

Hobo Spider

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Figure 1. *Tegenaria agrestis*



The hobo spider, *Tegenaria agrestis*, is a species introduced to the Pacific Northwest from Europe. For a time, this species was assigned the unfortunate common name of "aggressive house spider", which has now been changed back to its original name. The hobo spider was

first identified in the Seattle area in the 1930's. By 1968, the spider could be found in other areas of Washington and in parts of Oregon and Idaho.

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. The hobo spider is of importance because of its ability to cause necrotic spider bites similar to those of the brown recluse spider.

Distribution in Utah

As of November 2002, multiple specimens of the hobo spider had been submitted from Box Elder, Cache, Davis, Morgan, Salt Lake, San Juan, Summit, Tooele, Utah, Wasatch, Weber, and Sanpete Counties. A single specimen was submitted from Daggett County in 2001.

Records in Daggett and San Juan Counties represent large geographic jumps for the distribution of the hobo spider. The mechanism of spread is presumed to be accidental transport from infested areas. Compared to their human populations, Cache and Wasatch Counties submit the highest numbers of hobo spiders.

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. The hobo spider runs at an average speed of about 0.45 meters (17 inches) per second, with a maximum speed of about 1.1 meters (40 inches) per second.

The hobo spider has a brown cephalothorax (the front portion to which the legs are attached) and brown legs, with darker markings on the cephalothorax. The abdomen has a distinctive pattern of yellowish markings on a grayish back ground, although this pattern can be difficult to discern without the aid of a microscope or hand lens. The pattern is generally more discernible in immature specimens. Unlike many other similar-looking spiders, hobo spiders do not have darker bands (like multiple arm bands) on their legs. Spiders with such banding can be assumed not to be hobo spiders.

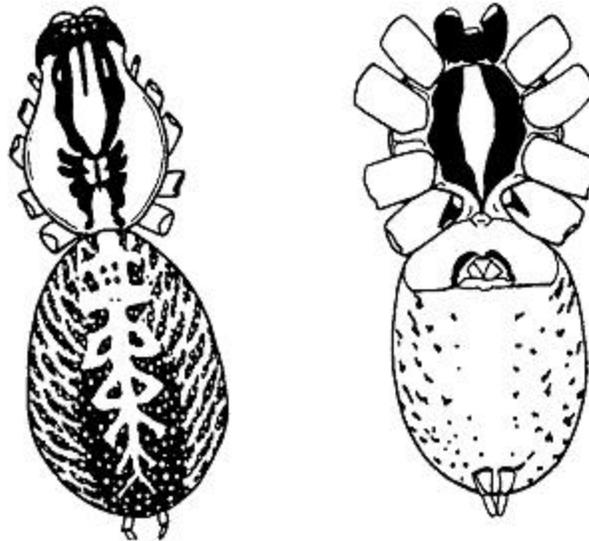


Figure 2. Dorsal markings (left) and ventral markings of the *T. agrestis*

Male hobo spiders are 7 to 13.5 mm (9/32 to 9/16 inches) in body length, while females are 9.5 to 16.5 mm (3/8 to 5/8 inches) in body length. In outward appearance, 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 the identification of spiders.

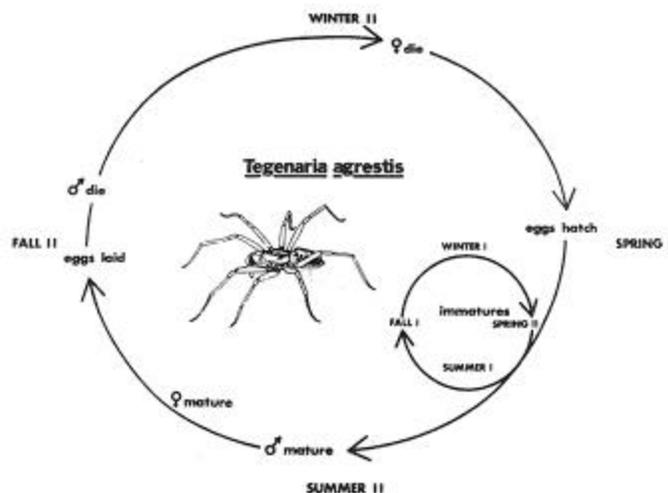


Figure 3. Life cycle of the *T. agrestis*

Biology

There is some disagreement among researchers as to the length of the hobo spider life cycle. Only one year may be required for a generation among coastal populations while inland populations are believed to require two or three years for a generation. The first eggs are laid in

about mid-September, with one to four egg sacs produced at intervals of about one to 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.

The egg stage overwinters and egg hatch occurs in the spring. The immatures develop for the next year, reaching maturity after the following spring. Males mature from June to September, and females in late June and July through September. Males seek females for mating from late June to October with most dying before October. Females lay eggs in fall to early winter and then die from late fall to early spring.

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. Hobo spiders are poor climbers and are rarely seen above ground level. Although some have been observed a few feet above floor level, most are seen running about on the floor.

Common habitats outdoors include rock retaining walls, cracks in soil or concrete, around foundations (especially those with tall grass adjacent), in window wells, in stacks of lumber, firewood, bricks, or other materials or items, and 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 of dwellings, since it is a poor climber. Suitable nesting areas include spaces between boxes or other items in storage, 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 they cannot escape from.

Behavior

Hobo spiders are most commonly encountered in June through September when males wander in search of females. 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 running about.

The supposed aggressiveness of the hobo spider is debatable and may be a myth. Based on our experience with live specimens, they seem to be no more aggressive than any other similar 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, although the consequences of sac spider bites are usually less serious.

Medical Importance

The hobo spider is medically important because of its ability to cause necrotic spider bites. It is unusual that this spider has not been reported to cause necrotic spider bites in its native Europe, but the venoms of European and North American specimens have not been compared. The lack

of such reports 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. However, only one specimen of the brown recluse spider has ever been submitted, this specimen having been transported from Texas. 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 extreme southern Utah.

Bite Symptoms

Bites from the hobo spider may occur throughout the year. Based on case studies from the Pacific Northwest, bites are most common from July to September when male spiders wander in search of females. 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. 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 to November, 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, and blood disorders or internal organ damage may occur. One death in the Pacific Northwest has been attributed to an 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. The bite of the hobo spider is relatively painless and is reported to feel like a pin prick.

Within 15 minutes of the 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, reddening around the bite begins and enlarges in area. The bite site 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.

Reconstructive surgery may be required in serious cases.

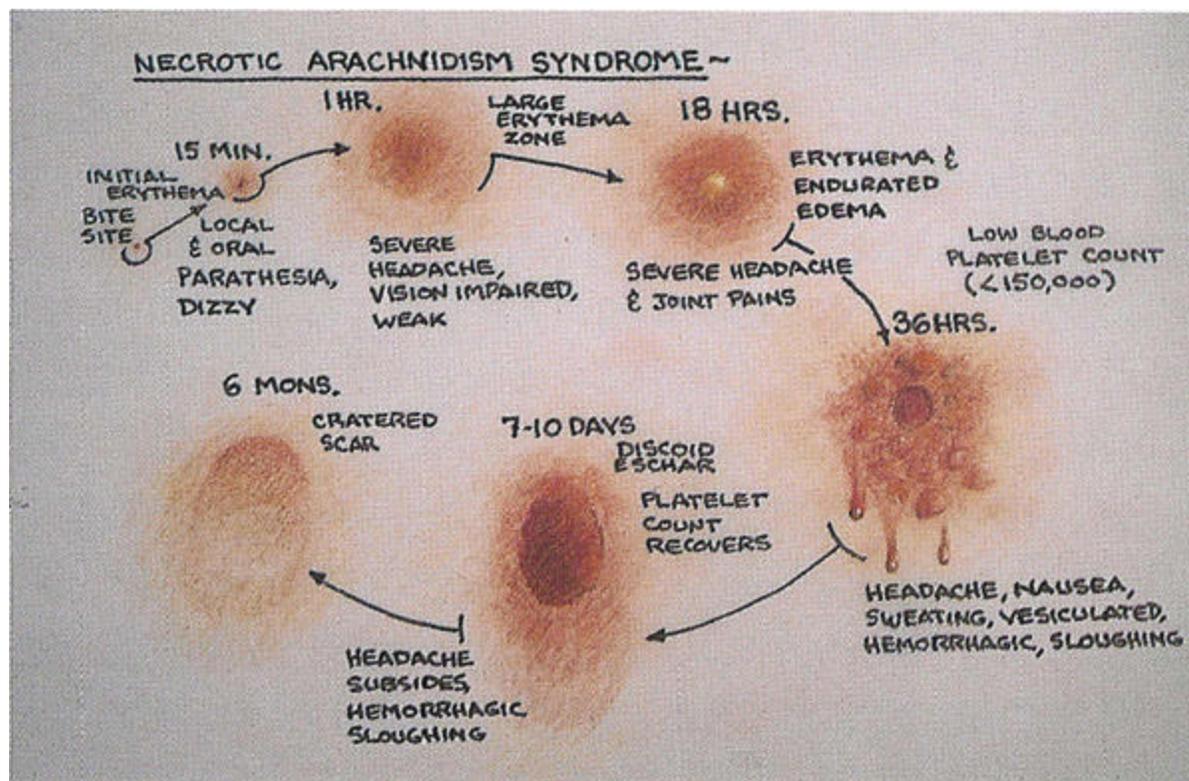


Figure 4. Typical bite sequence of the *T. agrestis*

Treatment of Bites

If you suspect you have been bitten by an hobo spider, you should seek immediate medical attention. The treatment for any necrotic spider bite is similar, and treatment methods used for brown recluse bites are usually employed for hobo spider bites.

There is a difference of opinion as to the effectiveness of various treatments mentioned in the literature. Recommended treatments have included topical, oral, and injected corticosteroids, subcutaneous injection of phentolamine, and surgical excision of the bite area. Antihistamines and antibiotics are often prescribed to alleviate allergic symptoms and prevent secondary infections. A drug called Dapsone, used for the treatment of leprosy, has been reported to be an effective treatment for brown recluse spider bite, but must be used with caution. Injection of corticosteroid compounds seems to help most when treatments are made within about 24 hours of the bite. This is one reason that prompt medical attention should be sought.

Any actual treatment decisions should be left to the discretion your physician, dermatologist, or other medical expert. The references provided at the end of this fact sheet may be useful to your doctor in making treatment decisions. Many of these references are from common medical journals.

Control

Control methods for the hobo spider are most effective if they utilize a combination of methods including 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. Indoors, clean frequently behind furniture, under baseboard heaters or radiators, in closets, and in other undisturbed areas. Use a vacuum cleaner to remove spiders and their webs, then place the dust bag in the freezer in a sealable plastic bag, and dispose of it after a few hours of freezing. Remove and destroy any egg sacs that are found.

Outdoors, large cracks, crevices, or other cavities in rock walls, foundations, or other constructions should be filled in with mortar or cement. Long grass around the foundations of houses, garages, or storage sheds should be kept trimmed or eliminated. Wood piles and other stacked materials or items should be placed to eliminate the spaces between items as much as possible. Yard debris, such as old boards or other large objects on the ground surface should be removed.

Exclusion measures include 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 a path of entry.

Traps can be useful for detecting hobo spider in the home and provide some degree of control as well. One researcher suggests a cardboard tube 8 inches long and 1.5 inches square, covered with sticky material (such as Tack-Trap or Tanglefoot) on the inside bottom of the trap. Traps should be placed along baseboards or in other areas where the spiders are seen running. Commercial sticky traps designed for rodent or insect control work well. On one occasion, a tent-shaped commercial trap was submitted by a homeowner and had trapped over two dozen hobo spiders.

Avoidance of 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 working with piles of firewood or other items that have been stored outdoors. Such items should be inspected for spiders and eggs sacs before being carried or brought indoors. 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. As stated previously, most hobo spiders are found in basements or ground level floors, so the above measures apply mostly to these areas.

Chemical control with insecticides can be used in addition to the above measures. Since the idea is to kill spiders when they come indoors, 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.

Recommended insecticides that are labeled for spider control indoors include products of four different formulations: dusts (bendiocarb, boric acid, cyfluthrin, deltamethrin, diatomaceous

earth, and pyrethrins), wettable powders (cyfluthrin, cyhalothrin, cypermethrin, esfenvalerate, and propoxur), flowable concentrates (bifenthrin and carbaryl), and microencapsulated (cyfluthrin, diazinon, and pyrethrins). Dust formulations are of limited usefulness because of restrictions on the areas where they can be applied indoors. Most of the wettable powder, flowable concentrate, and microencapsulated formulations are intended for use by commercial applicators.

Precautionary Statement

All pesticides have both benefits and risks. Benefits can be maximized and risks minimized by reading and following the labeling. Pay close attention to the directions for use and the precautionary statements. The information on pesticide labels contains both instructions and limitations. Pesticide labels are legal documents, and it is a violation of both federal and state laws to use a pesticide inconsistent with its labeling. The pesticide applicator is legally responsible for proper use. Always read and follow the label.

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