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Pests Invade in Fall

Now and during the months ahead our weather starts a gradual change, causing changes in pest problems as well. Some of the fall-invading pests in our area have already begun looking for food indoors, or a more protected place to spend the winter. Unfortunately, homes and other buildings are exactly what many of the fall invaders are looking for.

Some common fall invaders:

Rats and mice are like a "pest from hell"—who wants them? These have been multiplying outdoors all season, and now are searching more aggressively for ways to get indoors.



Ladybugs, particularly the spreading multi-colored Asian lady beetle pictured at left, can become a major invader. This insect was introduced to control crop pests, and then starting unexpectedly becoming an indoor pest. Some people are allergic to this beetle when it invades in large numbers.

Wasp and **yellowjacket** queens overwinter in protected places and start new colonies in the spring.

Ant colonies are huge this time of year, and some species become constant

invaders.

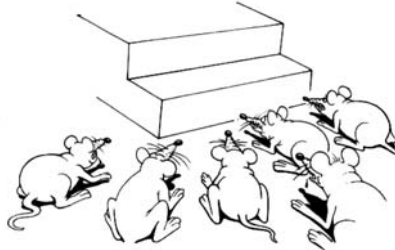
Many kinds of **crickets** invade homes in the fall, sometimes in large numbers

Other common fall invaders include **stink bugs, boxelder bugs, cluster flies, clover mites, elm leaf beetles, root weevils, cockroaches, millipedes, and centipedes.**

It's during these months ahead that our professional pest management services are especially important to protect you and your pets, as well as your home and belongings, from pests that can cause either damage or can sting, bite, or spread diseases.

Rats & Mice Are Moving Indoors

Most of us have a natural revulsion for mice and rats, whether our first impulse when we see one of them is **EEK!**, **UGH!!**, or **YUCK!!!** Rodents are pests throughout the year, and this year they have been especially numerous in many areas. But it's during the fall and winter, when it starts to cool down outside and food is scarcer, that we see the number of mice and rats invading homes and businesses dramatically increase.



grains are among the foods they will consume regularly. They develop food preferences—mice in offices show a preference for chocolate and snack foods, presumably because these are the foods they find there.

Keep in mind that mice and rats multiply fastest when they have plenty of food, water, and shelter. For instance, mice give birth to 2-13 young every 30-50 days. It's been shown that mice that have everything they need produce the largest litters, and more frequently. So as much as possible, it's always important to prevent mice and rats from having access to food, water and shelter.

We are the area experts at controlling these common rodent pests. If you, or someone you know, have mice or rats, call us to control them.

Pest Prevention Tip of the Month

Dense shrubbery flush with the ground provides shelter and hiding places for rats, mice, and other rodents. Pruning out branches near the ground eliminates this and reduces "rodent curb appeal." A good height to clear up to is about 18 inches off the ground.



Zika Mosquitoes Notes



Aedes aegypti

The Zika virus can only be transmitted by two species of mosquitoes in the U.S., but these are widespread in the southern half of the country and have been found north as far as southern Minnesota and New Hampshire. These two mosquitoes, both in the genus *Aedes*, only fly short distances and generally stay within a *300 foot range*.

A person commonly becomes infected by traveling to a place where Zika-infected mosquitoes bite them. When they come to the U.S. and are bitten by one of our two species of mosquitoes that can transmit the disease, they pass the virus on to the mosquitoes, which then start infecting anyone they bite in their local area.

Mouse Meningitis

When we think of diseases associated with mice, we generally think of Hantavirus, Salmonella, and other diseases. But as we enter the busy rodent season people need to be aware of another mouse-borne disease. Called "mouse meningitis" by some, its full name is *lymphocytic choriomeningitis*, or LCM for short. The virus that causes this disease is *lymphocytic choriomeningitis virus*, or LCVM.

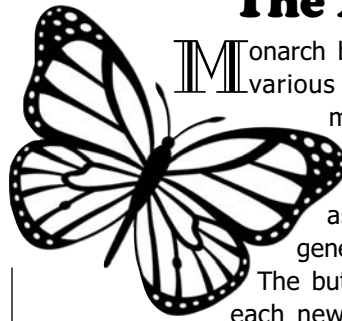
Like Hantavirus, people can get LCM when they are exposed to fresh urine, droppings, saliva, or nesting materials from infected mice. Only the common house mouse carries the virus (although pet hamsters can catch it from house mice). The Centers for Disease Control and Prevention estimates that about **5 percent** of house mice in the U.S. carry LCVM virus. The virus occurs throughout the country. Once mice are infected, they remain infected for their entire life and can continue to infect people and other mice.

Although mice never show any signs of the illness themselves, infected people start off with "flu-like symptoms", then the disease starts to have neurologic symptoms.

Pregnant women who become infected with the virus can pass the virus along to their baby, who may suffer serious consequences, including mental retardation.



The Amazing Monarch



Monarch butterflies are starting their annual migration to various warmer areas of the country, as well as the mountains of central Mexico.

These amazing creatures migrate south in the fall, with some populations traveling as far as 4,580 miles. In the spring, it takes several generations of the butterflies to cover this distance.

The butterflies mate and lay eggs along the way, with each new generation of adult butterflies continuing the journey north along the migratory route.

How do they keep flying in the right direction? It turns out that monarchs use two completely different navigation systems, depending on whether it is a sunny or cloudy day. When the **sun is shining**, monarchs navigate by the sun and use a *time-compensated sun compass*.

Until recently, scientists were stumped about how monarchs navigate on **cloudy days** with no sun to navigate by. It turns out that monarchs use geomagnetic clues—they use a sophisticated magnetic inclination compass system, using the angle of the Earth's magnetic field to guide their movement. This is similar to that used by much larger-brained migratory vertebrates such as birds and sea turtles.

But the new research shows that the navigation system monarchs use on cloudy days uses light as well as geomagnetic cues. Monarchs have special cells in their antennae that can detect ultraviolet light, and since that light penetrates clouds, it is a cue that they can use even on cloudy days.

In effect, on cloudy days monarchs use a very sophisticated *light-dependent magnetic inclination compass*. It turns out that these beautiful butterflies have a navigational system that is truly amazing!

Where are Bed Bugs Being Found?

A survey last year found that most bed bug infestations are being found in apartments, condominiums and homes. But bed bugs are also being found in the following places, listed in order from the most to the least often infested:

- Hotels & Motels
- Nursing Homes
- Office Buildings
- Schools & Day Care Centers
- Hospitals
- Doctor's Offices
- Trains, Buses, & Taxis
- Retail Stores
- Movie Theaters



Drones Battle Tsetse Flies



Ethiopia is using drones to help in the control of tsetse flies. These flies spread the dreaded sleeping sickness, a disease that starts with exhaustion and fever, and can lead to death if left untreated. The sleeping sickness parasite is transmitted by the flies when they feed on the blood of humans and animals in Sub-Saharan Africa.

Airplanes have been the main method of spreading sterile male tsetse flies. When the laboratory-bred males mate with wild female tsetse flies, no eggs are laid, and the populations of the flies are gradually reduced with repeated releases of the sterile flies.

The unmanned drones will be able to fly lower and longer than airplanes, and each flight can cover 40 square miles and release 5,000 sterile male flies.