

A GUIDE TO MISSOURI'S

COMMON SPIDERS



MISSOURI DEPARTMENT OF CONSERVATION

A Guide to Missouri's Common Spiders

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ABOUT MISSOURI'S SPIDERS

Missouri is home to a wide variety of spiders, with more than 450 species known to live throughout the state. They are found in natural communities, as well as in yards, gardens, and farmland. Although spiders live in many different habitats, including inside homes, most remain unnoticed due to their small size, natural camouflage, and tendency to stay hidden. But don't let their tiny size and inconspicuous ways fool you. Spiders are a vital strand in a complex ecological web in which humans are a part.

When people encounter spiders, their reactions can vary — from interest and appreciation to indifference or fear. A spider's unusual appearance may seem frightening to some, but it can also spark curiosity and fascination. This guide offers an opportunity to learn more about Missouri's spiders, identify common species, and understand where they are found, when they are most active, and how they live.



Grass spider

No spiders in Missouri are aggressive to people. They do not sting, spread diseases, or cause harm to plants, trees, property, or crops. Only two types have venom that can be harmful to humans — the brown recluse and the widow spiders (northern black widow and southern black widow).

What is a Spider?

Spiders belong to the class Arachnida. Like insects and crustaceans, they are arthropods, meaning they have jointed legs, no backbone, and hard outer shells called exoskeletons. What sets arachnids apart from other arthropods is that they have eight legs and two main body parts: the *cephalothorax*, which is the head and thorax fused together, and the abdomen. The top of the cephalothorax is called the *carapace*. It has a hard surface, while the underside of the cephalothorax has a central plate (sternum) where the legs attach to the body. The head region contains the eyes, brain, mouthparts (known as *chelicerae*), and



Harvestman

pedipalps (palps), which are small leg-like appendages that spiders use for grasping, grooming, and sensing their environment. Unlike insects, arachnids do not have antennae or wings.

Other members of the arachnid group include ticks, mites, harvestmen, and scorpions. Spiders differ from other arachnids because they have fangs capable of injecting venom into their prey, a narrow waist separating the cephalothorax from the abdomen, and *spinnerets* on the abdomen that produce silk. Most spiders have eight eyes arranged in four pairs, although the number and arrangement can vary by species. Harvestmen, often called daddy longlegs, resemble spiders but have a compressed body where the cephalothorax and abdomen appear as one body segment instead of two. Harvestmen have just two eyes, and do not produce venom or silk.

Spinnerets and Spider Silk

Most spiders have three pairs of spinnerets. These are small organs on their abdomen that help them make silk. The silk begins as a liquid protein from glands inside the spider's body. Spiders cannot "shoot" silk. Instead, the fluid hardens into a strong stretchy thread as it is pulled out by the spider's



Marbled orbweaver

legs or as the spider moves its abdomen after the silk is attached to a surface. Spiders can make different kinds of silk — some sticky, some not — depending on what they need it for. They use silk to build webs for catching and restraining their prey, wrapping their eggs in protective egg sacs, and constructing shelters (called retreats) that provide protection from weather and predators. Many spiders create draglines, which are strong strands of silk used to sense prey, attract mates using pheromones, and to keep themselves from falling.

Spider Hair

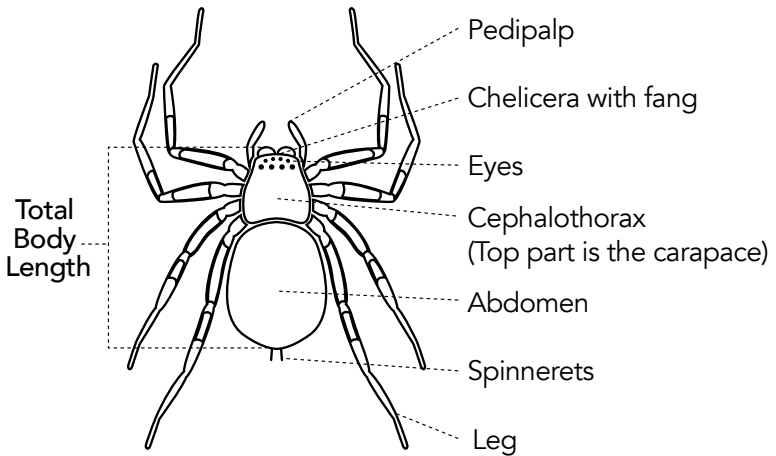
Hairs on spiders, known as setae, come in many forms and serve several important functions. In addition to providing camouflage, some setae are sensitive to sound vibrations and air movements, which help spiders detect prey or locate mates. A few setae are also sensitive to different chemical compounds, an ability similar to taste. Some species also have special sticky hair tufts on their feet that allow them to climb smooth surfaces. Stiff, bristlelike hairs called spines, often found on the legs, help spiders navigate their surroundings and grasp prey. Flattened, platelike hairs called scales on some spiders provide protection and coloration.

Tan jumping spider



© TIM H/ADOBE STOCK

Parts of a Spider



How Spiders Eat

Spiders have specialized, jawlike mouthparts called chelicerae, which contain their fangs. The chelicerae are the sturdy segments located just below the spider's eyes on the front of its head. Spiders use these structures to grasp and crush their prey. The fangs are hinged; at rest, they lie inside grooves on the chelicerae. Fangs are used to inject venom that helps immobilize the prey.

The mouth of a spider is small and tube-shaped and cannot chew or swallow solid food. Instead, spiders inject or cover their prey with digestive fluids that dissolve the insect's internal tissues. Once the insides have been liquefied, the spider sucks up the liquid, leaving behind only the indigestible parts of the prey.



Tan jumping spider with a leafhopper nymph.

Spider Life Cycle

Spiders are relatively short-lived. Many complete their life cycle within a single year, although some species can live for several years. Female spiders lay eggs on a silken base and then add additional layers of silk to create a protective egg sac. These sacs may be attached to plants, hidden in burrows, or placed under logs and rocks. Some spiders hold or carry their egg cases; for example, female wolf spiders carry the egg sac on the end of their abdomen until the eggs hatch, and female nursery web spiders carry the egg sac with their jaws. The number of eggs in a sac can range from 50 to over 1,000, depending on the species, and some spiders can produce multiple egg sacs during their lifetime. Many spider species, such as orb weavers, emerge from their egg sacs in the spring. They grow to adulthood, mate, and lay eggs during the summer and fall before dying at the end of the season, completing their life cycle. Other spiders, including jumping spiders, sheetweb spiders, and wolf spiders, hatch later in the summer or fall. These young spiders survive the winter by sheltering in protected places such as tree crevices, leaf litter, small burrows, or spaces beneath rocks and logs. They become active again in the spring, and from summer into fall, they mature, mate, and lay eggs, completing their life cycle.

Female wolf spider with spiderlings on abdomen.



Growth, Mating, and Dispersal

Like all arthropods, spiders shed their exoskeleton several times as they grow. This process continues until they reach adulthood and develop fully formed reproductive organs. During mating, male spiders use their



Wolf spider with recently shed exoskeleton.

palps to transfer seminal fluid into the female's epigynum, an opening located on the underside of her abdomen. The inflated appearance of the male's palps, reminiscent of tiny boxing gloves, can often be used to distinguish male spiders from females, whose palps are more fingerlike, without inflated tips. Some female spiders eat the male during or after mating. This behavior helps nourish the female and her developing eggs, reduces competition by preventing the male from mating with other females, and may also prevent the male from eating the spiderlings once they hatch.

After hatching, spiderlings generally disperse or spread out to avoid competing with each other for food and to increase their chances of escaping predators. Wolf spiderlings, however, cling to special hairs on the top of their mother's abdomen for protection. Over several days, they gradually climb off as their mother continues to hunt. Another way spiderlings disperse is through a behavior called ballooning. In this method, the spiderlings release silk threads that catch rising air currents, allowing them to float away like tiny kites. These shiny strands of spider silk, known as gossamer, are often seen on branches and in fields during spring and fall and are signs of this successful dispersal technique.

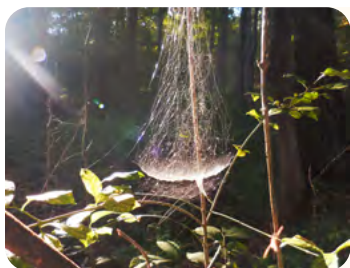
Spiders by the Numbers

More than 4,500 species of spiders can be found in North America, and over 450 of these — belonging to 35 different families — have been documented in Missouri. The actual number of spider species in Missouri is likely higher, possibly reaching or exceeding 500. Missouri has never had a complete survey of its spider species, and new species continue to be discovered during recent surveys. In addition, some species found in neighboring states are also expected to occur in

Missouri due to similar habitats and geographic proximity. Spider population density varies by habitat, with estimates ranging from over 15,000 spiders per acre in forests to 20,000 per acre in croplands and more than 600,000 per acre in rich prairies and grasslands.

Spider Identification

Classifying and identifying spiders can be technical. Biologists look at multiple factors, including eye arrangement, number of hairs and claws on the legs, as well as the complex structure of reproductive organs only visible through microscopic examination. Fortunately, with all the spiders possible in Missouri, this guide focuses on a relatively small number of species which are common and easy to recognize.



ID Tip: When you see a spider, note its location (habitat), whether or not it is in a web, and if so, the type of web. These details can help you narrow down the species.

Bowl and doily spider web

Ecological Importance

Spiders play a crucial role in sustaining healthy ecosystems. Researchers estimate that spiders consume around 10 percent of their body weight in food per day, mostly consisting of insects. When this is multiplied by the number of spiders, the number of insects eaten per day is enormous. In fact, spiders eat more insects than birds and bats combined. Spiders consume a wide variety of insects, including mosquitoes and fleas, helping to keep populations of disease-carrying insects in check and reducing the spread of illness in humans, pets, poultry, and livestock. By preying on crop-damaging insects, spiders safeguard food supplies and contribute to global food security. Spiders are a key link in ecological food chains. They provide nourishment for songbirds, lizards, some pollinating wasps, and other animals, including other spiders. They also enrich soil by adding nutrients, supporting helpful microbes, and improving soil structure through their movement and burrowing. The presence of spiders supports biodiversity and helps maintain balanced and resilient ecosystems, ensuring a healthier environment for all living things.



Northern crab spider on blazing star.

Spider Foraging Methods

All spiders are predators, but each species has its own unique strategy for finding food. One of the first steps in identifying a spider is recognizing which foraging group it belongs to. Spiders fall into two main foraging categories: web-building spiders and hunting spiders.

Web-building spiders can be further categorized by the type of webs they construct. Orb weaver species build distinctive, wheel-shaped webs. These webs have spokelike strands that radiate from a central hub and are connected by spiral threads that extend outward toward the edges to form the classic circular pattern. In contrast to the neat, round webs of orb weavers, a cobweb spider's web appears messy and tangled. Cobwebs have an irregular, uneven shape, with sticky threads crisscrossing in many directions to form a loose, three-dimensional structure. Although these webs may look disorganized, their sticky silk is highly effective at trapping insects. Some spiders, such as funnel weavers and sheet weavers, create sheetlike webs.

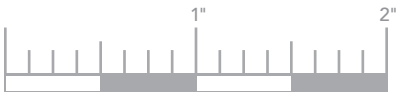
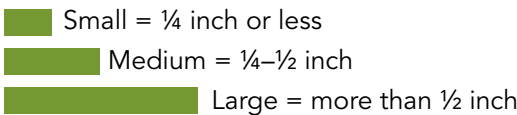
Hunting spiders can also be grouped by their hunting methods. Some, like ghost spiders, jumping spiders, and wolf spiders, rely on speed and excellent eyesight to actively stalk and pounce on their prey. Other hunting spiders, including crab spiders and purseweb spiders, use more stationary strategies such as camouflage, waiting quietly and ambushing prey that comes within reach.

ABOUT THIS GUIDE

The species accounts in this guide cover 42 common spiders found in Missouri. They are organized according to foraging group — web builder or hunter.

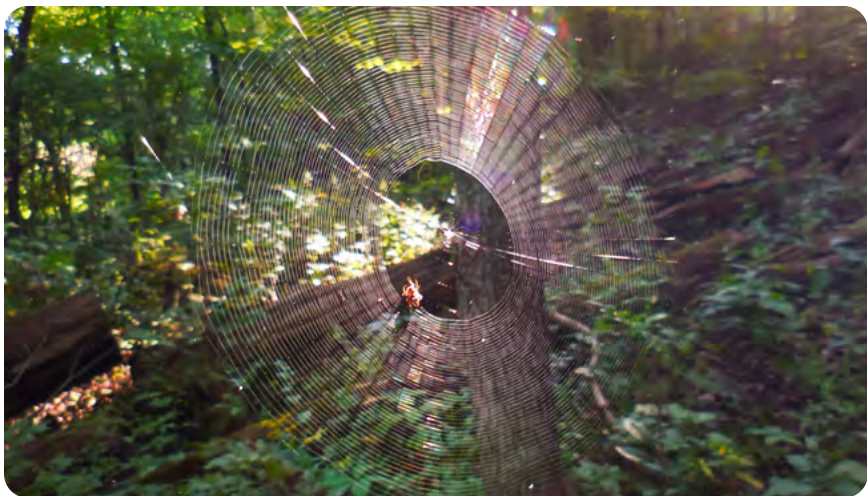
Spider Size

A spider's size is measured as its total body length from the front of the head to the back of the abdomen and does not include the legs. In this guide, spider size refers to the total body length of mature spiders and is described as small, medium, or large, and roughly follows the scale below.



Remember, these measurements are only for the body and do not include the legs.

Arrowhead spider constructing an orb web.



SPECIES ACCOUNTS

WEB-BUILDING SPIDERS

Often, a web is the first sign that a spider is present. About one-third of the spider species in Missouri build webs to catch their prey. The shape and structure of a web can provide important clues about the type of spider that made it and can be a helpful first step in identifying species in the field. From orb webs to cobwebs to sheet webs, the different web types — and the habitats in which they are built — reduce competition by allowing spiders to hunt in separate spaces and in different ways.

Black-and-Yellow Garden Spider

Argiope aurantia — Orbweaver family (Araneidae)

Description: The carapace of this large and distinctive orb-weaving spider is black and covered with silvery hairs. Its oval-shaped abdomen is black with bright yellow patches along the sides and four pale spots near the top. The legs are mostly black but become paler yellow-green or reddish closer to the body. Males are much smaller than females and are seldom noticed.

Females construct large circular webs that can reach up to two feet in diameter and typically sit head-down at the web's center. A unique zigzag silk band, called a stabilimentum, runs vertically through the middle of the web. This feature is thought to prevent birds from flying through it.

Where and When: The black-and-yellow garden spider typically inhabits prairies and fields but is also commonly found in native landscaping. These spiders are active during the day and become especially noticeable as they reach maturity in late summer. A similar species, the banded garden spider (*Argiope trifasciata*), is slightly smaller and has an abdomen marked with thin silver and yellow horizontal lines, along with thicker black, spotty bands.



Starbellied Orbweaver

Acanthepeira stellata — Orbweaver family (Araneidae)

Description: The starbellied orbweaver is a medium- to large-sized spider, tan to brown in color and covered in short hairs. It is easily identified by the distinctive cone-shaped points that project outward around the upper abdomen, forming a crownlike ring. Whitish hairs on the head and abdomen give the spider a hoary, frosted appearance. A darker brown patch is present on the back of the abdomen and extends to the rear point. At the front of the abdomen, a white V-shaped marking comes down to a forward-facing point. The carapace is brown with pale hairs that often form faint stripes. The lateral eyes are set on short, hornlike bumps. The legs are yellow with wide black bands and noticeable spines.

Where and When: Starbellied orbweavers build their vertical orb webs at night in prairies, glades, and grasslands, then rest in a hidden retreat during the day. When disturbed, they may drop to the ground and curl their legs tightly, effectively resembling a burr, clump of soil, or a piece of bark. They are present from spring through fall, with populations reaching their peak in late summer.

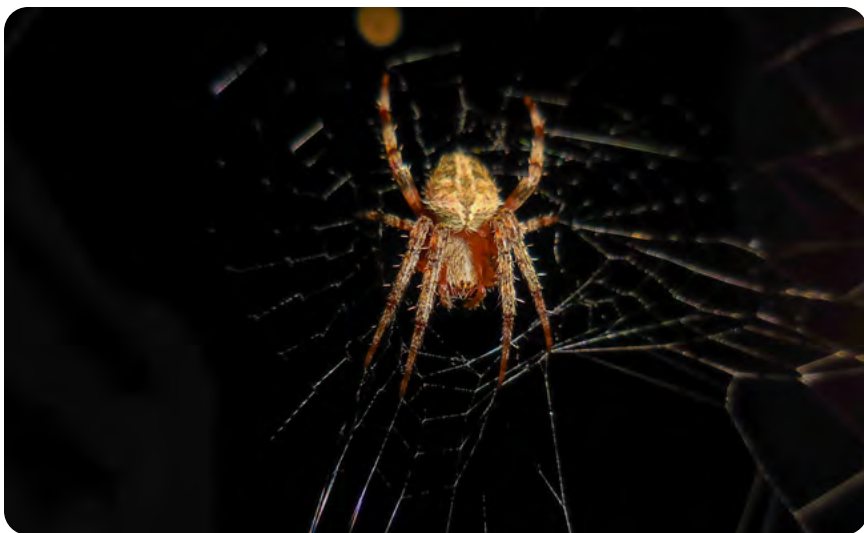


Arboreal Orbweaver

Neoscona crucifera — Orbweaver family (Araneidae)

Description: The arboreal orbweaver, also known as the spotted orbweaver, is a large spider with colors that can vary from spider to spider. Some may appear uniformly brown, while others display more vivid colors and distinct patterns, such as the shape of a cross, on the top of the abdomen. The head, abdomen, and legs are covered with fine hairs. The legs are banded, have spines, and in some individuals the leg segments closest to the body are red. The underside of the abdomen features a black patch with two oval white spots.

Where and When: The arboreal orbweaver inhabits woodlands, but it is also frequently encountered around buildings. Although juveniles can be found in summer, this species becomes more noticeable as they mature in late summer and early fall when the females construct large webs on trees and structures such as porches and sheds, especially near lights. Males are smaller and are rarely seen, unless they are visiting females. These spiders are primarily nocturnal, constructing their webs after dusk. At dawn, the spider removes most of the web by eating the silk to recycle its proteins for use in building a new web the following night. A strong horizontal thread, known as the bridgeline, is often left in place to aid in reconstruction. During the day, the spider can often be found resting beneath a leaf or other shelter at the end of this bridgeline.



Furrow Orbweaver

Larinioides cornuta — Orbweaver family (Araneidae)

Description: The medium-sized furrow orbweaver is recognized by its shiny tan abdomen, which bears a dark, lobed, leaflike pattern called the folium, along with distinctive dimples known as sigilla. The cephalothorax is shiny dark brown, with silvery hairs, and bordered by a pale edge. The legs are banded and spiny. Males are smaller, darker, and have more hairs on the head and abdomen.

Similar spiders in the genus *Larinioides* include the ornamental orbweaver (*L. patagiatus*) and the bridge orbweaver (*L. scopetarius*). These species also display a folium pattern but are less shiny and darker in color.

Where and When: Furrow orbweavers are primarily nocturnal forest spiders, though they can occasionally be seen in their webs during the day. Their webs are characterized by spiral circles that are more widely spaced than those of many other orbweavers. They are especially common near bodies of water such as lakes, where they build webs on docks and lakeside trees, shrubs, and buildings. Adults can be found throughout the year, including during warm spells in winter.



Trashline Orbweaver

Cyclosa turbinata — Orbweaver family (Araneidae)

Description: This small spider can be found at the center of its orb-shaped web, positioned within a vertical line of bundles that resemble a string of beads. These bundles are the silk-wrapped remains of insects the spider has consumed and may include debris, such as bits of dead leaf. Egg sacs are placed along this line for camouflage, and the spider itself hides effectively from prey among the line of “trash” bundles in its web.

The spider’s abdomen tapers toward the rear, resembling the shape of a bowling pin. It is whitish in color with black splotches and marked by a distinctive pair of light-colored bumps. The carapace is glossy black, and the legs are banded.

Where and When: Trashline orbweavers are commonly found in woodlands as well as on landscaping and around buildings. They are most frequently observed from summer through early fall.



Arrowhead Spider

Verrucosa arenata — Orbweaver family (Araneidae)

Description: This medium-sized orbweaver is easily recognized by the triangular shape of the female's abdomen. A shiny triangular patch of color nearly covers the upper side of the abdomen, emphasizing its shape. The triangle's point is directed away from the spider's head, and the side of the triangle closest to the head appears lobed. This patch may be bright yellow, cream, or white and includes small dimples known as sigilla. The back of the abdomen has eight pronounced bumps. The spider's cephalothorax and abdomen can be red, brown, or black. The abdominal colors and those of the cephalothorax come in a variety of combinations and may differ from spider to spider. The legs are banded. This species is unique in Missouri as the only orbweaver that rests at the center of its web with its head pointing upward rather than downward. The legs are often folded tightly against the body. Males are smaller, lack the triangular patch, and are seldom seen except when visiting a female's web to court or mate.

Where and When: The arrowhead spider constructs its vertically oriented, wheel-shaped web at night in forests and woodlands, from mid-summer to early fall. It often remains in its web well into the morning before dismantling it for the day. Hikers who inadvertently walk into these webs — or into the similar webs of the spined micrathena — strung between tree trunks at human height can take this as a sign that they are the first people to use the trail that day.



Arrowshaped Micrathena

Micrathena sagittata — Orbweaver family (Araneidae)

Description: The abdomen of this colorful, medium-sized orbweaver is bright yellow and marked with black dimples (sigilla). Its most distinctive feature is three pairs of spur-like projections that extend from the sides; each spur is tipped in black and often is red at the base. The two largest spurs point outward from the rear of the abdomen, giving the spider its characteristic arrowhead shape. The carapace is reddish-brown with a bright yellow margin, and the legs are also reddish in color. The male of this species is much smaller and is rarely observed.

Where and When: This species is active during the daytime and can often be found resting at the center of its orb web. Its web is notable for its narrowly spaced spiral lines and broad open zone near the center hub. The spider can be seen from summer into early fall in lowland forests and brushy woodlands. It is encountered less frequently than the related spined micrathena.



Spined Micrathena

Micrathena gracilis — Orbweaver family (Araneidae)

Description: The spined micrathena is a medium-sized black and white orbweaver. The whole spider has a glossy appearance, spotted with dark dimples (sigilla) on the top of the white abdomen. As the name suggests, the abdomen has ten black spines pointed in various directions giving it a spiny bur-like appearance. The head is dark brown with a pale rim and the legs are black. The base of the abdomen forms a distinctive downward cone marked with narrow black and white lines. The male is much smaller, lacks prominent spines, and is rarely observed.

Where and When: Spined micrathenas are typically found in forests and woodlands. Like the arrowhead spider, as they mature in July and August, they construct upright circular webs between tree trunks in the forest understory, often across trails. Hikers who stumble into these spiders in their webs can be reassured that they pose no threat to humans.



Marbled Orbweaver

Araneus marmoreus — Orbweaver family (Araneidae)

Description: The marbled orbweaver is a boldly colored, medium- to large-sized spider. Its abdomen is egg-shaped and typically bright yellow in color, decorated with a striking black, symmetrical, marbled pattern. Less commonly, the overall color may be white, tan, grayish, or orange. The marbled pattern is more subtle on orange individuals, which are sometimes called “pumpkin spiders.” The carapace is reddish, and the segments of the legs closest to the body share this coloration. The outermost leg segments have spines and display broad black and white bands. Males, which are less frequently encountered, have abdomens that are narrower than their heads, and their legs are less distinctly colored compared to females’ legs.

Where and When: Marbled orbweavers inhabit lowland forests and brushy woodlands, where they construct vertical webs in lower branches. They are primarily active at night and retreat beneath leaves for shelter during the day. These spiders are most commonly observed in late summer. In the fall, females can be found on the ground, searching for places to deposit their egg cases.



Orchard Orbweaver

Leucauge venusta — Longjawed orbweaver family (Tetragnathidae)

Description: This colorful, medium-sized orbweaver displays considerable variation in its markings, but all individuals share a capsule-shaped abdomen that is primarily silvery white. The upper surface of the abdomen features a central, dark brown or black stripe, often with angled lines that form a treelike branching pattern. These lines lead to a cluster of fused dark spots toward the rear of the abdomen. Additional black lines, along with yellow patches or stripes, may run parallel to the central stripe, while green patches are often present along the sides. The underside of the abdomen has a distinctive orange-red, crescent-shaped spot at the center. The carapace is tan, marked with a dark, central stripe and dark margins. The legs are typically green with darker bands.

Where and When: This common orbweaver is usually found close to the ground in moist woodlands and thickets, and on landscaping. It can be seen from spring to fall and is active from the early hours before dawn and throughout the day. This spider constructs a circular orb web that is nearly horizontal, positioning itself upside down on the underside of the central hub. When disturbed, it typically drops to the ground and then returns to the hub after a few minutes.



Longjawed Orbweaver

Tetragnatha elongata — Longjawed orbweaver family
(Tetragnathidae)

Description: The longjawed orbweaver is a medium-sized spider named for its extended mouthparts, or chelicerae, which project forward from the head. These mouthparts feature toothlike spurs and backward-folding fangs, giving the spider a striking, almost fearsome look. Its carapace, chelicerae, and long, banded legs are golden brown. The abdomen is elongated and often marked with a dark, leaf-shaped folium pattern.

Where and When: These spiders are found along the edges of ponds, lakes, and rivers. They construct their horizontal orb webs at night on low vegetation or dock structures, often over the water, where they capture mosquitoes and other emerging aquatic insects. The spider may rest at the central hub of the web or lie stretched out on a nearby stem or branch, where it is very well camouflaged. If needed, it can move across the water's surface like a water strider. Boaters, canoeists, and river rafters may occasionally encounter these leggy spiders in their vessels if they brush against bank vegetation; however, like almost all Missouri spiders, bites are very rare and do not require medical attention. Several less common species of longjawed orbweavers live in Missouri, but reliable identification requires observation of tiny reproductive structures under a microscope.



Featherlegged Orbweaver

Uloborus glomosus — Cribellate orbweaver family (Uloboridae)

Description: The carapace, legs, and abdomen of this small orbweaver are hairy, tan, and speckled with brown and white. On females, pairs of prominent bumps lie at the front and top of the abdomen, giving it an angular appearance. Females also possess a dark plume of bristles on the middle segment of their front legs, a feature that gives this species its common name. When resting in their webs, these spiders often resemble twigs; they hold their long front pairs of legs together, either with one pair on each side of the head to create a V-shape or with both pairs pressed together in front of the head.

Where and When: These orbweavers construct their webs horizontally and close to the ground, typically on vegetation in brushy woodlands and landscaping. Their circular webs often feature zigzag bands of silk called stabilimenta. In addition to spinnerets, these spiders possess an organ called a cribellum that produces a different kind of silk. When brushed out with special comblike spines on the back legs, this silk becomes particularly effective at trapping and holding onto prey. Notably, spiders in this family lack venom, relying instead on their specialized silk for capturing insects. They are found from spring through summer.



Grass Spiders

Agelenopsis spp. — Funnel weaver family (Agelenidae)

Description: Grass spiders are common, medium-sized spiders that construct sheetlike webs. Usually, these sheet webs are seen first — and then the spider hiding inside a tubular retreat. The carapace of these somewhat hairy spiders is dark, marked by a broad, tan stripe down the center with lighter tan margins. Their abdomen is spindle-shaped, patterned with tan and brown stripes and spots. A pair of long spinnerets on the rear of the abdomen serve as an excellent field mark to help identify this species. Several species of *Agelenopsis* occur in Missouri, all of which are nearly identical in appearance. For this reason, identifying grass spiders at the species level usually requires microscopic examination of their reproductive structures.

Where and When: Grass spiders can be found in their webs from spring through fall. They build their webs close to the ground in forest leaf litter and woody debris, low plants, lawns, landscaping, and on buildings. Often the webs of many individuals are found in an area, like a colony. The web begins as a broad, open sheet that narrows into a silken tunnel at the back, resembling a funnel. Grass spiders are capable of moving very quickly, but they rarely leave their webs. They may be observed adding silk to their webs, sitting on the outer sheet, or retreating into the funnel tube, waiting for prey to wander into the webbing.



Scarlet Sheetweaver

Florinda coccinea — Sheetweb and dwarf spider family (Linyphiidae)

Description: Scarlet sheetweavers build sheet webs like grass spiders but they do not have a funnel. The carapace and abdomen of this small spider, which rests upside down beneath the web, are shiny and typically bright red with dark legs, though individuals may also appear orange or brick-colored. A key identifying feature is the black bump located at the rear of the abdomen, which gives this species another common name: the black-tailed red sheetweaver.

Where and When: These spiders are found in lawns and fields. Their webs resemble small delicate cobwebs and consist of a nonsticky base sheet beneath a loose tangle of threads. These threads serve to catch flying insects, causing them to fall into the main sheet where the spider waits to capture them. Scarlet sheetweavers can be found from spring through summer.



Bowl and Doily Spider

Frontinella pyramitela — Sheetweb and dwarf spider family (Linyphiidae)

Description: This sheetweb spider builds a cobweblike structure that forms a distinct bowl shape. The small spider typically rests upside down at the bottom of the bowl, beneath which lies a secondary horizontal sheet that creates the “doily.” The spider’s pear-shaped abdomen is black on both the top and bottom, with white and black stripes along the sides that resemble a zebra pattern. The carapace is glossy black, and the shiny greenish to brownish legs have small spines.

Where and When: The bowl and doily spider inhabits a wide range of environments, including woodlands, prairie, fields, lawns, and landscaping. It constructs its web near the tops of loose clusters of nonleafy plant stems and on bare tree branches. These spiders can be found throughout the year, including during warm spells in winter.



Filmy Dome Spider

Neriene radiata — Sheetweb and dwarf spider family (Linyphiidae)

Description: The filmy dome spider is most easily identified by its distinctive web, which forms a delicate, dome-shaped structure built over a lower flat sheet of silk. This small spider has an elongated abdomen with a blunt end, giving it a somewhat rectangular appearance from the side. The top of the abdomen displays a dark, leaflike pattern called a folium. The sides of the abdomen are white, often marked with yellow or orange patches, along with black vertical and horizontal markings on the lower half. The carapace is glossy brown with lighter margins. The legs are long and pale greenish brown, with the front two pairs noticeably longer than the rear pairs.

Where and When: These spiders are found from spring through fall in forest understory shrubs as well as around fallen logs and shaded rock outcroppings. Once the dome-shaped web is sighted, the spider is usually seen resting upside down just beneath the top of the dome. Individuals may maintain and add to their webs over several days. The domed webs can grow to more than 12 inches in height and width before wind or rain forces the spider to rebuild.



Common House Spider

Parasteatoda tepidariorum — Cobweb spider family (Theridiidae)

Description: There is considerable variation in the colors and patterns of this common, medium-sized spider. However, all individuals share the egg-shaped, slightly hairy abdomen that is characteristic of the cobweb spider family. Some specimens can appear rather plain, while others display more ornate markings. Regardless of pattern, the abdomen typically has a mosaic-like, grainy appearance, with colors ranging from yellowish or tan to brown, gray, or black. Many individuals also feature distinct white lines near the top of the abdomen. The glossy carapace may be tan, brown, or black, and the legs are banded.

Where and When: This familiar spider has a worldwide distribution. It can be found in natural environments such as woodland branches, but it is most often encountered near or within buildings. Here, the spider constructs three-dimensional, tangled cobwebs in sheltered areas, frequently at windows of houses, garages, and cabins.

Grayish-tan, pear-shaped egg sacs are commonly seen within the webs. When the tiny spiderlings emerge, they remain clustered near the egg sac for several days before dispersing.



Cellar Spiders

Pholcus spp. — Cellar spider family (Pholcidae)

Description: Cellar spiders are medium-sized spiders with smooth, tan-colored, capsule-shaped abdomens that often display a leaflike folium pattern on top. Their heads are tan and disc-shaped, with dark markings at the center of the carapace. These spiders weave irregular cobwebs and have very long, slender legs, leading to them sometimes being called “daddy longlegs.” But don’t confuse them with harvestmen, which are also called “daddy longlegs.” Unlike cellar spiders, harvestmen appear to have only one body segment, they do not produce silk or build webs, and they live in forests and fields. Telling the difference between species of cellar spiders can be difficult, even for experts.

Where and When: Cellar spiders are strongly associated with human dwellings, especially basements, garages, and other undisturbed areas where they sit upside-down in their cobwebs, often close to the ceiling. Outdoors, they may also be found near the entrances of caves. Although the cellar spider species most frequently encountered in Missouri prey on insects and even other spiders within the spaces they inhabit, they are not native to North America. The impact that nonnative spiders may have on native species is poorly understood because it is understudied.



Black Widow Spiders

Latrodectus mactans and *Latrodectus variolus* —
Cobweb spider family (Theridiidae)

Description: The two common species of widow spiders found in Missouri are the southern black widow (*Latrodectus mactans*) and the northern black widow (*Latrodectus variolus*). These medium-sized spiders have a glossy black carapace, legs, and abdomen. The abdomen is marked with red spots. On the southern black widow, the red spot on the underside of the abdomen typically forms a distinctive hourglass shape, and a smaller red spot is located behind the spinnerets. In contrast, the northern black widow's "hourglass" is divided into two separate spots.

Females of both species have an egg-shaped abdomen typical of cobweb spiders, while the smaller males have a more elongated abdomen. Additionally, these spiders may display a row of red spots, sometimes bordered in white, on top of the abdomen. Pale, slanted lines may also appear along the sides of the abdomen, especially in males and juveniles.

Female southern black widow





Male northern black widow

Southern black widows possess the more potent venom, while northern black widows have venom that is less powerful. This venom is neurotoxic and typically causes pain within 30 minutes to 2 hours after a bite. Within 3 to 4 hours, muscle twitching may occur near the location of the bite, potentially progressing to cramping, weakness, and stiffness in the shoulders, back, chest, or abdomen. Additional symptoms can include nausea, vomiting, headache, anxiety, and fluctuations in blood pressure. In severe cases, antivenom may be administered to alleviate symptoms. Only female widow spiders have mouthparts capable of delivering venom dangerous to humans and may bite when pressed against the skin. Male and juvenile widow spiders pose no risk to people because their mouthparts and fangs are too small to pierce human skin. Fatalities from widow spider bites are exceedingly rare, but careful attention should be used in areas where widow spiders are known to occur. Control of these spiders, if deemed necessary, should be conducted by a qualified professional pest control company.

Where and When: Black widows are more likely to be encountered in rural than urban areas. They build remarkably strong and sticky cobwebs in a wide range of habitats, including rocky woods, glades, woodpiles, animal burrows, and hollow stumps. They can also inhabit outbuildings such as cabins, sheds, privies, garages, and basements, where they prefer undisturbed, cluttered areas and crawl spaces. Black widows can be found from spring through fall.

Truncated Web Meshweaver

Arethyna volucris — Mesh web weaver family (Dictynidae)

Description: This small spider typically sits within a delicate web at the tips of twigs and plant stems. Since this spider produces silk from a platelike cribellum in addition to spinnerets, its web has a woolly, “hackled” look reminiscent of cotton candy. Its whitish abdomen is covered with short hairs and marked with a brown, leaf-shaped folium mark. The carapace is black and covered with white hairs that often form faint stripes. The legs are light brown and distinctly banded with black.

Where and When: This species is most often observed in prairies and fields, from spring through the early winter months.



SPECIES ACCOUNTS

HUNTING SPIDERS

Many common Missouri spiders use hunting methods other than building webs to capture prey. Some spiders actively hunt and leap onto their prey, while others stalk their targets or wait in ambush. These different hunting strategies help reduce competition by allowing spiders to find food in a variety of habitats and in different ways. The location in which a spider is found, along with its hunting style, can provide important clues about its identity and can be a useful first step when identifying species in the field.

Garden Ghost Spider

Hibana gracilis — Ghost spider family (Anyphaenidae)

Description: The carapace of this small spider is yellow or orange with darker banding. The mouthparts are black in contrast to the rest of the head. The abdomen is hairy, dingy tan or brown, with dashlike spotting. The legs have black spines and typically darken in color towards the ends.

Where and When: Garden ghost spiders can move very quickly and are experts at climbing on the smooth surfaces of stems and leaves and even glass. They actively hunt for prey on flowers and bushes, including in cultivated gardens. These spiders can be found year-round and are known to occasionally find their way into homes.



Tigrosa Wolf Spiders

Tigrosa spp. — Wolf spider family (Lycosidae)

Description: These large wolf spiders can be identified by a narrow, pale stripe that runs from the front to the back of the carapace. The name *Tigrosa* comes from Latin and means “fierce like a tiger.” This refers not only to their active hunting style — pouncing on prey as is typical of wolf spiders — but also to the banding on their legs and orange-and-black pattern on the underside of the abdomen. Their mottled brown coloration, along with their hairy carapace, legs, and abdomen, provides excellent camouflage in forest habitats. Accurately identifying the exact *Tigrosa* species in Missouri requires close examination of small reproductive structures.

Where and When: *Tigrosa* wolf spiders live in leaf litter on the floors of forests and woodlands, though they can occasionally wander into houses or other buildings. They are active nocturnal hunters, stalking and seizing prey, and may dig burrows or tunnels for shelter, protection, or ambushing prey. They can be found throughout the year. Wolf spiders seen during warm periods in winter are usually juveniles or adult females, which can live for several years.



Rabid Wolf Spider

Rabidosa rabida — Wolf spider family (Lycosidae)

Description: The carapace of this large wolf spider is dark brown; three wide tan stripes run lengthwise over the top and narrow dark and light stripes run along the sides. The abdomen is covered with short hairs and has a broad, dark band down the center, marked with a series of pale, angled shapes. Tan stripes border this band on each side. The front two legs of males are black, while the other six legs are orange-tan with black spines and faint pinstripes on the segments closest to the body.

A closely related species, the dotted wolf spider (*Rabidosa punctulata*), appears similar but can be identified by the black dots and blotches on the underside of its abdomen. It also lacks the pale, angled markings within the central dark band found on the rabid wolf spider.

Where and When: This species can be found from spring through fall in prairies, fields, and woodland edges. It hunts mostly at night but may also be active during the day. It does not use a web to catch prey, though it may wrap captured insects in silk. Despite the name, rabid wolf spiders cannot transmit diseases such as rabies, and this species is harmless to humans.



Lance Wolf Spider

Schizocosa avida — Wolf spider family (Lycosidae)

Description: This medium-sized wolf spider likely gets its name from the dark brown, lance-shaped spot with a tan border on its abdomen. Several pale bands cross the back of this spot, while tan and brown markings run along the sides of the abdomen. The underside of the abdomen is black and features a large, distinctive, yellow or white arrowhead-shaped spot. The carapace is brown with a central tan stripe that often extends past the eyes. Additional tan bands appear along the sides of the carapace. The legs have spines and display a mix of light and dark stripes and spots.

Where and When: This species lives in prairies, fields, and lawns and can be found from spring through fall. It hunts mainly at night, actively stalking and pouncing on prey.



Parson Spider

Herpyllus ecclesiasticus — Ground spider family (Gnaphosidae)

Description: This medium-sized ground spider can be easily recognized by its black coloration and the distinctive white marking on top of its abdomen, which resembles the dark clerical robes and white cravat worn by an 18th-century parson. The carapace is dark brown, and the fine hairs covering the body give it a glossy appearance. The legs are brown, with the segments closest to the body being the darkest. As with other members of the ground spider family, two tubular spinnerets are visible at the end of the abdomen.

Where and When: Parson spiders live in the leaf litter of forests and woodlands and hunt primarily at night. They can move very quickly, which helps them locate, capture, and subdue prey. During the daytime, these spiders hide in silken retreats under rocks, in crevices, and beneath loose tree bark. Although they are most often seen during the warmer months, they may be encountered in Missouri year-round and occasionally wander into buildings.



Woodlouse Hunter

Dystera crocata — Woodlouse spider family (Dysteridae)

Description: The carapace of this medium-sized spider is smooth and brick red, which contrasts with its shiny, brownish-tan, capsule-shaped abdomen. Its legs are orange. The mouthparts (chelicerae) and the black fangs tucked beneath them project forward from the head, giving the spider a somewhat fearsome appearance. The fangs are strong enough to pierce human skin, but bites are rare. Its venom is not dangerous to people, and the effects have been compared to a mild bee sting. Woodlouse hunters have only six eyes.

Where and When: This species is found most in areas impacted by people. As the common name suggests, these spiders specialize in hunting woodlice, more commonly known as isopods, sowbugs, pillbugs, and roly-polies. Because of this, woodlouse hunters are usually found in moist environments such as under rocks, fallen logs, leaf litter, compost heaps, and other debris where their prey lives. Their large, powerful mouthparts are well adapted for penetrating the tough exoskeletons of their prey.

This species was introduced to the United States from the Mediterranean region. The impact that it — and other nonnative spiders — may have on native ecosystems is not well understood.



Brown Recluse

Loxosceles reclusa — Recluse spider family (Sicariidae)

Description: The brown recluse is a light brown, medium-sized spider, also known as the violin spider or fiddleback spider due to the distinctive dark marking on its carapace. This marking resembles the shape of a violin: a line at the back half of the carapace forms the “neck” of the violin, while the violin “body” stretches from the middle of the carapace to the front of the head. The oblong abdomen is tan, often with a darker patch near the front. It is covered with short hairs that give it a smooth, satiny appearance. The legs are long, evenly sized, unbanded, and covered with fine, dark hairs but no spines. This spider has three sets of two eyes, which are so tightly paired that they appear as three eyes rather than six.

Where and When: Brown recluse spiders often live in human dwellings, including houses, cabins, garages, sheds, wood, and cardboard boxes. They may also be found in outdoor settings such as log piles or beneath stones, usually near human habitation. These swift and secretive spiders are active hunters and do not rely on webs to capture prey. However, they do use silk to create silken retreats as well as round coverings for their eggs. Brown recluses are primarily active at night and can be found year-round, most frequently from spring through fall.





Exoskeleton



Egg case (hatched)

Bite Information

Brown recluses are not aggressive toward humans; however, bites can occur when a person puts on clothing or shoes where a spider may be hiding. Because the symptoms of a brown recluse bite are similar to those of several bacterial infections, the bite can be medically confirmed only if the spider is seen and correctly identified. Initial symptoms may include pain, redness, swelling, itching, and burning. A singular lesion will form at the bite; it may appear white, blue, or dark purple (not red). Within one to three days, the area around the bite may develop into a reddish patch, sometimes forming a “bull’s-eye” pattern. The full effects of the bite may take up to 14 days to develop, and healing typically occurs within two to three months.

If a brown recluse bite is suspected, collect the spider for identification if possible and seek medical attention promptly. Additional information about spider bites and control measures can be found in the Spiders and People section on Page 58 of this guide.

Texas Brown Tarantula

Aphonopelma hentzi — Tarantula family (Theraphosidae)

Description: The Texas brown tarantula is Missouri's largest spider and is easily recognized by its size and hairiness. Adult females can reach up to 2 inches in body length, measured from the front of the head to the back of the abdomen (not including legs). Males are slightly smaller. This is the only species of tarantula found in Missouri.

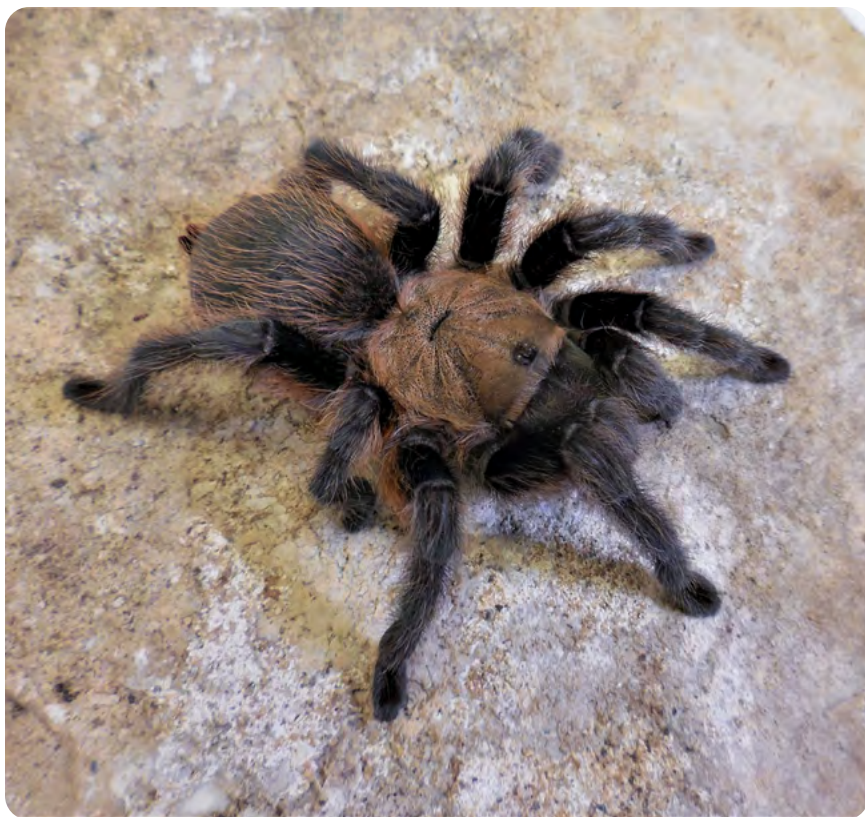
The carapace is covered with short, light brown hairs, while the legs, palps, and chelicerae are covered with darker hairs and the abdomen bears brown or reddish-brown hairs. Spinnerets can be seen at the back of the abdomen.

Texas brown tarantulas are generally docile and are not aggressive toward humans. However, when threatened, they may raise their front legs in a defensive posture. They can also flick specialized hairs from their abdomen, which can cause irritation to predators.

The venom of this tarantula is not considered dangerous to humans. A bite typically causes only mild, temporary discomfort similar to a bee sting. For this reason, these spiders are regarded as harmless.



NOFPADOL PAOTHONG



Where and When: Texas brown tarantulas inhabit dry, rocky, and grassy glades in the southern half of Missouri. During the day, they remain hidden in silk-lined burrows or natural cavities. Their vision is not acute, but they can detect shadows and movement nearby. At night, tarantulas move to the entrances of their burrows and extend silk draglines across the ground in front of the entrance to sense vibrations of prey that come near.

Females release pheromones to attract males in late summer. Males may wander hundreds of yards in search of mates and can sometimes be observed crossing roads at night. Despite popular belief, this movement is not a true migration. Studies show that these males are not traveling in a single direction toward new habitats but are wandering randomly as they search for the scent of a female.

It is illegal to buy, sell, handle, or keep a tarantula collected from public land in Missouri without a Wildlife Collector Permit.

Redlegged Purseweb Spider

Sphodros rufipes — Purseweb spider family (Atypidae)

Description: This large black spider is named for the male's bright red legs. Its stout mouthparts (chelicerae) project forward from the head, giving the spider an intimidating appearance. The carapace is marked by shallow creases and has a grainy appearance. The dark brown abdomen is covered with short hair and ends with two spinnerets that point upward. Despite their fierce look, purseweb spiders are not aggressive toward humans, although they may rear up in a defensive posture. While their impressive fangs can pierce human skin, bites are uncommon, and the effects of their venom are similar to an insect sting.

Where and When: Purseweb spiders live in rocky woodlands and are most common in the southern half of Missouri. They build silk tubes, well camouflaged with small debris, at the base of tree trunks, on rocks, or along the ground. Because they spend most of their lives hidden inside their silk tubes, they are seldom seen. When an insect walks across the tube, the spider strikes through the silk and seizes the prey with its strong jaws. It then pulls the prey inside to consume it. Most purseweb spiders that people encounter are males that leave their tube-nests to search for a mate during a brief period in late spring and early summer.



Pirate Spider

Mimetus puritanus — Pirate spider family (Mimetidae)

Description: The carapace of this small spider is smooth and yellow, marked with an ornate, symmetrical, black pattern along the midline behind the eyes. The egg-shaped abdomen varies greatly in color among individuals. It is typically lighter on the sides and darker on top with a pair of matching irregular white spots and covered by a mosaic-like pattern of brown and tan with scattered red and black dots. The legs are yellow with black bands and prominent spines. The front two legs are the longest and have black spots on the segments closest to the body.

Where and When: This species is most often found on buildings and landscaping close to natural forested areas, often near or within the webs of other spiders such as orb weavers and cobweb spiders. True to its common name, the pirate spider invades another spider's web, deceiving the host by plucking the silk to mimic prey or a potential mate, before killing and consuming it. Afterward, it takes over the web and feeds on any additional prey caught within it. This spider is active in summer. Females may occasionally be found near their ball-shaped, fuzzy, orange egg sacs.



Striped Lynx Spider

Oxyopes salticus — Lynx spider family (Oxyopidae)

Description: Lynx spiders are extremely spiny, with prominent spines on all the legs. The female striped lynx spider is small and has a greenish-yellow carapace capped with short brown hairs. A narrow white stripe runs down the center with two wider white stripes on either side. The top of the oblong abdomen features two white stripes that merge into a single stripe toward the rear, surrounding a dark, lance-shaped mark that is lighter at the center. Additional tan, white, and dark stripes continue along the top and sides of the abdomen. The legs are greenish-yellow and have prominent spines. Thin black stripes run vertically down the mouthparts and on the underside of the legs. Male striped lynx spiders are smaller and have a metallic copper-colored carapace and a metallic silvery-gold abdomen.

Where and When: Striped lynx spiders live in prairies and fields where they are well camouflaged. They are skilled runners, climbers, and jumpers and use these skills to actively stalk and pounce on their prey. They can be found and observed from spring through fall.



Bold Jumping Spider

Phidippus audax — Jumping spider family (Salticidae)

Description: The bold jumper is a medium-sized black spider, distinguished by a prominent white or orange spot in the center of its egg-shaped abdomen along with a pair of smaller, dashlike spots positioned farther back. The front portions of the mouthparts (chelicerae) are a striking iridescent green. Although the spider is generally dark colored overall, the white markings can vary to include a white band across the front of the abdomen, additional pairs of small white abdominal spots, white bands on the sides of the carapace, white banding on the legs, and white hairs scattered within the darker hairs on the body. Juveniles often show orange spots and bands, rather than white, in addition to green iridescent patches on the head and abdomen.

Where and When: Bold jumping spiders live in a wide variety of habitats, including in woodlands, fields, and landscaping. They are active during the day and rely on their excellent vision and climbing skills to stalk and leap onto their prey, often using a silk dragline to prevent falling. Juveniles are most seen in spring, while adults appear from summer through fall.



Grayish Jumping Spider

Phidippus princeps — Jumping spider family (Salticidae)

Description: The more commonly seen female is a medium-sized, hairy jumping spider with an overall mousy-brown color. The abdomen shows subtle dark and light markings, along with white projecting hairs that create a slightly grayish appearance. The legs are golden brown with dark bands, and the mouthparts (chelicerae) are iridescent green. Two dark, earlike tufts of hair are present on the head behind the eyes. The palps are covered with white hairs, and there is a pale band below the front row of eyes. The much less frequently seen male has a black carapace, black legs, and a red, hairy abdomen.

Where and When: This species lives in prairies, fields, and woodland edges. It is a daytime hunter with excellent vision and strong climbing ability. The species is known to remember where prey was last seen as it stalks and will move to a better position before pouncing. Individuals can be found from spring through fall.



Tan Jumping Spider

Platycryptus undatus — Jumping spider family (Salticidae)

Description: The head, banded legs, and abdomen of this gray, medium-sized jumping spider are covered with a mix of tan, gray, brown, black, and white hairs. Its elongated abdomen has dark sides, and the top displays a lighter, treelike pattern resembling overlapping diamond shapes that become smaller toward the rear. The palps are covered in white hairs. Males can be recognized by a distinct orange-brown band beneath the eyes.

Where and When: This species lives in forests and woodlands, where it uses its excellent vision and climbing ability to stalk and ambush prey on the vertical surfaces of hickories and other hardwood trees. They are active during the day and sometimes near artificial lights at night. Because of their effective camouflage, these spiders are mostly noticed when they wander onto human-made surfaces such as walls, fences, or building exteriors. Individuals can be found from spring through fall.



Golden Jumping Spider

Paraphidippus aurantius — Jumping spider family (Salticidae)

Description: These medium-sized jumping spiders are easy to recognize thanks to their bold markings and the green iridescent scales at the top of their carapace and abdomen. This coloration gives them another common name: emerald jumper. Both males and females have paired white spots on the top of a dark abdomen. Females display an orange band across the front of the abdomen with orange patches along the sides, tan scales on the sides of the carapace, and a band of white hairs below the eyes. Males are darker overall, lack orange markings on the abdomen, and have white scales on the sides of the carapace.

Where and When: Golden jumpers are primarily found in lowland vegetation including prairies, fields, and forest edges. Like other jumping spiders, they rely on keen vision, the ability to walk on smooth vertical surfaces, and strong jumping skills to stalk and capture prey. They can be observed from spring through fall, but they are most abundant during the summer months.



Dark Fishing Spider

Dolomedes tenebrosus — Fishing spider family (Dolomedidae)

Description: This species resembles a large wolf spider, but unlike wolf spiders which have four large eyes arranged in a boxlike pattern and a row of four smaller eyes, all eight of the dark fishing spider's eyes are similar in size and arranged in two distinct rows. Additionally, this spider typically rests with its long legs stretched outward. The carapace displays a brown and tan pattern that radiates from a small, dark V-shaped mark at the center. The abdomen shows symmetrical patterns in yellowish tan, brown, and black, while the rear half of the abdomen often features several zigzag markings that resemble the letter W. The legs are banded and spotted with black.

Males are smaller than females, but are fairly large and have pale borders along the carapace, as well as lighter coloring on the sides of the abdomen. Females carry their egg sacs with their mouthparts (chelicerae) until the eggs hatch.

Where and When: This nocturnal hunting spider is commonly found on tree trunks and logs near lakes, streams, and rivers, where it sits vertically with its head facing downward, prepared to ambush prey that wanders nearby. It is also found in forests and woodlands and may hide in human structures such as garages, sheds, and wood piles during the day. The species can be encountered throughout the year, though it is most often seen from spring through fall.



Six-Spotted Fishing Spider

Dolomedes triton — Fishing spider family (Dolomedidae)

Description: This large aquatic spider is generally brown, with shades ranging from greenish to dark brown. The smooth carapace may show a faint midline stripe and displays distinct white stripes along both sides that align with similar white stripes on the elongated abdomen. Males are smaller than females and have noticeably wider white stripes.

The top of the abdomen displays a series of paired white spots. However, the spider's common name comes from six black spots found on the underside of the cephalothorax (sternum) in some individuals.

Where and When: This species lives among floating and emergent aquatic plants along the edges of ponds, lakes, and slow-moving streams. It can skim across the water's surface like a water strider and is also capable of diving. A layer of specialized hairs traps a supply of air, allowing the spider to remain underwater while hunting aquatic insects and even tiny fish or tadpoles. These fishing spiders are most often seen in spring as juveniles and from summer through fall as adults.



Nursery Web Spider

Pisaurina mira — Nursery web spider family (Pisauridae)

Description: This species is a large, golden-brown spider with noticeably long, unbanded legs. Some individuals are uniformly colored, while others display a broad, brown band that extends from the front of the carapace to the end of the oblong abdomen. The band on the abdomen has wavy edges and may include small, white, dashlike spots.

The similar tufted nursery web spider (*Pisaurina dubia*) is a closely related species which can be distinguished by its long, narrow abdomen and more striped appearance. It also has a pale central stripe on the carapace that ends in a distinctive tuft of hair between the eyes.

Where and When: This species is found from spring through fall in prairies, fields, and woodland edges, often near water. These spiders are active hunters that do not rely on webs to catch prey. Instead, they sit and wait to ambush insects that come within reach. Females, however, construct a large web in low vegetation that resembles the web of a tent caterpillar. They carry their egg sac with their mouthparts until the eggs are close to hatching. They then construct and guard the web as a protective nursery until the spiderlings are mature enough to disperse.



Ground Crab Spiders

Xysticus spp. — Crab spider family (Thomisidae)

Description: These medium-sized brown spiders have compact, flattened bodies built for ambush rather than web-spinning. A wide, smooth carapace and abdomen give them a sturdy, stocky appearance, and a mottled pattern of brown, yellow, and black provides excellent camouflage. Dark and light spots often form faint lines across the back half of the abdomen. The front two pairs of legs are longer and thicker than the others. These legs are used to grasp prey and are held out to the sides, creating a crablike stance. All legs are brown and covered with small spines. Male ground crab spiders are smaller than females and tend to be darker in color.

Several crab spider species in Missouri are similar in appearance to *Xysticus* species and distinguishing them often requires close examination of small anatomical features.

Where and When: These spiders are ambush predators and can be found sitting motionless on tree bark, low vegetation, or within leaf litter in forests and woodlands, waiting to seize prey. They are most often noticed from spring through fall as they move across a trail or pathway.



Whitebanded Crab Spider

Misumenoides formosipes — Crab spider family (Thomisidae)

Description: This species of crab spider is most easily recognized by the thin, pale ridge that forms a shallow arc below the eyes in both males and females. The carapace, abdomen, and legs are smooth, with spines present only on the outer segments of the front pairs of legs. The abdomen is widest toward the rear.

Females of this species are the most often observed. They are medium-sized to large spiders and have several color forms, ranging from almost white to pale green, olive green, or bright yellow. Their legs may match the color of the body or may be maroon. Many females also have black or maroon markings on the legs, sides of the carapace, and along the sides and top of the abdomen, sometimes forming a V-shaped pattern.

The lesser-seen male whitebanded crab spiders are much smaller and have a green, red, or orange carapace. Their abdomen is red or yellowish and lacks spots. The males' front legs are black and appear excessively long compared to the rest of the body.

Where and When: These spiders are found on flowering plants in prairies and fields. They often occupy flowers that match their own colors, allowing them to remain well hidden while waiting to ambush prey. They can be encountered from late spring into fall.



Northern Crab Spider

Mecaphesa asperata — Crab spider family (Thomisidae)

Description: This small to medium-sized crab spider is covered with many spiny hairs on the upper surfaces of both the carapace and abdomen. The carapace is pale green or yellow and marked with two brown bands. The abdomen is somewhat angular, tan in color, and patterned with brown or reddish markings. The front two pairs of legs are banded with many spiny hairs.

Where and When: This crab spider is typically found on flowering plants in prairies and fields from spring through fall. It waits on blossoms and foliage to ambush passing insects.



White-Striped Running Crab Spider

Philodromus rufus — Running crab spider family (Philodromidae)

Description: This small spider is generally orange in color, ranging from yellow-orange to golden brown. The carapace has orange-brown sides with a wide yellow band running down the center. The abdomen is similarly colored, from orange to brown, and is often paler on the top compared to the sides. The legs are yellow to tan and are all similar in length. The entire spider — including the carapace, abdomen, and legs — is covered with short, fine hairs.

Where and When: Running crab spiders are well-named for their ability to dash quickly while hunting or escaping predators. They are skilled climbers and can move easily across smooth leaf surfaces in forests, fields, and landscaped areas where they live. They may be found throughout the year, but they are most commonly seen during the warmer months.



SPIDERS AND PEOPLE

Spiders are diverse and abundant throughout Missouri, which means that, whether we like it or not, we share our environment with them. Many people dislike spiders. But both general discomfort and the stronger reaction known as arachnophobia are learned rather than inborn. These feelings often develop through experiences such as having an unpleasant encounter with a spider, watching others panic when a spider is seen, hearing misinformation about spiders, or seeing spiders portrayed as frightening in movies and media. Over time, these influences teach people to react with fear even when there's little risk. Yet many individuals become more comfortable with spiders after learning accurate information, spending time with people who appreciate spiders, or having positive interactions with harmless species. This shows that these fearful reactions are shaped by experience and can change with new learning.

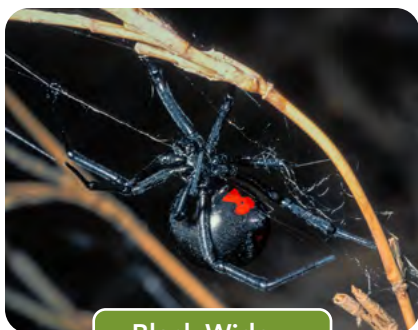
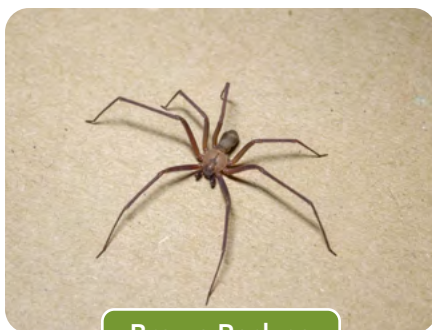


A harmless wolf spider and students eager to interact.

Spider Bites

Many people fear spider bites, yet few Americans are actually bitten, and deaths from spider bites are exceedingly rare. Fatalities occur only in individuals with severe allergic reactions or weakened immune systems. Although almost all Missouri spiders produce venom, only a small number have fangs capable of piercing the human skin. Since the symptoms of insect bites as well as bacterial infections may be confused with spider bites, a true spider bite can only be medically confirmed if the spider is seen and correctly identified.

No spiders in Missouri are aggressive toward humans. Bites generally occur only when a spider is accidentally pressed against the skin. The venom of most spiders found in Missouri is harmless to humans, causing only mild irritation, swelling, or discoloration similar to an insect bite. Of the two types of spiders with venom that can be medically harmful — the widow spiders and the brown recluse — the brown recluse is more commonly encountered because it is more likely to reside in human dwellings.

**Black Widow****Brown Recluse**

Reducing the Risk of Spider Bites

Although the chance of being bitten by a venomous spider is extremely small, you can lower the risk by following these guidelines:

- Keep cellars, rooms, and closets vacuumed, clean, and free of clutter. Spiders are less likely to remain in areas that are frequently disturbed.
- Shake out clothing, blankets, and towels if they have been stored in places where spiders may be present.
- Look carefully before reaching into boxes, lumber piles, window wells, under rocks, or unused cabinets and drawers.
- Use sticky glue traps along walls and under furniture to monitor and control spider activity. Pest-control sprays are often expensive and require repeated applications to be effective.
- Prevent spiders from coming inside by caulking cracks and crevices on the outside of the house.
- Watch for the tangled webs of widow spiders around outbuildings, storage units, old tree trunks, or cabins that are not regularly used.

First Aid for Spider Bites:

- Call the Missouri Poison Center at 1-800-222-1222 or seek other qualified medical attention.
- Wash the bite site with soap and water.
- Apply a topical antibiotic to reduce the risk of infection.
- Collect the spider or spider remains, if possible, for expert identification.

SPIDER CONSERVATION AND RESEARCH

A key goal of conservation is to protect the full range of biological diversity, including spiders. Research shows that spiders are a vital strand in the complex ecological web of which we humans are a part. They play an important role in sustaining the ecosystems we depend



Arboreal orbweaver

NOPPADOL PAOTHONG

on for health and well-being. Thus, by protecting spiders, we are also helping ourselves. Through continued research we can deepen our understanding of spiders and how best to conserve them.

Current spider research includes studies in classification (systematic taxonomy), species diversity, ecology, behavior, sensory abilities, evolution, silk, and potential contributions to technology and medicine.

Surveys that collect data on spider populations and species distribution are important for identifying species of conservation concern as well as for designing comprehensive landscape management strategies that support a broad range of conservation goals.

Unfortunately, spider populations are declining worldwide, including in our own country. This decline is linked to an overall reduction in insect populations, the primary food source for spiders. The causes of these declines are the same as those driving other forms of biodiversity loss. They include habitat loss, widespread pesticide use, the introduction of nonnative species, and the impacts of global climate change.

People can take several actions to help protect beneficial insects, butterflies, bees, native pollinators, and spiders:

- Plant flowers and grasses native to Missouri.
- Limit the use of pesticides.
- Leave plant stalks standing through winter and spring.
- Allow fallen leaves to remain on the ground.
- Educate others about conservation.

LEARN MORE ABOUT SPIDERS

Online Resources for Help with Spider Identification

iNaturalist.org

BugGuide.net

MDC's Online Field Guide: ***mdc.mo.gov/field-guide***

Search our online Field Guide for more information on Missouri's spiders and other species. This digital collection boasts more than 1,700 entries with facts, images, and links to help you identify and learn about our state's plants, animals, and fungi.

Print Resources

Common Spiders of North America by Richard A. Bradley.
Berkeley: University of California Press, 2012.

Spiders and Their Kin: A Fully Illustrated, Authoritative, and Easy-to-Understand Guide by Herbert W. Levi and Lorna R. Levi.
New York: St. Martin's Press, 2001.

Spiders of North America by Sarah Rose. Princeton:
Princeton University Press, 2022.

Grayish jumping spider





WHITEBANDED CRAB SPIDER



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