animals. Squirrels can, however, be a vector for leptospirosis, a bacteria which humans and other animals can be exposed to through direct contact with urine or bodily fluids of infected animals. Squirrels may also indirectly expose humans to tick, flea, and mosquito born illnesses, such as Lyme disease, sylvatic typhus, and la crosse encephalitis. See https://www.cdc.gov/rodents/diseases/ for more details.

LIVING WITH SQUIRRELS

Their ability to adapt quickly has allowed squirrels to live in close contact with humans. Natural squirrel behaviors, such as chewing to excavate nests, denning in hollowed out structures, and digging holes for nut storage, can sometimes cause problems for humans. These may take the form of digging up lawns and gardens, inhabiting buildings, eating from birdfeeders, stripping trees, eating crops, or shorting out power lines. The most effective solution is to identify and remove the attraction (such as the bird feeder) or make the attraction less accessible (as in squirrel-proofing). Removing the animal itself is only a temporary solution, as a new animal will eventually replace it. A more permanent solution is to identify and remove the attraction rather than remove a string of pests.
The DEM does NOT recommend that property owners attempt to live trap nuisance furbearers unless they are prepared or willing to euthanize the offending animal. State regulations prohibit the live capture and translocation of furbearers. Captured furbearers can only legally be released on the property on which they were captured.

**TIPS ON SQUIRREL-PROOFING YOUR HOME**

**Identify points of entry:** Squirrels can enter structures through holes that are the size of a quarter. Check for entry points such as open or damaged louver vents or windows, uncapped chimneys, behind fascia or trim boards and under loose shingles. Trim overhanging branches that squirrels can use to access entrances.

**Seal up entryways or use one-way devices if appropriate:** Ensure the animal has exited, then seal the entrance with mesh or wire screen. If trapped, the animal will chew its way out, creating more damage.

**Do NOT use poison:** Poison is not a humane or permanent solution and poses a risk to human occupants and other wildlife for years after application. Naphthalene (moth balls) can also be unsafe for homeowners and is not recommended.

**REGULATORY STATUS**

Under Rhode Island State law, the gray squirrel is a protected furbearer, and killing is regulated. In Rhode Island, state law (RIGL 20-16-2) allows a property owner to kill, by legal means, any furbearer (as defined in RIGL 2016-1) that is killing or attempting to kill any livestock or domestic animals, destroying crops, creating a health hazard, or causing economic damage to their property. However, the law does not allow for the random taking of wildlife, for the taking of furbearers for their pelts outside the open season, or for killing of animals outside the boundaries of the property of the person with the problem. Also, it does not allow for unlawful methods of take such as poisons, snares, foothold traps, or discharge of firearms in violation of state or local ordinances. The law states that animals taken must be reported to the DEM within 24 hours.

**EASTERN GRAY SQUIRREL** *(Sciurus carolinensis)*

Eastern gray squirrels are the most common species of squirrel in Rhode Island. They are a tree squirrel, however they spend much of their time on the ground foraging and storing food for the winter. They are commonly found in urban and suburban woodlands with mast (acorn and nut) producing trees. Gray squirrels are active mainly during the day. In the winter they do not hibernate but spend days at a time in their tree cavity dens, which are often natural or woodpecker-made holes in living trees. If there are not enough tree cavities present, gray squirrels will make leaf nests (known as “dreys”), which are made of loose bundles of leaves and twigs. Gray squirrels are very strategic about their food storage. They bury more important items out in the open, where predator risk is higher, to deter other squirrels from stealing these items. They will pretend to bury food in certain holes to throw off potentially thieving squirrels and will sort food items by taste and size to more easily find specific treats months later.

**IDENTIFICATION**

**Appearance:** Grayish-brown, gray or black with a white or brown underside. Bushy tail accounts for half of body length.

**Average Length:** 15 - 20 in

**Weight:** 1 - 1.5 lbs

**Lifespan:** 2 - 6 years
The red squirrel, also known as the pine squirrel or chickaree, is most known for its rattling vocalizations that can be heard scolding human trespassers. Red squirrels are more commonly found in rural areas, they prefer to live in coniferous forests, but also occur in mixed hardwood stands as well. Red squirrels are active year-round, making their nests in hollow trees, logs, or holes in the ground. In the fall, they store pine cones, nuts, and seeds in piles (or middens) under logs, underground, or at the base of trees in order to have enough food in the winter.

**IDENTIFICATION**

**Appearance:** Reddish-brown or copper with a white or gray underside. Thin, bushy tail and ear tufts.

**Average Length:** 10 - 14 in

**Weight:** Approximately 7 oz

**Lifespan:** 3 - 5 years

Common throughout the mainland part of the state, flying squirrels are rarely seen because of their nocturnal behavior. Flying squirrels do not actually fly. Instead, they glide from tree to tree with the aid of a flying membrane (known as the “patagia”) between their front and back legs. During a glide, which can transport an animal up to 150 feet in a single trip, the tail acts as a rudder, aiding in a successful landing. They have large, protruding eyes because they are mainly active at night. Flying squirrels commonly live in groups of 10 or more individuals, helping to keep each other warm during the cold weather, since they do not hibernate.

**IDENTIFICATION**

**Appearance:** Light gray/brown with white underside. Flattened, bushy tail and loose flying membrane on both sides of body.

**Average Length:** 8 - 10 in

**Weight:** Approximately 2.5 oz

**Average Lifespan:** 2 - 5 years
EASTERN CHIPMUNK
(*Tamias striatus*)
Chipmunks are members of the squirrel family that live primarily on the ground. However, they are excellent climbers and often climb to get food. They live in dens located under logs or stones where they store nuts and seeds. They will hibernate for short periods throughout the winter in order to use less energy when food is low. During these short hibernation periods, a chipmunk’s heart rate declines from about 350 beats per minute to 4 beats per minute. Its body temperature may drop from 94 degrees Fahrenheit to nearly 40 degrees. Every few days they wake up and raise their body temperature to normal in order to feed on stored food. Chipmunks require seasonal temperature changes in order to trigger this hibernation cycle. Research suggests that in warmer years, chipmunks may not hibernate, drastically limiting their chance to survive through the season when food is scarce.

**IDENTIFICATION**

**Appearance:** Reddish-brown with five black stripes along back and white underside. Thin, bushy tail and rounded ears.

**Average Length:** 5 - 8 in

**Weight:** 2 - 4 oz

**Lifespan:** 2 - 3 years