

NUISANCE ANIMALS

SQUIRRELS

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BACKGROUND

Squirrels are members of the **Sciuridae** family, which include tree and ground squirrels, flying squirrels, chipmunks, marmots, woodchucks and prairie dogs. Squirrels range in size from the African pygmy at 3-5 inches, to the Laotian giant flying squirrel which is over 3 feet long. Squirrels have long, slender bodies, large eyes and a bushy tail. Squirrels can live in almost any habitat except the driest desert or the coldest polar region. One extraordinary trait of a tree squirrel is the ability to descend a tree head first by rotating their hind paws backwards 180 degrees in order to grip the tree bark. Their excellent vision and sense of touch allow the squirrels to successfully climb and grasp tree branches to escape predators, or to playfully chase one another.

Squirrels are herbivores, but cannot digest cellulose, so they rely on foods rich in protein, carbohydrates and fats such as nuts, tree buds and bark, insects, pine cones, fruit, seeds, roots and other vegetation. They will eat small vertebrates such as birds, bird eggs and even snakes when food is scarce.

Females give birth in late winter, but will raise a second brood in late summer if there is an adequate supply of food. Gestation lasts three to six weeks with females giving birth to several young. The young are born hairless, toothless and blind, and depend on the female to care for them until they are six to ten weeks old. Most young do not survive their first year due to predation and extremes in weather conditions. However, if a squirrel reaches adulthood, they can live up to 10 years in the wild, and up to 20 years in captivity.

The squirrel most prevalent and native to the Eastern and Midwestern United States is the **Eastern Gray Squirrel**, a member of **Sciurus carolinensis** family. They can vary in color from grey, to brown to black with a white underside. Incredibly, a squirrel retains an accurate memory of where their caches of buried food are for later retrieval when food becomes scarce. Gray squirrels use their tail for balance when climbing trees, and as a blanket during winter months. The tail also becomes a communication tool, by flicking it back and forth to alert others of danger, or to give its position to other squirrels.

Even though squirrels have few serious diseases, mites, ticks, fleas, roundworms and tapeworms sometimes infest squirrels, but seldom cause serious problems. Occasionally, a severe outbreak of mange or scabies caused by mites can result in mortality. Squirrels often are infested with botfly

larvae in September or October. These fly larvae develop under the squirrel's skin causing ugly lesions that look like tumors called **warbles**, but do no long-term harm to the squirrel once the larvae reach the pupal stage and exit the squirrel. Squirrels are considered low risk animals for transmission of diseases that can be transmitted to humans, such as Rabies and Lyme disease. According to the CDC, no transmission of rabies from squirrels to humans has ever occurred in the United States.

GEORGIA SQUIRRELS

There are four kinds of squirrels that inhabit Georgia: the **Fox squirrel**, the **Red squirrel**, the **Flying squirrel**, and the most prevalent squirrel found in rural and especially urban areas in Georgia, the **Eastern gray squirrel (*Sciurus carolinensis*)**. The Eastern gray builds a nest, or **drey**, of trigs and leaves in trees, which they share during breeding season or in cold weather, but often prefer to bear their young in a den of a tree cavity. Gray squirrels eat a variety of foods including buds and flowers of trees, dogwood fruit, oak acorns, hickory nuts, mulberries, black gum fruit, and various grasses. Gray squirrels are known as scatter hoarders, not only hiding seeds in cavities, but also burying seeds in caches. A gray squirrel can bury up to 25 nuts in a half-hour, maintain about 1,000 caches at a time, store about 10,000 seeds and nuts a year, and still remember where the seeds are buried when needed. Eastern grey squirrels have learned to tolerate humans and can be found in residential neighborhoods where they consistently raid bird feeders and gardens. Humans generally regard them as pests because grays sometimes nest in attics or basements and cause fire hazards when they chew on electrical cables. As a result, their predators not only include hawks, raccoons, foxes, coyotes, feral cats, snakes, owls, dogs and weasels, but also humans.

The larger and variably colored **Fox squirrel (*Sciurus niger*)** also can be found statewide. Fox squirrels in Georgia tend to be most closely associated with mature pine and hardwood habitats located in the Piedmont and Coastal Plain. Fox squirrels will eat many of the same foods as gray squirrels, including acorns and nuts of oak and hickory trees that are found in upland pine habitats. Pine seeds are a major fox squirrel food item, but they will consume various other foods such as buds and fruits of other trees and fungi. A small portion of the fox squirrel's diet is comprised of animal matter such as insects, other arthropods and small vertebrates. Fox squirrels have larger home ranges than gray squirrels, reaching up to five acres surrounding the tree den depending on food availability. The two separate peaks of breeding seasons in both gray and fox squirrels in Georgia are late winter and late summer.

The **American Red squirrel (*Tamiasciurus hudsonicus*)**, a tree squirrel also known as a **Pine squirrel**, mainly inhabit coniferous and hardwood forests found in the higher elevations of the Georgia Blue Ridge mountain area. They are smaller in size than gray or fox squirrels, but larger than a chipmunk, with rust, red or grayish fur and a white underbelly. The Red squirrel makes its nest inside a tree cavity and at the tops of trees. Unlike their Grey Squirrel cousins, Red Squirrels are solitary animals that are reluctant to share their food with others, although they will share a den during the winter months to keep warm. Active just before winter, they hoard lots of food in burrows in the ground, in

neighboring trees and nests. Red squirrels mainly feed on the seeds and cones of evergreen trees, but will also eat nuts, buds, tree sap, berries, tender leaves, fruits, flowers, fungi, bird eggs, and the Amanita mushroom which is poisonous to humans. They are very active in the morning and late evening, taking naps in the middle of the day to avoid the heat. Predators to the American Red Squirrel are bobcats, horned owls, red-tailed hawks, buzzards, the American crow, coyotes, cats, dogs, and the red fox. American red squirrels experience severe early mortality with an average of only one out of every five surviving to one year of age. Females that survive to one year of age have a life expectancy of 2.3 years and a maximum lifespan of eight years.

Two species of **Flying squirrels (Petauristini)** are found in Georgia, the **Northern flying squirrel (Glaucomys sabrinus)** and the **Southern flying squirrel (Glaucomys volans)**. The Northern squirrel's range is the far northeast corner of the state, while the Southern squirrel can be found in all 159 Georgia counties. Homeowners rarely see a flying squirrel because they are mainly active at night. Flying squirrels cannot really fly, but glide from one tree to another with the aid of a **patagium**, a furry parachute-like membrane that stretches from its wrist to its ankle. Their long-flattened tail acts as a stabilizer which can allow the squirrel to glide over 100 feet.

The **Northern flying squirrel's** forest population have greatly diminished due to climate temperature rises, and due to habitat destruction, which has replaced red spruce forests with black cherry and northern red oaks. These new tree species have caused the more aggressive Southern flying squirrel to move in and push the Northern flying squirrel out of its already shrinking habitat. The Northern flying squirrel mostly feeds on insects, nuts, fruits, seeds and berries and do not hibernate, but stay in the nest during bad weather. Known predators of this species include large mammals, owls, and cats.

Southern flying squirrels are smaller in stature than other squirrel species, and are highly social, preferring to live in large communal families of 5-20 members. Sometimes they forage together, fly together, and group together in dens to conserve energy. They can vary in color from grey-brown to dark-brown with a cream-colored underbelly and a wide tail. Southern flying squirrels will eat a variety of seeds but prefer hickory nuts, acorns and sunflower seeds which they store for winter consumption. They also dine on insects, buds, mushrooms, mycorrhizal fungi, carrion, bird eggs and nestlings and flowers. Predators include snakes, owls, hawks, raccoons and domestic house cats.

GEORGIA LAW

According to the Georgia Department of Natural Resources, a squirrel is considered a nuisance animal in Georgia, and it is legal for civilians to kill one. Squirrels are also considered game animals with a defined hunting season from August 15 – February 28, and with a daily bag limit of 12 per day. (Contact a Wildlife Resources Division Game Management office to see if a permit is required). Squirrels are the number two small game species in Georgia behind doves. A variety of traps are allowable for this purpose, including leg-hold traps, box and cage traps, rat snap traps and box choker traps, as are shotguns with No. 6 shot. Appropriate permits are required for the possession of a



firearm, and restrictions are in place for where a firearm can be discharged. The DNR suggests that the best way to rid a property of squirrels is habitat modification, such as trimming tree limbs away from houses and squirrel proofing bird feeders and entries into homes which will prevent squirrel nuisance situations.

REFERENCES

- <https://en.wikipedia.org/wiki/Squirrel>
- https://en.wikipedia.org/wiki/Eastern_gray_squirrel
- <http://georgiawildlife.com/node/957>
- <http://www.georgiawildlife.com/node/1651>
- <http://georgiawildlife.com/node/525>
- <http://www.pestproducts.com/grey-squirrels.htm>
- https://en.wikipedia.org/wiki/Fox_squirrel
- <http://www.outdoorhub.com/how-to/2012/10/30/squirrel-bot-flies-fact-versus-fiction/>
- https://en.wikipedia.org/wiki/American_red_squirrel
- <http://earthjustice.org/irreplaceable/northern-flying-squirrel>
- <http://squirrelrefuge.org/page52.html>

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