

How to Keep Cockroaches Out of Your Home

They have an uncanny knack for survival. One method is to move into your kitchen where a ready supply of food resides. But if you're as grossed out and squeamish about these critters as most are, you'll be glad to learn five natural methods to outsmart these fast movers.

Reviewed by [Dr. Becker](#)

STORY AT-A-GLANCE

- Cockroaches have survived global extinctions, including that of the dinosaurs
- Cockroaches realized early on that living near humans provides a place of shelter and a steady source of food
- Cockroaches are capable of spreading E. coli and salmonella and are a significant cause of indoor allergies

Editor's Note: This article is a reprint. It was originally published July 21, 2015.

Cockroaches may be the most loathed insect species on the planet, but even if they make you squeamish or, worse, if you suffer from katsaridaphobia (cockroach phobia), you've got to admit ... these creatures deserve some respect.

Cockroaches have survived global extinctions, including that of the dinosaurs, and here they are today, completely unscathed. There's fossil evidence of cockroach ancestors that dates back 300 million years, and they've changed very little since then.

Their tendency to cohabitate with humans, as distasteful as it may be to you and me, is no coincidence. Cockroaches didn't survive 300 million years on luck alone ... they've got a knack for survival, including realizing that living near humans provides a place of shelter and a rather steady source of food.

For an insect that will eat anything that you do (plus more), what better place to reside than in a kitchen or restaurant? Preferring warm, dark and moist living quarters, and being nocturnal by nature, you probably won't see your uninvited houseguests during the day (and if you do, it's because you've got such a bad infestation that the roaches have run out of places to hide).

Cockroaches Have Outsmarted Roach Traps

In the 1980s, cockroach baits emerged that mixed insecticides with sugars designed to entice the roaches into consuming the tasty "snack." Once the poison was consumed, the roaches would return to their nests and die — and possibly be eaten by other roaches that would then ingest the poison as well.

Yet, the traps are no longer so appealing to 21st century roaches, whose taste buds have evolved to make the sweet baits taste bitter. Considering they've survived for ages, it shouldn't come as a surprise that these highly adaptable creatures outsmarted our attempts at their demise. As written in the journal *Science*:¹

"In response to the anthropogenic assault of toxic baits, populations of the German cockroach have rapidly evolved an adaptive behavioral aversion to glucose (a phagostimulant component of baits) ... The rapid emergence of this highly adaptive behavior underscores the plasticity of the sensory system to adapt to rapid environmental change."

There are other traits that give roaches a unique survival rate as well. Their flat body shape, for starters, allows them to fit easily into tiny cracks and crevices. They also have multiple lenses in their eyes, which gives them enhanced vision and the ability to view multiple objects simultaneously.²

As for reproduction, a female roach can lay up to 50 eggs at a time and may produce thousands of offspring a year. Once hatched, the nymphs quickly change in color from white to light brown and their shells start to harden. Roaches may live one to two years, which is not too shabby among the insect world.

Also helpful is the fact that roaches can eat almost anything. While they enjoy meat and candy, they'll also chow down on soap, grease, beer, hair, leather, and even glue. Curiously, while many cockroach species have wings, most do not fly.

What Types of Cockroaches Are Common in the US?

There are about 3,000 species of roaches worldwide, about 50 of which live in the US. Four common types:³

- **German Cockroach** — Growing in size up to 16 millimeters, German cockroaches are light brown or tan in color. Their claws allow them to scale walls and even ceilings with hardly any effort.

Females carry their fertilized eggs with them until just a few days before they hatch, at which point they'll deposit the egg sac in a safe location. German cockroaches can fly, although they typically scurry away in lieu of flight.

- **American Cockroach** — These cockroaches reach up to 50 millimeters in length and are reddish brown in color. American cockroaches typically live outdoors in rotting logs or gardens, but they may move indoors during cooler months. This cockroach species can fly for short periods of time and may do so to evade an attacker.
- **Oriental Cockroach** — Oriental cockroaches can grow up to 32 millimeters and are colored dark brown or black. Like the American cockroach, they typically live outdoors until temperatures fall, but they are not adept at climbing, which means they need a pipe or other open access to enter a home.
- **Brown-Banded Cockroach** — These roaches grow up to 14 millimeters in size and have tan bands across their bodies and wings. Brown-banded cockroaches like warm temperatures greater than 80 degrees F, so when they live indoors they tend to gather around areas of warmth, such as light fixtures or motors.

Wondering if Your Roach Friends Are Male or Female?

If you've seen a roach in your home, wondering about its gender was probably the last thing on your mind. However, if you want to become an expert, it's not too difficult to distinguish a male roach from a female. For instance:⁴

- Among oriental cockroaches, only the males have wings. Among Cuban cockroaches, both genders have wings, but the females' are less developed.

- Female cockroaches tend to be larger across most roach species.
- Among Madagascar hissing cockroaches, the male is not only larger than the female but also has thorny protrusions behind its head.
- Sometimes color can be an indicator. Among the Pennsylvania wood cockroach, males are a tan color while females are dark brown. Males of this species also may fly while females are flightless. And, males often gather with other males while females are solitary.
- Among German cockroaches, males have thin, tapered bodies while females have stout, rounded bottoms.

Interestingly, although you won't be able to detect it, chemical signals known as pheromones may also reveal cockroach gender. As reported by Mom.me:⁵

"Although we can't detect the pheromone with our noses, they can be crucial to the control of pest roach species. A Cornell University study, 'Identification of the Sex Pheromone of the German Cockroach, Blattella Germanica,' found that female sex pheromones could be used to attract and trap males, significantly reducing the number of pest populations."

Can Roaches Spread Disease?

Roaches are capable of spreading disease, particularly E. coli and salmonella, which they may pick up from garbage or rotting food – and then spread around your home (or, ick, your food). You could, therefore, come down with a case of roach-transmitted food poisoning.

In addition, roach droppings and shells can trigger allergies or worsen asthma symptoms in some people. Among inner city children, for instance, cockroach allergy combined with high levels of exposure to cockroach allergens has been suggested as a cause of asthma-related health problems.⁶

In the cockroaches' defense, however, they are not nearly as "dangerous" as other insects like ticks, fleas and mosquitoes, which carry diseases and feed on human blood, skin or fluids. (Alternatively, mosquitoes have been described as the "world's deadliest animal", but most people would take their chances with a mosquito over a cockroach any day⁷).

Cockroaches Have Different Personalities and Other Weird Cockroach Facts

This isn't likely to change your perception of roaches ... but, then again, maybe it will. Researchers studying insect behavior found that even cockroaches display unique differences in personality that differ among individuals in a group.

For instance, if all roaches were the same, they would seek safety using the same methods — but this isn't the case. One study found that when roaches were left out in the open, some "shy" roaches would stay hidden as much as possible while the "bold" roaches wanted to explore.⁸ Study researcher Isaac Planas Sitjà from the Université libre de Bruxelles told The Guardian:⁹

"Shy individuals are those that spend more time sheltered and explore less of the arena or the surroundings. Instead, bold individuals are those that spend most or part of the time exploring the surroundings and spend less time sheltered."

Differing personalities are likely one more survival advantage enjoyed by the species. The Guardian reported:¹⁰

“Different personalities are thought to help the survival of the species because by driving different behavior it increases the chances of at least some surviving when disaster strikes ... In their natural environment the differences in personality could improve the chances of adventurous cockroaches finding extra food but simultaneously increase their chances of being preyed upon.”

What else is there to know about roaches? Cockroaches are the fastest insect on the planet and, thanks to sensory organs in their legs, they can detect potential threats and escape in just 40 milliseconds. In the US, cockroaches are found in all 50 states, but Texas is home to the most species — 32 in all. If you’ve ever witnessed a cluster of roaches feeding on one morsel of food, it’s because they send out pheromone signals to alert other roaches when they’ve found something tasty. And, one cockroach factoid that only adds to their ick factor is this: if you cut the head off a cockroach, the head can live for several hours while the body may survive for several weeks ...¹¹

Natural Roach Repellent Tips

While these hearty insects are certainly admirable in terms of their survival edge ... you would probably still prefer they live anywhere other than in your home. Some tips to keep cockroaches under control include:¹²

- Placing food and waste in sealed containers
- Filling in cracks and crevices with caulk and paint
- Placing screens over vents and windows where roaches may enter
- Applying boric acid and diatomaceous earth to areas where pests are found
- Essential oils, sprayed where roaches are entering and/or living, may be effective. Try a mixture of cypress oil and peppermint oil mixed with water.

Sources and References

¹ [Science](#). 2013 May 24;340(6135):972-5

² [Mom.me The Characteristics of Roaches](#)

³ [Mom.me Common Household Roaches](#)

^{4,5} [Mom.me Gender Differences of Roaches](#)

⁶ [N Engl J Med](#). 1997 May 8;336(19):1356-63

⁷ [GatesNotes April 25, 2014](#)

⁸ [Proceedings of the Royal Society B March 7, 2015](#)

^{9, 10} [The Guardian February 4, 2015](#)

¹¹ [Mom.me The History of Roaches](#)

¹² [Planet Natural](#)
