



Hobo spider

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What You Should Know

- As of 2002, specimens have been submitted from several counties in Utah, including: Box Elder, Cache, Davis, Morgan, Salt Lake, San Juan, Sanpete, Summit, Tooele, Utah, Wasatch, and Weber.
- Hobo spiders build funnel webs to catch prey.
- Rarely above ground level, hobo spiders are poor climbers, but considered swift runners.
- Hobo spiders are medically important because their bites can cause necrotic lesions.



Fig. 2. Adult hobo spider¹

The hobo spider, *Tegenaria agrestis*, is native to Europe and not considered medically important there. In 1936, the hobo spider was first detected in the Pacific Northwest (Washington, parts of Oregon and Idaho). Over time, the hobo spider migrated to other parts of the United States, including Utah (Fig. 1). This species was first identified in Utah in 1990, although its distribution (as determined in 1993) indicated that it had probably been here for at least several years prior to that. For a time, this species was given the unfortunate common name of "aggressive house spider," but was eventually reversed back to its original common name. Although the brown recluse and hobo spiders can cause necrotic lesions, the brown recluse is not found in Utah (Fig. 1).

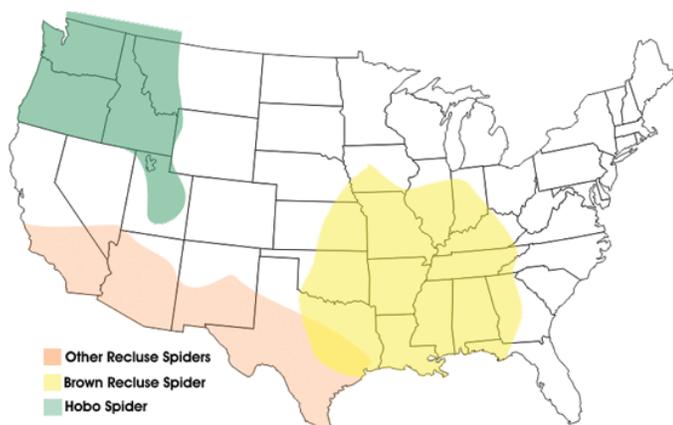


Fig. 1. Distribution of hobo spider in the U.S.
NOTE: the brown recluse spider is not in Utah.

Description

The hobo spider is a member of the funnel-web spider family Agelenidae. Funnel-web spiders are long-legged, swift-running spiders that build funnel or tube-shaped retreats. Hobo spiders rarely climb structures like other spiders do. The hobo spider runs at an average speed of about 0.45 meters (17") per second, with a maximum speed of about 1.1 meters (40") per second.

The hobo spider has a brown cephalothorax (the front body region where the legs are attached) with darker brown markings and brown legs (Fig. 2). The abdomen (the second body region) has a distinctive pattern of yellow markings on a grey background, although this pattern can be difficult to discern without the aid of a microscope or hand lens. The pattern is generally more distinctive in immature specimens. Unlike many other similar-looking spiders, hobo spiders do not have dark bands (like multiple arm bands) on their legs. Spiders with such banding can be assumed not to be hobo spiders.

Mature female hobo spiders are 9.5-16.5 mm (3/8-5/8") long, and male hobo spiders are 7-13.5 mm (9/32-9/16") in body length. Males have enlarged pedipalps located near the mouth, resembling short legs (Fig. 3.). The hobo spider greatly resembles certain other members of the funnel-web spider family which are harmless or cause minor bite reactions. For this reason, identifications of suspected hobo spiders should be confirmed by an entomologist or other persons trained in spiders.



Fig. 3. Male hobo spider, showing the enlarged pedipalps near the mouth. Pedipalps look like boxing gloves and are used for mating.²

Life Cycle

There is some disagreement among researchers as to the length of the hobo spider life cycle. Only one year may be required to complete a generation among the warmer costal regions; however, inland populations, such as those living in Utah, are believed to require two or three years to complete a generation.

Eggs deposited in the fall begin hatching in the spring. The juvenile hobo spiders grow and develop over the summer (or several summers) and will also overwinter before reaching maturity the following year. Males and females will mature from June to September. Males seek out females for mating during the summer and most die before October. Mated females start laying eggs in mid-September, with one to four egg sacs produced over a period of four weeks. Fewer eggs are produced if food is limited or if temperatures are cooler than normal. Cold temperatures eventually terminate the production of eggs by the females.

Behavior

Hobo spiders are most commonly encountered June through September when males wander in search of female mates. For this reason, most bites occur during July through September. Females of the species tend to stay in their webs and are not usually found wandering. The supposed aggressiveness of the hobo spider is debatable and may be an exaggerated myth. Based on our experience with live specimens, they seem to be no more aggressive than other spiders, such as grass spiders or wolf spiders. When trapped, their main interest seems to be escape, not fighting back. Based on bite reports and the number of specimens submitted, sac spiders (genus *Chiracanthium*) are actually more prone to biting than are hobo spiders. Sac spider bites are usually less serious and of lesser medical importance than hobo spider bites.

Habitat

Hobo spiders prefer to utilize habitats that have holes, cracks, or recesses to support their funnel-like webs. Although they prefer to build funnel-like webs, some will occasionally produce flat webs in less-suitable habitats. Although some have been observed a few feet above floor level, most are seen running about on the floor. Common outdoor habitats include rock retaining walls, cracks in soil or concrete, near and around foundations (especially those with tall grass adjacent), in window wells, in stacks of lumber, firewood, and bricks. Juveniles and adults will also seek refuge under other objects on the ground surface, such as large rocks, boards, or other debris. Indoors, the hobo spider is usually found only in basement or ground-floor levels, since it is a poor climber. Suitable nesting areas include spaces between boxes or other storage items, window sills, under baseboard heaters or radiators, behind furniture, and in closets. Wandering males may occasionally become trapped in clothing, bedding, shoes, children's toys, bathtubs, or other locations.

Medical Importance

Although the hobo spider is not reported to cause serious bites to humans in native Europe, it is considered a medically important spider in North America, more specifically the Pacific Northwest. The lack of reports from Europe may be due to behavioral differences or other factors and not because of an actual difference in the venoms. Necrotic spider bites have been reported in Utah for many years and are usually blamed on the brown recluse spider. The brown recluse spider has not been reported in Utah and not known to survive in our conditions (Fig. 1). Two other members of the brown spider family have been documented (including one apparently indigenous to the St. George area) but no specimens of these species have ever been submitted to Utah State University for identification. Based on the rarity of brown spiders, the hobo spider is probably responsible for most of the necrotic spider bites in Utah, with the possible exception of cases in southern Utah.



Fig. 4. Example of a necrotic spider bite.²

Bite Symptoms

Males generally have a more toxic bite than females, while immatures seem to cause the most serious bites. The symptoms of hobo spider bites vary considerably depending on the time of year. Hobo spiders can bite anytime of the year if they reside indoors. Bites from males in July to September usually result in necrotic lesions and systemic disturbances, but without serious protracted illness. Bites by females, usually in late October, do not normally cause necrotic lesions or systemic disturbances, but result in a well-defined reddened area with a white pinpoint vesicle (blister).

Bites by immatures occur rarely, from about November to May, but can have the most serious consequences. Extensive necrotic lesions, severe systemic disturbances, blood disorders or internal organ damage may occur. One death in the Pacific Northwest has been attributed to a hobo spider bite occurring at this time of year. Serious envenomations, especially by males, may also result in blood disorders or internal organ damage. The severity of envenomation depends partly on the amount of venom injected, as well as the sex and age of the spider. About half of hobo spider bites are 'dry,' meaning that no venom is injected.

The bite of the hobo spider is relatively painless and is reported to feel like a pin prick. Within 15 minutes of the envenomous bite, numbing sensations may occur at the bite site or other areas of the body (such as the tongue), and dizziness may occur. After about 1 hour, the area around the bite becomes reddening and enlarged, and slowly becomes hardened and swollen within about 18 hours. Blistering at the bite site, severe headache, visual or auditory disturbances, weakness, and joint pains may occur within the first 36 hours. During this period, blood platelet counts will be low. Within 24 to 36 hours, a discharge of fluids and blistering may occur, and after 2 or 3 days the area around the wound may blacken. After 7 to 10 days, the necrotic area will usually take on a characteristic elliptical shape and blood platelet counts will return to normal. Spells of nausea and sweating often persist through this time period, and headaches may persist even longer. A cycle of sloughing and crusting at the ulcerated site (with the discharge of blood and serum) may continue for some time, often requiring six months or more for complete healing to occur.

If you suspect you have been bitten by an hobo spider, you should seek immediate medical attention. Any treatment decisions should be left to the discretion your physician, dermatologist, or other medical expert.

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Reduce Your Risk

Control methods for the hobo spider are most effective when several methods are used in combination. The most effective efforts include habitat elimination, exclusion, trapping, avoidance of risk, and chemical control. Measures to eliminate suitable habitat for the hobo spider can be implemented both indoors and outdoors.

To reduce hobo spiders indoors, frequently clean behind furniture, under baseboard heaters or radiators, in closets, and in other undisturbed areas. Vacuum to remove spiders and their webs, and then discard the bag to prevent escape. Remove and destroy any egg sacs that are found. Prevent spiders from coming into the house by sealing holes where pipes enter the house, sealing cracks or crevices in the foundation, installing seals around doors that have large gaps, and repairing broken screens or windows that may provide an accidental path of entry.

Hobo spiders prefer to live outside and reducing suitable habitat will decrease their numbers and level of activity (Fig. 5). Cracks, crevices and other open cavities should be filled in with mortar or cement. Trim or eliminate long grass around the foundations of houses, garages, or storage sheds. Try to minimize the empty spaces between wood piles and other stacked materials. Yard debris on the ground surface, such as old boards should also be removed.

Traps can be useful for detecting and controlling hobo spider in the home. Consider using commercial sticky traps (Safer brand shown here) designed for rodent or insect control. On one occasion, a tent-shaped commercial sticky trap had over two dozen hobo spiders. Traps should be placed along baseboards or in other areas where the spiders are seen running.

Avoiding risk requires an awareness of the situations in which the hobo spider may be encountered. Protective clothing should be worn when working in potential habitats, such as when cleaning storage rooms or garages, when working in the yard around tall grasses, or when moving piles of firewood or other items that have been stored outdoors. Such items should be inspected for spiders and eggs sacs before being carried. Indoors, keep beds 6 inches or more from walls and adjust bedding so that it does not touch the floor. Avoid storing clothes, bedding, shoes and other such items on or near floor level where hobo spiders could get entangled or trapped in them.



Chemical Control

Chemical control with pesticides can be used in addition to the other suggested measures. Outdoor spider control is not generally recommended unless extremely high numbers are reported. A residual insecticide should be used to provide a lasting effect; however, many of the longer-residual insecticides are no longer available for use indoors. Insecticide formulations that are applied dry and those that form a suspension (rather than a solution or emulsion) are more effective against spiders because the active ingredient tends to remain on the treated surface rather than soak into it. Although there are four different formulations recommended for indoor spider control, most require commercial applicators:

- dusts (bendiocarb, boric acid, cyfluthrin, deltamethrin, diatomaceous earth, and pyrethrins)
- wettable powders (cyfluthrin, cyhalothrin, cypermethrin, esfenvalerate, and propoxur)
- flowable concentrates (bifenthrin and carbaryl)
- microencapsulated (cyfluthrin and pyrethrins)



Fig. 5. Common hobo spider funnel-web along a crack in the foundation.³

¹ Image courtesy of Whitney Cranshaw, Colorado State University Extension (www.ipmimages.org).

² Image courtesy of Lee Ostrom and Michelle North (http://www.family-protection.com/hobo_information.html).

³ Image courtesy of Maxence Saloman (<http://www.sfu.ca/~msaloman/>).

Precautionary Statement: All pesticides have benefits and risks, however following the label will maximize the benefits and reduce risks. Pay attention to the directions for use and follow precautionary statements. Pesticide labels are considered legal documents containing instructions and limitations. Inconsistent use of the product or disregarding the label is a violation of both federal and state laws. The pesticide applicator is legally responsible for proper use.

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