

BEST PRACTICES



Old World Rats: An Unpopular “Guest” (*Muridae Rattus*)

Old World rats were introduced to the Americas and are now found on every continent except Antarctica. The family *Muridae* is originally native to Asia, Africa, Europe and Australia. Primarily what we find locally are Norway or brown rats and black rats or roof rats. Ironically, Norway rats were introduced to Norway from Asia. Both species have large eyes and ears, a pointed nose and a scaly tail. Brown rats (Norway) are larger than black (roof) rats, each approximately 16 inches in length, including tail. The brown rat weighs 8–16 ounces, whereas the black rat averages 5–9 ounces.

The roof rat gets its name as it is an agile climber finding shelter in upper parts of buildings and trees. These rats prefer warmer saltwater influenced climates and are more likely to board ships than brown rats, often being found in port and coastal cities. The brown rat prefers burrows, living almost everywhere humans are.

Rats are foragers that can survive on a huge range of food, which has helped them successfully spread throughout the world. They will feed on seeds, nuts, fruits, berries, and plants including agricultural crops. They may also eat slugs, snails, small rodents, reptiles, insects and even fish, shellfish and other aquatic organisms. One brown rat study found 4,000 different items in the contents of their stomachs. Both species are most active at dusk and during the night.

The two species have similar reproductive strategies: reproducing at an early age and having many large litters of offspring and being polygynandrous, meaning that females and males within a group have multiple partners. Females reach sexual maturity around three to five months old. Breeding is not seasonal, though it does increase in warmer months. Females go into estrus just 18 hours after giving birth and are capable of having up to seven litters a year. Female brown rats experience a six-hour period of estrus, during which they mate as many as 500 times with multiple competing males. Gestation is 21–25 days. Litters average around eight pups. The young take about two weeks to open their eyes and nurse for three to four weeks then leave the nest. Multiple females and litters may share a nest, and females nurse and provide care for the offspring of other females. Roof rats live one year in the wild reproducing up to 40 young. Brown rats are thought to live an average of two years.

Many issues arise from rat infestations including: crop destruction, structural damage, food contamination and vectors of diseases.



Source: Stream Team News, Winter 2019