



COMMON SPIDERS OF WASHINGTON

By

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Wherever you find insects, you are likely to find spiders lurking nearby. All spiders are predators that have coevolved with their prey—primarily insects and other arthropods. Spiders have evolved numerous and fascinating strategies to trap, stalk, ambush, or hunt live insects. All spiders possess mouthparts, in the form of fangs, to subdue their prey. Thus, all spiders can bite, and some of them are large enough to bite humans and pets, but only in self-defense. Here in the Pacific Northwest, only one species of spider has been documented as venomous to humans.

The objective of this publication is to help residents, gardeners, and naturalists recognize the most common spiders found in Washington State and appreciate them as beneficial organisms. This publication also seeks to reduce human exposure to the nuisance of, and bites from, spiders.

Spider Morphology and General Biology

Spiders are not insects, but they are closely related to them. Both spiders and insects belong to a group of animals called arthropods. One of the distinguishing features of arthropods is that they have a hardened exterior, or exoskeleton. Mature insects have six legs, three body parts (head, thorax, and abdomen), and are the only group of arthropods with wings. Mature spiders, or arachnids, have eight legs and a body divided into two parts—the cephalothorax (a combined head and thorax) and the abdomen (Figure 1). The cephalothorax of a spider is covered with a plate-like structure referred to as a carapace. The shape of the carapace and its various markings are also important in spider identification. All eight legs are attached to the cephalothorax. As in insects, the legs of each spider are jointed appendages (femur, tibia, and tarsus) that end in two or three small claws.

Most spiders have six to eight simple, single-lens structures that serve as eyes (Figure 1, inset). The eyes are found on the top of the head, and the eye arrangement can facilitate the identification of spiders. Perhaps the most distinctive features of the spider's head are the fangs (or chelicerae). The fangs are hollowed structures with a pore (opening) that allows the spider to inject venom into prey. Between the fangs and the legs is a pair of sensory structures called pedipalps. In females and immature spiders, the pedipalps are small and leg-like. In adult male spiders, the pedipalps are often tipped with large bulbous structures that are used in mating and resemble a pair of boxing gloves.



Figure 1. Dorsal view of stylized spider with key features identified. Inset-front view of stylized spider head with key features identified. Illustration by Andrew Mack, WSU Puyallup.

Another feature of spiders is their ability to spin silk. At the posterior end of a spider's abdomen are structures called spinnerets (Figure 1). Silk is produced and released through the spinnerets and then manipulated by the claws found at the end of the legs. Spiders use silk in a variety of ways. They may spin a protective covering of silk over a batch of eggs. These silken "egg cases" are found in protected areas such as under bark, vegetative debris, or on the outside walls of manmade structures. Other spiders spin silken webbing on which they sit or build a silken tunnel in which they live. The distinctive silken tunnels of funnel web spiders are common in window wells and building foundations. Of course, silk is used by many spiders to construct a web in which they capture prey. Another, less obvious, use of silk is to allow small immature spiders (spiderlings) to disperse through a process called ballooning (Figure 2), where a strand of silk produced by a spiderling is caught by air currents, allowing the tiny spider to float through the air. Most ballooning journeys end after just a few feet of travel. However, spiderlings may be picked up by strong winds and carried vast distances.



Figure 2. Bold jumping spiderlings seeking the highest point of a jar where their silk strands catch air currents that assist in dispersal. Photo by M. Bush, WSU Extension.

As spiders grow, like all arthropods, they molt or shed their exoskeletons to reveal newly-formed exoskeletons underneath. Depending on the species, spiders may molt from 4 to 12 or more times before becoming sexually mature adults. Nearly all spiders stop molting once they reach the adult stage. Molting is a vulnerable and dangerous time for spiders, so they often molt in protected areas where they escape predation.

Mature male spiders seek out and find females, hopefully of the same species. When a male locates a female, he will go through a series of behaviors that allow the female to recognize him as a potential mate—not a prey item! Once mating has occurred, few female spiders actually eat the male. Still, male spiders only live for a very short period after mating. On the other hand, some female spiders may live for a long time—female tarantulas can live up to 30 or 40 years in captivity! Most spiders found in the Pacific Northwest live for less than a year, although some can live for up to five years.

Virtually all spiders are predators that use their fangs and venom to subdue prey. Rarely do spiders bite humans and, in most cases, the venom is not dangerous to humans. Often when spiders bite they will not inject venom but inflict a "dry" bite. Although spider bites are blamed for human skin or health problems, this is rarely the case. Here in the Pacific Northwest, only the black widow has venom that causes serious conditions in humans. Nevertheless, spider bites and resultant wounds may become a source of infection. Additionally, people may each react differently to the bites of spiders, just as they do to bee and wasp stings. Furthermore, one does need to be careful to avoid handling or accidently contacting or crushing spiders. If you have been bitten by a spider, try to capture it so that the species can be identified, and an accurate medical determination made. Species determination cannot be made by the "bite marks", even by the medical profession.

Spiders are extremely common outdoors, but a few species occur in human structures. In their natural habitat, spiders are beneficial as they feed upon other small arthropods, including household pests. When they enter homes, spiders are considered a nuisance and can cause mental stress but are rarely a pest problem. An intense fear, or loathing, of spiders is called "arachnophobia."

Common Washington Spiders by Family

Family Antrodiaetidae (Folding-door Spider)

Folding-door spiders are one of our largest ground-dwelling spiders in Washington. Mature adult males are chestnut to brown colored, robust-bodied with long hairy legs, and body length may measure between 1/2 to 1 1/2 inches long (Figure 3). Females are even larger with a more robust abdomen and are darker in color. These spiders are sometimes referred to as the tarantulas of the Pacific Northwest. Despite their frightening appearance, these spiders are unique compared to the other common spider families in Washington, in that their powerful fangs are oriented parallel to each other and move up and down in a stabbing motion, rather than opening and closing about the prey. Folding-door spiders have a single cluster of eight eyes directed forward on a protuberance above the mandibles.

Folding-door spiders live in four- to ten-inch-deep silk-lined burrows buried in the soil (Figure 4). The openings of the burrows are camouflaged with a silken lid, or door, made of soil and debris that is hinged so that the spiders can easily open and close the door. These spiders have a unique strategy of catching their prey. In response to vibrations of prey approaching the burrow, the spider springs out and ambushes the prey by stabbing it with powerful fangs, then drags the prey into the burrow.

In general, these spiders remain in their burrows and only leave in response to heavy rains, flooding, or at night to repair their burrows. In Washington, residents are more likely to encounter the male spiders in late summer or early autumn when they leave the burrow in search of mating females and inadvertently wander into homes and landscapes.



Figure 3. Family Antrodiaetidae. Male folding door spider—body length 3/4 inch, with leg span nearly 1 1/4 inches long. Photo by M. Bush, WSU Extension.



Figure 4. Family Antrodiaetidae. Staged picture of a folding door spider in front of burrow with lid. Normally this four-inchlong burrow is sunken vertically in the soil with the lid lying camouflaged on the surface of the ground. Photo by M. Bush, WSU Extension.

Family Agelenidae (Funnel Weavers)

The funnel-weavers, house spiders, and grass spiders represent one of the most common spider families encountered in the Pacific Northwest. They are rather non-descript brown spiders with long spiny legs. Agelenids are from 3/4 to 1 1/4 inches long, but some of the larger species can have a body length of one inch and a leg span that reaches three inches long! Their eight eyes form a circle or oval pattern about the front of the spider's head (Figure 5). Perhaps the easiest recognizable features of this family are the sheet-like webs they spin with a landing in the front and a conspicuous funnel-shaped entrance in the back (Figure 6). The spider often hides in the funnel until an insect lands or crawls over the non-sticky sheet-like web. In response to web vibrations, the funnel weaver spider will dash out of the funnel to tackle the prey and subdue it with a venomous bite. The funnel weaver then drags the prey into the funnel and feeds on the juicy insect morsel in the safety of the web. Like the folding-door spiders, the male spiders wander from their web in late summer and early autumn in search of female spiders. They may move into homes during their search. Later in the year, the female spiders will leave the web to find a sheltered overwintering site and then, come spring, lay the eggs that give rise to a new year's crop of spiderlings.



Figure 5. Family Agelenidae. A view from above of a male grass spider (body length 3/8 inch). Note the arrangement of the eyes. Photo by M. Bush, WSU Extension.



Figure 6. Family Agelenidae. A grass spider sitting at the mouth of the web funnel overlooking the sheet web in wait of insect prey. Photo by S. Spain, WSU Master Gardener volunteer.

Many members of this family are known as grass spiders, and their funnel-shaped webs can be found in grassy or rocky areas outdoors where their predatory behavior is considered beneficial as they feed on insects and other arthropods. However, some species are common inhabitants of human dwellings, including the domestic house spider, *Tegenaria domestica*. These spiders often make the funnel webs found in window wells, corners of walls, or under furniture. Even though this spider feeds on household insect pests, most people consider spiders a nuisance and prefer that they stay outdoors. A recently introduced spider from Europe (established in Seattle in the 1930s), called the hobo, or the aggressive house spider (*Eratigena agrestis*) (Figure 7), is certainly aggressive towards other spiders. The hobo spider may be found in human homes with abundant prey, but this predator tends to rank as a nuisance itself. If that were not bad enough, another introduced spider from Europe, *E. gigantea* (Figure 8), is even larger than the hobo spider, more common in western Washington, and is reported to prey on hobo spiders.



Figure 7. Family Agelenidae. A female hobo spider dorsal view. Body length is nearly one inch; leg span 1 1/2 inches (please note-ruler scale is in centimeters). Photo by M. Bush, WSU Extension.



Figure 8. Family Agelenidae. A giant house spider on its back. Body length is nearly one inch; leg span over three inches. This is a male spider based on the pedipalps that are shaped like a pair of boxing gloves. Photo by T. Murray, WSU Extension.

These exotic *Tegenaria* spiders are some of our larger spiders and, unfortunately, are big enough to bite through human skin. Typically, they only bite humans in self-defense. Contrary to common belief, the bites of these spiders **ARE NOT** poisonous to humans. However, spider bites can serve as entry points for harmful bacteria. Just like any other scratch, scrape, or puncture wound, these breaks in the human skin surface should be observed for signs of infection. Infection occurs when the skin about the bite becomes red, swollen, and warm to the touch, increasingly painful, or red streaking is observed under the skin that originates from the wound. When noticed, prompt medical attention should **ALWAYS** be sought from a practicing physician who can treat the infection with appropriate antibiotics.

Family Theridiidae (Cobweb Spiders)

Cobweb spiders (Theridiidae) belong to a large family, known as tangle-web spiders, cobweb spiders, and comb-footed spiders. These spiders make three dimensional, haphazard webs found among vegetation or tucked in corners or recesses of buildings. Most webs have sticky silk strands that help capture prey. Egg sacs may be found hanging in the web. These spiders have rounded, globose abdomens with thin, nonhairy, spindly legs. The tarsus of the hind-most pair of legs has a comb of serrated bristles, or "setae." Organs that produce sound when rubbed together are well developed in some males, and these sounds as well as vision are used in courtship.

The most notorious member of the Theridiidae family is the western black widow spider (*Latrodectus hesperus*). Mature females are identified by the red hourglass on the underside of the abdomen (Figure 9). While black widows are most common in eastern Washington, they can occasionally be found in western Washington. Due to their reclusive and shy behavior, bites from these spiders are rare. Male black widow spiders do not resemble mature females and are not considered a human health risk (Figure 10). *Steatoda grossa*, a common dark mottled cobweb spider, typically found in buildings, is often mistaken for a black widow but lacks the red hourglass and pure black coloration (Figure 11).

Cobweb spiders (*Theridion* or *Enoplognatha* spp.) are common and abundant predators in home gardens (Figure 12). Adult body length is 1/4 inch (excluding legs). Some cobweb spiders drop lines of elastic silk that entrap the prey. Other webs have central or peripheral retreats and a few form sheet webs. This family of spiders typically wraps their prey in sticky silk before feeding.



Figure 9. Family Theridiidae. The female western black widow spider is the only native species of spider known to be poisonous to humans in Washington. Body length is 3/8 to 1/2 inch; leg span over one inch. Note the haphazard arrangement of the web strands. Photo by M. Bush, WSU Extension.



Figure 10. Family Theridiidae. The relatively smaller male black widow spider has about a 1/4-inch body length and does not resemble the female at all. This male black widow is preying on a masked hunter bug many times larger than the spider. Photo by M. Bush, WSU Extension.



Figure 11. Family Theridiidae. The false black widow spider has the same body shape (body length, 1/8 to 1/4 inch long) but is not pure black and lacks the hourglass on the underside of the abdomen. Photo by M. Bush, WSU Extension.



Figure 12. Theridiidae—one of the many color forms of the cobweb spider, *Enoplognatha ovata*. Note the arrangement of the two rows of eyes. Photo by Deborah BanDrosky, Missoula, MT.

Research on spiders in this family provides valuable insights into the characteristics of spider silk, kleptoparasitism (stealing food from other spiders), on the medical applications of black widow venom, and the clinical symptoms of envenomation (poisoning by venom).

Family Eutrichuridae (Long-legged Sac Spiders)

Yellow sac spiders have pale, long, and slender legs. The first pair of legs are noticeably longer than the rest and point forward. These spiders range in size from about 1/4 to 3/8 inch long and are tan to light brown in color with an indistinct, darker dorsal stripe lengthwise on the abdomen (Figure 13). Two species of long-legged sac spiders live in Washington State. The black-footed sac spider, *Cheiracanthium mildei*, is native to eastern Washington and lives in trees, shrubs, and on forest floors. The introduced long-legged sac spider (*C. inclusum*) is more common in western Washington and is more likely to be found inside homes and buildings.

Sac spiders are wandering, active hunters that pursue insect prey. They use their excessively long front legs to assist in capture. These spiders are active at night and spin sac-like shelters where they spend the day. The sac is sometimes found within rolled leaves. These shelters are about one inch long and may be used during egg-laying, molting, breeding, and hibernating. The ends of the sac may be left open or closed. Some species of sac spider attack leafroller caterpillars by biting holes through the rolled leaves; thus, are helpful in controlling pests in orchards.

Recent research indicates that sac spider bites, though painful, do not cause necrotic wounds as was formerly believed.



Figure 13. Eutrichuridae—the black-footed spider, *Cheiracanthium mildei*, native to Washington. Photo by M. Bush, WSU Extension.

Family Lycosidae (Wolf Spiders)

Wolf spiders range in body length from about 1/5 inch to one inch, or so (Figure 14). These long-legged spiders have three claws on each foot, and the cephalothorax is arched. The eight eyes are arranged in three rows. The two medium-sized eyes in the top row are above and behind the two large middle eyes. Four smaller eyes comprise the bottom row.



Figure 14. Lycosidae-wolf spider, *Schizocosa* sp., found wandering in office building. Photo by M. Bush, WSU Extension.

Most wolf spiders are ground hunters in woodlands, open grassy fields, and in gardens in the spring. Some are seen sunning on rocks, logs, or other structures. While they may wait in ambush, these spiders are active hunters, stalking or chasing their insect prey, day or night. Most wolf spiders do not spin webs but use silk to make and carry the egg sac. Females carry these egg sacs on their spinnerets under the abdomen in May or June (Figure 15). Upon hatching, the young ride on the mother's abdomen for several days before they disperse.



Figure 15. Lycosidae–*Pardosa* wolf spider carrying egg sac. Photo by D. Pehling, WSU Extension.

Family Salticidae (Jumping Spiders)

One of the largest and most diverse families of spiders in Washington are the Salticids or the jumping spiders. Mature jumping spiders are small (3/8 to 1/2 inch long), with compactbodied and stout hairy legs. Some may be brightly colored and possess metallic-colored mouthparts (Figures 16 & 17). The most distinctive feature of this family of spiders is their eye pattern with the forward-most pair of eyes being the largest of the four pairs, which provides these spiders with exceptionally good forward eyesight. These spiders tend to be daytime hunters that stalk or ambush their prey, then pounce on top of them and inject a venom through their fangs. While some species are brightly colored to attract mates, other species are camouflaged or colored to blend in with their background, like tree bark, rock surfaces, etc. These spiders are encountered on window sills, exterior walls, screens, and ceilings. They can run backwards, sideways, and even turning 180 degrees without moving forward. Many species do not spin spider webs but will use silk to drop down on prey or as 'safety lines' to hang onto and reel themselves back if they miss their prey. These spiders spin little silken pouches to provide night-time or winter shelter for themselves and for their egg masses (Figure 18).



Figure 16. Salticidae—the bold jumping spider, *Phidippus audax*. Photo by M. Bush, WSU Extension.



Figure 17. Salticidae—another brightly-colored jumping spider, *Phidippus carneus*. Body length, 3/8 inch. Photo by D. Pehling, WSU Extension.



Figure 18. Salticidae-dead female bold jumping spider found next to egg mass within egg sac. Note the iridescent fangs. Photo by M. Bush, WSU Extension.

Family Araneidae (Orb Weavers)

Orb weaver spiders (Araneidae) are best known as the large spiders that sit in the middle of vertical webs that stretch across pathways, in gardens, and near lights where prey are abundant (Figure 19). Very rarely are they are found inside a house. Their webs are made of concentric rings of silk, with radiating strands attached to branches, structures, or other stable objects. The spider sits in the middle, or sometimes off to the side, waiting for prey. When prey are snared, the spider drops down, bites, and wraps the prey in silk waiting for them to become quiet. The spider then chews and vomits on the prey before slurping up the liquids and consuming meaty bits.



Figure 19. Araneidae—orb weaver spider web construction made visible by morning dew. Photo by D. Pehling, WSU Extension.

The body of these spiders range from 1/4 to one inch (which does not include the legs). The abdomen is much larger than the cephalothorax and the hairy legs are held outstretched. The males are much smaller and spend most of their time seeking females. The orb weavers have eight eyes that are arranged in two rows, with the eyes off to each side some distance from the middle eyes (Figure 20). The four middle eyes form a trapezoid. On the west side of Washington, the most commonly seen orb weaver is the cross orb weaver (*Araneus diadematus*) (Figure 21), which has a white cross on its back. On the east side of Washington, one of the most commonly encountered orb weavers is the cat-faced orb weaver, *Araneus gemmoides* (Figure 22).



Figure 20. Araneidae-microscopic view of the eye pattern on the banded garden spider, *Argriope trifasciata*. What may appear to be two pairs of eyes on either side of the head is a set of four eyes. Photo by M. Bush, WSU Extension.



Figure 21. Araneidae—the cross-orb weaver, *Araneus diadematus*, with distinctive markings on its abdomen. The body length of this spider was 3/4 inch. Photo by S. Collman, WSU Extension.



Figure 22. Araneidae—the cat-faced orb weaver, *Araneus gemmoides*. If you use your imagination, one can clearly see the "cougar face" on the back of this spider. Photo by M. Bush, WSU Extension.

Family Thomisidae (Crab Spiders)

Thomisidae is the sixth largest family of spiders and contains over 2,000 species worldwide and about 60 species in Washington State. Crab, or running spiders, can be recognized by orientation of the legs as they extend sideways (Figure 23). The two forelegs are often much longer than the two back legs on each side. The front legs are commonly held out and up much like a crab. The body lengths of the common crab spiders in Washington are no longer than 1/2 inch. Crab spiders have eight eyes, with a pair of eyes on bumps on either side of the head and four forward-directed front eyes (Figure 24).



Figure 23. Thomisidae–crab spider, *Xysticus* sp., with crab-like orientation, cryptic coloration, and other features that lead to its common family name. Photo by M. Bush, WSU Extension.

Crab spiders have a diverse set of habitats, but one can find them on flowers in the home landscape. Crab spiders are ambush predators and lay await inside flowers to capture pollinating insects as they land to feed on flower nectar. Some species can even change color to blend in with their environment. One spider, known as the goldenrod crab spider, *Misumena vatia*, can change between white, yellow, and green (Figure 24), depending on the flower or background on which it is hunting. It can take two to three days for the color to change.



Figure 24. Thomisidae—the goldenrod crab spider, *Misumena vatia*, standing on a desk top and connected to a tether that suspends from above. Body length 3/8 inch. Photo by S. Rankin, WSU Master Gardener volunteer.

Crab spiders do not spin webs but will create "tethers" or silken strands to help them drop-in and ambush the prey. Using their cryptic coloration and patience, a crab spider can wait for days to capture a pollinating insect, such as a bee or a fly. Once caught, venom is injected into the victim. If hunting is good, the spider will stockpile caught prey for later consumption.

Family Linyphiidae (Sheetweb Spiders)

Sheetweb spiders (Linyphiidae) are the second largest family of spiders. They are small (most species are less than 3/16 inch), shiny black or colorfully patterned, and look a bit like mini-cobweb spiders. Their eyes are arranged in two rows of four, with some eyes mounted on raised bumps. The web is a complicated sheet and dome structure (Figure 25), with the spiders hanging upside down under the dome so they can bite the prey through the webbing. They then pull the prey through the web to feed. These spiders are particularly common on dense shrubs and dwarf conifers, such as juniper in eastern Washington, but they do occur throughout the state. These spiders communicate by vibrating the web or by rubbing rough spots on the fangs to make sounds.



Figure 25. An abundance of sheetweb spiders. While the sheet and dome webs may look bad, this shrub is well-protected from insects that would otherwise attack and damage the plant. Photo by S. Collman, WSU Extension.

Family Amaurobiidae (Hackled Band Weavers)

Hacklemesh or hackled band weavers are 2/5 to nearly one inch in length. The carapace and legs are a shiny red-brown, and the abdomen usually has a light-colored chevron pattern on the back (Figure 26). The eight light-colored eyes are similar in size, arranged in two rows, and the fangs are large and distinct.

These spiders live under dead leaves, woody debris, or in other protected places. They can inflict painful bites. They are common in wood piles and occasionally make their way into houses. Hacklemesh weavers are ambush hunters, waiting for prey to wander into their lairs. "Hackled" silk is used to make their protective tube nests under debris. In at least one species, the mother provides the young with an egg for their first meal. For about a month, the offspring stay and hunt with the mother, after which the offspring eat her before they disperse.



Figure 26. An adult hacklemesh weaver spider, *Callobius* sp. Body length 3/8 inch. Photo by S. Collman, WSU Extension.

Family Pholcidae (Cellar Spiders)

Cellar spiders (Pholcidae) are also referred to as long-bodied cellar spiders, or vibrating spiders. The body is box-like and brown with banding or chevron markings. The delicatelooking cellar spiders have very long, thin legs (Figure 27). Eyes are arranged in two groups of three on either side of the head, with two smaller middle eyes. Cellar spiders are found on all continents, except Antarctica, but are most common in hot tropical climates. One species of cellar spider, the longbodied cellar spider, Pholcus phalangioides, is common in western Washington outbuildings, basements, or under outdoor furniture or other undisturbed areas where they build their messy, tangled webs. The webs may have several spiders hanging upside down, as well as dead insects, and the spider's white egg sacs. To attract prey, the spider may vibrate the web, or spin in a circle creating a blur of dark and light; the vibration also increases the entanglement (these webs are not particularly sticky) of the prey. This spider will invade the webs of other spiders and eat the host, their eggs, and any uneaten prey. Cellar spiders are predators of house spiders (Tegenaria) but are not especially venomous nor are they dangerous to humans.



Figure 27. Pholcidae—a pholcid spider hanging from a cellar rafter. Body length is 3/16 inch, but with legs over one inch. Photo by M. Bush, WSU Extension.

Family Dysderidae (Sowbug Hunters)

The introduced *Dysdera crocata* is the only member of this family in North America. These striking spiders are about 1/3 to 3/5 inch in length. The shiny cephalothorax and legs are reddish-orange, and the abdomen is grey (Figure 28). The forward projecting chelicerae are large and stout, specially adapted for killing sowbugs (Figure 29A & 29B). Sowbug hunters have six, rather than the usual eight eyes, and these are arranged in a semi-circle, open at the bottom.

Sowbug hunters are found under stones or loose bark in dark and humid surroundings where they find sowbugs and other suitably sized prey. In houses, they may be found in damp basements. They do not build webs but make oval retreats with their silk. The young remain for some time with their mother after hatching. Sowbug hunters will bite if mishandled, but the bite, though somewhat painful, is not serious.



Figure 28. Dysderidae—the sowbug hunter is an introduced spider with mouthparts in an orientation that is well adapted to feeding on sowbugs. Photo by M. Bush, WSU Extension.



Figure 29. A sowbug is a small arthropod that feeds on decaying vegetative material (A). Some species can roll up into a ball to escape predation (B). Photos by M. Bush, WSU Extension.

Family Gnaphosidae (Ground Spiders)

Spiders in the family Gnaphosidae are usually dark in color with lighter markings on the abdomen. Rather non-descript in appearance, they can quickly be recognized by the readily visible pairs of divergent tail-pipe-like spinnerets that protrude from the back of the abdomen (Figure 30). Most common Washington species are 1/4 to 5/8 inch long. True to their common name, these spiders are found running along the ground surface and can sometimes be found seeking shelter in silken retreats under loose rocks, loose bark, or debris on the surface (Figure 31). Ground spiders do not use silk to make a web but prefer to hunt at night, by chasing down their prey.



Figure 30. Gnaphosidae—microscopic view. Ground spiders can be recognized by the visible pairs of divergent tail-pipe-like spinnerets that protrude from the back of their abdomen. Photo by M. Bush, WSU Extension.



Figure 31. Gnaphosidae—true to their common name, these spiders are found running along the ground surface in search of prey. Photo by M. Bush, WSU Extension.

Other Spider Families

Dozens of families of spiders in Washington are not mentioned in this publication, as homeowners are unlikely to encounter or notice them in home landscapes. Some of them have every bit as fascinating life histories and hunting styles. For example, spitting spiders (Scytodidae) are very common in the tropics, but there are members of this family here in Washington. These hump-backed spiders come armed with special glands that they use to target and squirt, and then propel, sticky threads of webbing that entangle or pin their prey (Figure 32).



Figure 32. Scytodidae—the spitting spider, *Scytodes thoracica*, has glands beneath its mouthparts that it can use to target prey items and then propel sticky threads of webbing to entangle prey. Body length is 3/8 inch. Photo by M. Bush, WSU Extension.

Intentionally absent from this discussion of spiders found in Washington state are members of the Sicariidae family of spiders commonly known as the recluse spiders. Contrary to erroneous reports of recluse spider bites in our state, the brown recluse spider and all its family members *are not* found in Washington State.

The Harvestmen or Daddy-long-legs

Although not considered spiders, harvestmen, or daddy-longlegs, are arachnids (order Opiliones). They do have eight legs and the head, thorax, and abdomen are broadly fused together (Figure 33). Unlike spiders, they do not have silk glands. Most harvestmen are omnivorous and will prey on small insects as well as plant material. Their mouthparts are not fangs and resemble small, grasping claws that are not capable of penetrating human skin.



Figure 33. Arachnid order Opiliones—the harvestmen, including *Phalangium opilio*, do have eight legs but do not have fangs or silk glands, and thus are not considered spiders. Photo by M. Bush, WSU Extension.

How to Get Rid of and Keep Spiders Out of Your Home

In general, most spiders do not find our homes to be suitable habitat as, hopefully, there are too few prey to feed on. A few species of spiders are naturally found indoors. Nevertheless, the best way to avoid spiders in the home is to exclude them from entering. When spiders are young, they can travel easily through ballooning and often go undetected once they arrive inside. Keep windows screened to reduce the number of ballooning spiders entering the home. Regularly sweep or vacuum off cobwebs both inside the house and outside. Pay attention to the angled areas around the doorways and windowsills.

In the late summer and early fall, spiders may enter houses accidentally as male spiders search for mates. They usually enter through doorways, openings, or gaps along the foundation of the house. When these spiders are discovered in the house, collect and release them back outside if possible. Otherwise, use a broom or vacuum to dispose of the spider.

If spiders are regularly encountered inside the house, begin to look for access points along the outside of the house foundation. Spiders will often walk along the side of the foundation, turn when there is an opening, and may find themselves inside the house. Using sticky spider traps can help you find the access points by placing traps near suspected openings, such as large cracks, window gaps, or doorways. Seal up entry points by screening or caulking gaps. Replace worn or ill-fitting weather stripping under and around doorways.

Clean up potential habitats outside the house. Clear yard debris, clutter, and vegetation around or under the base of the foundation. Prune back or relocate landscape plantings at least three feet from the foundation. Sweep or wash off webs in the eaves and corners of the house. Do not let outdoor lighting remain on for longer than needed at night. White lights attract flying insects which, in turn, attract predaceous spiders. Store firewood away from the house and brush off the wood before bringing it inside.

Insecticides may be used to manage spiders inside and around the house. For houses with spider problems, a perimeter treatment of insecticide applied by a certified pest control specialist will create a toxic barrier for spiders walking along the foundation of the house. For WSU recommendations regarding spider control in the house, see the <u>WSU Pestsense</u> website.

Conclusions

Spiders are an important part of our natural environment. When found outdoors, they are beneficial as they prey on small insects and other arthropods that may be pestiferous. Thus, it makes no sense to try to control or manage spiders when they occur in yards or gardens. If you fear spiders when working outdoors, just wear a pair of ordinary gardening gloves to protect your hands from any accidental spider bites. Indeed, this is a recommended practice for anyone when moving firewood, debris, or just working in the outdoors. When examining crawlspaces or crawling under structures, it is a good idea to wear appropriate clothing, including gloves, to keep as much of your body covered as possible from spiders and other environmental hazards. If spiders become a problem on the outside of a structure, use a stream of water to wash them away.

When spiders are found indoors, you may wish to manage them. A few species of spiders are naturally found indoors, but most invade from outside. The first approach includes finding out how spiders are entering the house. Once located, close or seal all such entrances. This will not only help with spiders but will also stop other small critters such as mice and insects from making an entrance. It is prudent to remove any shrubbery or items, such as firewood, that are against, or in contact with, the house or other structures. This will not only help with spiders but with other insects, such as carpenter ants. When it is necessary to control spiders in the home, make sure that you are following the latest non-chemical and chemical recommendations and procedures that can be found on the WSU Pestsense website. Use insecticides only as directed on the pesticide label. Please remember that pesticides are a temporary fix unless efforts are made to prevent their entry into the house.

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Further Reading

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