

ROOF RATS

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Identification:

The roof rat (*Rattus Rattus*) is one of two introduced rats found in the contiguous 48 states. The **Norway rat** is the other species and is better known because of its widespread distribution. When distinguishing the Norway rat from the Roof rat, pull the tail back over the body. The tail of the Roof rat will reach the nose. The tail of the Norway rat will not reach beyond the ears. A third rat species, the Polynesian rat, is present in the Hawaiian Islands but not on the mainland. *Rattus Rattus* is commonly known as the roof rat, black rat or ship rat. Roof rats were common on early sailing ships and apparently arrived in this country by that route. This rat has a long record as a carrier of plague.

Three subspecies have been named, generally identified by their fur color:

1. The black rat, *R. Rattus Rattus* Linnaeus, is black with a gray belly.
2. The Alexandrine rat, *R. Rattus alexandrinus* Geoffroy has an agouti (brownish streaked with gray) back and gray belly.
3. The fruit rat, *R. Rattus frugivorus* Rafinesque, has an agouti back and white belly.

Crossbreeding between subspecies has often occurred, resulting in unreliability in identification by color. **However, Roof rats do not cross with Norway rats.**

Range:

Roof rats range along the lower half of the East Coast and throughout the Gulf States and upward into Arkansas. They also exist along the Pacific Coast and are found on the Hawaiian Islands. The roof rat is apparently not quite as adaptable as the Norway rat, which is one reason it has not spread throughout the country. Its geographic distribution suggests it is more suited to tropical and semi-tropical climates. Occasionally isolated populations are reported from areas not within their normal distribution range; however, these instances are rare. Most of the Great Plains states are free of roof rats but infestations can occur.

Habitat:

Roof rats are more aerial than Norway rats in their habitat selection and often will live in trees or on vine covered fences. Landscaped residential or industrial areas provide good habitat, as does vegetation of riverbanks and streams. They will often move into sugarcane and citrus groves. Roof rats are sometimes found living in or around poultry or other farm buildings as well as in industrial sites where food and shelter are available. Being agile climbers, Roof rats frequently enter buildings from the roof or accesses near

utility lines which they use to travel from area to area. They have been found in sewer systems, but this is not very common.

Feeding Habits:

The food habits of roof rats resemble those of tree squirrels, since they both like a wide variety of fruit and nuts. They also feed on a variety of ornamental and native plant materials. Like the Norway rat, they are omnivorous and will feed on most anything if necessary. Roof rats usually require water daily, though their local diet may provide an adequate amount if high in water content.

Reproduction and Development:

Born in a nest about 21 to 23 days after conception, the young rats are naked and their eyes are closed. The 5 to 8 young in the litter develop rapidly, growing hair within a week. When they are 9 to 14 days old, their eyes open and they begin to explore for food and move about near their nest. In the third week they begin to take solid food. The number of litters depends on the area and varies with nearness to the limit of their climatic range, availability of nutritious food, density of the local rat population and age of the rat. The young may continue to nurse until 4 or 5 weeks old. Young rats generally cannot be trapped until about 1 month old. At about 3 months of age they are completely independent of the mother and are reproductively mature. In tropical or semitropical regions, the breeding season may be nearly year-round. Usually the peaks in breeding occur in the spring and fall.

Feeding Behavior:

Roof rats usually begin searching for food shortly after sunset. If the food is in an exposed area and too large to be eaten quickly, yet not too large to be moved, they will usually carry it to a hiding place before eating it. Many rats will cache or hoard considerable amounts of solid food, which they may or may not eat later. When necessary, roof rats will travel considerable distances for food. They can often be seen at night running along overhead utility lines. They may live in trees or attics and climb down to a food source. This is important from the standpoint of control, for traditional baiting or trapping on the ground or floor may intercept very few roof rats. Roof rats have a strong tendency to avoid new objects in their environment and this can influence control efforts. These rats may take several days before they will approach a bait station or trap.

Senses

Rats see poorly, relying more on smell, taste, touch and hearing. They are considered to be colorblind, responding only to the degree of lightness and darkness of colors. Roof rats also have an excellent sense of balance. They use their tails for balance while traveling along overhead utility lines and are very agile climbers.

Roof Rat Elimination

Although spring traps (snap traps,) glue boards and live traps will work when eliminating Roof rat populations, the most effective control for this small rat is with the combination of glue traps and weather proof bait blocks.