# Colorado State University

# Extension

# Spiders in the Home

Fact Sheet No. 5.512

Insect Series | Home and Garden

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Spiders are beneficial arthropods, that survive by feeding on insects. Oftentimes they are the most important biological control of insect pests in gardens, fields, forests, and homes. However, their presence is a cause of concern to some people. Many people fear spiders because of stories or myths. Others object to spiders because of their habit of building webs in and around the home. There are a few spiders whose bite requires medical attention.

Spiders differ from insects in that they have eight legs (rather than six) and only two body regions (instead of three). The body regions include the cephalothorax (head and legs) and the abdomen. On the cephalothorax are usually six to eight eyes, often arranged in two rows. The pattern of eye arrangement is characteristic for the different spider families.

Some spiders capture prey by using silk and venom. Others are active hunters that ambush or capture prey. These spiders physically overpower their prey and then use venom to immobilize them.

# Life Cycle

Females lay eggs in clusters of up to several dozen. Most cover the eggs with a sheet of tough silk that can attach to almost any surface. The eggsac of many webspinning species are found in and around the webs. Females of some species (wolf spiders, cellar spiders, nurseryweb spiders) may carry the eggsac until the eggs hatch.

Young spiders, known as *spiderlings*, emerge from the eggsac and disperse. Many climb to the top of a nearby object, produce long filaments of silk (known as gossamer), and are carried by the wind. This method of dispersal is known as *ballooning*. Ballooning spiderlings can be carried long distances.

\*Colorado State University Extension entomologists and professors, bioagricultural sciences and pest management; P. Cushing, curator of invertebrate zoology, Denver Museum of Nature and Science. 9/2013 Because spiders have a great ability to disperse, in addition to other factors that affect their survival, the number of spiders found in an area from one season to another naturally varies. Also, spiders are able to rapidly recolonize areas even if they have temporarily been eliminated.

Most spiders in Colorado have a life cycle that spans one year. However, widows and some wolf spiders can live up to a few years, and tarantulas can survive a decade or more.

Adult male spiders are smaller than females, sometimes dramatically smaller. Males are identified by the presence of an enlarged pair of *palps* (front leg-like appendages ) which may appear somewhat like miniature boxing gloves or a fifth pair of legs. The palps are used to transfer sperm. Male spiders are often more commonly found in homes as they tend to wander during the mating season in search of females.

# Common Colorado Spiders

#### Funnel web spiders (Agelenidae)

Funnel web spiders are the most common spiders found in homes, particularly during late summer and early fall. They produce dense mats of silk in areas such as shrubs, thick grass, or corners of buildings. A central *retreat* (the base of the "funnel") is usually used by the spider which then moves rapidly onto the web when prey enter onto it.

Funnel web spiders are harmless but are often mistaken for the brown recluse, a spider whose venom is of medical importance, that does not naturally occur in Colorado. Funnel web spiders differ from the brown recluse in that they have a darker brown color with black markings on the abdomen, lack the characteristic "violin" marking on the cephalothorax, have four pairs of eyes instead of three, have striped legs, and are considerably faster.



### **Quick Facts**

- Spiders feed on insects and other arthropods. This makes them beneficial in helping manage pests.
- Some spiders wander indoors in the early fall when cooler outdoor temperatures force them to find shelter.
- Some spectacular spiders are found in webs outdoors in late summer, particularly the banded argiope and the "catface" spiders.
- Common spiders found indoors include funnel web spiders, cobweb spiders, cellar spiders, and sac spiders.

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Figure 1: Funnel web spider.



Figure 2: Funnel web spider.



Figure 3: Ground Spider.



Figure 4: Jumping spider.



Figure 5: Jumping spider.

#### Jumping spiders (Salticidae)

Jumping spiders are active hunters. They stalk and pounce on their prey rather than use silk to snare it. They are capable of jumping several body lengths, possess large eyes, and the most common species are brightly colored. As with almost all spiders, jumping spiders use silk to lay down a trail, cover its eggs, and construct temporary shelters.

# Dysdera crocata (Wood Louse Hunter) "Roly-poly Hunter"

This smooth bodied spider is perhaps best distinguished by its large fangs which it uses to feed on pillbugs (roly-polies) and other hard-bodied prey. When full grown they are about .5 inch in length. *Dysdera* have a generally creamy gray body with distinctly reddish legs and cephalothorax. They live in a silk retreat and hunt at night. Their bite can be painful but they are not aggressive and their venom is not known to cause medical problems.

#### Ground spiders (Gnaphosidae)

Ground spiders, as their common name implies, are most often found under rocks or logs where they build silken retreats and emerge only to hunt. Some species wander indoors when the weather turns cold. Ground spiders are harmless to humans.

# Cobweb spiders/Comb footed spiders (Theridiidae)

Cobweb spiders are common inhabitants of dark corners around the home. They have a generally bulbous body and create messy webs with sticky threads. The majority of these spiders are harmless, although one group, the widow spiders in the genus *Latrodectus*, are potentially dangerous. The family also includes spiders in the genus *Steatoda* that are also generally black and sometimes mistaken for widow spiders, but they have a large white band around the front of the abdomen and lack the orange-red hourglass pattern on the underside of the abdomen.

#### Cellar spiders (Pholcidae)

Cellar spiders are usually found in dark corners of cellars, crawl spaces, and garages. They are very long-legged and often confused with daddy-long-legs. However, they are true spiders that spin untidy webs which are often quite extensive. When disturbed, they characteristically bounce in the web. Female cellar spiders carry eggs in her chelicerae (jaws) in a loose silk sac until they hatch.

#### Yellow sac spiders (Miturgidae)

Sac spiders are active hunters. They get their name because they spend daylight hours in a flattened silken sac, typically located in the upper corners of rooms or in wall cracks. Most sac spiders are pale colored. They are usually the most common spider found wandering in homes during fall, particularly at night. *Cheiracanthium* species are suspected as being the most common source of spider bites in homes. The bite, although painful, usually causes no other symptoms and the pain subsides after a few minutes.

#### Wolf spiders (Lycosidae)

Wolf spiders are active hunters that do not produce a prey capture web. They may make a silk lined retreat in soil, under rocks or in other protected sites. Most are grey or brown and some are quite large including the giant wolf spider (*Hogna carolinensis*) and some burrowing wolf spiders (*Geolycosa* spp.) which are commonly mistaken for tarantulas. Smaller species somewhat resemble funnel web spiders.

An unusual habit of wolf spiders is that the female carries the egg sac attached to her spinnerets. The newly hatched young crawl on the female's back for the first few weeks of life.

Wolf spiders occasionally enter homes, particularly in areas of new development where their habitat was disturbed. They are normally shy and not dangerous to humans, although large species can bite.

#### Araneus spiders (Araneidae)

Several orb weaving spiders of the genus *Araneus* are commonly found outdoors late in the season. They are usually brownish in color with a large and prominent abdomen that is dimpled and marked. Some species, known as "barn" or "garden" spiders, make geometric webs among vegetation, buildings, windows, or outdoor lighting.

The largest and most commonly observed species is the "catfaced" or "monkeyface" spider, *Araneus gemmoides*. Large females may be almost 1 inch in diameter and are generally round with a prominent pair of humps on the back. *Araneus* spiders are harmless.



Figure 6: Cob web spider.



Figure 7: Cellar spider.



Figure 8: Dysdera crotata.



Figure 9: Long-legged sac spider.



Figure 10: Wolf spider with spiderlings on her back.

#### Banded Garden spider (Araneidae)

The largest and most striking of the orb weaving spiders found in Colorado is the banded garden spider (*Argiope trifasciata*). It is found in late summer and early fall among shrubbery and in gardens where they make a highly symmetrical orb web. Females are generally silvery, with dark and yellow striping. Males are rarely observed and are much smaller than the females. The banded garden spider is harmless.

#### Tarantulas (Theraphosidae)

Tarantulas are found in southeastern and southwestern Colorado. Mature male spiders are commonly observed when they wander across roads in late summer in search of females. Tarantulas are among the longest lived of all spiders. Females may live for more than 20 years. Populations of tarantulas tend to be localized, where they burrow into soil and feed at night. They do not enter homes and females move only a few feet from their burrows. They may produce a pinching bite if handled. Tarantulas defend themselves by flinging hairs from their abdomen which can be irritating to the touch.

# Potentially Dangerous Spiders

#### Widow Spiders

Widow spiders, particularly the western widow (*Latrodectus hesperus*), are common in Colorado. They usually build their webs near the ground in dark, undisturbed sites. Window wells, entrances to crawl spaces, old rodent burrows, corners of garages, and abandoned rodent burrows are some of their favorite web sites.

The presence of red or red-orange markings on the underside of the abdomen is characteristic of widow spiders. This pattern may be in the form of a distinct hourglass pattern or appear as two separate triangles. The markings may be distinct and bright, or sometimes faint and indistinct. Overall color of the adult females is uniform black, although immature stages and males may have brown, red, and white markings on the back. Some non-poisonous spiders that are commonly mistaken for widow spiders are *Steatoda* species (cobweb spiders), mentioned earlier.

Bites from the widow spider are painful and potentially dangerous because they

contain a nerve venom. Fortunately, widow spiders are non-aggressive and rarely bite. When bites do occur they happen when the female is provoked, for example, when an unwitting person presses down on a spider that is resting beneath a log or rock. See fact sheet 5.605, *Western Widow Spider* for additional information.

#### Brown Recluse spider

The brown recluse (*Loxoceles reclusa*) is rare in Colorado because of our cold winters and dry climate. However, it is common to areas along the southern Mississippi Valley and are occasionally brought into the state but rarely, if ever, get established. The brown recluse lives within a loose, messy web in dark corners of buildings.

Brown recluse spiders are pale brown or buckskin colored with long, dark brown legs. A violin shaped dark marking is present behind the head, and the abdomen is uniformly colored. Unlike most spiders, the brown recluse possesses only three pairs of eyes. They are commonly mistaken for funnel web spiders, certain wolf spiders, and even sun spiders.

The venom of the brown recluse is damaging to human cells. In susceptible individuals a slow-healing, ulcerous wound may form at the bite site. Oftentimes the original bite is not noted, but after a few hours a blister will form and pain develops. For more information see fact sheet 5.607, <u>Brown Recluse Spiders in Colorado: Recognition and Spiders of Similar Appearance</u>.

#### Spider Relatives

# Sun Spiders/Wind Scorpions/ Solpugids

Sun spiders are bizarre looking arachnids (Order: Solifugae) most common to southeastern Colorado. Occasionally they are found along the Front Range. They possess large conspicuous jaws used to crush prey, but they do not have venom glands. Also present are prominent appendages (palps) that give the impression of a fifth pair of legs. Sun spiders are active animals, and a common name 'wind scorpion' reflects this behavior. They occasionally enter buildings, particularly in early summer. Sun spiders are discussed in more detail in fact sheet 5.589, *Sunspiders* (*Windscorpions*).



Figure 11: Cat-faced spider.



Figure 12: Burrowing wolf spider.



Figure 13: Tarantula.



Figure 14: Banded garden spider.

#### Scorpions

Scorpions are arachnids that have an elongated abdomen tipped by a stinger. Their pedipalps are modified as pincers. Scorpions found in Colorado capture and kill their prey primarily using these large pincers. Only when necessary do they bend the stinger over their body and inject poison into the prey. Species found in Colorado are not dangerous to humans although the sting can be painful.

# Daddy-long-legs (Harvestmen, Phalangids)

Daddy-long-legs are not true spiders, but are arachnids placed in another order (Opiliones). You commonly encounter them outdoors, particularly when adults are present in late summer and early fall. Because they are active around harvest time, one of their common names is 'harvestmen'. Daddy-long-legs are characterized by extremely long legs and a body that is not distinctly separated into regions. Unlike spiders, daddy-long-legs do not possess venom glands nor do they produce silk. A common, worldwide 'urban legend' about daddy-long-legs is that they are "the most poisonous spider, except their fangs are too small to pierce human skin." This is completely without foundation.

### **Spider Bites**

Most spiders are not aggressive and bite only when trapped against the skin. If a bite is suspected or is known to have occurred, follow these first aid steps recommended by the American Red Cross:

- 1. Treat the site of the bite with an antiseptic to prevent infection.
- 2. Apply ice to the site of the bite to reduce pain and swelling.
- If a black widow or brown recluse spider bite is suspected, or if serious symptoms develop such as increasing pain or swelling, consult a physician.

If at all possible, bring the spider to the physician's office. Effective antivenins are available for black widows, but they can only be used if the spider that inflicted the bite is positively identified.

It should be stressed that spider bites are difficult to diagnose correctly as there are many other medical conditions that mimic the same symptoms. Spider bites, particularly those of "brown recluse spiders," are greatly overdiagnosed in Colorado.



Figure 15: Female black widow with egg sacs.



Figure 16: Male black widow.



**Figure 17:** Brown recluse spider (male) showing six eyed pattern.



Figure 18: Hairy desert scorpion.



Figure 19: Solpugid or sun spider.



Figure 20: Daddy-long-legs.

# Controlling Spiders Around the Home

From a biological standpoint, it is rarely necessary to control spiders. However, if it is desirable to get rid of spiders in the home, a combination of sanitation and pesticides should be effective. Pesticides alone, without some effort to remove or modify favorable spider habitats, will not be effective.

Remove rocks, wood piles, compost piles, old boards, and other sheltering sites adjacent to the home. Eliminate migration of spiders into homes by caulking cracks and crevices around the foundation. Make sure all screens and doors are sealed tight. Keep crawl spaces free of debris and limit boxes and other potential hiding places from basements and other dark storage areas. Regularly vacuum or brush spider webs. The elimination of other insects that are prey can limit spider development.

Occasional spiders can be removed by hand (wear gloves or trap the spider in a container ) or with a vacuum. Sticky traps, used to control cockroaches and rodents, can capture spiders when placed along baseboards or other migration areas. Spiders are most often found in kitchens, bathrooms or basements where they are seeking a source of moisture.

Residual insecticides can be used to control spiders when applied to corners and other sites where spiders tend to breed. Household insecticide products containing various pyrethroids (bifenthrin, cyfluthrin, permethrin, tetramethrin) are commonly available for this purpose and must be applied in accordance with the label's instructions. Total release foggers, containing pyrethrins, probably will have little effect on spiders.

Where spiders and webbing occur in nuisance numbers on the outside of buildings they can be washed off with a forceful jet of water. Reduction of outdoor lighting, or replacing lighting with yellow or sodium vapor lights that are not attractive to insects, can limit spider web building. Dark colored siding seems to be less attractive than white siding to the insects on which spiders feed.

# **Further Reading**

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Medical personnel interested in more information on the treatment of spider bites are referred to: Wasserman, G. S. and P. C. Anderson. 1984. Loxoscelism and necrotic arachnidism. Journal of Toxicology. Clinical Toxicology. (1983-1984). 21: 451 - 472.