Todd Murray

The HOBO SPIDER Willies

by Todd Murray, Washington State University Extension Educator, King County

I'm not going to tell you that you shouldn't be scared of spiders. Spiders provoke an almost instinctive repulsion that I like to call "the willies." Very few things in this world make me scream like a little girl, but house spiders, such as hobo spiders, are one of those things.

Hobo spiders, *Tegenaria agrestis*, are European immigrants to the Pacific Northwest arriving in the Puget Sound shortly before 1930. Since their introduction, hobo spiders have expanded their range into neighboring states and as far as Utah, Wyoming, and even have isolated populations in Colorado. The hobo spider's close European cousin, the giant house spider, has also made its way into the Pacific Northwest. Using the naked eye, the giant house spider, *Tegenaria gigantea*, is identical in appearance to the hobo spider, but is larger on average. Interestingly the giant house spider is believed to be a fierce competitor to the hobo spider in its native homelands and lays its territorial claim inside English homes, excluding hobo spiders.

Both spiders can superficially resemble many other spiders found in our homes and yards. Without proper training and a handy microscope, identifying spiders is difficult. The two spiders

The adult female giant house spider, *Tegenaria gigantea*, looks identical to the hobo spider, *Tegenaria agrestis*, but is larger.

are brown, hairy and have chevron markings across the abdomen. Both spiders are obscenely large in my opinion, with body lengths up to three quarter inches long not including the long legs. If you choose to be so adventurous, you can flip the spider on its back and look at the sternum (the plate where all the legs join on the center of the body).

Giant house spiders can have circular markings along the perimeter of the sternum while hobo spiders have a solid line or cloudy band on the margins of the sternum. This identifying characteristic only works sometimes and isn't reliable. To accurately identify hobo spiders, you need to look at their reproductive parts under a microscope. Rick Vetter from the University of California at Riverside, and Dr. Art Antonelli at Washington State University, have made a really useful guide to help, called "How to identify (or misidentify) a hobo spider" *(See "More information").*

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A typical funnel web woven by the giant house spider, *Tegenaria gigantea*.

Rod Crawford, our regional spider expert at the University of Washington Burke Museum, states that hobo spiders only live for one year in the Puget Sound Region but usually take two years to complete their life cycle in cooler, inland regions. Egg sacs containing 100 or more eggs are laid in the fall, and the small spiders hatch in spring. Hobo spiders, as with all spiders, are predatory and feed on many kinds of insects. Hobo spiders, and there relatives in the family Agelenidae, create a funnel web to capture prey. The spider sits on the back part of the funnel and waits for prey. When the web vibrates, the spider sprints out to subdue its catch and drag it back into the funnel where it is partially digested, then consumed.

TAP DANCE OF FEAR

Most hobo spider encounters occur in late summer and early fall, during mating season. When wandering into homes, these spiders (whose eyes cannot form images) are often startled by the vibrations of human footsteps doing the tap-dance-of-fear. The natural instinct of the spider is to hide in a shadow, and spiders have been known to move towards the person casting the shadow, giving the hobo a reputation of aggressiveness. After mating, male spiders perish. Females seek out protected shelters to lay up to four egg sacs. Preferred egg-laying sites are usually in outdoor environments and rarely, if ever, are egg sacs found inside houses. After egg laying and winter weather approaches, female spiders expire.

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All spiders are venomous and use their venom as a means of prey capture and not defense, unlike bees and wasps. What makes a spider's venom poisonous to people depends on the venom and how human physiology reacts to it. Most spiders do not cause any dangerous reactions when people are bitten. Hobo spiders have been implicated in causing necrotic skin damage to people,

similar to the bite symptoms of the brown recluse spider found in other parts of the country. (It is important to note that the brown recluse spider does not occur in the Pacific Northwest.)

The severity of a spider bite is about as variable as people are. It is believed that up to half of the bites by hobo spiders are 'dry bites' meaning that no venom was secreted. Bites can affect someone directly (meaning that the bite area shows evidence of a bite) or systemically (like an allergic reaction). At first, the bite may appear as a mosquito bite which will then blister. After blistering, the lesion can ulcerate and possibly turn black as the tissue dies. Depending on the severity of the bite and the individual's reaction to it, the wound may heal in a month, or two years. The longer-healing wounds usually involve instances where other complications, such as infection, have prolonged the healing process. Systematic reactions include most allergy symptoms such as nausea, fever, headaches, and joint soreness. These reactions are quite rare.

There is much debate as to the toxicity of hobo spider venom. Some researchers have not been able to cause necrotic reactions in test animals while others have. Another researcher suggests that hobo spiders are an accidental vector of a pathogen that causes skin necrosis; in other words, hoboes have dirty mouths. Additionally, there are no reports of Europeans having complications caused by hobo spider bites in their native homeland. Perhaps soon the air will be cleared and we will know whether or not hobo spiders are medically important. Other spiders have suffered years of ill repute when finally vindicated from being perceived as a dangerous animal.

IF YOU'RE BITTEN

It is important, if you are bitten by a spider, that you collect the spider and get it identified correctly. Identification will help physicians react to the injury appropriately, and help specialists gain knowledge about spider bites. And yes, a good spider expert can even identify a squashed specimen. It is even more important—vital, in fact—to never assume you've been bitten by a spider unless you saw the spider! Skin lesions can be caused by many illnesses and infections, some minor, others serious, a few even life-threatening.

Even though hobo spiders are relatively common, bites are rare. It is still a good idea to take precautions from being bitten. You can reduce hobo spider habitat by keeping vegetation low and away from the house. Keep woodpiles far from the house, too, as they are prime hobo spider habitat. When moving any debris or wood out side, wear protective clothing with tight-fitting collars, cuffs and gloves. This is also important when venturing into spider habitat such as a crawl space. Be sure to check your gloves, shoes, or any garments that are stored outside before you put them on. This is always a good habit, as most bites that produce venom are likely provoked by trapping the spider against the skin.

For in-house encounters, identify the route the spiders are using to get inside. Hobo spiders can climb walls but they generally stay near ground level, so pay attention to gaps on the outer foundation wall, such as around pipes, electrical conduit, vents and loose siding. When hobo spider males are seeking mates, they likely chance upon your house. When an obstacle is encountered they will follow the wall until there is no obstruction like a crack or a gap under a door. Sticky traps work very well in helping you identify these areas. In fact, there is a commercial spider trap available at your local home and garden centers. The manufacturers claim the trap works by using an attractant to lure spiders. Plain, bait-free sticky traps work fine, too. Once the route is determined, simply barricade the area that the spiders are using to get in. At my house, it was the gap underneath my front door. In a single night, I trapped 18 spiders that simply walked under my door. I used window adhesive to close the gap and solved the problem. For large infestations in crawl spaces, chemical control may be a consideration; however, this will not prevent future problems, and efforts should be made to seal up any access points.

LET NATURE TAKE ITS COURSE

Finally, the best and most long-term solution (but probably the most unpopular) is to let nature take its course. In Europe, the hobo spider is not a problem inside the house and is likely excluded by its competitor, the harmless giant house spider. In Western Washington, where both species have established, hobo spiders are becoming rarer. Rick Vetter recently published an article describing the distribution of house spiders and reported that giant house spiders are much more abundant than hobo spiders in urban areas. This is consistent with samples submitted to extension offices in Western Washington as hobo spiders were much more commonly submitted in the past, while the majority of spiders submitted now are giant house spiders. It appears that as time goes by, both species fall into their niches and hobo spiders will not be much of a problem for folks. Kudos to you if you're able to tolerate giant house spiders in your home; aside from their shocking nature, they are the good guys in this case. Have you hugged your giant house spider today?

While he doesn't share my feelings of the 'willies,' Rod Crawford reviewed and contributed to this article to ensure no spider myths were being propagated and only spider facts were illustrated.

MORE INFORMATION

To learn more about hobo spiders, the author recommends that you visit the following Web sites:

Hobo Spider Website
http://hobospider.org
Darwin Vest's pioneer Web site about all things hobo spider.

How to Identify or Misidentify Hobo Spiders
http://pep.wsu.edu/pdf/PLS116_1.pdf
Rick Vetter and Art Antonelli's guide to hobo spider identification.

Spider Myths
www.washington.edu/burkemuseum/spidermyth/
Rod Crawford's excellent review of spider myths and facts.

Spider Facts
http://spiders.ucr.edu/index.html
Rick Vetter's compilation of spider articles.