

Spider Identification Guide

Gerald S. Wegner, Ph.D., BCE



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How to use this guide

This Spider Identification Guide is designed for use everywhere as a handy reference resource for understanding and controlling spiders. It provides useful background information about the behaviors and characteristics of the most common spiders encountered in the United States, along with physical descriptions and photos to help you identify and understand each species.

The side tabs take you quickly to each profile page, where information is provided in four categories:

- **Identification:** describing spider anatomy
- **Distribution:** listing the geographical regions where the spider is commonly found
- **Biology and Behavior:** specifying developmental stages of hunting, mating and web-building behavior
- **Medical Importance:** indicating effects of bites and venom

In addition, a Frequently Asked Questions section provides helpful knowledge and dispels a few myths about spiders; a diagram describes the spider morphology and anatomy; an illustrated key shows the relationships among spider species; and a summary of spider best management practices helps you provide effective spider control.

Always keep this spider guide in your vehicle for quick reference. It can also be helpful to educate homeowners and sell a job. Happy hunting!

Ridesco® WG

Insecticide



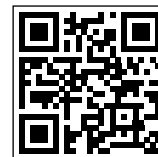
Hourglass spider
or Widow
Family Theridiidae

Ridesco® WG Insecticide is the rapid response heavy hitter for spider control

Ridesco WG insecticide is a rapid response solution for spider infestations, delivering fast, visible control when speed and impact matter most. Its quick-release formulation rapidly deploys two active ingredients to overwhelm spiders, including invasive Joro spiders, black widow spiders, brown recluse spiders, cellar spiders, and other species. In direct-treatment studies, Ridesco WG achieved 100% knockdown of Joro spiders in as few as 10 minutes, providing immediate relief and helping prevent recovery or re-population following treatment.

Application guidelines

For optimal spider control, apply Ridesco WG directly to spiders before they lay eggs in the fall. Targeting spiders before reproduction helps disrupt the annual life cycle and reduce populations the following season. Ridesco WG is a dry formulation that makes mixing, handling, storage, and transport easy, and its flexible label integrates seamlessly into pest control programs for diverse pest issues.



Scan to learn more
about **Ridesco® WG**
controlled release
insecticide



Fendona® CS

Controlled Release Insecticide



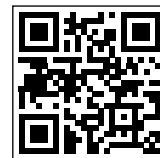
Brown recluse spider
or Violin spider
Family Sicariidae

Fendona® CS Controlled Release Insecticide is fast acting and long lasting for spider control

Fendona CS controlled release insecticide provides fast knockdown and long-lasting residual control of spiders and more than 60 arthropod pests. Its micro-encapsulated formulation delivers quick killing activity while protecting the active ingredient for extended performance, helping maintain control even up to 90 days after application. Fendona CS is an ideal choice for pest management professionals seeking dependable, long-lasting spider control.

Application guidelines

Apply Fendona CS insecticide to likely harborage sites indoors and out, paying careful attention to all areas where web-building is likely. Indoors, make spot treatments to hiding places such as cracks and crevices, voids and vents, penetrations around pipes and sinks, and under appliances and shelving. Outdoors, apply to elevated areas such as upper floor window frames, shutters, and eaves, as well as basement windows, gaps in siding, around main level windows, porches, decks, doors, and garages.

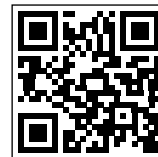


Scan to learn more
about **Fendona® CS**
controlled release
insecticide



Termidor® SC

Termiticide/Insecticide



Scan to learn more
about **Termidor® SC**
controlled release
insecticide



Cellar spider
Family Pholcidae

Termidor® SC Termiticide/Insecticide uses nonrepellent, undetectable technology for highly effective control of spiders

Termidor SC termiticide/insecticide is a proven, nonrepellent solution for controlling spiders and other perimeter pests around structures. Powered by the same undetectable technology that has made Termidor SC America's #1 termite defense, it works where spiders live, travel, and seek entry. Ideal for challenging species such as cellar spiders, Termidor SC provides effective perimeter control by targeting spiders in key problem areas before they can establish webs and nesting sites.

Application guidelines

Apply Termidor SC around foundations, doors, windows, utility penetrations, and other common spider entry points to create a protective treatment zone around the structure. Focus applications on areas where spiders harbor or build webs, including cracks, crevices, and sheltered exterior surfaces. Strategic perimeter treatments help reduce spider activity, prevent new infestations, and support long-term control around the property.



Spider facts: Frequently asked questions

Q. How do spiders differ from other arthropods?

A. Their physical characteristics differentiate spiders from other arthropods. All spiders have two body regions (cephalothorax and abdomen), eight legs (each with seven segments), a pair of pedipalps, a pair of chelicerae (jaws) and either six or eight simple eyes.

Q. Are all spiders venomous?

A. No. However, the vast majority of spider species have a pair of venom glands with ducts that supply venom to the hollow jaws (chelicerae). Spiders inject venom and/or digestive juices into live or recently-killed prey to feed.

Q. Are harvestmen (a.k.a. garden daddy longlegs) spiders?

A. No. Unlike spiders, harvestmen (Order Opiliones), have three broadly joined body regions (head, thorax, and a segmented abdomen), one pair of eyes and are non-venomous. They feed on vulnerable insects and plant juices.

Q. How many different spiders exist worldwide?

A. More than 54,000 spider species have been described and named.

Q. How many species of spiders exist in the continental US and Canada?

A. Roughly 4000 spider species have been described in the continental US and Canada.

Q. What is the largest spider?

A. The world's largest spider is the South American goliath bird-eating spider, *Theraphosa blondi* (Mygalomorphae: Theraphosidae). Adults may attain a body length of 4.8 inches (12 cm), a leg span of nearly 13 inches (30 cm) and a body weight of 5.6 ounces (160 g).

Q. What is the smallest spider?

A. The smallest spiders on record belong to the family Symphytognathidae. *Anapistula caecula* (Ivory Coast, West Africa) females have an adult body length of 0.018 inches (0.46 mm), while *Patu digua* (South America) males have an adult body length of 0.015 inches (0.37 mm).

Q. How well can spiders see?

A. All spiders have simple eyes. Most have poor vision—merely able to distinguish light from darkness and nearby movement. However, some (e.g., jumping spiders) have excellent short-range vision and are able to distinguish shape and color.

Q. Which spider's venom is the most dangerous?

A. The bite and venom of the Sydney funnelweb spider, *Atrax robustus* (Mygalomorphae: Hexathelidae), of Australia, is considered one of the most life-threatening. Some sources claim that certain Brazilian wandering spiders, *Phoneutria* species (Araneomorphae: Ctenidae), have the world's most toxic spider venom.

Q. Do all spiders spin webs?

A. Not all spiders spin webs to capture prey. They catch their victims in three distinct ways: (1) ensnarement, assisted by a silken web comprised in part of sticky strands, (2) active hunting, while roaming about and exploring their surroundings, and (3) passive hunting—concealed or stealthily awaiting the approach of unwary prey.

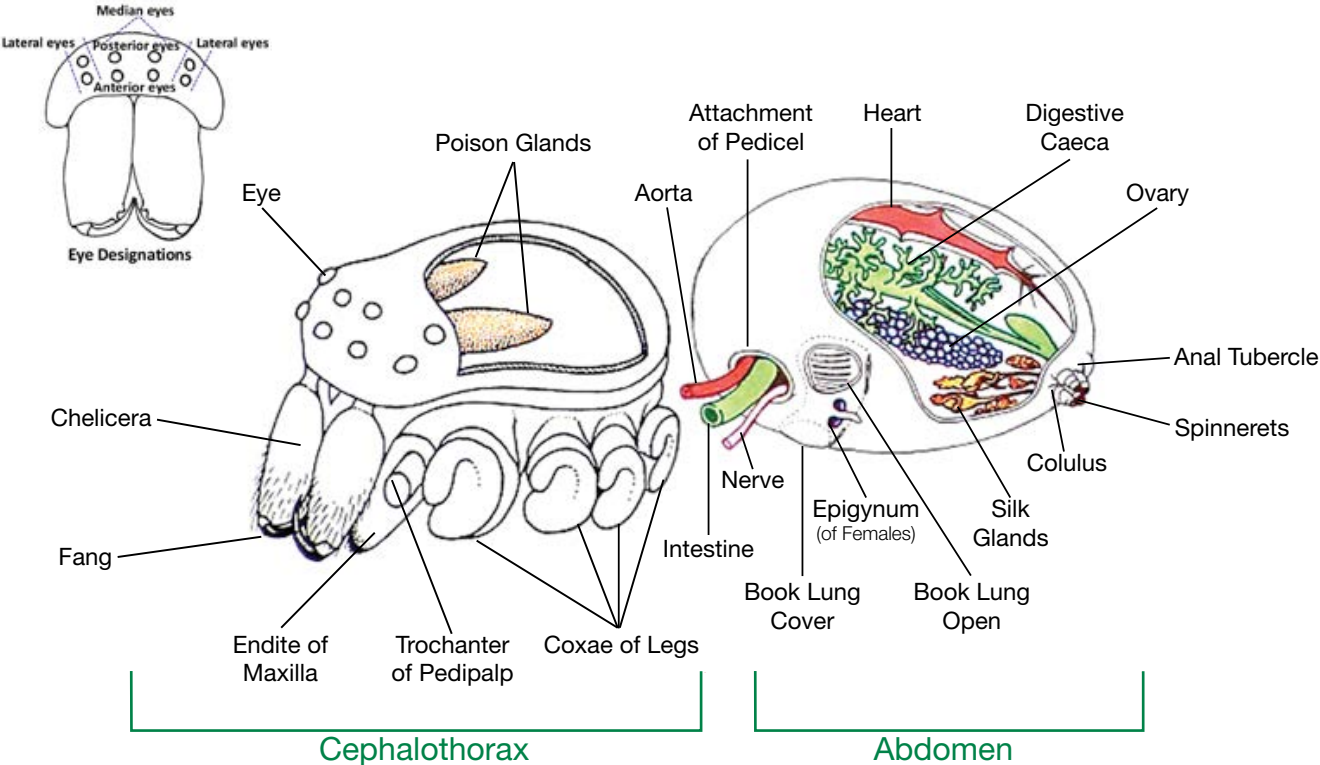
Q. How do spiders get on the roofs of tall buildings?

A. In order to disburse themselves from the egg sac, newly hatched spiderlings of some species (e.g., orbweavers) make their way to an exposed perch and spin out long strands of silk to catch a breeze. The airborne spiderlings “balloon” on air currents and updrafts until stopped by an obstacle. They build their first webs near the landing point, which may be miles away from, and a considerable distance above, the point of origin.

Q. How long do spiders live?

A. Some spiders live only one year (e.g., orbweavers), others may live two years (e.g., wolf spiders, fishing spiders) and still others may survive into their twenties (i.e., some female tarantulas).

Spider anatomy

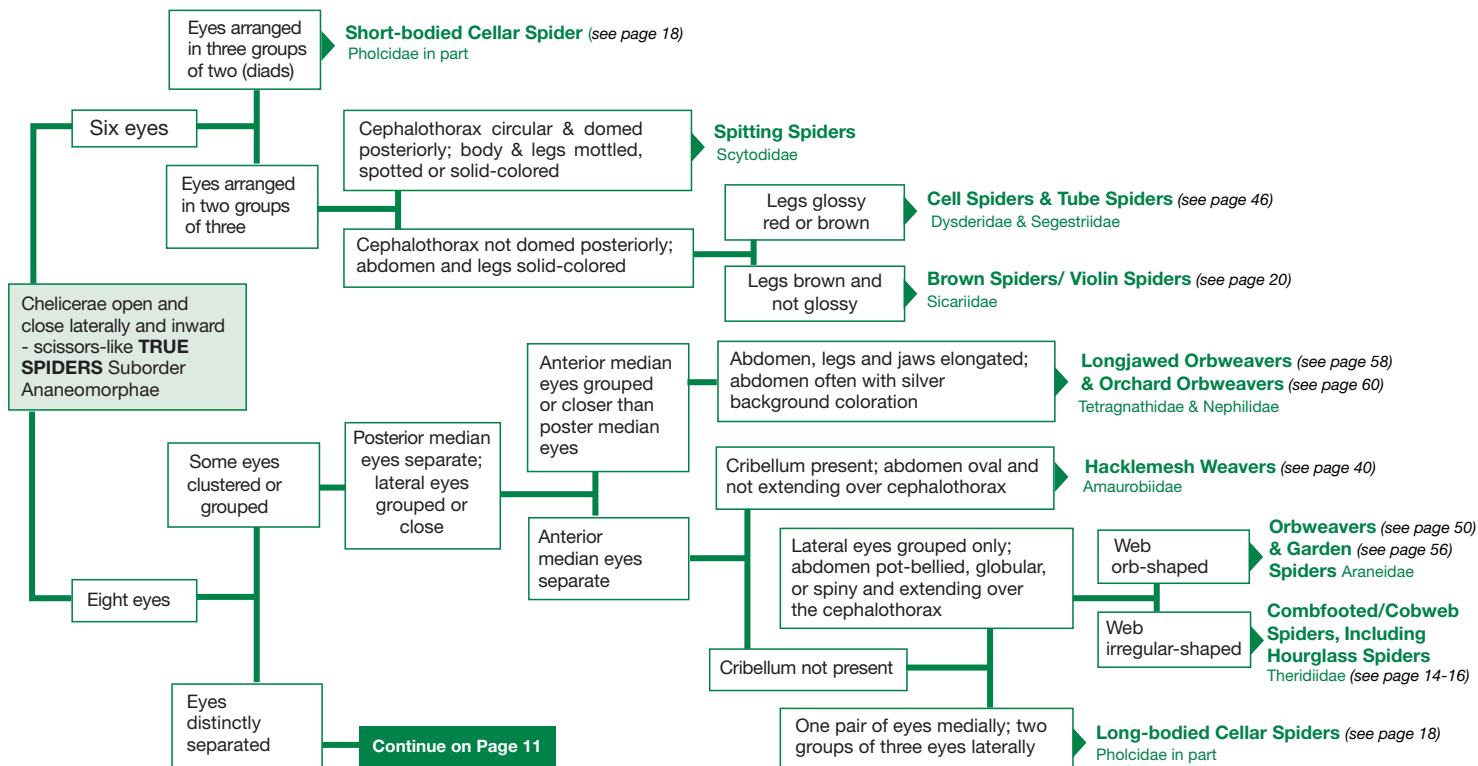


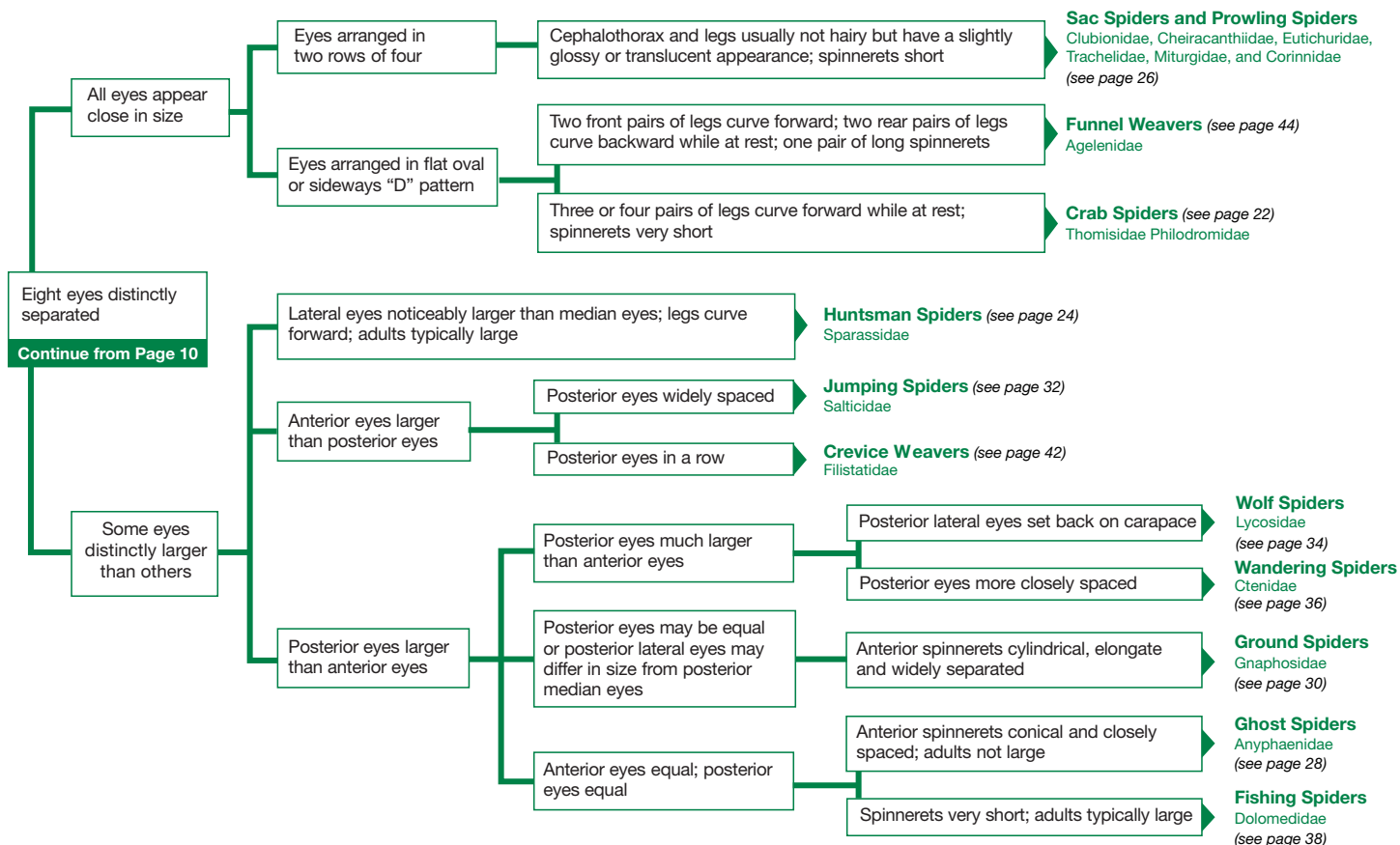
Adapted from Levi and Levi, 1990

Chelicerae open and close directly forward and downward **MYGALOMORPH SPIDERS**
Suborder Mygalomorphae

Eight small eyes clustered at top front of carapace

Trapdoor Spiders - Ctenizidae (see page 48)
Tarantulas - Theraphosidae
Folding Door Trapdoor Spiders - Antrodiaetidae







Spider management in and around buildings

An integrated approach to spider management includes preparatory, cultural, physical or mechanical, and chemical aspects.

Preparation

Thoroughly inspect the premises and structure(s) as the first step toward determining the scope of infestation and conditions conducive to spider entry. Collect and identify spider specimens to determine whether a threat to occupant health and wellbeing exists.

Cultural control

Prune tree and shrub branches away from structural surfaces to prevent spiders and other pests from bridging onto buildings. Likewise, cut down tall vegetation, such as groundcover, ivy, turf grass and weeds, and remove from along the foundation perimeter, porches and entrances of buildings. Relocate stacks of firewood and other materials away from buildings. Convert outdoor

lighting on structures from white incandescent and mercury vapor lamps (attractive to insects—spider food) to yellow/amber incandescent and sodium vapor lamps (less attractive to nocturnal flying insects, thereby reducing prey for spiders).

Physical and Mechanical control

Repair damaged and loose-fitting doors, windows, screens, vents, roofing, flashing and exterior sheathing. These exclusion or pest-proofing measures are very important for preventing spiders and other pests from entering structures.

Place sticky traps and pest monitors indoors along exterior walls of garages, basements, crawlspaces and living spaces where spiders are active. Sticky monitors should be placed beneath furniture believed to be occupied by elusive and cryptic spiders. Use a shop vacuum or portable vacuum fitted with hose attachment to remove spiders and webs from furniture, corners, sill plates, joists and other indoor structural features. Use a cobweb duster tool fitted with telescoping handle for web removal.

Chemical control

Outdoor exterior perimeter treatments can provide effective, long-lasting spider control when integrated with inspection, sanitation, and exclusion. Apply residual insecticide at label rate to building foundations and other exterior areas where spiders are likely to enter, travel, harbor, or build webs.

BASF solutions include **Termidor® SC Termiticide/Insecticide**, which can be applied to labeled exterior areas where listed spiders—including black widow, brown recluse, cellar, and hobo spiders—may enter, crawl, or hide, such as around doors, windows, pipes, vents, and other structural openings.

Fendona® CS Controlled Release Insecticide and **Ridesco® WG Insecticide** provide broad-spectrum spider control and are well suited for targeted applications to spider activity in their harborage areas. For indoor infestations, focus treatments where spiders and their prey are active. Fendona CS and Ridesco WG may be used as labeled spot applications where spiders hide, crawl or spin webs, including corners, behind and under furniture and appliances, and inside living spaces and garages.



Scan for spider-control solutions

Always read and follow the pesticide label. Refer to the product label for approved use sites, target species, application methods, rates, restrictions, and precautions.



Cobweb spiders or Combfooted spiders

Family Theridiidae

Identification

Length: 0.33 inch. **Chelicerae (Jaws):** Move side to side, scissors-like. **Eyes:** Eight, small, closely grouped. **Abdomen:** Round. **Color:** Variable. **Legs:** Short and spindly.

Distribution

More than 230 species of cobweb weavers occur in North America north of Mexico. The American house spider, *Parasteatoda* (previously *Achaearanea*) *tepidariorum*, triangulate or checkered cobweb spider, *Steatoda triangulosa*, northern cobweb spider, *Steatoda borealis*, and false black widow, *S. grossa*, rank among the most commonly encountered spiders in and around buildings. *S. grossa* is similar to *S. borealis* but is an introduced species found mainly in southeastern and southwestern coastal states.

Biology and behavior

Cobweb spiders rest upside-down in the middle of their small to medium-sized irregular webs in corners of porticos, eaves, garages, windows and all indoor areas. Some species hide in a corner or crevice at the web's edge. Females (larger than males) deposit their eggs in brown, papery silk sacs within the web. Depending on species and climate, theridiids may overwinter as eggs, immatures or adults. Continuous development has been observed in warm climates and indoors.

Medical importance

The bite is similar to a pinprick and, except for the related hourglass spiders, *Latrodectus spp.* (see Hourglass/Widow spiders), the venom usually is not dangerous. Building occupants disdain the unsightly webs.

American House Spider
Parasteatoda tepidariorum



Dr. David Shetlar

Northern Cobweb Spider
Steatoda borealis



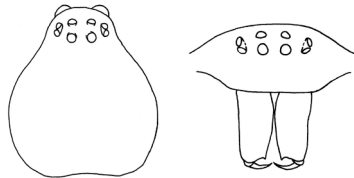
Dr. David Shetlar

Triangulate Cobweb Spider
Steatoda triangulosa



Dr. David Shetlar

Cobweb Spider/Combfooted Spider Eye Patterns



Top View

Front View



Hourglass spiders or Widows

Family Theridiidae

Identification

Length: 0.5 inch. **Chelicerae (Jaws):** Move side to side, scissors-like. **Eyes:** Eight, small, closely grouped. **Abdomen:** Globular. **Color:** Variable.

Legs: Spindly, not hairy-looking. A red or orange (sometimes yellow) hourglass marking is apparent on the ventral surface of the abdomen. In some specimens, the hourglass is separated into two triangles pointing centrally. Females of the southern and western widows are completely black except for the hourglass and, in some cases, a small red spot just above the spinnerets. Female brown widows may be brown and yellowish-tan or nearly black, with the hourglass colored orange. The northern widow has three dorso-medial red spots on the abdomen.

Distribution

Five species of hourglass spiders occur in North America north of Mexico, most abundantly in the southern U. S. and southwest: the black widow,

Latrodectus mactans, western widow, *L. hesperus*, northern widow, *L. variolus*, brown widow, *L. geometricus*, and red widow, *L. bishopi*. In northern climates, widows may overwinter as eggs in silk sacs or as immatures in protective settings.

Biology and behavior

Hourglass spiders rest upside-down in their small to medium-sized irregular webs or hide in corners or crevices at the web's edge in recessed corners of structures. They commonly occupy outbuildings, sheds, pump and meter enclosures, as well as larger rodent bait stations at building foundation perimeters. Some species build webs under rocks, in hollow tree stumps and among tree bark. Females deposit their eggs in round or submarine mine-shaped silk sacs, within the web.

Medical importance

The bite is similar to a pinprick and the potent neurotoxic venom causes severe muscle cramping, fever and nausea, which persist for a day or two. Death rarely results.

Southern Black Widow
Latrodectus mactans



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Brown Widow
Latrodectus geometricus



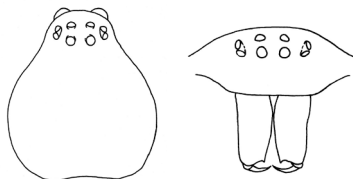
Dr. David Shetlar

Northern Widow
Latrodectus variolus



Dr. David Shetlar

Hourglass Spider/Widow Eye Patterns



Top View

Front View

Scan for trial data
on the efficacy
of **Ridesco® WG**
insecticide and
Fendona® CS
controlled release
insecticide against
Hourglass spiders
and Widows



Cellar spiders

Family Pholcidae



Identification

Length: 0.1 - 0.33 inch. **Chelicerae (Jaws):**

Move side to side, scissors-like. **Color:** Brown, beige and gray, typically; *Spermophora* spp. pale and translucent. **Legs:** Long, spindly and banded at joints. **Eyes:** Varied. *Pholcus* and *Physocyclus* spp. have eight small eyes closely grouped: the anterior median eyes are especially small and are separated, while the slightly larger anterior lateral eyes and posterior eyes form two triads (clusters of three eyes) on either side of the carapace. *Spermophora* spp. have six eyes grouped in two triads.

Distribution

Of the 40 U.S. pholcid species, the long-bodied cellar spider, *Pholcus phalangoides*, is arguably the most frequently encountered cellar spider in buildings. Often this species is referred to incorrectly as a “daddy longlegs” by the public, confusing it with the garden daddy longlegs or harvestmen of *Order Opiliones*, which are not

spiders. The round-bodied cellar spider, *Physocyclus globosus*, and short-bodied cellar spider, *Spermophora meridionalis*, are smaller and shorter, and occupy buildings as well.

Biology and behavior

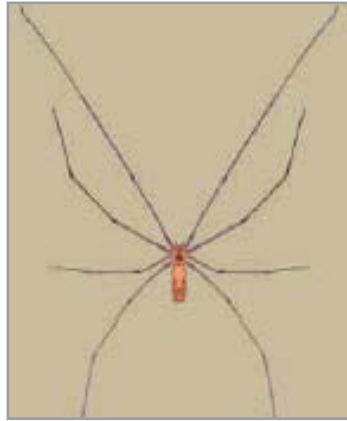
Long-bodied cellar spiders build their large, irregular webs in basements, crawlspaces, garages and dark corners of living and work spaces. They rest upside-down in their webs, where they will shake themselves quickly back and forth when disturbed. Females (larger than males) carry their round egg sacs in their jaws. *Pholcids* may overwinter as eggs, immatures or adults in sheltered settings in northern climates, however, continuous development has been observed in warm climates and indoors.

Medical importance

The bite is not painful nor is the venom dangerous, contrary to urban myths being circulated via the Internet. Building occupants disdain the large, unsightly webs, which make excursions into basements, cellars and crawlspaces unpleasant.

Long-Bodied Cellar Spider

Pholcus phalangioides



Dr. David Shetlar

Round-Bodied Cellar Spider

Physocyclus globosus

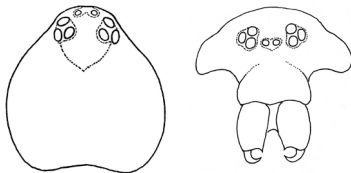


W. Mike Howell and Ronald L. Jenkins



Scan for Spider
Solutions webpage
and trial data for
Fendona® CS
controlled release
insecticide against
Cellar spiders.

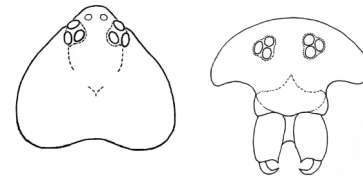
Long-Bodied Cellar Spider Eye Patterns



Top View

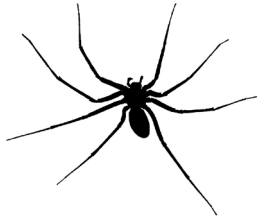
Front View

Round-Bodied Cellar Spider Eye Patterns



Top View

Front View



Brown spiders or Violin spiders

Family Sicariidae

Identification

Length: 0.33 inch. **Chelicerae (Jaws):** Move side to side, scissors-like. **Eyes:** Six, small, grouped in three diads (close pairs). **Color:** Dark brown violin pattern on light brown carapace (most distinct in adults). **Legs:** Long and slender. **Abdomen:** Oval, light brown, not hairy-looking.

Distribution

Three species in North America north of Mexico. The brown recluse, *Loxosceles reclusa*, and Mediterranean recluse, *Loxosceles rufescens*, are encountered most often in buildings in the South and where introduced sporadically in the northern U.S.

Biology and behavior

Brown spiders rest in attics, crawl spaces, basements, wall voids, upholstered furniture, clothing, among items stored in cardboard boxes indoors and under stones in warm climates outdoors. Brown spiders prey on small, soft-bodied insects.

They may entangle live prey on a small mat of sticky silk or they may wander at night and utilize recently killed insects as food. Sicariids exhibit continuous development in warm climates and indoors. In northern climates, they may overwinter as eggs, immatures or adults in protective settings.

Medical importance

Brown spiders may invade buildings from outdoors in warm weather. They may also be carried into buildings in boxes, furniture and rolled carpets any time of the year. The bite is not painful but the venom is a potent cytotoxin, causing an enlarging necrotic sore that heals with difficulty. Many medical conditions routinely are misdiagnosed as loxoscelism, including secondary bacterial infections, diabetes ulcers, Herpes sores/blisters, Erythema multiforme (allergic reaction to medication expressed dermally), Pyoderma gangrenosum (immune system dysfunction), Lymphomatoid papulosis (a cutaneous lymphoma-like eruption), localized vasculitis (inflammation of the blood vessels), and squamous cell carcinoma (a form of skin cancer).

Brown Recluse
Loxosceles reclusa



Dr. David Shetlar

Mediterranean Recluse
Loxosceles rufescens

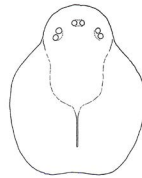


G. Anderson

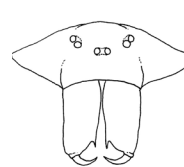


Scan for Spider
Solutions webpage
and trial data for
Fendona® CS
controlled release
insecticide against
Brown spiders.

Brown Spider/Violin Spider Eye Patterns



Top View



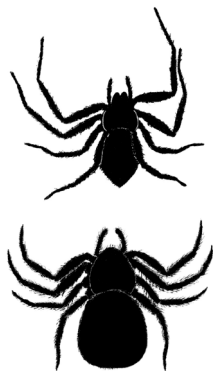
Front View

Running crab spiders

Family Philodromidae

Bark and flower crab spiders

Family Thomisidae



Identification

Length: 0.1 – 0.5 inch. **Chelicerae (Jaws):** Move side to side, scissors-like. **Eyes:** Eight, small, in two rows or flat oval pattern. **Abdomen:** Flat oval or irregular disc-shaped. Cephalothorax and abdomen appear smooth. **Legs:** Sparse hairs and spines on segments closer to body; front pair usually larger than hind pair; held crab-like with all four pairs or all but hind pair facing forward.

Color: The misumenoid flower spiders (Thomisidae) often are brightly colored, while most other thomisid genera and philodromid crab spiders tend to be more subdued combinations of black, gray, white, brown, rust, beige and yellow. Thomisid crab spiders have the second pair of legs shorter than the first pair, while philodromid, or running crab spiders have the second pair of legs longer than the first pair.

Distribution

More than 200 species of crab spiders occur in North America north of Mexico.

Biology and behavior

Crab spiders are passive hunters, lying in ambush for prey and relying on their excellent camouflage. They await prey on flowers, leaves, bark, the ground, structural surfaces and in crevices. In most cases, crab spiders overwinter as eggs or immatures.

Medical importance

Usually, crab spiders are associated with exterior surfaces of buildings and the landscape, although they occasionally occur indoors. To the untrained eye, some philodromid species may be confused with sicariid brown spiders, in a resting posture. Bites are rare but may be compared to a pinprick or minor bee sting and the venom usually is not dangerous to humans.

Running Crab Spider

Philodromus praelustris



Common Running Crab Spider

Philodromus vulgaris



Dr. David Shetlar

Variegated Bark Crab Spider

Bassaniana versicolor



Stephen Hurley and Caitlin Wyckoff

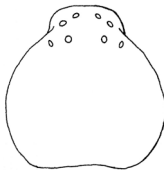
Goldenrod Crab Spider

Misumena vatia

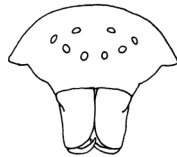


Dr. David Shetlar

Running Crab Spider Eye Patterns



Top View

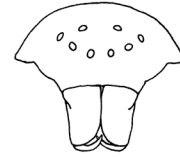


Front View

Bark & Flower Crab Spider Eye Patterns



Top View



Front View



Huntsman spiders

Family Sparassidae

Identification

Length: 0.75 - 1 inch. **Chelicerae (Jaws):**

Move side to side, scissors-like. **Eyes:** Anterior

and posterior median eyes small*; anterior and

posterior lateral eyes slightly larger. **Abdomen:**

Elongate-oval. **Legs:** Long with hairs and spines.

Color: Brown and beige.

Distribution

A few species of Huntsman spiders occur in North America north of Mexico. The huntsman or housekeeping spider, *Heteropoda venatoria*, is common in Florida; the golden huntsman spider, *Olios fasciculatus*, occurs in the U.S. west and Southwest.

Biology and behavior

Huntsman spiders actively hunt for prey (including cockroaches) at night. During the day they rest in crevices, both indoors and outdoors. These spiders are fast runners when disturbed.

Sparassids are warm climate spiders exhibiting continuous development.

Medical importance

The bite is similar to a bee sting but the venom usually is not dangerous to humans. Short-term swelling (purplish blotch) and soreness may persist for several days. At night these large spiders frequent walls and ceilings in homes that are not tight. They are not aggressive towards humans and are reluctant to bite.

*The anterior median eyes of *Olios* spp. are relatively large.

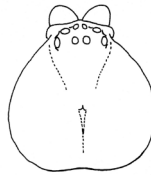
Pantropical Huntsman Spider

Heteropoda venatoria

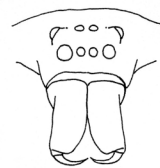


Dr. David Shetlar

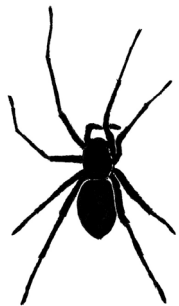
Huntsman Spider Eye Patterns



Top View



Front View



Sac spiders and Prowling spiders

Clubionidae, Cheiracanthiidae, Eutichuridae, Trachelidae, Miturgidae, and Corinnidae

Identification

Length: 0.1 - 0.5 inch. **Chelicerae (Jaws):** Move side to side, scissors-like. **Eyes:** Eight, small, grouped in two rows. **Abdomen:** Elongate-oval.

Body and Legs: Sparsely covered with small hairs or spines. **Color:** Black, brown, tan or yellow; some species with light or dark markings. Many species lightly colored.

Distribution

More than 200 species of sac spiders and Prowling spiders occur in North America north of Mexico. The agrarian sac spider, *Cheiracanthium inclusum* (native) and yellow sac spider, *Cheiracanthium mildei* (imported introduced), occur across the U.S. and are the most structurally invasive sac spiders. *Cheiracanthium* species are considered by some specialists to be in the Family Clubionidae, and by others, in the Family Miturgidae. *Trachela* species and most ant mimic spiders have been moved

from the Family Clubionidae to the Family Corinnidae. *Trachela* species now have their own family Trachelidae.

Biology and behavior

Sac spiders and Prowling spiders actively hunt for prey at night. During the day they rest in silken retreats under stones, bark and folded leaves outdoors and in corners, folds in fabric and dark recesses indoors. Females guard their eggs within dense silken retreats. Sac spiders overwinter as subadults (final immature stage) outdoors in silk retreats beneath stones, logs and debris.

Medical importance

Yellow sac spiders are active indoors year-round, where they are seen at night on walls and ceilings. Occasionally broad-faced spiders are encountered indoors. The bite is similar to a pinprick but the venom usually is not dangerous to humans. Occasionally short-term swelling and soreness or a small necrotic wound may result. Secondary bacterial infections from bites are possible.

Northern Yellow Sac Spider
Cheiracanthium inclusum



Tom Myers

Black-footed Yellow Sac Spider
Cheiracanthium mildei



Dr. David Shetlar

Broad-Faced Sac Spider
Trachelas tranquillis

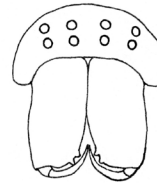


Tom Murray

Name Eye Patterns



Top View



Front View



Ghost spiders

Family Anyphaenidae

Identification

Length: 0.25 - 0.5 inch. **Chelicerae (Jaws):**

Move side to side, scissors-like. **Eyes:** Eight, small, closely grouped. **Abdomen:** Elongate with pair of long spinnerets. **Color:** Brown and yellow, beige or greenish-yellow; some species with dark markings. Very similar to sac spiders (Families Miturgidae and Clubionidae).

Distribution

A few species of ghost spiders occur in North America north of Mexico. The yellow ghost spider, *Hibana (Aysha) velox*, garden ghost spider, *Hibana gracilis*, and green ghost spider, *Wulfilia albens* (previously *alba*), occur in the southeastern U.S. and are common in Florida.

Biology and behavior

Ghost spiders actively hunt for prey (insects and smaller spiders) at night. During the day, they rest in silken retreats under stones, behind bark and in folded leaves outdoors, also in protected corners and crevices of buildings. Ghost spiders can be seen year-round in Florida and the southern U.S. but are most abundant in spring and summer. In colder climates, they overwinter as immatures or subadults (final immature stage).

Medical importance

The bite is similar to a pinprick or bee sting but the venom usually is not dangerous to humans. Occasionally short-term swelling and soreness or a small necrotic wound may result.

Garden Ghost Spider
Hibana gracilis



Renn Tumlinson

Yellow Ghost Spider
Hibana velox

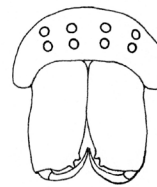


Dr. David Shetlar

Ghost Spider Eye Patterns



Top View



Front View



Ground spiders

Family Gnaphosidae

Identification

Length: appx. 0.5 inch. **Chelicerae (Jaws):** Move side to side, scissors-like. **Eyes:** Eight, small, closely grouped. **Abdomen:** Elongate with pair of long spinnerets. **Legs and Body:** Similar length; legs and carapace may appear velvety or glossy. **Color:** Black or brown; some species with light markings.

Distribution

About 250 species of ground spiders occur in North America north of Mexico. The parson spider, *Herpyllus ecclesiasticus*, occurs in the eastern U. S. and is recognized easily by the characteristic white pattern on the black abdomen. The variegated ground spider, *Poecilochroa variegata*, is similar. The two-striped ground spider, *Cesonia bilineata*, with its paired longitudinal black stripes, looks superficially like a small grass spider (Ageleidae) or wolf spider (Lycosidae) but is free-wandering and has the spinnerets and eye pattern

distinctive to gnaphosids. Rustic ground spiders, *Callilepis* species, have the cephalothorax and legs glossy reddish-orange and the abdomen with variable bluish-black or grayish-black bands or patches interspersed with tan.

Biology and behavior

Some ground spiders actively hunt for prey at night and rest beneath stones and loose bark during the day while others spin small irregular webs beneath stones, bark and leaf litter. Females attach their disc-shaped white or pink egg sacs to surfaces in the concealed resting sites. Some species overwinter as adults while others overwinter as immatures.

Medical importance

The bite is similar to a pinprick or bee sting but the venom usually is not dangerous to humans. Occasionally some species are found indoors on floors and walls.

Parson Spider
Herpyllus ecclesiasticus



Dr. David Shetlar

Two-Striped Ground Spider
Cesonia bilineata

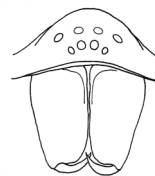


W. Mike Howell and Ronald L. Jenkins

Ground Spider Eye Patterns



Top View



Front View



Jumping spiders

Family Salticidae

Identification

Length: 0.2 - 0.75 inch and stocky. **Chelicerae**

(Jaws): Move side to side, scissors-like. **Eyes:** Four, large, anterior, especially large median pair; four small posterior eyes, widely spaced. Vision excellent for discerning shape, color and movement.

Abdomen: Oval, covered with hairs. **Color:**

Variously-colored markings on black, gray, brown or beige (rarely green) background. **Legs:** About as long or shorter than body; stocky with dense hairs and spines in most species; front pair (especially those of males) often larger than other legs. Some species are ant mimics.

Distribution

About 300 species of jumping spiders occur in North America north of Mexico. Among the most encountered species around and in structures are the *Phidippus* jumping spiders (e. g., the daring jumper, *Phidippus audax*) and the zebra jumper, *Salticus scenicus*.

Biology and behavior

Jumping spiders are active hunters, moving with short, quick hops. They stalk prey during the day on open surfaces. Males perform courtship “dances” for females prior to mating and often serve as a post-copulatory meal to hungry females. Concealed silken tube-like retreats serve as sites for molting, egg protection and overwintering. Depending on species and location, jumping spiders may overwinter as adults, immatures or sometimes as eggs.

Medical importance

The bite is similar to a bee sting and the venom usually is not dangerous to humans. Jumping spiders are active on exterior walls and window screens, also on tree trunks, logs and rocks. Sometimes they hitchhike indoors on people and pets.

Daring Jumper
Phidippus audax



Dr. David Shetlar

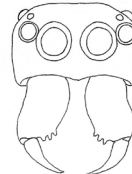
Zebra Jumper
Salticus scenicus



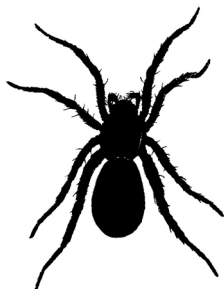
Jumping Spider Eye Patterns



Top View



Front View



Wolf spiders

Family Lycosidae

Identification

Length: 0.25 - 1.33 inches. **Chelicerae (Jaws):**

Move side to side, scissors-like. **Eyes:** Four anterior eyes small; posterior median eyes large; posterior lateral eyes smaller and set back.

Abdomen: Elongate. **Color:** Black, brown, tan, gray or yellowish; often with lighter or darker markings. Spinnerets are small. **Legs:** long, fuzzy-looking and spiny; sometimes banded. Similar to nursery web spiders.

Distribution

About 200 species of wolf spiders occur in North America north of Mexico. The largest native wolf spider is *Hogna/Tigrosa carolinensis* but is rarely seen around structures. A large, structurally invasive field wolf spider, *Tigrosa helluo*, is common in much of the U.S. Another rural peridomestic species, the rabid wolf spider, *Rabidosa rabida*, has a yellowish-tan base color with paired medium-brown stripes on the carapace and a medium-

brown middorsal stripe, edged with black markings, on the abdomen. The dotted wolf spider, *Rabidosa punctulata*, is similar to *R. rabida*, except the dorsal stripes are dark brown (nearly black) and the light colored underside of the abdomen is punctuated with black spots. The pirate wolf spiders, *Pirata* spp., and *pardosas*, *Pardosa* spp., are smaller wolf spiders that occur in rural settings.

Biology and behavior

Wolf spiders actively hunt on the ground and rest beneath stones and debris. Females carry their round, white egg sacs protectively attached to the spinnerets. Hatchling spiders ride piggy-back on their mother until old enough to fend for themselves. Wolf spiders may overwinter as eggs, immatures or adults in the wild. Activity may persist through winter indoors.

Medical importance

Depending on the species, the bite is similar to a pinprick or bee sting but the venom usually is not dangerous to humans. Temporary numbness or secondary bacterial infections may occur.

Wetland Giant Wolf Spider
Tigrosa helluo



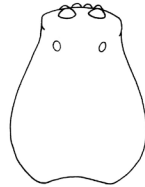
Dr. David Shetlar

Rabid Wolf Spider
Rabidosa rabida

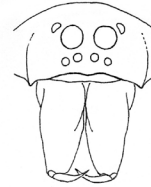


Dr. David Shetlar

Wolf Spider Eye Patterns



Top View



Front View



Wandering spiders

Family Ctenidae

Identification

Length: 0.25 - 1 inch. **Chelicerae (Jaws):** Move side to side, scissors-like. **Eyes:** Four anterior eyes small; four posterior eyes larger. **Abdomen:** Oval. **Color:** Black, brown, tan, gray or yellowish; often with lighter or darker markings. Several tropical species have the “face” (anterior carapace), fangs (chelicerae) and sometimes the pedipalps colored some combination of red and black.

Legs: Long, fuzzy-looking and spiny. Wandering spiders are similar to nursery web spiders and wolf spiders in general appearance.

Distribution

About 550 species of wandering spiders occur worldwide in the tropics and subtropics, but the American wandering spider (a.k.a. Florida false wolf spider), *Ctenus hibernalis* (possibly synonymous with *Ct. captiosus*), is the one representative found in and around homes built in wooded areas throughout peninsular Florida.

It is large, dark brown and has a broad, pale to yellowish, full-length central stripe. Two genera of wandering spiders that sometimes make their way into the U.S. from Central and South America, hiding in bunches of imported bananas and other cargo shipments, are *Cupiennius* (harmless or of questionable concern) and *Phoneutria* (potentially dangerous).

Biology and behavior

Wandering spiders actively hunt for prey on the ground, vegetation and around structures. Adults are found in the spring and summer; large subadults are reported during fall and winter.

Medical importance

The bite is similar to a bee sting and the cytotoxic-neurotoxic venom may cause a necrotic wound as well as disorientation and other (sometimes prolonged) neurological effects. Envenomation by some *Phoneutria* spp. can be fatal.

American Wandering Spider

Ctenus hibernalis

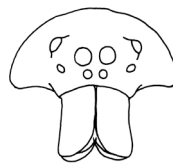


W. Mike Howell and Ronald L. Jenkins

Wandering Spider Eye Patterns



Top View



Front View



Fishing spiders

Family Dolomedidae

Identification

Length: 0.5 - 1 inch. **Chelicerae (Jaws):** Move side to side, scissors-like. **Eyes:** Four small anterior eyes; four slightly larger posterior eyes. **Abdomen:** Elongate. **Color:** Tan/beige and brown; often with gray and white markings. **Legs:** Long, fuzzy-looking and spiny; often banded. Similar to wolf spiders.

Distribution

About 15 species of fishing spiders occur in North America north of Mexico. The brown, yellow-tan and gray Common Fishing Spider, *Dolomedes tenebrosus* and *D. scriptus*, and the brown, gray and white six-spotted fishing spider, *Dolomedes triton*, are large rural examples in the Midwest and eastern U.S.

Biology and behavior

Fishing spiders may rest motionless for hours during the day, with their legs stretched outward, on sun-lit vegetation, tree trunks (especially near deep scars and hollows), building exteriors or the ground. Those favoring lake and pond shoreline habitats rest on cattail stems and aquatic vegetation. Periodically they may hunt actively for prey. Females carry their round, white egg sacs protectively in their jaws. Pisaurids overwinter as subadults (final immature stage) and adults.

Medical importance

The bite is similar to a bee sting but the venom usually is not dangerous to humans. The large size of these impressive spiders invokes fear responses in arachnophobes.

Dark Fishing Spider
Dolomedes tenebrosus



Dr. David Shetlar

Six Spotted Fishing Spider
Dolomedes triton



Tom Murray

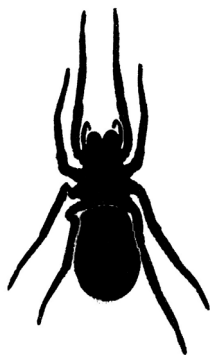
Fishing Spider Eye Patterns



Top View



Front View



Hacklemesh weavers

Family Amaurobiidae

Identification

Length: 0.33 - 0.5 inch. **Chelicerae (Jaws):**

Move side to side, scissors-like. **Eyes:** Eight similar-sized eyes; anterior median pair more closely spaced than posterior median pair; anterior and posterior lateral eyes nearly joined. Cephalothorax mostly smooth with a glossy appearance.

Abdomen: Oval and velvety—covered with short hairs (setae). **Color:** Reddish-brown to black with beige markings (*Amaurobius* and *Callobius* spp.) or yellowish-brown with gray markings (*Coras* spp.).

Legs: Longer than body; hairs and spines sparse on leg segments close to body and more dense on outer leg segments. Anatomy similar to that of funnelweaver spiders (Agelenidae) and wolf spiders (Lycosidae) but have a cribellum (small, sieve-like plate in front of the spinnerets, on the underside of the abdomen) and a different eye pattern.

Distribution

Eighty-three species of Hacklemesh weavers occur in North America north of Mexico. Among the

most encountered species in and around structures are the medicinal web spider, *Coras medicinalis* (previously placed in Family Agelenidae), black lace-weaver, *Amaurobius ferox*, and Bennett's Hacklemesh weaver, *Callobius bennetti*.

Biology and behavior

Hacklemesh weavers prefer cool, dark settings near ground level. They rest and ensnare prey on loose, coarse webs spun outdoors under logs, stones and debris piles and indoors in dark corners and under objects on floors in garages, basements, crawlspaces, boiler rooms and tunnels. Silk may be bluish in color. Eggs usually are produced in mid-summer. Adults and subadults overwinter outdoors.

Medical importance

Can be alarming when discovered indoors. Sometimes captured on sticky traps. The bite is similar to a bee sting and the venom usually is not dangerous to humans.

Bennett's Hacklemesh Weaver
Callobius bennetti



Tom Murray

Black Lace-Weaver
Amaurobius ferox



Tom Murray

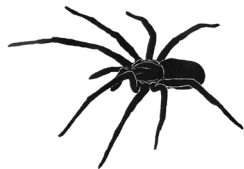
Hacklemesh Weaver Eye Patterns



Top View



Front View



Crevice weavers

Family Filistatidae

Identification

Length: 0.33 - 0.75 inch. **Chelicerae (Jaws):** Move side to side, scissors-like. **Eyes:** Eight small eyes closely grouped atop a darker, teardrop-shaped raised area on the carapace. Four anterior eyes slightly larger than four posterior eyes. The anterior lateral eyes are forward of the anterior median eyes; while the posterior eyes are in a row. **Legs:** Long and velvety and the pedipalps are noticeably long. The carapace is shiny with sparse hairs. **Abdomen:** Oval, velvety appearance. Males are smaller, have longer, thinner legs and are colored yellowish brown to darker brown; while females are larger, stockier and colored grayish brown to charcoal gray. Crevice weavers have a cribellum (small, sieve-like plate in front of the spinnerets, on the underside of the abdomen). Females have a calamistrum (metatarsal comb on the fourth pair of legs) but lack an epigynum (small, hardened plate with paired genital openings ventro-medially on the abdomen).

Distribution

Seven or more species comprise three genera of crevice weaver spiders in the southern and south-eastern U.S. The most-encountered species in and around human dwellings and barns is the crevice spider (a.k.a. southern house spider), *Kukulcania* (formerly *Filistata*) *hibernalis*.

Biology and behavior

Crevice weavers create prominent, coarsely hackled, circular webs surrounding a central opening to the tubular retreat, within which they stay during the day.

Medical importance

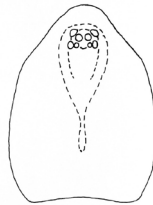
Crevice weavers prefer to occupy the exterior walls of rustic outbuildings, barns, and abandoned and unkempt homes, as well as undisturbed attics and basements. The large size of these spiders may be distressing to arachnophobes. The bite may be similar to a bee sting but the venom is not considered to be dangerous to humans.

Crevice Weaver Spider

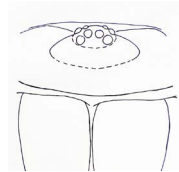
Kukulcania hibernalis



Crevice Weaver Eye Patterns



Top View



Front View



Funnelweavers

Family Agelenidae

Identification

Length: 0.5 - 0.75 inch. **Chelicerae (Jaws):**

Move side to side, scissors-like. **Eyes:** Eight, small, closely grouped in a flattened oval or sideways “D”

pattern. **Abdomen:** Elongate with a pair of long spinnerets. **Color:** Yellowish-tan and brown. **Legs:**

Long, fuzzy-looking and spiny, ending in three claws.

Distribution

About 300 species of funnelweavers occur in North America north of Mexico. Several species are European in origin. The grass spiders, *Agelenopsis** and *Agelena* species and barn funnelweaver (a.k.a. European house spider or domestic funnelweaver), *Tegenaria domestica*, are commonly found in and around buildings. The hobo spider, *Eratigena agrestis*, occurs in the Pacific Northwest and has a (debatable) reputation for being aggressive.

Biology and behavior

Funnel weavers rest inside the tubular corner of their funnel-shaped webs during the day. At dusk, the spiders place themselves on the outer triangular sheet-like portion of the webs. Webs may be found close to building foundations outdoors on shrubs, ivy, tall grass, decks, and in window wells and recessed vents. Indoors, webs are found in the corners of garages, basements and crawlspaces. On occasion, relocating females and males searching for mates may be found wandering about or resting beneath items on basement and garage floors. Funnelweavers overwinter as eggs in the wild; however, development and activity may be observed indoors, year-round.

Medical importance

The bite is similar to a pinprick or bee sting and the cytotoxic venom of some species may cause necrotic skin lesions. Secondary bacterial infections from bites are possible.

*e.g., *Agelenopsis pennsylvanica*, which is peridomestic

Hobo Spider
Eratigena agrestis



Barn Funnelweaver
Tegenaria domestica



Dr. David Shetlar

**Pennsylvania
Grass Spider**
Agelenopsis pennsylvanica



Dr. David Shetlar

**Medicinal
Web Spider**
Coras medicinalis



Tom Murray

Funnelweaver Eye Patterns



Top View



Front View



Cell spiders and Tube spiders

Families Dysderidae & Segestriidae

Identification

Length: 0.5 inch. **Chelicerae (Jaws):** Long and move side to side, scissors-like. **Eyes:** Six small eyes closely grouped in three pairs (diads), forming a tight triangle. **Abdomen:** Underside has four respiratory slits, arranged in pairs on either side.

Distribution

A few cell spider species and six species of tube spiders occur in North America north of Mexico. The woodlouse hunter, *Dysdera crocata*, and the brown tube spider, *Ariadna bicolor*, are most often encountered.

Biology and behavior

Woodlouse hunters live under stones, logs, bark, etc. Some species hunt at dusk by sense of touch. Others trap prey on sticky strands that radiate from the tubular silken retreat. They prey on sowbugs, pillbugs, beetle larvae, crickets and earwigs. Dysderids and segestriids typically overwinter as adults in protective settings.

Medical importance

Woodlouse hunters may be found close to building foundations, in basements and crawlspaces, and under landscaping features. The bite can be painful but the venom usually is not dangerous. Secondary bacterial infections from bites are possible.

Brown Tube Spider
Ariadna bicolor



Gayle & Jeanell Strickland

Woodlouse Hunter
Dysdera crocata



Dr. David Shetlar

Cell Spider & Tube Spider Eye Patterns



Top View



Front View



Tarantulas/Hairy mygalomorphs

Family Theraphosidae

Identification

Length: Large spiders, 1.5 - 2 inches.

Chelicerae (Jaws): Move up and down, opening forward. **Eyes:** Eight, small, grouped in a cluster.

Body and Legs: Usually hairy. **Color:** Mostly black, brown and beige in North America north of Mexico. Females measure 0.75 - 1.33 inches long; cephalothorax and legs smooth or sparingly setose-spiny; abdomen velvety, smooth, finely wrinkled or ridged.

Distribution

40 species in the U.S., occurring mostly in the Southwest. Representative species are the Mexican redrump (black velvet) tarantula, *Brachypelma vagans* (also in Florida), desert (Arizona) blonde tarantula, *Aphonopelma chalcodes*, Texas brown tarantula, *Aphonopelma hentzi*, and California desert (ebony) tarantula, *Aphonopelma eutylenum*. Similar families: smaller, reclusive mygalomorphs, rarely encountered on

developed properties, are the trapdoor spiders (Families Ctenizidae and Cyrtaucheniidae), folding trapdoor spiders (Family Antrodiaetidae), and purseweb spiders (Family Atypidae).

Biology and behavior

Tarantulas in the U.S. live on the ground and in burrows. They hunt at dusk by sense of touch. Tarantulas spin mats of silk and may line their burrows with silk. They are most commonly found in early fall, and prey on insects, other arthropods, small reptiles and young mice.

Medical importance

Occasionally tarantulas enter open structures and may be found under landscaping features. They defend themselves by “throwing” hairs (quickly rubbing urticating setae from the abdomen using the hind legs), assuming a threatening posture (with forelegs, pedipalps and chelicerae uplifted menacingly), lunging and biting. The bite can be painful but the venom (of U. S. species) is not considered to be dangerous. Secondary bacterial infections from bites are possible.

**Mexican Redrump
(Black Velvet) Tarantula**
Brachypelma vagans



Rick C. West

**Desert (Arizona)
Blonde Tarantula**
Aphonopelma chalcodes



**California Desert
Tarantula**
Aphonopelma eutylenum



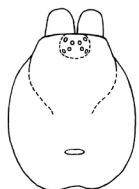
Rick C. West

**Texas Brown
Tarantula**
Aphonopelma hentzi



Rick C. West

Tarantula/Hairy Mygalomorph Eye Patterns



Top View



Front View



Orbweaver spiders

Family Araneidae

Identification

Length: 0.33 - 1 inch. **Chelicerae (Jaws):** Move side to side, scissors-like. **Eyes:** Eight, small, widely grouped. **Abdomen:** Round to heart-shaped. **Color:** Variable. **Legs:** Usually banded and spiny.

Distribution

About 180 species of orbweavers occur in North America north of Mexico. The barn spider, *Araneus cavaticus*, shamrock spider, *A. trifolium*, marbled orbweaver, *A. marmoreus*, cross spider, *A. diadematus*, tropical orbweaver, *Eriphora ravilla*, and furrow spiders, *Larinioides cornutus* and *L. patagiatus*, are among the most commonly encountered orbweavers on buildings and landscaping.

Biology and behavior

Orbweavers rest head-down in the center or in sheltered corners of their large orb-shaped webs,

which they construct at night across porch balustrades, posts, doorways, windows and between branches. Females deposit their eggs in large papery silk sacs, within the web in early autumn. Most species overwinter as eggs and the young emerge in spring. Spiderlings disperse by spinning out long strands of silk and riding on the wind in a process called "ballooning." As a result of strong updrafts, orbweavers can be carried to the tops of tall buildings, where abundant webs may be observed in summer and fall. Some species overwinter as immatures and adults.

Medical importance

The bite is similar to a bee sting but the venom usually is not dangerous. Building occupants find the webs unsightly and often are frightened by these large spiders during late summer. Addenda: The small spiny orbweavers of *Gasteracantha* and *Micrathena* occur in wooded settings (p. 53). The trashline orbweavers, *Cyclosa turbinata*, *C. conica* and *Allocyclosa bifurca* (p. 54) can be locally abundant on structures.

Barn Spider
Araneus cavaticus



Tom Murray

Furrow Spider
Larinioides cornuta



Dr. David Shetlar

Marbled Orbweaver
Araneus marmoreus

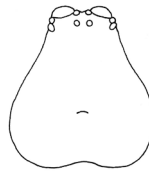


Dr. David Shetlar

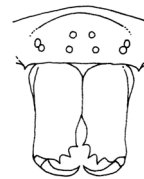
Shamrock Spider
Araneus trifolium



Orbweaver Eye Patterns



Top View



Front View

Spotted Orbweaver

Neoscona crucifera

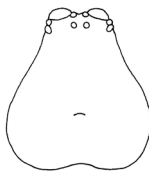


Dr. David Shetlar

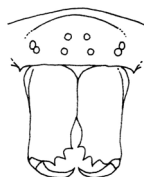


Dr. David Shetlar

Orbweaver Eye Patterns

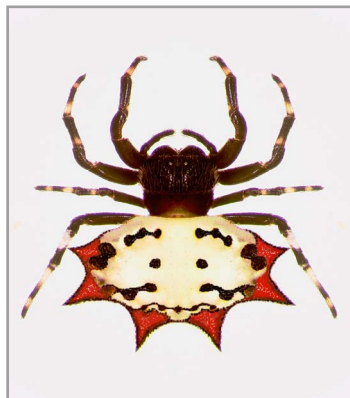


Top View



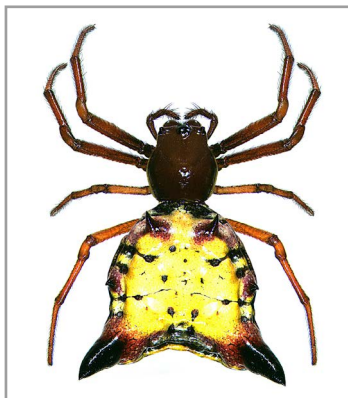
Front View

Spinybacked Orbweaver
Gasteracantha cancriformis



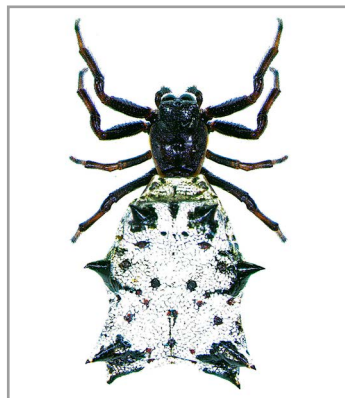
Dr. David Shetlar

**Arrowshaped
Micrathena**
Micrathena sagittata



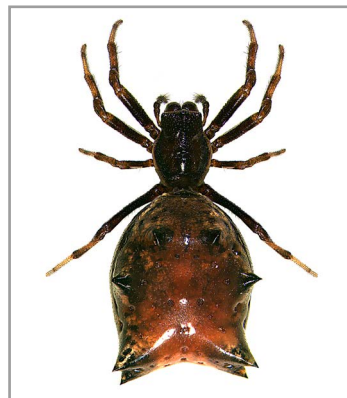
Dr. David Shetlar

White Micrathena
Micrathena mitrata



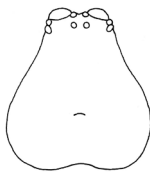
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Spined Micrathena
Micrathena gracilis

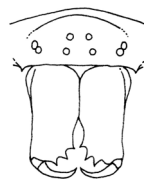


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Orbweaver Eye Patterns



Top View



Front View

Conical Trashline Orbweaver Bifurcate Trashline Orbweaver

Cyclosa conica

Alloccyclosa bifurca

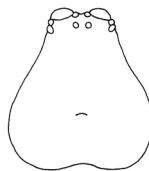


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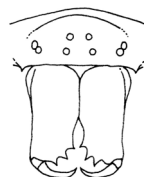


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Orbweaver Eye Patterns



Top View



Front View

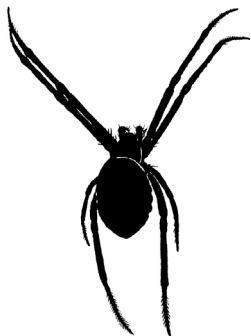
Bifurcate Trashline Orbweaver



Elizabeth Wegner



Ben Kolstad



Garden spiders

Family Araneidae, Genus *Argiope*

Identification

Length: 0.66 - 1 inch. **Chelicerae (Jaws):** Move side to side, scissors-like. **Eyes:** Eight, small, widely grouped. **Abdomen:** Oval to shield-shaped with yellow, black and silver-white patterns.

Legs: banded.

Distribution

The two most common garden spiders that occur in North America are the black and yellow argiope or golden garden spider, *Argiope aurantia*, and banded garden spider/argiope, *A. trifasciata*. The silvered garden spider or silver argiope, *A. argentata*, inhabits the southern U.S. and Southwest, from Florida to California. The Hawaiian argiope/garden spider, *Argiope appensa*, has a pentagon-shaped abdomen and a very ornate black and white pattern on its cephalothorax. This species not only inhabits the Hawaiian Islands but Taiwan, Indonesia-New Guinea and the Mariana Archipelago as well.

Biology and behavior

Garden spiders rest head-down in the center of their large orb-shaped webs. They typically create a dense, zigzag pattern (stabilimentum) of sticky silk near the center of their webs, which they construct at night between branches, tall woody-stemmed weeds and sometimes on buildings and other manmade structures. Females (larger than males) deposit their eggs in large papery silk sacs, within the web in early autumn. Eggs overwinter and the young emerge in spring.

Medical importance

The bite is similar to a bee sting but the venom usually is not dangerous. Homeowners and building occupants find the webs unsightly and often are frightened by these large spiders during late summer and autumn.

Hawaiian Argiope
Argiope appensa



Bryan Jones

Silvered Argiope
Argiope argentata



Tom Murray

Banded Argiope
Argiope trifasciata



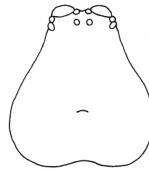
Dr. David Shetlar

Black & Yellow Argiope
Argiope aurantia

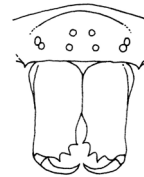


Dr. David Shetlar

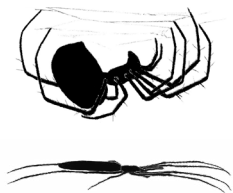
Garden Spider Eye Patterns



Top View



Front View



Longjawed orbweavers & Orchard orbweavers

Family Tetragnathidae

Identification

Length: 0.33 inch (*Leucauge* species) to 0.5 inch (*Tetragnatha* species). **Chelicerae (Jaws):** Move side to side, scissors-like. **Eyes:** Eight, small, variously spaced by species. **Abdomen:** The *tetragnathids* are elongate oval. **Color:** The North American *Leucauge* spp. are black, silvery-white, yellow, orange, brown and green. **Legs:** Long, slender, spiny and translucent. *Tetragnatha* species are mainly brown, yellow and silver and rest with legs held together frontward and rearward.

Distribution

About 170 *Leucauge* species occur worldwide and are most abundant in tropical and subtropical regions. The mabel orchard spider, *Leucauge venusta*, (syn. *L. mabelae*), is found in the eastern U.S. A slightly larger, less colorful orchard spider, *Leucauge argyra*, occurs in Florida but is less frequently encountered than *L. venusta*. About 250

Tetragnatha and *Pachygnatha* spp. occur worldwide, over a dozen of which can be found in North America. The guatemalan longjawed orbweaver, *T. guatemalensis*, can be sporadically abundant in the eastern, southeastern, southwestern and lower midwestern U.S.

Biology and behavior

Orchard orbweavers rest upside-down in the middle of their horizontal or angled orb-shaped webs, which they construct at night among tall vegetation and on protected structural features. These common spiders may be found year-round in warm climates. In northern climates, tetragnathids overwinter as eggs or immatures, depending on the species.

Medical importance

The bite is similar to a pinprick or bee sting and usually is not dangerous. Orchard orbweavers and their webs often occur in shrubs by buildings and on sheltered exterior features of buildings. *Tetragnatha* and *Pachygnatha* spp. prefer identical settings close to water. *T. guatemalensis*, where numerous, can create massive communal webs.

Orchard Orbweaver
Leucauge venusta

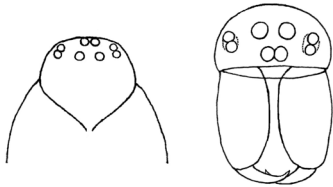


Longjawed Orbweaver
Tetragnatha guatemalensis



Dr. David Shetlar

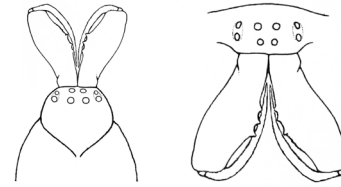
Orchard Orbweaver Eye Patterns



Top View

Front View

Longjawed Spider Eye Patterns



Top View

Front View



Nephilid orbweavers

Family Nephilidae

Identification

Length: Adult body 0.75 to 1 inch. **Chelicerae**

(Jaws): Move side to side, scissors-like. **Eyes:**

Eight, small eyes grouped similarly to those of tetragnathid spiders. Cephalothorax densely covered with short silvery-white setae. Abdomen elongate. Adult females may have a leg span of 3 to 4 inches. The golden silk orbweaver, *Trichonephila clavipes*, has a golden-yellow abdomen with a symmetrical pattern of small white dots. Legs are mostly yellow with tufts of black hairs at several joints; pretarsi and tarsi are black. Adult females of the joro spider, *T. clavata*, have a mostly yellow abdomen with four silvery crossbands, a silvery tip, and red markings beneath. Legs are mostly black with yellow bands and conspicuous long and short setae.

Distribution

Although several *Trichonephila* and *Nephila* species occur worldwide, the golden silk orbweaver is the only species of its genus native to the Americas. It is

common throughout tropical and subtropical South, Central and North America and occurs sporadically in the Southeastern U.S., where localized populations may be abundant. The joro spider was introduced from East Asia to Georgia in 2014. Sightings have been increasing from the point of introduction into surrounding states in the Eastern US. This species will likely continue expanding.

Biology and behavior

Nephilid spiders prefer undisturbed wooded habitats bordered by low vegetation, marshes and bodies of water. Webs often span several feet and may be built among trees and shrubs near buildings and bridges. Females wait at the center of large orb webs and primarily feed on soft-bodied flying insects. Successive generations occur in tropical regions.

Medical importance

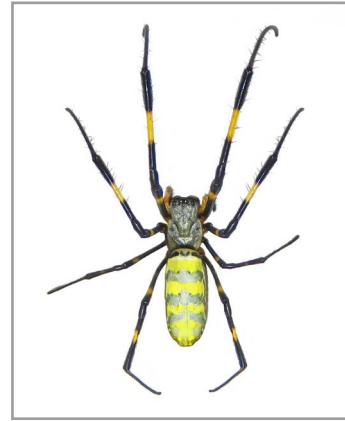
These spiders may alarm property owners, walkers and joggers when encountered near buildings or unexpectedly in webs. Nephilid spiders are reluctant to bite and are often handled without incident. Rare bites are not medically significant.

Golden Silk Orbweaver
Trichonephila clavipes



Dr. David Shetlar

Joro Spider
Trichonephila clavata



Dr. Gerald Wegner

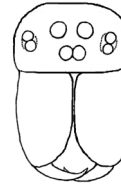


Scan for trial data
on the efficacy
of **Ridesco® WG**
insecticide against
Joro spiders

Nephilid Orbweaver Eye Patterns



Top View



Front View



Gerry Wegner, PhD, BCE Emeritus

Gerry Wegner received his bachelor's and master's degrees in biology from Loyola University of Chicago (1973, 1975) and his doctorate in entomology from the Ohio State University in 1980. His Ph.D. project dealt with insect pests of turfgrass. Wegner worked as a collector and supplier of paper wasps and yellowjackets for use in the manufacture of pharmaceuticals during the years of 1978 through 1980. He started with Varmint Guard Environmental Services, Inc. in 1985 as staff entomologist and pest management sales/service representative. In 1987, Wegner became a co-owner and vice president of Varmint Guard, and served as technical / training director and integrated pest management consultant until his retirement in 2015. His pursuits included studies on the biology and IPM of structure-infesting ants, bees, wasps, termites and spiders, biological control, delusory parasitosis, as well as field-testing new pest management products. Wegner presented on these topics at pest management conferences and applicator recertification schools at both national and state levels.

Wegner's interest in spiders began in the early 1990s when he sought information about spiders often encountered in and around buildings, only to be frustrated by a blatant lack of information about spiders in reference materials available to the structural pest management industry. At first, Wegner focused his attention on two of the most frequently encountered peridomestic species – the yellow sac spiders, *Cheiracanthium mildei* and *Ch. inclusum*, with the goal of bringing the information obtained to other pest management professionals. Since then, Wegner has continued to observe and photograph various species of peridomestic spiders and enjoys sharing his findings (including dispelling myths about spider bites) with fellow PMPs and acquaintances alike. Most recently, a coauthorship opportunity with the late Stoy Hedges culminated in the 2024 publication of the **PCT Field Guide to Stinging & Biting Arthropods**.

Photography credits

David Shetlar, BCE, Professor, Department of Entomology, The Ohio State University, for automontage images of *Philodromus vulgaris*, *Misumena vatia*, *Phidippus audax*, *Salticus scenicus*, *Heteropoda venatoria*, *Hibana velox*, *Cheiracanthium mildei*, *Herpyllus ecclesiasticus*, *Callilepis pluto*, *Tigrosa helluo*, *Rabidosa rabida*, *Dolomedes tenebrosus*, *Agelenopsis pennsylvanica*, *Tegenaria domestica*, *Leucauge venusta*, *Araneus marmoreus*, *Larinioides cornuta*, *Neoscona crucifera*, *Gasteracantha cancriformis*, *Micrathena sagittata*, *Micrathena mitrata*, *Micrathena gracilis*, *Cyclosa conica*, *Allocyclosa bifurca*, *Argiope aurantia*, *Argiope trifasciata*, *Latrodectus mactans*, *Latrodectus variolus*, *Latrodectus geometricus*, *Parasteatoda tepidariorum*, *Steatoda triangulosa*, *Steatoda borealis*, *Pholcus phalangioides*, *Loxosceles reclusa*, *Dysdera crocata*.

Stephen Hurley and Caitlin Wyckoff for *Bassaniana versicolor*.

George C. Anderson for *Loxosceles rufescens*.

Gayle & Jeanell Strickland for *Ariadna bicolor*.

Tom Murray for *Amaurobius ferox*, *Callobius bennetti*, *Coras medicinalis*, *Trachelas tranquillus*, *Argiope argentata*, *Dolomedes triton*, *Araneus cavaticus*, *Araneus trifolium*.

W. Mike Howell and Ronald L. Jenkins for *Physocyclus globosus*, *Ctenus hibernalis* and *Cesonia bilineata*. [See Howell, W. M. and R. L. Jenkins 2004 in References and Resources].

Renn Tumlinson for *Hibana gracilis*.

Rick C. West for *Brachypelma vagans*, *Aphonopelma chalcodes*, *Aphonopelma eutylenum*, *Aphonopelma hentzi*.

Gerald Wegner for *Trichonephila clavata*.

Elizabeth Wegner for *Allocyclosa bifurca* web.

Gerald Wegner for *Allocyclosa bifurca* in web with silk-wrapped debris sacs.

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Joro spider, *Trichonephila clavata*



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