



If you're a homeowner, your house is your castle. Unfortunately, like any great castle, there's always a threat of invaders. They may not be human, but they'll nevertheless lay waste to everything they can find.

For Georgia homeowner, wildlife can wreak havoc on a home. Animals can and will find any weakness in the home's exterior and exploit it by gnawing, chewing, or scraping its way in. Once inside, they'll cause even more problems, from property damage to disease.

You have to defend your home from invaders, but that's an impossible task unless you can find out what you're up against and what steps you need to take.

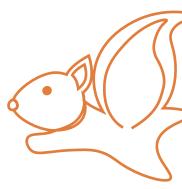
In this ebook, we'll look at three of the biggest threats facing Georgia homeowners, what sort of damage they cause, and what you can do to stop them in their tracks.





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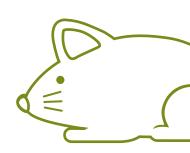
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Bats



Rats & Mice





Squirrels

To the unaware, squirrels probably don't seem like pests. They're cute, cuddly, and ultimately harmless to humans right?

While squirrels may certainly seem adorable, the damage they can cause is anything but. Cute as they may be, squirrels are rodents, and they'll gnaw, bite, and burrow into any surface they think can provide a suitable shelter, including your home.



Eastern Grey Squirrel		Southern Flying Squirrel	
Size (Adult)	15-21 in	8-11 in	
Weight (Adult)	19-20 oz	1.25-3 oz	
Appearance & Physical Characteristics	 Fur is gray on the back, white on the underside, and reddish-brown on the head, but variations ranging from all-black to all-white are not uncommon Distinctive long, bushy tails Large black eyes 	 Fur is gray-brown on the back, cream-colored on the underside, and gray on the head Flat tail Large black eyes Rear feet have five claws while front paws only have four Loose skin membrane called the patagium extends from front wrist to rear ankles, allowing for gliding 	
Avg. Lifespan in the Wild	6 years	3-5 years	
Behavior	 Build dreys (nests made out of twigs and leaves) in the forks tall trees Also known to make nests in abandoned bird nests and woodpecker holes Most active in the early morning and in the evening Do not hibernate One of few species that can descend a tree face-first, they can turn their hind feet backward to support their weight, allowing them to very quickly ascend and descend trees, poles, and other obstacles 	 In the wild, make nests in tree cavities or make their own out of foraged leaves In buildings, nest in the edges of the attic, in the soffit, or even inside walls Also known to take over abandoned woodpecker holes and bird nests, and even nests abandoned by other squirrels Generally make nests within 100 yards of a water source Strictly nocturnal, with activity peaking just after dusk and just before dawn Don't actually fly, but can glide between trees using patagium 	
Feeding Habits	 Scatter-hoarders, meaning that they will hoard food in caches for future recovery Will scour up to 100 acres away from the nest in search of food to hoard Diet consists primarily of tree bark, berries, seeds, nuts, and acorns Frequently raid bird feeders 	 Omnivorous, but more carnivorous than most other squirrels Especially fond of hickory nuts and acorns, but will eat berries, fruit, bark, fungus, insects, bird eggs, and even young mice 	
Mating Habits	 Breeding peaks from December-January and then again from May-June Litter size: 1-4 44-day gestation period 	 Breed twice a year, from February-March and again from May-July Litter size: 2-5 40-day gestation period 	



If you've lived in Georgia for any period of time, chances are high that you're familiar with Eastern gray squirrels. While almost 300 known species of squirrels exists, these big-eyed, bushy-tailed climbers are the mental image most people get when they hear the word "squirrel."

A common sight across the state, Eastern gray squirrels will scour up to 100 acres from their nests in search of nuts, seeds, and other small foods to hoard. In the wild, these squirrels will make nests (called dreys) out of twigs and leaves in the forks of tree branches, using their expert climbing abilities to quickly traverse trees and other obstacles in search of food.

Unfortunately, the roof, attic, and soffit areas of many homes make perfect nesting grounds for Eastern gray squirrels, especially for females looking to nurse their young.



Due to their nocturnal nature, Southern flying squirrels generally see much less interaction with humans than their bushy-tailed cousins.

The name "flying squirrel" is a bit of a misnomer: they don't actually fly, but rather use skin flaps that run from their front wrists to their rear ankles, called patagium, to glide from tree to tree. While most glides only cover about 20-30 feet, the patagium enables Southern flying squirrels to glide up to 100 feet if necessary.

While omnivorous like most squirrels, Southern flying squirrels generally fall much more on the carnivorous end of the spectrum. Though they particularly love hickory nuts and acorns, they'll also hunt insects, steal bird eggs, and even kill and eat young mice.

Why They Invade

While both Eastern gray squirrels and Southern flying squirrels each have two peak mating seasons, they will mate year-round if the conditions are right. This means that both types of squirrels are constantly on the lookout for any safe, sheltered place where they can raise babies.

Squirrels are nesting animals, making makeshift homes out twigs and leaves in tree branches, abandoned bird nests, and generally any other suitable hole they can find. These nests then serve as both a safe place to nurse young and a home base to hoard food.

Unfortunately, the roof, attic, and soffit areas are a trifecta for squirrels: they're protected from the elements, close to food, and warm, making them the perfect nesting and breeding ground.

They're also easy to reach: the Eastern gray squirrel has little trouble using his adept climbing skills to scale the side of the house, while the Southern flying squirrel can simply glide over from a nearby tree.



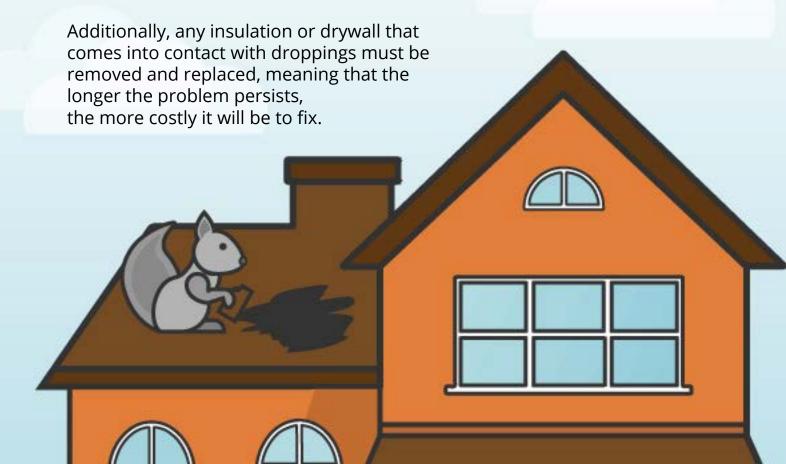
The Damage They Cause

Squirrels instinctively gnaw on just about anything they can get their claws on, whether it be nuts, bark, or the exterior of your home. Even the smallest opening presents an opportunity for a squirrel, who will gnaw away until minor cracks and gaps become gaping holes.

A squirrel's natural instinct to chew and gnaw through wood and other material is compounded by their tenacity. Rest assured, simply finding and patching an entryway is not enough: they WILL find another entrance, or simply chew through the barrier you've put down, and every hole they make puts your home at risk for roof leaks and water damage.

Of course, the gnawing doesn't stop at the home's exterior. Once inside, squirrels will sharpen their teeth by chewing on electrical wires. In fact, squirrels account for one of the largest causes of house fires, causing up to 30,000 home fires a year.

Unless they're foraging for food, squirrels don't leave the nest, meaning biological factors also come into play. Squirrel droppings carry pathogens that can spread through the house, leading to salmonella, Leptospirosis, and a host of other harmful diseases.



What You Can Do

While the average homeowner usually lacks the resources to fully prevent squirrel infestation, there are a number of steps you can take.

For starters, make sure that trees near your home's roofline are properly trimmed. Squirrels may still be able to climb up to access it, but at least their easiest access route will be cut off.

As an added precaution, after trimming the branches, fasten sheet metal with wire around the trunks of the trees closest to the roofline, preferably with a spring to allow the metal to spread as the tree grows. This will help stop squirrels from getting on the trees closest to the house in the first place, further cutting them off from their easiest access points.

Make sure to check the aforementioned roof, attic, and soffit areas for any potential points of entry, as well as any existing holes or cracks that squirrels might get to. Do your best to seal any potential entryways, but if it becomes apparent that squirrels have gotten inside, it's time to call a professional.

An important side note: DON'T use squirrel repellant sprays. These types of sprays are based on the premise that certain smells will repulse squirrels enough to make them stay away, but that's simply not how it works. Besides the fact that these sprays can be harmful to people and the environment, at the end of the day, squirrels are wild animals looking to find their best chance to survive and breed, and a bad odor will not deter them from what is otherwise a perfect nest.



When to Call a Professional

Although you as a homeowner can take a number of preventative measures to keep squirrels from getting into your home in the first place, once they're in, it's time to call a professional.

Depending on the area, the critters in your home might be considered endangered or protected species, so calling a pro might also save you a legal headache down the road.

Once called, a professional will be able to trap the animals if they are inside without killing them so that they can be released back into the wild. A professional will also be able to safely clean up the dangerous waste that might be left behind, and repair damaged areas.

After expelling the unwanted guests, the professional will also be able to seal all the entry points the squirrels have been using, and install a rust-proof galvanized metal flashing around the construction gap on the roofline, keeping them from returning in the future.











BATS

Unlike flying squirrels, bats have the ability to truly fly using their aerodynamic wings, making them the only mammals that can do so. Their wings make them excellent bug-hunters, and because the insects they typically prey upon are the types of insects that destroy crops and spread disease, their presence is a welcome sight to the humans with whom they coexist.

However, while bat presence can be hugely beneficial to humans, it only applies when the two share the same living space. Bat themselves can carry a number of diseases including rabies, and their droppings, or guano, are even more of a health hazard. For homeowners, bats represent great neighbors but poor houseguests.



Big Brown Bat		Little Brown Bat	
Size (Adult)	4-5 in	2.5-4 in	
Wingspan (Adult)	11-13 in	8.5-10.5 in	
Weight (Adult)	0.8 oz	0.2-0.5 oz	
Appearance & Physical Characteristics	 Fur color is generally chocolate brown on back, pinkish to olive-colored on belly, but can vary wildly Large skull with sharp, heavy teeth Broad nose Large, bright eyes Rounded ears 	 Glossy fur that ranges in color from dark brown, to reddish, to golden brown depending on the individual Small ears Large hind feet Head is flattened at the braincase 	
Avg. Lifespan in the Wild	Most die after their first winter, but survivors can live up to 19 years	6-7 years	
Behavior	 Primarily nocturnal Use echolocation to avoid obstacles and hunt for prey Use different calls depending on if the bat is searching for prey, navigating terrain, etc. Hibernate in the winter months 	 Primarily nocturnal Leave roosts at at dusk and are primarily active for two to three hours afterward and then again just before dawn Use echolocation to locate prey, navigate terrain, etc. Hibernate in the winter months Have separate roosts for daytime, nighttime, hibernation, and rearing young Form hibernation colonies that can house over 300,000 bats at one time 	
Feeding Habits	 Prey primarily on beetles, using its powerful jaws to crack the beetle's hard exoskeleton Also prey on other flying insects such as moths, flies, wasps, ants, dragonflies, etc. Before winter, will eat up to a third of its body weight in order to accumulate enough fat to hibernate 	 Prey on swarms of flying insects then catches several in mid-air by trapping them in their wings Also prey on insects on the surface of water by swooping down and grabbing them with their strong jaws Primarily feed on beetles but will also eat moths, mayflies, mosquitoes, lacewings, caddisflies, and other insects 	

Mating Habits

• Litter size: 1-2

digest its meal

- 50-60 day gestation period
- Females form maternity colonies to rear young, varying in size from 5-700 bats

• Begin foraging after sunset, will eat

until full, and then roost upside-down to

- During rearing, males will roost alone or in small groups separate from females
- Most young bats die during their first winter because they cannot store enough fat
- Reach adulthood at one year

• Litter size: 1-2

hibernation

- 50-60 day gestation period
- Mating follows active and passive phases and is promiscuous, with bats of both sexes mating with several other bats

Young bats remain active for longer

up a sustainable amount of fat for

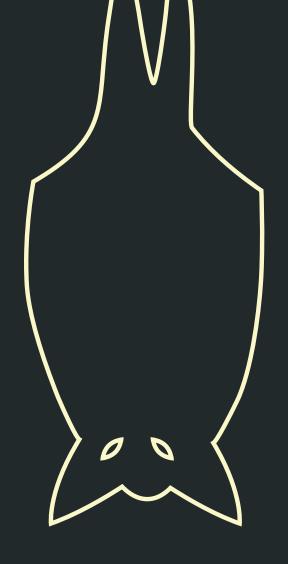
periods of time in the fall in order to build



While they can be found in heavily forested regions, the big brown bat prefers to roost in cities, towns, and populated rural areas. The bats benefit from the high concentration of insects in these areas, and humans get a free, eco-friendly form of pest control.

Like all bats, big brown bats are nocturnal, roosting during the day and hunting at night using echolocation. While flying, they will make different calls depending on the situation, whether it be navigating terrain, searching for prey, approaching a target, or attacking.

Their taxonomic name Eptesicus means "house flyer," due to the big brown bat's skill at breaking and entering. All it takes is a small hole or warped piece of siding for a big brown bat to get into a home, at which point the benefits of their bug hunting are outweighed by the risks they bring to the homeowner.



Little Brown Bat MYOTIS LUCIFUGUS

While its common name might imply that it's simply a smaller version of the big brown bat, the little brown bat actually belongs to the Myotis genus, made up of bats defined by their mouse-like ears used for echolocation. Other key differences include glossier fur and a flatter head.

Nevertheless, the little brown bat is indeed considerably smaller than its cousin, with adults only growing to about two-thirds the size of mature big brown bats.

Unfortunately, their smaller size makes it even easier for little brown bats to squeeze into holes and cracks in a house's lining.

Why They Invade

Like any other invasive animal, bats are always on the lookout for a safe place to sleep, mate, and raise young. Human dwellings are safe and warm, making them perfect candidates.

In homes, bats particularly like to roost in attics, soffits, louvers, chimneys, and porches. They'll also occasionally roost behind shutters and under siding, eaves, shingles, and roof tiles.

Outside of human dwellings, bats will also roost in barns, silos, churches, stadiums, and other buildings that humans inhabit. These areas all provide stable and highly-insulated environments for female bats to raise young, so they're all at potential risk of invasion.

Breeding peaks from early May to mid-August, but bats also migrate south for the winter. This means that Georgia homes are always potentially at risk of a bat taking up residence.





The Damage They Cause

While bats do indeed prey on disease-spreading bugs such as mosquitoes, they carry a number of diseases themselves that can be harmful to humans. Bats will bite if they feel threatened, and while their ability to spread rabies to humans is often over-exaggerated, it's nonetheless possible. They'll also spread bat mites, which are similar to bed bugs.

The real danger bats bring comes from their droppings, or guano. Bat guano can spread histoplasmosis, a potentially-fatal disease inhaled through spores. Because they prefer to roost in attics and ceiling spaces, a bat infestation poses the very real threat of spreading histoplasmosis spores through the HVAC system, contaminating the entire house.

Beyond safety, a bat infestation can also result in huge monetary losses if left untreated. Any home materials that come into contact with guano have to be either properly sanitize or removed entirely, and can ruin insulation, sheetrock, and particle board.

Bats leave rub marks when they enter or exist roosts, caused by the oils on their skin. These rub marks can damage or destroy sidings and gables, and can darken wood and other material like vinyl siding.



What You Can Do

Bats can squeeze through holes less than an inch in diameter, so it's imperative for any homeowner to seal any holes near the roofline or attic. Likewise, chimneys should be fitted with a tight-fitting steel cap, denying bats another possible entryway.

Unfortunately, aside from stopping bats from getting into the home in the first place, there's not much a homeowner can do in the case of an infestation. Bats are a protected species and young bats cannot be removed until they are capable of leaving on their own.

If you suspect bats may be getting in, watch the exterior of your home for about 30 minutes after the sun goes down every day. This is when bats become most active and start hunting, so if a bat colony is present, you'll likely see them exiting the roost and/or flying around closeby during this time.

When to Call a Professional

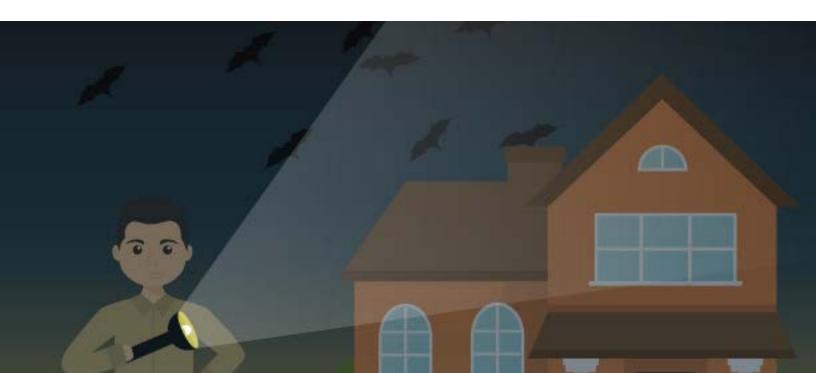
If you've seen bats near the home or have found other tell-tale signs like guano, call a professional immediately. The sooner a professional can get to work fixing the problem, the less costly and dangerous it will be in the long run.

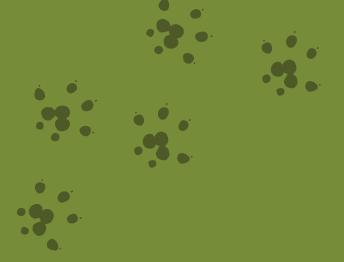
When a professional treats the house, he or she will be able to conduct a full inspection of the premises and identify any gaps where bats might be getting in, and if there is indeed an infestation.

Unfortunately, young bats are protected by law and cannot be forcibly removed until they can leave of their own accord, meaning that the exclusion process can't begin in full until the bats reach maturity.

However, once the young bats are able to leave, a professional can install special bat netting that allows mature bats to leave the house but not get back inside. This humane solution ensures that the bats themselves are not harmed while simultaneously getting the bats out of the house and into the surrounding areas where they can continue hunting bugs.

After all bats have vacated the home, a professional will also be able to effectively clean the infested area of any hazardous waste using specialized equipment, then re-seal any holes to ensure bats won't be a problem in the future. They can also perform regular checkups to ensure the continued safety and defense of the home.



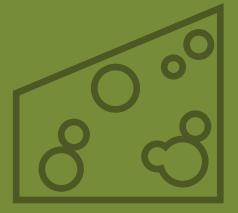


Rats & Mice

Like squirrels, mice can seem cute and harmless to the uninformed, with their big eyes and soft fur. But mice, and their close cousins, rats, can be absolutely devastating to human dwellings.

Rats and mice carry dozens of harmful diseases, including typhus, salmonella, rabies, dysentery, and several more. Most famously, rats were responsible for the spread of Bubonic Plague that devastated Europe and wiped out about a third of the population at the time.

Beyond disease, rats and mice can devastate a home's interior with their constant gnawing, and will spoil food by urinating or defecating in it, making them potentially one of the most expensive pest problems a homeowner could face.



	Norway Rat	Roof Rat	House Mouse
Also Known As:	House rat Brown rat Wharf rat Sewer rat Water rat Gray rat	Black rat Ship rat Gray-bellied rat Alexandrine rat White-bellied rat	N/A
Size (Adult) Weight (Adult) Appearance & Physical Characteristics	8-10 in	5-7 in	2.5-3.75 in
	12-16 oz	5-9 oz	0.5-1 oz
	 Stocky body Coarse body fur Back fur ranges in color from reddish to grayish brown, but several color variations exist, including black Underside fur is usually buff-white 	 Pointed snout Large ears, long enough to reach the eyes when pulled down Long tail, long enough to reach snout when pulled over body Very young rats have heads that are very large in proportion to body Back fur ranges from grayish black to solid black Underside fur varies from buff-white to all-gray 	 Small, slender body Large ears Long, semi-naked tail as long as the head and body combined Fur is usually dark gray on back and light gray on underside, but coloration can vary wildly
Avg. Lifespan in the Wild	Less than 1 yr.	1 year	1-1.5 years
Behavior	 Strong and aggressive Strong swimmers Well-adapted to colder climates Outdoors, make nests by burrowing underground tunnels In buildings, generally make nests in the basement or ground floor 	 Agile climbers Outdoors, make nests in above-ground areas like shrubs, trees, and dense vegetation In buildings, make nests in enclosed and elevated spaces like attics, walls, false ceilings, and cabinets, thus the nickname "roof rat" 	 Mostly nocturnal Outdoors, make nests in between cracks in rocks or walls, or burrow underground tunnels In buildings, make nests in rafters, storage areas, or any other secluded area near a food source Once a nest is established, house mice rarely leave the immediate proximity

Norway Rat

Feeding Habits

- Eat 1 ounce of food per day
- Drink ½ 1 ounce of water per day
- Cannot survive long without water
- Will eat almost anything but prefer food high in proteins and carbohydrates

Roof Rat

- Eat 0.5 oz of food per day
- Diet is high in water content and more vegetarian than most rats, preferring to eat seeds, fruits, and vegetables, but like all rats will eat almost anything

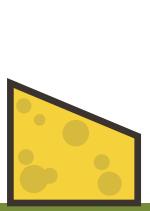
House Mouse

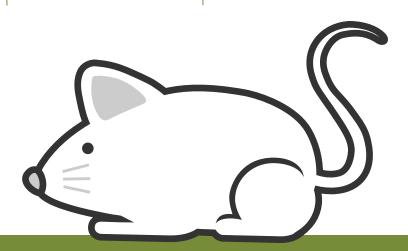
- Eat 1-1.5 oz of food per day
- Prefer seeds and cereal grains, but will eat almost anything
- Feed almost exclusively during the night, with most activity at dusk and just before dawn

Mating Habits

- Breeding peaks in spring and fall
- 22-day gestation period
- Average female produces 4-7 litters per year
- Litter size : 8-12
- Average female weans 20+ pups annually
- Breeding peaks in summer and autumn, but can last year-round if environmental conditions are favorable
- 21-29 day gestation period
- Litter size: 6-12

- Breeding peaks from spring to early fall but lasts year-round
- 19-21 day gestation period
- Litter size: 3-12
- If conditions allow, average female may give birth to a new litter every 24-28 days





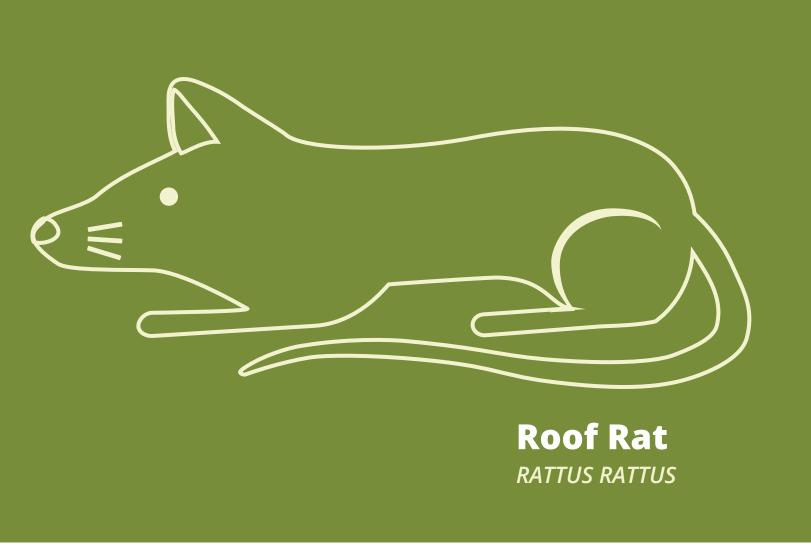


The Norway Rat

The Norway rat has a storied history, first appearing in China before spreading to Europe and North America by stowing away on ships. Now, the Norway rat can be found on every continent except Alaska, and are the most widely-distributed rat species in the US.

Larger, stronger, and more aggressive than its smaller cousins, Norway rats are fiercely territorial and will not hesitate to kill other rodents they come across, particularly roof rats.

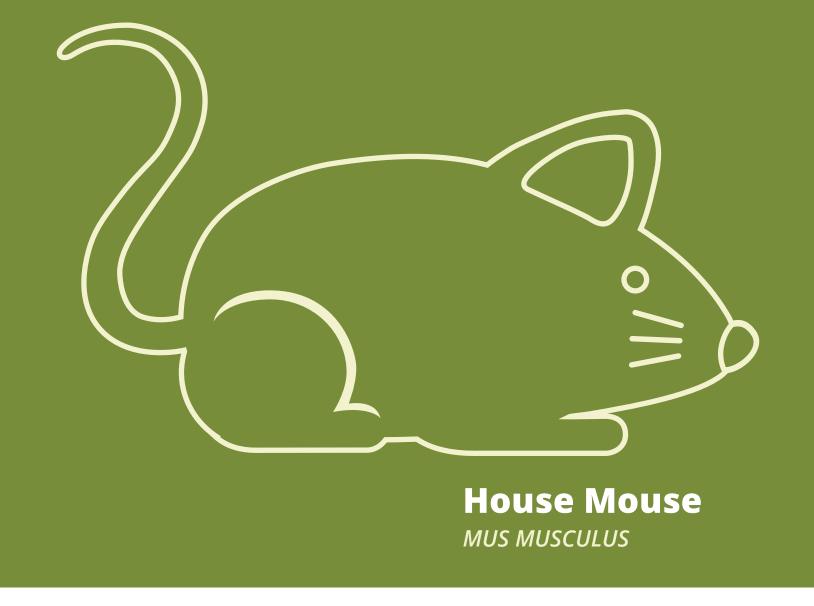
Norway rats are fast breeders: with a gestation period of just 22 days and 8-12 pups per litter, what starts as a small Norway rat population can quickly grow into a huge problem.



Rattus rattus has many names: the black rat, for its black fur; the ship rat, for its ability to flourish on ships; the house rat, for its preference to live in human dwellings, etc. However, homeowners should come to know it as the roof rat, because that's exactly how it gets into homes.

The roof rat is even more widely-dispersed than the Norway rat, and can be found on every continent on earth. It is well-equipped to live in any human-populated area, but are particularly numerous in coastal regions due to its history of hitching rides on ships.

While smaller in size, roof rats can be an even bigger nuisance than Norway rats. They can and will decimate whole crops on farms, and will destroy whatever they can't eat. They urinate and defecate on grain, cereals, and other food sources. Worst of all, they serve as host to all manner of disease-spreading parasites, most infamously the fleas that caused the Bubonic Plague.



While comparatively less harmful than Norway rats and roof rats, house mice can still devastate a home they've infested. Like their cousins, they will defecate on, urinate in, or gnaw through anything they can get their paws on, causing untold damage.

Of the three major rodent threats, house mice are the most neophobic, meaning that fear new things and will rarely leave the immediate vicinity of their nests. However, they are comparatively more intelligent, and can memorize obstacles, food and water sources, shelter, and environmental features easily, allowing them to quickly find food and bring it back to the nest to horde for later.

House mice are nocturnal, making up for their poor eyesight with keen senses of hearing, smell, taste, and touch. The fact that they are both nocturnal and highly neophobic means that they will avoid traps and bait for several days after they've been placed. This combination of traits also means that, if you see one during the day, your house may have a severe infestation.

Why They Invade

Norway rats, roof rats, and house mice are in a constant mating cycle, but beyond the desire for a safe environment to raise young, rodents are particularly drawn to the smell of food in a home.

While house mice are the most neophobic of the three, Norway rats and roof rats also prefer to stick to a small territory that's close to an immediate food source, and a human home fits the bill perfectly.

While they may enter the home through different means, all three can squeeze into holes less than an inch in diameter, and from there gnaw their way to every other part of the home.

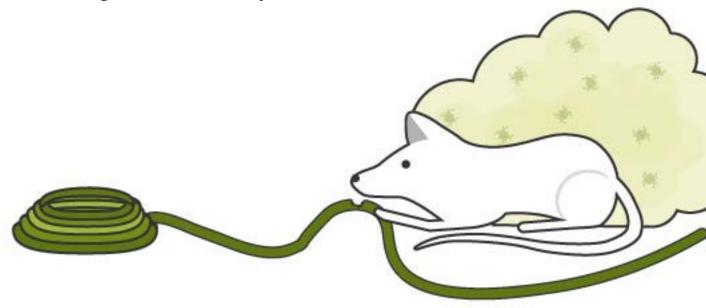


The Damage They Cause

Throughout history, rodents have brought devastation to human populations through the diseases they carry. Between biting, scratching, defecating, urinating, and shedding fur, if there's a means to spread disease, rest assured that a rodent will do it.

If that wasn't bad enough, they also host fleas and other parasites that can carry even worse diseases. A high enough rodent presence can even lead to a secondary infestation from the parasites they're hosting.

Rodents' teeth are constantly growing, so they'll gnaw on anything they can find to file them down. If that means gnawing through wood, plastic, or wire, it makes no difference to them. In fact, rodents chewing on electrical wire is one of the leading causes of house fires, accounting for 30,000 fires a year.



What You Can Do

The first step to preventing rodent infestation is to deny them a safe environment. Rodents love making nests in boxes, old clothes, and other junk in the attic and basement, so getting rid of clutter in the house gives limits their ability to nest and breed.

Clean the whole house. While particular focus should be placed on the attic and basement, rodents are attracted to any food sources they can find, so keeping the whole house clean of food and crumbs gives them less incentive to invade. Store food in airtight, pest-proof containers for the best results.

Inspect the whole house for small holes and seal them wherever possible.



When to Call a Professional

If you even suspect that you may have a rodent problem, call a professional immediately. Just setting traps around the house isn't enough: rats and mice may not take the bait, and even if they do, it still won't solve the other health risks they pose.

Beyond offering further advice, a professional will also be able to identify exactly where and how rodents are getting in and seal any gaps. They'll also know exactly what types of traps to use and where to place them to get the most effect.

Once the rodents are removed and the entry points sealed, the professional will also be able to deploy poisons to the control area to prevent further infestations, but in a manner that doesn't endanger the people or pets living in the home.



Wildlife invasion is simply not an option. Besides the costs of repairing property damage, letting squirrels, bats, or rodents into your home puts you and your loved ones in danger, and the longer the problem goes untreated, the more costly it will be to fix.

With your home and health at risk, you as a homeowner have to take steps right now to keep wildlife from getting in. Unfortunately, the average homeowner lacks the knowledge and equipment to remove wildlife invaders, clean the hazardous waste they leave behind, and properly seal the house to keep them out for good. You need an expert on your side.

Your home needs protection, but you can't do it on your own.
The team at Breda Pest are insect and wildlife experts with the training, equipment, and knowledge to remove your pest problem and prevent it from ever happening again.

Find out more about our wildlife exclusion services at **Bredapest.com**