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Squirrels of Florida¹

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Of the 94 species of wild mammals that are native to Florida, none are more frequently encountered than squirrels. Squirrels belong to the most successful and widespread order in the world, rodents. One of the main differences between squirrels and most other rodents is that squirrels have a rather large, bushy tail.

All rodents are gnawing animals. Squirrels have well-developed jaw muscles and chisel-like front teeth that can chew through just about anything. These front teeth are kept sharp by gnawing on hard objects such as woody plant materials, seeds and nuts. This gnawing also serves another purpose. A rodent's front teeth grow constantly, so they must be filed down or they will grow to the point where they inhibit eating and the animal will starve.

Rodents are known for their high reproductive rate. Here in Florida, squirrels usually produce 2 litters of 2-4 young each year. The first litter is born in January or February while the second arrives in mid-summer. Young squirrels mature rather slowly for a rodent and are on their own in about 2 1/2 months. Most of Florida's squirrel species give birth in nests normally located in trees. This nest also is the center of the adult's activities throughout the year.

Most squirrels are active during the daytime. This characteristic makes their activities quite noticeable to us. They rely on their keen senses to detect danger when it is still some distance away and then they make a quick escape.

Squirrels basically are vegetarians. They eat a wide variety of plants, but they mostly use fruits and nuts. In the fall, they are especially attracted to oaks, hickories and pecans. But for all their love of fruits and nuts, tree squirrels also will eat the eggs and young of nesting birds and certain types of insects.

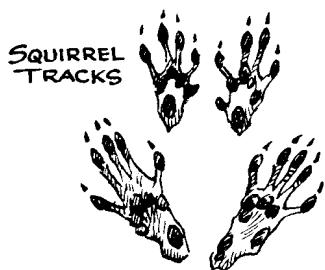
SPECIES OF SQUIRRELS

Florida is home to 3 species of tree squirrels -- the gray, fox and flying squirrel, and one ground squirrel -- the eastern chipmunk. Although they share many of the previous characteristics (See squirrel tracks in Figure 1.), each is unique in its own right. The following sections are a brief description of each.

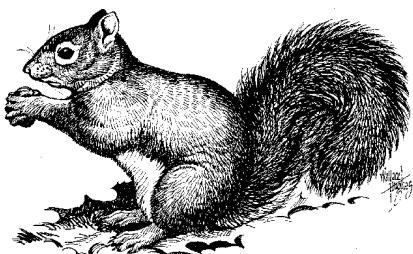
Gray Squirrel

The ever-present gray squirrel is one of the most commonly seen mammals throughout Florida (see Figure 2.). These medium-sized squirrels weigh about 1 pound and are about 15 inches long, half of that

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**Figure 1.**

being their tail. As their name suggests, their most common color is gray with rust-colored hairs scattered throughout their coat. It is not uncommon, however, to see blonde or black gray squirrels. Under natural conditions, gray squirrels are most abundant in hardwood or mixed hardwood and pine forests. They are common in urban areas though, because they are not very fussy about their habitat needs. They do quite well in residential areas where only a few large trees are present. Oaks are especially attractive to them and they can supplement this food by using bird feeders and gardens.

**Figure 2.**

residential areas.

Fox Squirrel

Florida's fox squirrel population generally has not fared well. Although they still occur statewide, several races have declined drastically. The race known as Sherman's fox squirrel, which occurs in peninsular Florida to the north end of Lake

Okeechobee, currently is listed by the State of Florida as a species of special concern. The race south of Lake Okeechobee, known as the Big Cypress fox squirrel, is even rarer and is listed as threatened. Panhandle populations of fox squirrels have not done as poorly as the others and are not now listed.

Fox squirrels are much larger than the gray. Adults may weigh more than 2 pounds and reach a total length of 26 inches. Also distinctive is their color. Fox squirrels normally are reddish tan to buffy gray with a black head and white ears and nose. Body color can vary from black to gray-white but the color pattern on the head almost always is the same.

Fox squirrels are selective in their habitat needs. With few exceptions they are only found in pine forests dominated by longleaf or south Florida slash pine. Those few fox squirrels that remain following urban development usually occur in uplands where some of these mature trees have been left. Fox squirrels depend mostly on pine seeds for food in the summer and on acorns during the remainder of the year.

Flying Squirrel

The southern flying squirrel is unique in many respects. It is a small animal, weighing only about two ounces and measuring just 9 inches long including a 3- to 4-inch tail. Their eyes and ears are large and noticeable. Their fur is quite dense and soft, the upper body color being light brown and the belly white. What makes them truly unique, however, is their ability to glide for distances of as much as 150 feet. Flying squirrels do not really fly, but glide. They move about by climbing high in a tree and leaping with all legs outspread thus stretching the skin membrane along their sides and allowing them to glide to another tree. Flying squirrels move poorly on the ground and rarely do so.

Unlike Florida's other squirrels, flying squirrels are rarely active during daylight hours. Under cover of darkness, they move quickly through the trees feeding on nuts and fruits or sometimes moths, beetles and other insects. They nest in hollow trees, sometimes taking them away from nesting birds. Flying squirrels require habitat that contains at least some large trees. They are found statewide, primarily



southern flying squirrel.

in hardwood forests and mixed woodlands of pine and hardwood.

Eastern Chipmunk

The eastern chipmunk is a very rare resident of Florida, although it is commonly found to our north. In fact, its known distribution in Florida is limited to portions of five northwestern counties near the Alabama border. Because of its rarity in Florida, the eastern chipmunk is listed by the state as a species of special concern.

Eastern chipmunks are between 8 and 12 inches in body length with a 3- to 4-inch tail. They are distinguished by 5 dark stripes that run the length of their back that are divided by 4 light tan stripes. Eastern chipmunks are our only ground squirrel. They spend much of their time on the ground and normally live in dens below ground. In other respects they are much like the tree squirrels. Their preferred habitat here in Florida is deciduous woodlands with a rich understory of nut- and berry-producing shrubs.

ATTRACTING SQUIRRELS

Squirrels make interesting wildlife neighbors and often can be attracted to your landscape with minimal effort. Attracting squirrels with feeders, however, is not recommended because it often causes more problems than benefits. Feeders often encourage more squirrels to live in an area than can be supported by the neighboring habitat. When this occurs, squirrels may search out nesting sites in your home and cause property damage.

Squirrels are best encouraged by giving them food and cover within your landscape. Learn which squirrel species occur in your neighborhood and then landscape your property appropriately. All squirrels

can be encouraged by oaks, hickories and sugarberry. Fox squirrels require mature longleaf pine in the northern two-thirds of Florida or south Florida slash pine in the southern one-third. Nest boxes can be constructed when large mature trees are limited. This is especially important for flying squirrels, but even gray and fox squirrels will use a properly designed nest box. Use a bluebird-sized nest box for flying squirrels and a wood duck-sized house for gray and fox squirrels.

SOLVING SQUIRREL PROBLEMS

When squirrels cause problems, the methods used to solve them must be specific to the problem at hand. Squirrels can cause a wide variety of problems. Therefore, there is no one squirrel-control method that is appropriate for every problem that might arise.

Control measures also should include the elimination of the cause that allowed the problem to occur -- if at all possible. One major cause of Florida squirrel problems is feeding, either directly or through a bird feeder. Should this food be reduced or eliminated (you move, go on vacation, quit, etc.) the squirrels often respond by chewing up nearby vegetation. Another major problem associated with an artificially fed squirrel population arises from the usual lack of good nest trees for them to live in. Many squirrels that take up residence in an attic or garage ceiling can be traced to a feeding situation. If your problem has arisen because of this, slowly reduce your feeding program until you stop it completely.

Types of Problems

Squirrel problems are varied, but most can be divided into 3 major categories. Each of these are discussed in detail in the following sections.

Chewing

Squirrels can cause problems by chewing on both edible and inedible things. It is often impossible or impractical to eliminate the source of their chewing. If squirrels are attacking potted plants, you might be able to move them out of reach; if they are gnawing on pipe or tubing, it may be possible to cover it with a material that is soft and, therefore, less attractive to chew.

Squirrels also can chew extensively on landscape plants. Here the problem is more difficult to solve because the problem is the plant and there are few ways to make the plant unattractive, short of replacing it with a different species. Female wax myrtles, for example, are very attractive to squirrels when their branches are full of fruit in the late fall. At this time, squirrels may gnaw off the branches and then eat the fruit. Such pruning does not really hurt the shrub, but it ruins its appearance for several months. Situations like this will occur each year as long as the plant and the squirrels occur together in the landscape.

Homeowners frequently attempt to solve squirrel-chewing problems by using some type of repellent. As a rule, repellents are very ineffective in solving this type of problem. Visual repellents such as owl or snake decoys quickly are accepted by squirrels for what they really are and they are then ignored. Mothballs and other odor repellents also are usually ignored by squirrels and rarely change their pattern of behavior.

One possible exception is taste repellents. Taste repellents are designed to stop chewing. They seem to work in direct proportion to the animal's desire to chew on the object. In other words, if they want it badly enough, no repellent will stop them. But if the object is not too desirable, it will often work. Taste repellents will not work on large areas, are impractical for inaccessible things like tall trees and cannot be used on objects that you intend to eat. For those situations, you likely will need to live-trap the problem squirrel.

Digging

Occasionally, squirrels dig in places where they are not wanted. The 2 most common problems seem to occur when they dig up potted plants (often in the late spring) and when they dig holes in yards either to bury food or to recover food previously buried. Digging is a difficult problem to correct because you rarely can stop this behavior with repellents or by other methods. Potted plants could be removed from the squirrel's "reach". Normally digging is not truly destructive but is an aesthetic or nuisance problem. It also is usually very temporary. Residents must then ask whether solving the problem warrants the time

and expense. In most situations, it is most sensible to live with the problem for the short time that it is occurring. Otherwise, the only real solution will involve physically removing the offending squirrels with a live trap.

Living in the attic (or elsewhere in the house)

Perhaps the biggest problem with squirrels occurs when they set up housekeeping inside your residence. Squirrels usually come into an attic or crawl space when an entry point to the outside is not repaired, either through neglect or by failing to notice it. Broken screens and roof tiles and gaps between the roof and wall are common squirrel entry points. Once a squirrel has taken up residence in your home, it is difficult to cause it to leave. My experience has been that it is best to physically remove the animal with a live trap and then repair the entry point. If you attempt to chase the animal out and then fix the hole, the squirrel will almost always chew its way back in -- causing more damage than it did previously.

Control Techniques

Live-trapping

For most situations in residential or urban areas, squirrel problems are best solved by physically removing the offending animal by means of a live trap when living with the problem is not a feasible alternative. Squirrels that are causing property damage may be live-trapped without a permit from the Florida Fish and Wildlife Conservation Commission (FWC), but if they are to be taken away from your property and relocated to another area, a permit is required. Trapping squirrels often is relatively easy, but there are a few points that must be considered or you likely will be frustrated.

There are many brands of live traps and all of them are designed very similarly. Choosing a brand is not nearly as important as choosing the proper size. Most trap companies manufacture a variety of live traps to catch animals ranging in size from mice to dogs. Make sure the trap you purchase is designed for squirrels and not some other animal. Traps that are too small will allow the squirrel to escape before the door will fully close while traps that are too big may

not be sensitive enough to work with an animal that small.

Another important consideration is the trap's location. Live traps should never be set where they can't easily be monitored, such as in an attic or beneath a mobile home. Place the trap in the squirrel's line of travel or where it commonly is active. If, for example, it uses an overhanging tree limb to reach your roof, place the live trap at the base of the tree.

Baiting the trap properly also is important. Use something that the animal currently is eating or something that it will find irresistible. Usually, whole peanuts are a good choice. Other nuts such as pecans work well too. If the squirrel ignores your bait, it likely is either frightened of the trap or disinterested in the bait. If this happens, try changing baits first. If this doesn't work, then you must get the squirrel to be less fearful. Wire the door open so it can't close and put bait both around the inside and outside of the trap. In a few days, the squirrel will get used to feeding in the trap. When it does, unwire the door.

Once the squirrel is captured, it must either be released away from the capture site or killed in a humane manner. If the squirrel is to be released, a relocation permit must be obtained from your regional FWC office or you must hire a licensed wildlife relocator to release the squirrel for you. Squirrels must be taken farther away than they will be able to travel. All animals will return to their home if given any chance to do so. This must be made a near-impossibility. Generally for squirrels, this distance is at least 2 to 3 miles. Before any animal is relocated, check your local ordinances to see if any restrictions may affect where you can release it. Don't release animals on property where permission has not been granted and never dump a nuisance animal in another residential area where it likely will become someone else's problem.

Other Control Methods

The gray squirrel and some populations of fox squirrel are classified as game animals by the FWC and subject to rules administered by that agency. By FWC designation, the eastern chipmunk, Sherman's fox squirrel and the Big Cypress fox squirrel are

protected species. They may be destroyed or taken only by FWC permit. Otherwise, persons may take destructive squirrels (i.e., causing property damage) on their own property throughout the year by means other than gun and light, steel traps or poison, provided that they may be killed only within the immediate locality where damage is occurring. The use of poisons is strictly illegal without a permit. Also check local ordinances before using any lethal control method.