Haggerty Pest Service

Dedicated to Safety, Service & Satisfaction

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SPRING 2020

Bug Bytes Newsletter

Pest Control Heroes

We often think of *yellow fever* as a tropical disease in a distant place. But in the early years of this country it was very widespread and serious here. For example, in 1793 alone, about *5,000 people died in Philadelphia* from this mosquito-transmitted disease.

Incredible as it may seem to us now, at that time people had no idea that insects transmit diseases. Research by Carlos Finlay started to change all that. Now we know that insects transmit many disease-causing germs, but Finlay was widely ridiculed because he theorized that a bite by an infected mosquito would result in yellow fever.

Three U.S. Commissions formed during the late 1800's all failed to determine how yellow fever was transmitted. In 1900 a fourth commission, led by Walter Reed, visited Finlay, who was conducting studies in Cuba. Finlay gave Reed his 19 years of research, and although Reed still didn't believe a lowly mosquito could be transmitting the disease-causing organism, he did leave several of his associates with Finlay. Two of these very brave men allowed themselves to be bitten by infected mosquitoes. Both of them soon contracted the disease, and one, Jesse Lazear, died. It was Lazear's death that finally helped focus attention on the mosquito as the culprit.

Soon after this, the U.S. for the first time worked on controlling the mosquito that transmits yellow fever, and was able to finish the Panama Canal—an accomplishment the French had tried earlier and abandoned because thousands of their workers had died from the disease.

Carpenter Ants Starting New Colonies

Long before we started using anti-freeze in our cars, carpenter ants were using a similar product, *glycerol*, to keep the liquids in their bodies from freezing. Their bodies produce this natural substance, giving these ants an amazing ability to survive even freezing temperatures. It also means carpenter ant colonies survive the winter largely intact, ready to cause more damage when warm weather arrives.

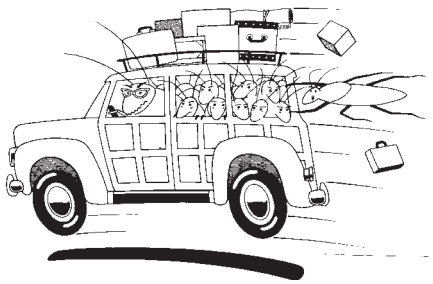
In the spring, winged ants, called "swarmers" fly out of mature carpenter ant colonies and take to the air. Swarmers are fully reproductive males and females, unlike the more common worker ants, which are sterile. The sole purpose of swarmers is to start new colonies. Female swarmers, which will become future colony queens, mate, find protected spots to nest in, lose their wings, and then begin their life-long task of laying eggs daily.

As carpenter ant colonies expand in size, they also begin to form what we call "satellite" colonies. *A large colony many have one, or in some cases as many as a dozen or more hidden satellite colonies.* Because these colonies cooperate, they greatly extend the amount of area a colony can cover as they look for food. Often the main, or "parent" carpenter ant nest is located where there is more moisture, either indoors or outdoors. Satellite colonies may be in a similar, or dryer spot.

Call us right away if you find either winged or non-winged ants you believe may be carpenter ants, either indoors or around your home, or see other signs of these "home destroyers". We will arrange for an inspection and control of these troublesome pests and their colonies.

Pest Prevention Tip of the Month

If you cut flowers and bring them indoors, check them first for insects, especially carpet beetles in the spring. Adult beetles feed on pollen, especially on white and cream-colored flowers, then fly off and lay their eggs on items their larvae eat, such as wool, silk, and leather. Rinse your flowers before bringing them indoors.



"Yes kids,our new home will have plenty to eat!"

Thank you for your business and referrals!

Bees Attack Firefighters and Police

In late February a swarm of 40,000 "very aggressive" bees in Pasadena, California, caused a busy city street to be closed until the threat was over. A police officer who arrived on the scene to help and two firefighters were among five people sent to the hospital with multiple stings, and many other people were stung.

The six-foot long hive was discovered on the top floor of a local hotel. It was sprayed with a special foam to kill the bees and prevent anyone allergic to bee stings from being stung. Something had set off the bees—some noise, activity, or vibration. The hive was made up of Africanized honey bees, which attack more quickly and in greater numbers than other honey bees.

Moose Tick News

You probably never thought that ticks can be a major problem for a huge animal like a moose, but they are. An average of 33,000 winter ticks, also called moose ticks, infest each moose, according to one study done in western Canada. Fortunately, this kind of tick only rarely attack humans!

The ticks get so bad that moose rub off their fur trying to rid themselves of the ticks. This exposes light patches of skin, and a term, *ghost moose* is used to describe this condition.

A recent study in New England also found the ticks were causing a 70% death rate among moose calves.

The ticks affect elk and caribou as well. Horses, deer, and cattle are also attacked by these ticks, but these animals apparently groom themselves more, reducing the severity of the problem.

Recently, a natural fungus was discovered that kills these ticks. A study is being conducted to see if the fungus can be spread in areas where the ticks are, killing them before they attack these majestic animals

Viruses from Bats are More Deadly

The **Coronavirus**, also called COVID-19, from China apparently originated as a virus of bats. In fact, a new study released in February by the University of California, Berkeley, points out that a number of serious viral disease outbreaks in recent years, including **SARS**, **MERS**, and **Ebola**, all originated from bats.

Just why is that? The study found that bats have unusually strong immune systems, which causes bat viruses to have greater virulence. The viruses that survive bats wreak havoc when they cross over, usually through other animals, and infect humans and other animals that have tamer immune systems.

When bat cells are attacked by a virus, with amazing speed they release *interferon*. This molecule instantly signals other cells to wall themselves off from the virus. The only viruses that survive this quick response are the ones that become able to multiply so quickly within a host that the cells can't mount a defense. Let's hope that this and other research will help us to better understand and treat these viruses.

Rat Eats Money

A rat slipped inside an ATM machine in northeastern India and started chewing and shredding the money inside, probably to create nesting material. By the time the rat was finished, it had chewed to shreds over $19,000 in bills, or 1.3 million rupees.

The rat was found dead inside. It had apparently entered a small hole where cables come into the machine.

Flies Carry More Diseases than Thought

DNA sequencing techniques were used to study the collection of microbes found on flies. *The house fly was found to harbor 351 types of bacteria, and the blowfly carried 316 types*, some of which were the same bacteria as on the house fly. This is a larger number of bacteria that flies carry than previously thought.

Many of the bacteria found cause infections in humans, including diarrhea, blood poisoning, pneumonia, and stomach ulcers.

The study found that the flies' legs were the most common means of bacterial transmission. The legs had the highest diversity of microbes of any of the fly's body parts. Each step that a fly takes, as it wanders over a food surface, leaves behind a track of microbial colonies. (Flies have sensory cells on their feet, so they are able to taste food, to determine if they want to eat it, simply by walking on it.)

It makes a person think twice before eating food on a picnic that has flies landing on it!