

Keeping Squirrels and Roof Rats Out of Structures

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Rodent-proofing, a type of preventative pest control, is an important component of any total pest control program. There are many species of rodents that enter buildings, usually for the purpose of shelter and/or food. They may enter in the fall to survive the winter weather, or in the spring to have a safe place to give birth to their young. Much has been written about rodent-proofing buildings to keep out both native and introduced rats and mice. This article will try and cover methods that can be used to keep out our native squirrels, which include the eastern gray squirrel (*Sciurus carolinensis*), the western gray squirrel (*Sciurus griseus*), the eastern fox squirrel (*Sciurus niger* the red squirrel (*Tamiasciurus hudsonicus* the Douglas squirrel or chickaree (*Tamiasciurus douglasii* the southern flying squirrel (*Glaucomys*), and the northern flying squirrel (*Glaucomys sabrinus*) Roof or black rats (*Rattus rattus*) have similar behavior to squirrels when entering structures. Therefore, any discussion of squirrels also applies to roof rats. Rodent-proofing methods, especially for squirrels, are in more demand now because of overpopulations of these animals in urbanizing environments. Also, cedar wood is being used more as a building material, mostly on residential structures. Cedar, being a soft wood, is more susceptible to rodent damage. Before actual rodent-proofing can take place, a thorough inspection of the structure should be made. Make note of vulnerable areas, as well as areas which are being used. If an animal is in the structure, it must be removed before rodent-proofing. However, for this article, animal removal techniques will not be discussed.

Rodents can enter structures by going through an existing opening or by gnawing a hole to gain access. To be able to gnaw a hole, there must be an edge present to "grab a hold of" with their incisors. In fact, a hole of only 0.5 inch (1.3 cm) will allow a rat or a squirrel to gnaw through a flat surface.

First, let's look at already existing entry points. When homes or other buildings are being constructed, squirrels or other animals may enter and take up residence. There is really no way to prevent this.. However, I have seen very poor construction practices that have left openings after the structures were built. There is only 1 way to prevent this, and that is to encourage builders to be more careful during construction. In fact, most building codes include provisions to assure that new structures will be rodent-proof, although the codes may not be enforced. At the other extreme, older structures may contain a loose or rotted board, usually around the eaves, that may provide easy access to the inside. Building owners should keep a close watch on their structures and have these areas repaired when they appear. Squirrels will sometimes drop down chimneys, and cannot get out. If the damper and the glass or screen door are open, the squirrel will enter the house and do considerable damage. Even if a squirrel or some other animal has not entered the chimney, it is a good idea to securely attach a chimney screen of 0.25 or 0.5 inch (0.6 or 1.3 cm) mesh to prevent them from entering. This easily can be accomplished by using a good construction adhesive and gluing the hardware cloth to the inside of the chimney. One-or 2 inches (2.5 or 5.1 cm) should project above the chimney to allow for proper ventilation. Proper screening of chimneys will also keep out birds, bats,

buildings. Sheet metal, 24 gauge or heavier, can be used on wood siding, or patching cement can be used on brick, cement block, or stone buildings to prevent access.

Another aspect to consider in keeping squirrels, or roof rats, out of structures is not allowing them access to the building at all. Often, this is cost prohibitive or infeasible because of the location of the building and/or the materials the siding is made of. Squirrels can climb brick, mortar, or wood if the surface is rough enough in texture. Some homeowners may think the preventative measures are unsightly, especially on the more expensive homes. One suggestion to keep squirrels from climbing trees is to place a 2 foot (0.6 m) wide band of metal 6 to 8 feet (1.8 to 2.4 m) off the ground. There may be too many trees to do this to, or the owner may object to the appearance. Cutting branches back 10 feet (3 m) or more may be impossible, especially in the newer wooded subdivisions. In fact, squirrels and rats can fall 50 feet (15 m) without being killed or seriously injured. Vines and shrubs may also offer access; however, many people refuse to have vegetation controlled. Squirrels can use utility wires to reach structures. A 3 foot (0.9 m) length of polyethylene tube installed over the wires will roll when squirrels contact it. Preferred Brand Bird and Squirrel Repellent can also be applied to vertical wires and vertical pipes 1.5 to 4 inches (3.8 to 10.2 cm) in diameter. They can climb vertical pipes of any size if the pipes are within 3 inches (7.6 cm) of a wall or other continuous support. Sheet metal guards should be placed over vertical pipes or wires next to buildings; these guards should allow access for repairmen. Downspouts can be screened at the bottom, to prevent entry.

Every rodent-proofing situation is different and a better method than what is covered in this article may be used. In fact, a combination of techniques may need to be used when trying to keep squirrels or roof rats out of structures. This is usually true in any integrated pest management program. The pest control industry and wildlife professionals should make an effort to inform the general public, architects, and builders of the problems and possible solutions. Better management of overpopulated squirrels and other urban wildlife species must occur. The instigation of supervised control measures such as using various trapping techniques with no releases into other areas, is a possible solution.