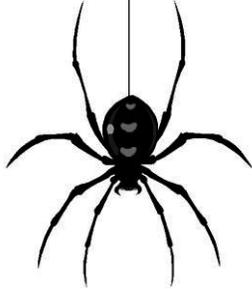


# Oh Those Spiders!



Spiders exist on this planet in greater numbers than most people realize. It's estimated that over *50,000 spiders* on average live on a single acre of undeveloped land.

Fortunately, the vast majority of these spiders are entirely harmless, even if they crawl on you. They either don't have strong enough mouthparts to bite through a person's skin, or their venom isn't strong enough to affect us.

But occasionally a spider bite will cause itching, swelling, pain near the bite, or an actual open wound. Some of these symptoms are due simply to a person's allergic reaction to the foreign proteins in the venom, even if the venom itself is not potent. People vary as to how sensitive they are to spider bites, just like they vary in their reactions to insect bites.

Venom from some spiders is more potent than others. *Brown recluse spider* bites can develop into a wound that becomes an open, festering sore that heals very slowly. *Black widow* and *brown widow spider* bites cause more generalized pain that can last for several days. Their

bites should always be treated promptly by a physician. It was thought that *hobo spider* bites leave an open wound, but now the consensus is that they don't. *Yellow sac spiders* cause a much more mild reaction. If you are bitten, it's a good idea to capture the spider or insect for identification.

Our professional spider treatments not only help control these creepy pests and prevent spider bites, they also save you the work of cleaning up what spiders leave behind—webs, egg sacs, dead insects, and stains.

## Pest Prevention Tip of the Month

"Edible landscaping" is the idea of using plants that produce fruits, or some other edible part, as landscape plants. Just remember to not plant anything that has fruits or nuts if you don't plan on harvesting them. Unused fruits and nuts attract and provide food for rodents, as well as wasps and other insect pests.

# Wasp Attacks

*Yellowjackets, hornets, and wasps* are considered 'social insects' because they all live in colonies and generally get along with each other. But that doesn't mean they are friendly or social towards people! They can act downright unfriendly, and if they feel their colony is being threatened in any way, they present a real danger. Large numbers of them can quickly come boiling out of a nest and attack an intruder.

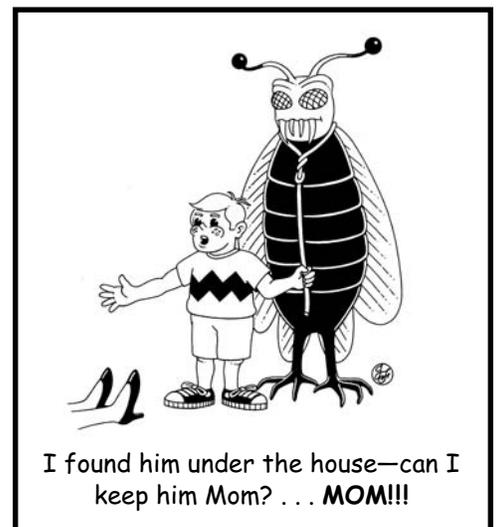
Even vibrations from a lawn mower, or walking near a ground nest, or a family pet poking around a nest, can disturb social wasps and cause them to attack. Some nests of social wasps can be quite large—one unusual nest in Florida had grown to contain a *million adult wasps!*

Wasps that don't live in colonies are known as 'solitary wasps'. Most can sting,

but fortunately they tend to be less aggressive, and they don't mass attack.

To help prevent wasp problems, screen and weather-strip doors and windows to keep these pests outside. Pick up and dispose of ripe fruit under trees that they can scavenge on.

If you or anyone in your family, or friends who visit you, are allergic to insect stings, all nests of these insects on your property need to be controlled. If there are no allergies or pets, some homeowners choose to have us control just those nests that are most likely to result in stings—all social wasps, and all wasp nests next to a window or door, near a patio, or near a walkway. If you discover nests of stinging insects, call us—we are experts in controlling these sometimes angry and dangerous pests.



## New Viruses & Superbugs Found in Mice

**M**ice live where we live, so it can be easy for whatever germs they carry to be transferred to us. A new, year-long assessment of mice in New York City discovered an amazing *six new viruses*, as well as *antibiotic-resistant bacteria*.

The study collected 416 mice in the city over a year period, and then analyzed their droppings for bacteria and viruses. Running genetic tests, the researchers found *149 species of bacteria*. Included were the most common causes of gastrointestinal problems: *Salmonella, Shigella, E. coli, and C. difficile*. Salmonella alone causes 1.2 million reported cases in the US each year, including 450 deaths.

Also alarming was that the genes indicated antimicrobial resistance to several common antibiotics, meaning the mouse droppings contained bacteria that would be difficult to treat with common antibiotics.

There were also *36 different viruses* in the droppings, including six new viruses never seen before. Fortunately, none of the known viruses were known to affect humans, but it is not known if the new viruses can infect humans.

## Bed Bugs Get Around

**A**live infestation of bed bugs was discovered recently in an upholstered chair in the sitting area at the Kansas City International Airport.

If these blood-suckers wanted to hitch a ride somewhere, they were in the right spot!

The entire area had to be closed off and treated before it could be reopened.

Surveys nationwide showed bed bug activity slowed down in most areas during the cooler months, as it always does. Bed bug activity will pick up when the weather warms and the bugs start becoming more active and reproducing faster.



## Many Mosquito Repellents Are Not Effective

**E**ver put on a mosquito repellent and then been bitten? A study at New Mexico State University found that most mosquito repellents being marketed actually do a very poor job of repelling mosquitoes. Of the many spray-on and rub-on products tested, all of them were poor repellents *except* those that contained **DEET** or **PMD (oil of lemon eucalyptus)**.

Of the two DEET formulations, a 40% and a 98% product, the higher concentration was the most effective product tested. (It usually is both a better repellent, and lasts longer.) The oil of lemon eucalyptus that worked was a 30% concentration. Other botanical and herbal products repelled fewer or no mosquitoes, and tend to be shorter-lived.

In addition, several mosquito bracelets and wrist bands, and a wearable sonic repeller, were all found to be ineffective in repelling mosquitoes. (The sonic repeller uses ultrasonic sound, and sound has never been found to be effective at repelling mosquitoes—it's a waste of your money!)

One wearable device fared well. It was a clip-on that had a nebulizer to vaporize its chemical repellent, Metoflurthrin.

A repellent candle was also found to be ineffective.

If you are outdoors and there are mosquitoes around, please use an effective repellent to protect exposed skin!

## Pest Pro to the Rescue!

**A** gigantic wasp nest, *larger than a medium-sized car*, was discovered in a tree in New Zealand.

To treat the nest and kill the wasps, a pest management professional, wrapped in protective clothing, was dangled above the nest by a rope from a helicopter. The proper diluted insecticide solution was poured as he clung to the rope—a technique, no doubt, requiring extreme skill and coordination!



## Are Gray Squirrels Smarter than Red Squirrels?



**A** recent study in the United Kingdom found that a greater percentage of wild gray squirrels solved more difficult food-finding tests than red squirrels. The tests involved a process of pushing and pulling levers to get to hazelnuts. The better problem-solving skills of invasive gray squirrels may explain why they have displaced red squirrels, and are now by far the most common squirrels there.

The gray squirrel in the United Kingdom is the same as our Eastern gray squirrel, which the British imported in the 1870's, when it was considered fashionable to have them on estates. Since then this squirrel has spread and displaced their native red squirrel (which is a different species of red squirrel than our American red squirrel).

Squirrels are generally considered beneficial in forests, because they bury tree seeds to eat later, and then forget where they buried some of them. These seeds sprout and grow into trees. However, gray squirrels are considered pests there because they have taken over much of the territory of their native red squirrels, plus they harm some of the native trees.

This study still doesn't fully explain why gray squirrels are spreading in the United Kingdom. In the tests, some red squirrels solved the task more quickly than gray squirrels, and the successful red squirrels were quicker to change tactics after trying a method that didn't work.