

# COMMON SPIDERS OF OHIO field guide WHEBULIFE DIVISION OF WILDLIFE

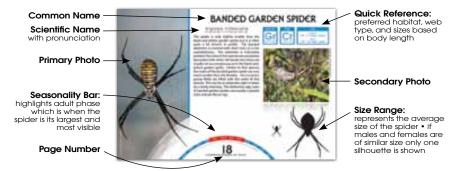


#### INTRODUCTION

### HOW TO USE THIS BOOK

Common Spiders of Ohio Text by: Richard A. Bradley, Ph.D

It seems that everyone has an opinion of spiders. Either they admire their intricate and beautiful webs, appreciate their important role in the control of pest insects, or despise them out of fear or misunderstanding. Much of what you may have heard about spiders could be based upon reputation rather than fact. This booklet will provide you with a basic introduction to the spiders of Ohio, including their life histories, behaviors, and habitats.



#### ARANEOMORPHAE SUBORDER

This suborder is the world's largest, 38,500 spiders in 94 familes, and includes the vast majority of commonly encountered spiders. Many species are large, conspicuous, and colorful, such as the garden spiders. A number of species also make complex, obvious webs. Most spiders within this group are short-lived, surviving for less than a year. Almost all of Ohio's 624 spider species fall within the Araneomorphae.

#### MYGALOMORPHAE SUBORDER

A large, diverse suborder containing about 2,500 species in 15 families. Mostly tropical and subtropical; only six species are known from Ohio. The Mygalomorphae includes incredible variation, from the gargantuan goliath bird-eating spider (*Theraphrosa blondi*) of South America, with its 10 inch leg span, to other species measuring less than three millimeters. Some species can live to 20 years or more.

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## SYMBOL INDEX

#### **WEB TYPES**

All spiders possess the ability to spin silk. Some only use the silk to protect their eggs, build a simple retreat, or as a safety line when jumping. Other spiders have up to seven distinct types of silk that they use for specific purposes. Silk is extremely strong and elastic. This combination of tensile strength and stretchiness combine to give spiders amazing stopping power to catch flying insects whose mass is much greater than the web.



**Sheet:** relatively flat shape with dense irregular lines.



**Orb:** circular shape with parallel lines, an architectural appearance.



**Retreat:** tube shape large enough for the spider, with no attended capture web.



**Funnel:** sheet web shape that funnels down to a tube shape or reteat.



**Tangled:** irregular shape with multi-directional lines, also called cobwebs.



**None:** no capture web or retreat used.

#### PREFERRED HABITAT



Forests: mature trees, dense understory, debris covered floor



**Wetlands:** humid areas usually near bodies of water.



**Shrubbery:** bushes, young trees, tall brush.



**Grasslands:** tall grass areas, prairies, farmlands, open fields



**Structures:** houses, garages, barns, gardens, urban areas, and cities.



**All:** found in all or nearly all of Ohio's habitats

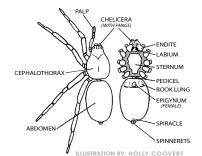
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## WHAT IS AND ISN'T A SPIDER

It is easy to confuse spiders with animals that resemble them. The group most frequently mistaken for spiders are the These animals, sometimes harvestmen. called "daddy-long-legs," are related to spiders, and like spiders they are classified as arachnids (Class Arachnida). Another group of arachnids, the mites and ticks are also sometimes confused with spiders.

Spiders differ from these other arachnids by virtue of their body being divided into two regions separated by a narrow connection called a *pedicel*. The front part of a spider's body is a combination of the head and thorax called the *cephalothorax*. This part usually bears four pairs of eyes, four pairs of walking legs and a pair of smaller leg-like palps at the front. Also at the front are paired mouthparts that have a stout base and a moveable fang. The fangs are used to grasp and bite prey. Spiders also possess finger-like



appendages at the back of the body on the abdomen. There are typically three pairs of these structures, called spinnerets. They have dozens to hundreds of tiny spigots on their tips where silk is secreted. The spinnerets are sometimes short and blunt, but occasionally long and flexible. They can be important features for identification.

Harvestmen have very long, almost impossibly thin legs. They often shed their legs when grasped, but if they are intact they

too possess eight. The body of harvestmen is compact and somewhat football-shaped with all three body regions broadly fused into one part. Atop the body is a single pair of relatively large protruding eyes. The harvestmen have both palps and tiny mouthparts, but they do not bite humans and have no venom. Harvestmen are predators or scavengers, harmless to humans and pets.

Mites and ticks are somewhat similar in appearance to harvestmen, in that the body appears to have one region without a constriction. If eyes are present, they are usually tiny and inconspicuous. Many mites are external parasites of animals, while others feed on plants. Many are tiny predators or scavengers in the soil. Ticks are parasitic and occasionally feed on humans and pets. A few ticks can be vectors of disease.







## SPIDER LIFE CYCLE

All spiders develop from eggs laid in a silk case. The spiderlings emerge from the case, huddle together for a few hours or days, then disperse. Dispersal in spiderlings is often via ballooning, a form of flight. The tiny spiders climb up to the tip of a twig, leaf or other object, turn to face the breeze then release a few strands of silk. As the silk is drawn out, it produces enough force to pull the spider from its perch into the air. The process is much like flying a kite. Typically spiders choose calm

roadside strips, but these are supplemented by arriving ballooning individuals.

Some spiders are wanderers, but many establish a web in a suitable microhabitat and spend the rest of their life there. As they capture prey, they grow through a series of molts. The old exoskeleton is shed, and a new slightly larger one replaces it. Finally after about 5-10 molts, a spider becomes an adult. Sometimes with close observation we can

or nearly calm sunny days for ballooning. The gentle rising air currents created by the sun heating the ground are usually sufficient to carry the spiders aloft. There have been cases of spiders being captured in air samples taken thousands of feet above the ground. Ballooning spiders may travel only a few yards, but some are transported many miles. In fact, there is probably a gentle "rain" of spiders across the Ohio landscape during the warm months of the year. It has been observed on many occasions that the first arrivals to barren ground after a volcanic eruption, fire or similar catastrophe are almost always ballooning spiders. In a similar way, spiders re-populate plowed fields in the spring. Undoubtedly some arrive on foot from adjacent untilled hedgerows and

recognize the spiders that are nearly adult, perhaps one molt away, by the possession of rudimentary reproductive structures. In the females there is often a dark or contrasting patch near the front on the underside of the abdomen. In males, the last segment of the palps swell to appear like miniature boxing gloves. Spiders that possess these developing reproductive structures are said to be "subadult." The final molt into adulthood signals a major change in the behavior of spiders. While females of web-building spiders may stay in the same area that they grew up in, the males often take up a wandering existence. They

Long-bodied cellar spider,
Pholcus phalangioides, holding egg case.
PHOTO BY: RICHARD BRADLEY

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search for recently matured females. Even males of ordinarily sedentary web-building species wander to seek out potential mates.

When the male locates a female he will court her. For many spiders the males use chemical cues, special odors called *pheromones* to locate the females. These chemical cues may even be present in the silk web, or drag lines of females. For example, some wolf spider

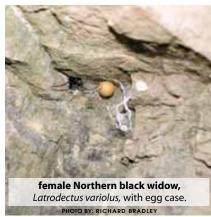


males find the females by following her silk drag lines. When a male encounters a female, he usually begins to court her immediately. This courting may involve a combination of plucking the web, vibrating or waving his palps and legs, producing soft sounds by stridulation (rubbing two body parts

together). Some spiders even tap the surface of the substrate (leaf, ground) with their legs or body to produce the courtship sounds. Some species of diurnal spiders, especially the members of the jumping spider family, use brightly colored body parts in their courtship displays. Watching courtship in jumping spiders can be fascinating. The male jumpers may wave their legs, their palps or even show the colorful fang-bases to provide the female with courtship cues.

If the female accepts the male, they will mate. The male has previously transferred his sperm into a reservoir in his palps. He reaches out to the female and inserts a syringe-like structure of the palp into her reproductive opening and pumps in the sperm-laden fluid. After mating, the pair usually separates. Typically the males provide little parental care. Females will continue to feed, adding yolk to the eggs. The abdomen swells noticeably in gravid females. At the appropriate time the female will spin a special platform of silk upon which she deposits the eggs. She will then cover the eggs with a series of layers of soft silk padding, a tough outer covering and finally attach the egg case in a suitable location. For some spiders, this is the end of their contribution; they leave the eggs to hatch and emerge on their own. Other spider females may carry the egg case with them

until the young emerge. An example of this is the wolf spider. Yet a third strategy is to wait near the egg case for the young to emerge. One family of spiders, the nurseryweb spiders, actually build a silken retreat under a folded leaf and place the egg case there when the young are about to emerge. The female remains near the nursery web, presumably



providing some protection against potential predators or parasites. For spiders that lay eggs in the late autumn, the female may die with the arrival of frost. The eggs are capable of surviving the freezing weather and hatch in the spring.

### SPIDER WEBS & SILK

COMMON SPIDERS OF OHIO



All spiders possess the ability to spin silk. Some only use the silk to protect their eggs, or build a simple retreat. Other spiders have up to seven distinct types of silk that they use for specific purposes. Some silk is sticky, other silk is not. Silk is extremely strong and elastic. This combination of tensile strength and stretchiness combine to give spiders amazing stopping power to catch flying insects whose mass is much greater than the web. The most fascinating thing about spiders may be their webs. These can be round webs with concentric spirals of silk of perfect architectural beauty, or messylooking tangles.

In the familiar circular orb web, only the spiral strands are sticky. The radial spokes, the hub where the spider often waits, and the supporting frame threads are all built of non-sticky lines. Each type of spider uses a very specific method to build her web.

The orb-weaving spiders often re-build their web each day. First the frame of strong non-sticky threads is attached to surrounding vegetation or other supports. The spider spins a new line parallel to the top line of the support frame which is left slack. Then she moves to the center, her weight pulling the slack line down, attaches a new line and drops to the bottom of the web area, thus forming a triangle. This will become the first portion of the radial spoke structure. She then works from the hub adding additional radial strands, pulling each taut before attaching it to the support frame. When there are a sufficient number of radials, she begins to spin a temporary spiral. The number of radials and the spacing of the final sticky spiral threads are fairly consistent for each species of spider. She will usually work from the center outwards, stepping around the web using her legs to assist in pulling silk out of her spinnerets and attaching it to the next radial. This non-sticky temporary spiral serves to hold the developing round web in position so that the final sticky spiral can be placed correctly.

The sticky spiral is laid down with remarkable precision, with silk drawn out carefully from the spinnerets using a leg to gauge the distance from the last line. The spider begins construction of the sticky spiral at the outer edge and works toward the central hub. This sticky silk is secreted from different glands (aggregate glands) than the other parts of the orb. As she spins new webbing, she removes and eats the temporary spiral threads. The movements of the spider are both careful and repetitive, resembling a slow-motion dance. of our most common orbweavers is even called the arabesque orbweaver (Neoscona arabesca) because she spins her web with movements suggesting a tiny dancer. The

amount of sticky glue, a distinctive type of silk, is precisely gauged. The entire process usually takes only about an hour, sometimes less. This is important because the web may need to be replaced because of damage each day. Most orbweavers do replace at least the sticky spiral each day because the stickiness gradually fades as the silk dries out and gets clogged with dust and pollen. Spiders usually eat the old silk and have been shown to recycle the silk proteins quite quickly into new silk.

Even the superficially messy tangle webs are built with care. Some members of the cobweb weaver family (Theridiidae) are famous for their "gumfoot" webs. The spider

Webs of a bowl and doily spider,
Frontinella communis.

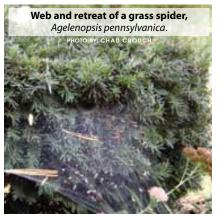
PHOTO BY: RIGHARD BRADLEY

adds special strands of silk from the central tangle down to the substrate, each of which has two important features. At the point of attachment to the substrate there is an intentional structural weakness. Just above the attachment points are droplets of sticky glue. The entire thread is stretched so that it is held under tension. When a walking insect, or other prev animal, bumps into the thread it sticks to the glue drops. Struggling to free itself, the prey breaks the strand at the weak spot and the tension catapults the prey into the air, stuck firmly to the gluey strand. The spider typically rushes down to the helpless captive and wraps it with additional silk. Once the victim is completely immobilized, the



spider bites it, injecting paralyzing venom, and then commences feeding.

Many other animals take advantage of silk that they scavenge from spider webs. Hummingbirds use large amounts of silk in their tiny nests. The properties of silk are important for the hummingbird because the nest is built only large enough for the eggs and incubating female. The silk's elastic qualities allow the nest to stretch to accommodate the growing young hummers, yet still provide a snug fit. Blue-gray gnatcatchers use spider silk to wrap their nests too, taking advantage of the stickiness of the silk to glue tiny bits of bark and lichen to the outside of the nest for camouflage.



## SPIDER VENOM & BITES

In Ohio, all but one of our spiders possess venom, but their venom has little effect on humans or pets. There are several reasons for this: the amount of venom in a spider is tiny and their venom is adapted for subduing insect prey. Our large size and our physiology, which is very different from an insect's, protect us. Only two groups of Ohio spiders, the black widows and the recluse spiders are considered dangerous to humans. Fortunately for us, these spiders are relatively uncommon in Ohio.

frequently While spider bites are suspected, and often diagnosed, they are actually rare. Many wounds, particularly those with a persistent blister or unhealed

patch are mis-diagnosed as spider bites. In truth, it is often difficult or impossible to determine if a wound was caused by a spider. The fangs rarely leave any visible puncture wounds (bites would involve both fangs producing two tiny holes). In true spider bites these tiny punctures are so close together that the tissue damage from the venom would very likely cause the wound to merge into one spot. Spiders have no reason to bite humans - if they do, it is in self defense. This might happen if the spider has taken up temporary residence in a glove finger, tiny space under a box, or perhaps in a crumpled article of clothing. When the unsuspecting human thrusts a hand into the glove or dons the clothing, the spider is crushed against

the skin and bites in self defense. Often the spider is crushed and killed. With care, the crushed spider can be located where the bite occurred

A recent alarming increase in slowhealing wounds related to a variety of bacterial infections (for example MRSA) has produced a large number of mis-diagnoses of "spider bite." Doctors and other medical personnel are now beginning to realize that spider bites are quite rare, and the medical literature includes a number of recent reports of bacterial infections that were initially, and incorrectly, reported as spider bites. If no dead or injured spider can be found, or if there is a repeated incidence, spider bite is not likely to have been the cause of an unexplained wound. Much more likely causes are insect bites or stings, chigger bites, or bacterial infections that began with a tiny puncture wound. Despite these facts, many



#### A male jumper spider, Hentzia palmarum, eyeing its next meal. PHOTO BY: THOMAS SHAHAN



### SPIDERS & WASPS

COMMON SPIDERS OF OHIO

Spiders have many enemies and just as they are highly predatory, spiders in turn are preyed upon. Birds such as Carolina wrens are spider hunters, ferreting around in wood piles, sheds, and under eaves in search of arachnid prey. Many other songbirds grab spiders when the opportunity arises, as do a variety of small mammals, insects, and centipedes.

Perhaps no predator/prey relationship is more specialized than that of spider-hunting wasps. There are many species of wasps that have evolved to the degree that certain spider species are essential to completing their life cycle. There are representatives of spider wasps in at least two families in Ohio, probably totaling over a dozen species.



The most conspicuous and well known spider wasps are pipe organ mud daubers, *Trypoxylon politum*. These large blueblack wasps construct elaborate series of mud tubes, often on the exterior walls of buildings. Each "pipe" is cross-partitioned into small chambers, and these are provisioned with spiders collected by the female. She does not kill the spider; rather she paralyzes it with neurotoxin injected by a sting. The mud dauber then lays an egg in the chamber before sealing it. When the wasp grub emerges, it is assured of a fresh supply of food.

A particularly fearsome species is the "wolf spider wasp", Entypus unifasciatus. Females are large and black, with prominent yellowish-orange wing spots, which they constantly flick. Wolf spider wasps walk rapidly about the ground, searching for victims. When a suitable spider is found, the wasp seizes and stings it in a seemingly impossibly fast movement. The paralyzed spider is then drug up to 130 feet across the ground to a pre-made burrow. The wasp then entombs the arachnid after laying an egg on it. After fattening up on the spider, the wasp grub will pupate and emerge the following season as an adult wasp.



## DISTRIBUTION & CONSERVATION

#### SPIDER DISTRIBUTION

Spiders are found nearly everywhere. There are 40,700 known species worldwide. We have a diverse and interesting spider fauna in Ohio comprised of over 620 species. Many of these spiders never grow very large and spend their entire lives unnoticed. For example, one group of spiders, the sheetweb weavers of the family Linyphiidae, includes 125 species in Ohio but are rarely noticed because individuals of most species grow to less than 2 mm (1/16") in length. They live near the ground, often under our feet in the loose leaves of a forest floor or the thatch

of our backyard lawn. These tiny creatures perform an important role as predators on miniscule prey. Our largest spider in terms of legspan is probably the Carolina wolf spider which is now quite rare in Ohio, but can grow to a body length of nearly 1.5 inches and a legspan of over 4 inches. On the other hand, our smallest spider is probably the dwarf hunting spider that is only 1 mm long (<0.04"). The purpose of this booklet is to introduce you to the variety of spiders in Ohio and help you learn to recognize some of the most common species.



#### SPIDER CONSERVATION

Many spiders, in particular species that thrive in agricultural fields or disturbed habitats, are probably doing guite well in Ohio. A number of spiders coexist with us because they have adapted to life in buildings, suburban lawns, and gardens. On the other hand, some spiders that were common in Ohio are now quite rare. Rare spiders are typically the species who specialize in habitats that are no longer common. Among these species are the larger burrowing wolf spiders of open fields and prairies. For example, the Carolina wolf spider

used to be common. When William Barrows wrote the first check-list to Ohio's spiders he stated that this species was "Probably the commonest burrowing spider in Ohio." No members of this species have been documented in Ohio since 1953. Possible causes of this species' decline is the influence of persistent cultivation and the modern tendency to leave very few fields fallow, the widespread removal and/or mowing of fencerows, and field-edge habitats where the spider once thrived. Other spiders are habitat specialists and exist only in the few places that suit their needs. In 1994 the Ohio Spider Survey was initiated to determine the status of all spider species throughout Ohio. This effort is ongoing and volunteers are encouraged to get involved. You can submit specimens, good photographs or even join a group doing a local bioblitz near your home. Visit wildohio.com and click on Wildlife Resources. From there click Research & Surveys and near the bottom of the page under Research Projects with the Public you'll find the spider survey link.

## WHAT GOOD ARE SPIDERS?

Spiders are remarkably common. Most of us are unaware that spiders are present, even common, almost everywhere. A relatively small number of species are nearly always found living in or around humans or their structures. These human-adapted spiders feed on each other as well as the inevitable insects who wander into our buildings. Many more species of spiders occasionally wander into houses, often causing concern. The common house spiders in Ohio are not dangerous to humans or pets. Outdoors,

spiders represent the most numerous small predators. Estimates of spider density in natural habitats can be astounding. One careful study found that there were hundreds of thousands of spiders per acre of woodland. Of course, most of these were immature individuals or tiny species. Nevertheless, the has a controlling effect on insect populations. Thus spiders are a very important link in the food web.

A number of scientific studies have established that spiders play an important role in the control of pest insects in agricultural fields and orchards. While they cannot completely control explosive pest outbreaks, spiders tend to dampen fluctuations in pest insect populations. Even the few spiders that share our buildings are probably an important limiting factor on indoor pest insect infestations.





### **GRASS SPIDER**

Agelenopsis pennsylvanica Ag-el-in-op-sis pen-sil-van-ih-ka

The grass spider is one of the most familiar Ohio spiders. They are common throughout the state. There are five species, all very similar in appearance. The species discussed here is the most common, widespread form. Juvenile spiders emerge from the egg case in spring and begin constructing miniature versions of the typical web. Throughout the summer the web is enlarged, and by late summer it can be guite large. The adults are found in the late summer and autumn. The web is a fairly dense sheet of criss-crossing threads with a distinct funnel-shaped retreat at one end where the spider waits, just in the shadows. The retreat is open at the back, and if pursued the spider can escape into the leaf litter below or behind the funnel. Sometimes the web has a thin tangle of threads above the sheet. These act as "knockdown" threads to flying insects. After hitting these threads, the flying insect tumbles onto the sheet and is attacked by the spider. The silk of the tangle and sheet are not adhesive. The spider depends upon lightning reflexes to dash out and grapple with prey on the sheet. After subduing the prey, the spider typically returns to the retreat, out of view, to consume its meal.





FEMALE: 3/4" (20mm) MALE: 3/8" (15mm)







### HOUSE FUNNEL WEAVER

Tegenaria domestica Teg-en-ar-ee-ah • do-mes-tih-ka

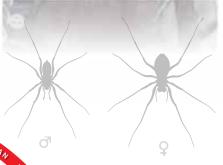
This spider is quite common in buildings in Ohio, but it is seldom seen. They hide in cracks and out of the way areas of the house, basement or garage. Their web is a sheet connected to a retreat by a funnel-shaped tunnel. Typically the web grows stronger and larger as the spider grows. It continues to add material to the sheet throughout the year. The house funnel spider is a member of a genus of spiders famous for a large species introduced to northwestern North America in 1930. This larger species is called *Tegenaria agrestis*. Many people assume that the specific name refers to aggression, but it does not. The name means "of the fields." In the Seattle area Tegenaria agrestis is considered a pest because it occasionally bites humans. The House Funnel Weaver is not aggressive and does not usually bite humans. It is generally considered to be a harmless spider. Because this spider looks quite similar to T. agrestis it generates many false reports of that species from Ohio, despite the fact that there are no valid records here. The house funnel weaver is also found in outbuildings, particularly barns. Another common name for this spider is barn funnel weaver.





FEMALE: 1/3" - 3/8" (9 - 10mm) MALE: 1/4" - 1/3" (6 - 9mm)





JUN JUL AUG SEP OCT NO

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### HACKLED-MESH WEAVER

Callobius bennetti
Call-oh-be-us • ben-et-eye

This spider is most often found among rocks, in cracks in rock walls, or under rocks or logs on the forest floor. It prefers relatively humid habitats. The spider is fairly large and heavybodied with relatively short legs. It typically freezes when disturbed. This species can be recognized by its generally very dark brown color with a series of light-colored chevrons on the top of the abdomen. If the web extends away from the rocky lair, it is often a messy irregular tangle with zig-zag connections. This is typical of spiders with a *cribellum*, an unusual type of spinneret where hundreds of very fine threads are produced. The spider spins this fine webbing into the zig-zag portions of the web. They are not gluey, but adhere much like Velcro, to the subtle texture of the prey's body parts.





FEMALE: 1/3" (9mm) MALE: 1/4" (7mm)









MAY JUN SEASONALITY: ANY MONTH OF THE VEAR OF OHIO



### ARABESQUE ORBWEAVER

Neoscona arabesca Nee-oh-sko-na • air-ah-besk-ah

This species is probably the most common and widespread orbweaver in Ohio. They are a medium-sized spider with an adult body length just over 1/4 inch. They are found in suburban vards and parks as well as woods and fields. The web is typically built fairly close to the ground, in low shrubs or trees. Most individuals show a series of thin black spots on either side of the central pattern on the abdomen. Some individuals are plain in color, either light brown or even orange. It is not unusual to see them out even at mid-day. Because of their abundance and diurnal (daytime) behavior they are often seen while building their orb webs. The web is a complex series of repetitive geometric forms. The spider's movements as she adds the spiral threads resemble a ballerina's careful dance. hence the name "arabesque."





FEMALE: 1/4" (6.5mm) MALE: 1/4" (7mm)







MAY JUN SEASONALITY: JULY TO OCTOBER DE



### ARROW-SHAPED MICRATHENA

Micrathena sagittata My-kra-thee-na • sag-ih-tate-ah

This is one of the most distinctive spiders found in Ohio. The shape of the abdomen resembles an arrowhead. In addition to the triangular shape, the colorful spikes and projections differ from the somber black and white of the spined micrathena. Like that species, arrowshaped micrathena build low in the understory between bushes and occasionally across trails. They prefer moist woods, sometimes near creeks or streams. The tiny males of this spider are so different in appearance from the female that it is hard to recognize them as belonging to the same species.





FEMALE: 3/8" (8 - 9mm) MALE: 1/8" - 1/4" (4 - 5mm)



▲ most spiders hang head down





LONG SEP OCT NOV SEASONALITY: LATE-JULY TO EARLY OCTORS OF OHIO



### BANDED GARDEN SPIDER

Argiope trifasciata Ar-je-oh-pe • tri-fas-ee-ate-ah

This spider is only slightly smaller than the black-and-yellow garden spider, but it is often quite a bit thinner in profile. The banded abdomen is covered with silver hairs, as is the cephalothorax. The abdomen is noticeably pointed. The web of this species is sometimes decorated with white silk bands, but these are usually not as conspicuous as in the black-andyellow garden spider. Similar to that species, the males of the banded garden spider are much smaller than the females. On occasion grassy fields are filled with banded garden spider webs. Scores of dew-covered webs create a spectacular sight at dawn on a misty morning. The distinctive egg cases are usually a grayish color and are flat on top.





FEMALE: 5/8" - 1" (15- 25mm) MALE: 1/8" - 1/4" (4 - 5mm)



▲ female eating a grasshoper

JUL AUG SEP OCT NOV OF COMPACTIVE LATE-JUNE TO EARLY, NOVENBER

COMMON SPIDERS OF OHIO

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#### BARN ORBWEAVER

Araneus cavaticus
Ah-ran-ee-us • ka-vat-ih-kus

Barn orbweavers rank high among our most spectacular orb-weaving spiders. The spider is large and often builds its beautiful circular web between a rock wall or building and the ground. The support for the web may stretch 10 feet or more. The orb may be several feet in diameter. On occasion they can be found in groups, such as over 100 barn orbweaver webs along one rock face in the Hocking Hills. This species was likely the star of the children's book Charlotte's Web. Author E.B. White gave this hint;

"My name," said the spider, "is Charlotte." "Charlotte what?" asked Wilber, eagerly. "Charlotte A. Cavatica. But just call me Charlotte."

Of course the code is the name Charlotte A. Cavatica, it is no coincidence that the common barn spider is our very own Araneus cavaticus, which was called Aranea cavatica when the book was first published in 1952, before the Latin was corrected. As indicated in Charlotte's Web, adult female barn orbweavers typically lay their eggs in autumn and die with the first hard frosts. In some years, a few of the females survive the winter and can be found again in early spring.

COMMON SPIDERS OF OHIO

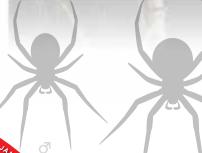
MONTH OF THE YEAR





FEMALE: 1/2" - 7/8" (13 - 22mm) MALE: 3/8" - 3/4" (10 - 20mm)







### BLACK & YELLOW GARDEN SPIDER

Argiope aurantia Ar-je-oh-pe • ar-an-te-ah

This is perhaps the most conspicuous spider in Ohio. The large females are found in gardens and fields in late summer and survive until the first killing frosts of autumn. They are very large, with a leg span of nearly 2 ½ inches. The female is familiar and obvious; the male is tiny and inconspicuous. If you find a female during mid-summer, check nearby for one or more small males in webs close to hers. These suitors compete to mate with her, and the victor often guards her from other males. The large orb webs are often decorated with a vertical zig-zag of bright white silk. The favorite prey of adult female black-and-yellow garden spiders are grasshoppers. When a large, powerful prey item like a grasshopper hits the web, the spider rushes out and rapidly wraps it in thick layers of silk. It spins the prey with two pairs of legs while playing out sheets of silk from the spinnerets. The egg case is often suspended from silk lines in a sturdy bush. The case is about the size of a grape, tan in color and somewhat oval in shaped. When the tiny young spiderlings emerge from the egg case in spring they are bright yellow.





FEMALE: 3/4" - 1 1/8" (19 - 28mm) MALE: 1/4" - 3/8" (5 -9mm)



JUN JUL AUG SEP OCT NOV OF COMMON SPIDERS OF OHIO



#### **BOLAS SPIDER**

#### Mastophora hutchinsoni Mas-toe-for-ah • hutch-in-son-eye

The bolas spider gets its name from the amazing way it hunts. Early in the evening the spider moves to the low branches of a tree and spins a few lines of silk to hang from, then prepares a single line with a drop of glue on the end. She does this by combing out new glue from her spinnerets until she has a large droplet at the end of a short line, then she waits. If a moth flies in close she hurls the line with its glue ball at the moth. The glue sticks fast and the moth is tethered. All that is left is for her to reel in the line and grasp the moth. The question immediately arises: why would a moth fly close by? The answer is that the spider produces a perfume that is a perfect imitation of the sexual attractant pheromone produced by female moths. This was discovered when scientists noticed that the bolas spiders catch only adult male moths. The name bolas actually refers to the similarity of the glue ball on a silk strand to the line-and-ball weapon employed by the gauchos (cowboys) of the South American pampas. During the day the bolas spider sits motionless on a leaf, and its body somewhat resembles a bird dropping, providing camouflage.





FEMALE: 1/2" (12 - 13mm) MALE: 1/16" (2mm)





TY: EARLY-AUGUST TO OCTOBER



### **CROSS SPIDER**

#### Araneus diadematus Ah-ran-ee-us • dv-ad-em-at-us

Cross spiders were accidentally introduced into the New England area from Europe more than 100 years ago, and more recently to the Pacific northwest. In Ohio, it occurs in the northeast corner of the state, spreading to the southwest as far as Marion County. The very large webs of this species have been found around houses, in particular, open porches. These spiders mature in late summer or autumn. There are a number of color varieties, the most common being a beautiful orange with white markings (the cross). The base color is sometimes tan, rusty, or even brown. This species can be distinguished from our other large orange orbweavers by the prominent "shoulders" on the abdomen that give that part of the body a somewhat triangular appearance.





FEMALE: 1/4" - 3/4" (6 - 19mm) MALE: 1/4" - 1/2" (6 - 13mm)







### FURROW ORBWEAVER

Larinioides cornutus Lar-in-ee-oh-eye-dees • cor-nu-tus

This orbweaver is one of the few that frequently survives the winter. As a result, it is one of the earliest large orbweavers of the spring. They are extremely common near the shores of lakes, particularly Lake Erie, but occur throughout Ohio. The abdomen appears relatively smooth and shiny, quite different from the typically dull fuzzy abdomen of many orbweavers in Ohio. They are sometimes seen in their webs during the day, but are most often found in the late evening as they re-build the web for nocturnal hunting. The spiral circles of the orb are fairly widely spaced, giving it a thin open appearance. This species is common throughout the Northern Hemisphere.





FEMALE:
3/8" (10.5mm)

MALE:
5/16" (8mm)



▲ male searching for female







### LABYRINTH ORBWEAVER

Metepeira labyrinthea
Met-eh-py-ra • lab-ih-rin-thee-ah

Labyrinth orbweavers build a fairly typical orb web, but with an unusual twist. It creates a tangle of webbing, a complex labyrinth, directly adjacent to the orb. Then the spider builds a central retreat in the tangle using a folded leaf. This retreat hangs below a central strand with a trash line of bits of dead prey, dead leaves, and even egg cases. This is a bit like the strategy of the trashline orbweaver. The labyrinth orbweaver then hides in the retreat holding on to a strand of silk that is attached to the hub of the capture web. If a prey item flies into the orb, the struggling vibrations are passed up the "signal line" to the waiting spider. She then rushes out and captures the victim. This spider is common throughout Ohio, even in suburban yards. The labyrinth web is usually built where small shrubs and trees provide an appropriate niche.





FEMALE: 1/4" (5.9mm) MALE: 3/16" (4.3mm)



▲ female at entrance to retreat





SONALITY: LATE-JULY TO LATE



### MARBLED ORBWEAVER

Araneus marmoreus
Ah-ran-ee-us • mar-mor-ee-us

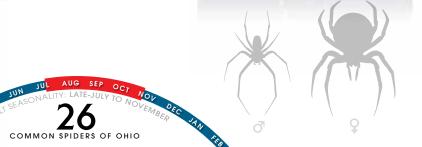
Brightly colored marbled orb weavers rank among our showiest spiders. Early in the summer they are pale or yellowish juveniles with inconspicuous markings. As they mature, the abdomen becomes vellow with a black marbled pattern. Some people think the marbling resembles a face. Around Halloween, the maturing females' abdomen often becomes bright orange. The appearance of these bright orange spiders at Halloween often generates comments from observers. Marbled orbweavers feed at night and are usually hidden in a folded leaf retreat during the day. Even while in the retreat, the spider typically holds a signal line that is attached to the capture orb. Their webs are found in understory shrubs or the low branches of trees, sometimes guite near the ground. Mature orange females are conspicuous in late fall as they search for a good spot to place their egg case.





FEMALE: 3/8" - 3/4" (9 - 19mm) MALE: 1/4" - 3/8" (6 - 9mm)







### SHAMROCK ORBWEAVER

Araneus trifolium
Ah-ran-ee-us • tri-fol-ee-um

The cephalothorax of this species typically has three dark stripes, separated by lighter lines. This large orbweaver has distinctively banded legs, the dark bands are often dark brown or black and matching the primary color of the head stripes. The abdomen color is guite variable, sometimes very pale with nearly indistinguishable white markings. Occasionally the abdomen is green with white markings, the color form that probably gives the species its common name. There are some individuals with a red abdomen, also with white markings. In these red individuals the head stripes and leg bands are also red or maroon in color. Shamrock orbweavers often hide in a retreat during the day, holding a stout "signal line" that is attached to the hub of the orb. If an insect hits the web, the spider feels the vibrations of the struggling prey through the signal line and rushes out to capture it. The abdomens of some gravid females can swell to the size of a ripe cranberry.





FEMALE: 3/8" - 3/4" (9 - 19mm) MALE: 1/8" - 1/4" (4 - 6mm)





ASONALITY: LATE-JULY TO EARLY OCTOBER



### SPINED MICRATHENA

Micrathena gracilis My-kra-thee-na • gras-il-iss

This spider is infamous for building its webs across trails in the woods. Frequently the web is not noticed until an unsuspecting hiker comes face-to-face with the spider, or walks through the web and finds the spider crawling on them. Fortunately these spiders, like all members of this group, are reluclant to bite humans. Their odd spiky appearance does generate plenty of commentary. Presumably the relatively hard and spiny abdomen helps to protect these diurnal spiders from bird predators. The webs have very small spacing between the circular orb threads, indicating that they capture relatively small prey. In Ohio we find the black and white color form, while in other parts of the country the body can be yellow or brown.





FEMALE: 1/4" - 3/8" (7 - 10mm) MALE: 1/8" (4 - 5mm)





ASONALITY: LATE-JULY TO EARLY OCTOBER



### TRASHLINE ORBWEAVER

Cyclosa turbinata Sy-clo-sa • ter-bin-ate-ah

There are two similar species referred to as the "trashline orbweaver", differing mainly in details of thier reproductive structures. The most obvious difference is that the species treated here has two little humps on the wide part of the abdomen at the base of the thin part. These spiders are relatively small, growing to just over ¼ inch in length, and they are very common in Ohio. The web is a beautiful orb with a very fine concentric circular pattern. The most distinctive feature is a vertical line of "trash" made up of crumpled leaves and prey remains as well as an occasional egg case. The spider often hides in this line of debris and is almost perfectly camouflaged. If disturbed, they sometimes shake the web violently making it blurry and difficult to focus on. This response to threats may help to deter wouldbe predators.





SIZE
FEMALE:
1/4" (6mm)

MALE:
1/8" (3mm)





JUN JUL AUG SEP OCT NOV

SEASONALITY: MID-MAY TO SEPTEMBER

COMMON SPIDERS OF OHIO



### TRIANGLE-BEARING ORBWEAVER

Verrucosa arenata
Vair-vu-ko-sa • ar-en-ate-ah

The yellow, white or cream-colored triangular mark on the abdomen gives this species a distinctive appearance. Even though the color of the spider can be black, brown, or red, the presence of the pale triangular mark is distinctive. Triangle-bearing orbweavers are found in their webs during the daytime as well as at night. They hang in their webs with their head upwards. This is quite unusual among spiders, most of whom hang head down. Individuals with all of the various color combinations have occasionally been found in close proximity.





FEMALE:
1/4" - 3/8" (8 - 9mm)

MALE:
1/8" - 1/4" (5 - 6mm)



▲ this is one of few spiders that hang with head up





ADULT SEASONALITY: AUGUST TO NOVEMBER



### VARIABLE ORBWEAVER

Neoscona crucifera

This species is a larger cousin of the arabesque orbweaver. They too often build orbs near houses. Variable orbweavers are much larger than arabesque orbweavers, as are their webs. The webs can stretch across a broad porch entrance, and cause considerable consternation to homeowners. However, the spiders are harmless unless you are a moth, of which they catch plenty. The widely-spaced sticky spiral threads are instrumental in the capture of relatively large prey. Color variation in this species is remarkable. Some are rather plain, with only faint banding on the legs and solid tan abdomens. Others show a series of dramatic contrasting markings on the abdomen. These include a pale band up the center and lateral light bands near the front forming a cross-shaped mark, hence the name crucifera which means "bearing a cross."

Dark-marked forms also have much more distinctive banding on the legs. Variable orbweavers are nocturnal. They re-build their webs at dusk, often near lighted windows or patios, and hide nearby, such as under a shingle, during the day.





FEMALE: 1/4" - 3/4" (8 - 20mm) MALE: 1/8" - 5/8" (4 - 15mm)









### BANDED SAC SPIDER

#### Castianeira longipalpa Kas-te-an-eye-ra • long-ih-palp-ah

The banded sac spider is a member of a group of spiders that resemble ants. They are active during the day and are sometimes found running in open areas, often on trails. They occasionally enhance their mimicry of ants by moving in a similar way, darting and dashing in short bursts. When they stop they wave their front legs, similar to the antennae of ants. These spiders are about the size of large carpenter ants (~ 1/2 inch long). Why mimic ants? One reason is that many predators avoid eating ants. Ants can be foul tasting and they defend themselves by secreting formic acid. Also, some ant species can sting. By resembling an ant, the ant-like sac spiders gain some measure of protection from predators that are fooled into thinking the spider packs a potent sting.





FEMALE: 1/4" - 3/8" (5 - 10mm) MALE: 1/4" - 3/8" (5 - 8mm)









### BULL-HEADED SAC SPIDER

Trachelas tranquillus
Tra-kel-as • tran-auil-us

Bull-headed sac spiders have a bad reputation for hiding in gloves. When the owner plunges their hand into the glove the spider bites. They are not particularly aggressive, but bite in self defense as they are about to be crushed. The bite is said to be quite painful; however there do not seem to be lasting medical consequences. These spiders have been reported from houses and garages, as well as under rocks or the loose bark of trees in woods. Their color pattern resembles another species that is known to bite on occasion, the woodlouse spider. The dark red or rust-colored cephalothorax contrasts with the pale cream-colored abdomen. Unlike the six-eyed woodlouse spider, the bull-headed sac spider has eight eyes.





FEMALE: 1/3" (8.4mm) MALE: 1/4" (6.1mm)



▲ female guarding egg case







### **WOODLOUSE SPIDER**

DEC JAN

Dysdera crocata
Dis-der-ah • kro-kay-ta

The unusually large jaws and fangs of woodlouse spiders give them a fearsome appearance. In reality, like the bull-headed sac spider, these spiders only bite when threatened. And, like the previous species, woodlouse spider bites are unlikely to cause significant medical consequences. The heavy jaws are actually an adaptation for feeding on "pillbugs" or "rolly-pollies" also known as woodlice. These common crustaceans have hard exoskeletons and roll up into a ball when attacked. The heavy jaws of the woodlouse spider evidently help it to penetrate the pillbug's defenses. Woodlouse spiders are often found near foundations around houses, in damp cellars and basements or under rocks. Perhaps because of the large scary fangs, or maybe because these spiders possess only six eyes, they are occasionally confused with the recluse. However, recluses are much smaller, dull brown in color, and have tiny fangs.





FEMALE: 3/8" - 5/8" (11 - 15mm) MALE: 3/8" (9 - 10mm)







NUN JUL ANG SEP OCT



#### PARSON SPIDER

#### Herpyllus ecclesiasticus Her-pil-us • ek-klee-see-as-tih-kus

This distinctive spider is often associated with human-built structures. It is a member of the ground spider family, characterized by relatively long and divergent cylindrical spinnerets. The overall dark slate or black body coloration with the distinctive white marking on the top of the abdomen are reminiscent of a parson's clerical dark robe and white cravat. They are sometimes found on the floor in buildings, often in dark places. Outdoors they are most frequently encountered under rocks. This is one of the most commonly reported spiders in houses. The Ohio Spider Survey has received 54 specimens from homeowners. The parson spider is a species of ground spider, family Gnaphosidae. The ground spiders are a group which possesses really weird-shaped posterior median eyes. For years, scientists have wondered about these eyes. It has now been shown that these spiders have the ability to sense polarized light and can use this sense to navigate back to their hiding place.





FEMALE: 3/8" - 1/2" (8 - 13mm) MALE: 1/16" - 1/8" (2 - 5mm)





NAME SEP OCT NOW SEASONALITY: ANY MONTH OF THE YEAR OLD SEASON SPIDERS OF OHIO



### BOWL AND DOILY SPIDER

Frontinella communis
Frontin-el-ah • com-u-nis

This spider belongs to the sheet-weaver family. The members of this family hang below their sheet-like webs and capture prey that land on the sheet by biting through the sheet itself. Bowl and doily spiders build a curved sheet that resembles a bowl. In addition to the bowl. the spider constructs a thin flat sheet under the bowl, referred to as the doily. This is a reference to the common habit, years ago, of placing bowls on cloth or crochet doilies. The spider also spins a tangle of non-sticky threads in the space above the bowl. These may act as "knockdown" lines. When an insect flies into the area over the bowl, it hits one of these strands and is knocked into the bowl where the spider is waiting (hanging underneath). Bowl and doily spiders are quite common in both open fields and woodland edges. They are found in suburban and even urban backyards. The spider is quite small; a large female might grow to just over 1/8 inch (3-4mm) in size.





FEMALE: 1/8" (3 - 4mm) MALE: 1/8" (3 - 4mm)



▲ web showing bowl (top) and doily (bottom)





SEASONALITY: LATE-MAY TO OCTOBER



# FILMY DOME SPIDER

Neriene radiata Ner-ee-nee • rad-ee-ate-ah

Filmy dome spiders build a curved domeshaped sheet web, suggestive of a bowl and doily spider web. Unless it is very dewy, the web is often inconspicuous. When it is visible, the spider can be seen hanging under the middle of the web at the apex of the dome. If a prey item strikes the web, the spider will bite through the webbing from below. There is sometimes a tangle web associated with this web, either above or both above and below the dome. The filmy dome spider is small, and shows a few light-colored bands of yellow and white on the abdomen. There is a distinctive pale margin to the cephalothorax. During early summer it is not uncommon to find a male in a nearby web, or even sharing the web of the female. This species has often been found in woods and forests or forest edges, and can be quite abundant.





FEMALE: 1/4" (5.7mm) MALE: 1/5" (4.4mm)



▲ male (above) mating with female





# HAMMOCK SPIDER

Pityohyphantes costatus
Pit-ee-oh-hy-fan-tees • kos-tate-us

The hammock spider hangs her hammockshaped web from several attachment points in low understory vegetation in wooded areas. The spider either rests under the web or in a loose retreat near the edge of the web. This is one of our largest sheet-weaving spiders, with adult females reaching nearly 1/4 inch in length (7-8 mm). The spider is pale with a distinctive dark mark down the back of the abdomen that looks like a series of triangular marks stacked together. There are also dark bands on the legs and a dark Y-shaped mark on the top of the cephalothorax. The split portion of the Y is near the eyes at the front. These spiders may survive the winter as adults or subadults, so that webs with large spiders are found during the early spring.





FEMALE: 1/8" 5/16"(4 - 8mm) MALE: 1/8" - 1/4" (4 - 6mm)



web, which clearly shows the origin of the spider's name



ANDULT SEASONALITY: MID-APRIL TO JULY DEC



# SCARLET SHEETWEAVER

Florinda coccinea

Wet, unkempt, grassy areas in southern Ohio are the places to look for scarlet sheetweavers. They build sheet webs that may be 3-7 inches in diameter. The webs, and even the small bright reddish-orange spiders can be easy to miss on a dry day. On a dewy morning their webs stand out against the green grass, and they can be remarkably common in some areas. The female has a prominent point at the back of her abdomen that is colored black. The area around the eyes and the base of the spinnerets is black. Otherwise the spider is one of the most brilliantly colored animals in Ohio. Like most sheetweavers, the spider hangs under the center of the web. When prey land on the web the spider lunges through to bite and subdue the victim. It then pulls its prey through the web and feeds on it. The males are also very brightly colored and can sometimes be found with the females during the late summer. If you want to get a good look at this spider, approach carefully. When disturbed the spiders drop from their web and disappear quickly into the debris on the ground. This species is common in the southern states, but in Ohio it occurs mostly in the southern unglaciated region.





FEMALE: 3/16" (3.5mm) MALE: 1/8" (3mm)







SEASONALITY: AUGUST TO SEPTEMBER OF OHIO



# BURROWING WOLF SPIDER

Geolycosa missouriensis Jee-o-ly-ko-sa • miz-er-ee-en-sis

The burrows of this large wolf spider have been found in sandy soils throughout the state. There are other species of burrowing wolf spiders in Ohio, but this species may be the most common. The burrow entrance has a silk lining that extends only a short distance above the ground surface and is usually left open. Other burrowing wolf spiders in Ohio build an extension of silk with bits of sand and dead leaves forming a turret. Some species close the burrow when they are not active. The spider stays about one foot (30 cm) below the surface during the day. At night they come up and wait just inside the burrow entrance. If suitable potential prey passes by, for example a cricket, the spider lunges out, grabs it, and rapidly retreats into the burrow to consume its meal. During late summer the males wander from their burrows in search of females.





1/2" - 7/8" (14 - 22mm)



▲ female at burrow entrance

OUT SEASONALITY: EARLY-JULY TO MID-SEPTEMBER



# FIELD WOLF SPIDER

Hogna helluo Hog-na • hel-u-oh

This species is an important predator in agricultural fields in Ohio, and can be extremely common. In late autumn, the subadults as well as a few surviving adults wander into wooded areas. There, they may spend the winter under rocks or logs. Field wolf spiders also often wander into buildings at this time of year. For a relatively large spider, with a body length approaching 3/4 inch (21mm), it seems remarkable that they enter houses easily. Apparently they can squeeze under doors or through small cracks. Because of their large size, they inspire considerable fear when discovered indoors. This fear is not justified, as they rarely bite, and only if provoked. The bite is not considered dangerous. The very narrow pale yellow line up the center of the dark brown carapace, continuing between the eyes, is distinctive. Females carrying white egg cases, or broods of young riding on their backs, are sometimes seen during the spring. Field wolf spiders may retreat into cracks in the soil or build shallow burrows, which usually lack much of a silk lining that is characteristic of larger burrowing wolf spiders.





FEMALE: 3/4" (20mm) MALE: 7/16" (11mm)



JUN JUL AUG SEP OCT NOV

SEASONALITY: ANY MONTH OF THE VEAR OF OHIO



# BRUSH-LEGGED WOLF SPIDER

Schizocosa ocreata

These medium-sized (~1/2 inch) wolf spiders are very common in deciduous forests throughout Ohio. They can also be found in more open habitats. The males bear conspicuous black hairy "tufts" on their front legs which they employ in an elaborate courtship display. The females are not as conspicuously colored as the males. These wolf spiders are active both day and night in the warm seasons of the year. As this species is easily found and because of the dramatic courtship, forest wolf spiders have been heavily studied. Numerous scientific studies have been published on its behavior and ecology.





FEMALE: 3/8" - 1/2" (10 - 13mm) MALE: 3/8" (10 - 11mm)



▲ male showing brush-tipped legs





JUN JUL AUG SEP OCT NOV DER SONALITY: LATE-APRIL TO LATE-AUGUS,



# PIRATE WOLF SPIDER

#### Pirata minutus Py-rat-ah • min-u-tus

These are our smallest wolf spiders, and can be abundant in fields and lawns. This species is one of eleven members of its genus in Ohio. On close inspection with a magnifying glass, a brown tuning fork-shaped pattern can be seen on the carapace of the members of the genus Pirata. A few of the larger species of this genus are similar in size to wolf spiders in the genus *Pardosa*. Pirate wolf spiders are tiny; mature females may only be 1/8-inch (<4mm) long. The dark-colored females are marked with white spots. They can be found carrying white egg cases in spring and summer. Like most wolf spiders they are fast, agile runners. They capture victims after a short dash, and do not chase their prey in long pursuits like their namesake canine hunters.





FEMALE: 3/16" (3.5mm) MALE: 1/8" (2.8mm)



▲ female carrying egg sac



JUL AUG SEP OCT WOY

AND OUT SEASONALITY: MAY TO LATE-AUGUST OF COMMON SPIDERS OF OHIO



# STRIPED WOLF SPIDER

Rabidosa rabida Rab-ih-dos-ah • rab-ih-da

The striped wolf spider has also been called the rabid wolf spider. This is one of two similar wolf spiders with a tan body marked with longitudinal dark brown stripes. They grow to a relatively large size (~1 ½ inches long) and prey on a variety of insects including crickets. Striped wolf spiders are found in sites with tall grass. The males have distinctive dark brown or black front legs. Like all wolf spiders the female carries the egg sac attached to her spinnerets. When the young emerge, they climb on her back and stay with her for a week or more and then disperse. Most of our larger wolf spiders hunt primarily at night. This species can also be found hunting during the day.





FEMALE: 4/5" (21mm) MALE: 1/2" (13mm)



▲ closeup of female's face



# THIN-LEGGED WOLF SPIDER

Pardosa milvina Par-do-sa • mil-vee-na

This small wolf spider is common in agricultural fields, open areas, and lawns. They can also be found in large numbers in humid habitats near streams or ponds. Thin-legged wolf spiders are part of a large group of similar species in the genus Pardosa. Nine species have been collected in Ohio. The males have dark palps which they wave while they search for females. Courtship involves a combination of both visual and acoustical signals. This species is intermediate in size between field wolf spiders and pirate wolf spiders. Like the brush-legged wolf spider, this species has frequently been the subject of scientific studies. For example a recent study at Ohio State University by Ryan Bell has demonstrated that they are quite vulnerable during droughts. This may explain why they are usually found near wet areas in fields or the edges of ponds or streams.

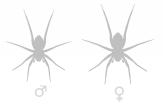




FEMALE: 1/4" - 3/8" (5 - 10mm) MALE: 1/8" - 3/8" (4 - 10mm)



▲ female carrying egg sac



MAY JUN JUL AUG SEP OCT NOV

AND ULT SEASONALITY: APRIL TO SEPTEMBER DEC

COMMON SPIDERS OF OHIO



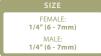
# YELLOW SAC SPIDER

### Cheiracanthium mildei Kv-ra-can-thee-um • mil-dee-eve

This species was introduced, probably from Europe. It is more common than our native species, Cheiracanthium inclusum. This is probably because the yellow sac spider has adapted well to human-associated habitats such as buildings and gardens. In buildings, this species is active at night. It is a swift-running hunter that supplements its diet with plant nectar as an energy source. There are a few cases of bites that have caused some medical problems (slow healing wounds). The specifics of these situations are not well documented. Most likely, people roll over and accidentally crush the spider while sleeping. This causes the spider to bite in defense. Sometimes the spiders hide in clothing and defensive bites may occur when the piece of clothing is put on. Casual handling of dozens of individuals during the spider survey has never resulted in a bite, even when they accidentally run across surveyors' arms or hands. During the day yellow sac spiders have often been found in the corners of walls, between the wall and ceiling or other similar edges. They are usually inactive at this time, resting in a transparent







silk cocoon. They are very pale greenish or yellowish in color, and appear white against a dark background.



▲ female in diurnal retreat



JUL AUG SEP OCT NOVEMBER

COMMON SPIDERS OF OHIO



# STRIPED LYNX SPIDER

Oxyopes salticus Ox-ee-oh-pees • salt-ih-kus

Lynx spiders are active daytime hunters in fields or tall grass. They seek small prey and grapple with victims using their very spiny legs. They are adept jumpers. Lynx spiders are among the most common spiders found in sweep samples of field habitats, particularly prairies. We have two species in Ohio, this one being the most common. On close inspection, the striped lynx has thin black stripes along the front of the legs and on the face from the eyes to the fangs. They have a distinctive arrangement of their eight small eyes, six of which form a slightly flattened hexagonal shape. The eyes are relatively small but these spiders evidently have good vision which they rely on while hunting. The males wave their legs and palps as a visual display during courtship.





FEMALE: 1/4" - 3/8" (7 - 10mm) MALE: 3/16" (4mm)







TO LATE-AUGUST



# COMMON CRAB SPIDER

Philodromus vulgaris
Fil-o-dro-mus • vul-gair-iss

There are 16 species of running crab spiders in Ohio, most of which are in the genus Philodromus. The specific name of this one, vulgaris, means common which it is. Common crab spiders are often found near houses. This group used to be considered as part of the crab spider family, but are now considered distinct. Like true crab spiders, they often hold their legs in a curved crablike posture when at rest. They are active at night and can run very rapidly. Their mottled gray coloration is very cryptic against tree bark, and they easily slip into crevices, aided by their flat body shape. Common crab spiders are easy to overlook when they are not moving. This species has a distinct band of light color at the end of its abdomen.





FEMALE: 1/4" (6.6mm) MALE: 1/4" (6mm)







# GRASSLAND CRAB SPIDER

Tibellus oblongus
Tih-bel-us • ob-long-us

This long, thin spider is at home in tall grass. They are most often captured by using a sweep net, but a careful visual search in appropriate habitat may uncover one. They are ambush hunters, and quite well camouflaged when inactive. Grassland crab spiders sit with four legs extended in front and four behind, all held parallel to the narrow body. Longitudinal stripes on the body enhance the disguise. Sitting parallel to a blade of dry grass in the crease, the spider is nearly invisible. When disturbed, they are capable of agile leaps and can run very rapidly.





FEMALE: 5/16" (8mm) MALE: 1/4" (7mm)



▲ female in camouflage posture on grass blade

JUN JUL AUG SEP OCT NOV



# LONG-BODIED CELLAR SPIDER

### Pholcus phalangioides Fol-kus • fal-an-jee-oh-eye-dees

This spider constructs messy tangle webs in basements and cellars. They are the spider most likely responsible for the cobwebs often found in such situations. Long-bodied cellar spiders are one of the most common humanassociated spiders in Ohio. They can survive in relatively dry environments and may fast for many weeks between meals. The eggs are loosely wrapped in a thin silk basket which the female holds in her fangs. If, during this period, prey is snared, she will temporarily leave the eggs hanging in the web and move to capture and eat the prey. When the eggs hatch, the tiny spiderlings hang in a tight group for a week or two until their first molt. Then they may disperse. The young spiderlings are so small that they can move through typical window screens. This may be one reason that they have colonized most buildings in Ohio. Long-bodied cellar spiders often capture other species of spiders and have been found feeding on large wolf spiders many times their own weight. When disturbed they sometimes shake and whirl the web rapidly, creating a blur and rendering themselves briefly invisible.





FEMALE: 1/4" - 3/8" (6 - 9mm) MALE: 1/4" - 3/8" (6 - 9mm)



JUN JUL AUG SEP OCT NOV SEASONALITY: ANY MONTH OF THE VEAR OF CHIO



# CHOCOLATE-BROWN FISHING SPIDER

Dolomedes vittatus

Like all members of the fishing spider family (Pisauridae), female chocolate-brown fishing spiders carry their egg case held in the fangs. Because the sac is large, the spider appears to be teetering on its tip toes when she walks. Just before the young emerge, the female builds a nursery web and suspends the egg case within this silk refuge. The nursery web usually consists of a few broad leaves, stitched together with a tangle of threads below. The leaves provide a roof and some protection from rainstorms. The tangle provides a relatively safe environment for the emerging young to rest before dispersing. The female remains close to the nursery. Her presence may protect the young from parasites or predators.





FEMALE:
7/8" (23.5mm)

MALE:
7/8" (23mm)



▲ female feeding on monarch caterpillar

JUN JUL AUG SEP OCT NOV

SEASONALITY: MAY TO LATE-SEPTEMBER

COMMON SPIDERS OF OHIO



# COMMON FISHING SPIDER

Dolomedes tenebrosus

With a leg span of up to four inches (20 cm), this is one of the largest spiders in Ohio. They occasionally wander into buildings, particularly those near woods. The discovery of one of these huge spiders hanging on a wall or draped over the edge of a piece of furniture has caused more than a few people to panic. Despite their formidable appearance, fishing spiders are not considered dangerous to humans. They can bite if handled carelessly, but the consequences, while painful, are not serious. The spider is not aggressive and will retreat if given that option. Outdoors, they are most commonly found in moist woods, or near well-vegetated streams. At night they hang on vertical surfaces, such as the bark of large trees or wooden posts. Adults may survive the winter, so large individuals can be found early in the spring.





FEMALE: 5/8" - 1" (15 - 26mm) MALE: 1/4" - 1/2" (7 - 12mm)



▲ female resting on tree trunk

JUN JUL AUG SEP OCT NOV

SEASONALITY: MAY TO LATE-SEPTEMBER

COMMON SPIDERS OF OHIO



# NURSERY WEB SPIDER

Pisaurina mira Py-saur-ee-na • meer-ah

The nursery web spider is common throughout Ohio. There are two closely-related but much rarer species found here as well. Nursery web spiders typically have a light brown or tan coloration with a darker central band running the length of the body. They forage in low vegetation. When disturbed, they can run very quickly. This spider is sometimes found in or near houses, but they are not considered dangerous. The nursery web of this species is usually found relatively close to the ground. It consists of a bent leaf or two leaves woven together with silk. The amount of silk used is quite variable, and sometimes the spider spins a dense white sheet as the nursery roof. The egg case is placed under this canopy in a loose tangle of threads. When the young emerge, they stay in the protection of the nursery until they are ready to disperse. A number of observers have reported that the plant often chosen for the nursery web is poison ivy.





FEMALE: 1/2" - 5/8" (12 - 15mm) MALE: 3/8" - 5/8" (9 - 15mm)



▲ blackberry leaf formed into nursery web

MAY JUN AUG SEP OCT MOY
ROULT SEASONALITY: APRIL TO LATE-AUGUST

COMMON SPIDERS OF OHIO



# SIX-SPOTTED FISHING SPIDER

Dolomedes triton
Dol-oh-mee-dees • try-ton

This is our most aquatic spider. Six-spotted fishing spiders typically lurk in the vegetation around ponds and lakes. The pattern of white spots on the abdomen is distinctive. These spiders wait near the edge of a pond or lakeshore, occasionally skating out on the water surface. When the spider detects prey at the surface of the water, it will attack. They can plunge below the surface, and have been known to capture small fish and tadpoles as well as aquatic insects. They are quite agile on the water surface, moving with a rowing action of the legs. The legs are not actually submerged; the spider exploits the water's surface tension, and its legs do not break through. The spider does not sink because it has a water-repellant cuticle. Even when they dive below the surface, the body is covered with a thin bubble of air, making the submerged spider shine with a silvery mirrored look.





FEMALE: 5/8" - 3/4" (15 - 20mm) MALE: 3/8" - 1/2" (9 - 13mm)



JUN JUL AUG SEP OCT WOV JUN SEASONALITY: MAY TO LATE SEPTEMBER



# **BOLD JUMPER**

### Phidippus audax Fid-ip-us • ah-dax

The black color and active behavior of this spider makes it very conspicuous. Its habit of turning to face and approach any movement, even a proportionately enormous human, gives this spider its name. Bold jumpers occasionally wander into buildings and houses. When inside, they often move to light sunny areas near windows. The abdomen has three conspicuous spots on the upper surface at the back. These spots can be white or sometimes orange. The fang bases are covered in iridescent green or blue-green scales. These are very conspicuous when the spider turns to face an observer. The tendency to approach or even jump onto an extended finger should not be confused with aggression. These spiders rarely bite unless handled roughly. Bold jumpers spin no web, but they do lay down a silk dragline wherever they go. This line can be employed as a safety line in case the spider falls. The line is thin and inconspicuous, but it is revealed when the spider jumps short of the target. When this happens the spider hangs briefly by this thread, then quickly climbs back up to its original location.





FEMALE: 1/4" - 5/8" (8 - 15mm) MALE: 1/4" - 1/2" (6 - 13mm)



▲ female showing emerald-colored fangs



JUN JUL AUG SEP OCT WOV SEASONALITY: LATE-APRIL TO AUGUS, DEC



# DIMORPHIC JUMPER

Maevia inclemens
Mee-vee-ah • In-klem-ens

The combination of large eyes, often colorful body parts, and fuzzy faces make jumping spiders less intimidating then most spiders. Indeed, many arachnophobes actually find them "cute". Jumping spiders are one of the few groups of spiders that possess excellent color vision. Their outstanding eyesight aids in hunting prey as well as in courtship. When a male and female meet they exhibit a complex set of displays prior to mating. This courtship routine serves to identify the male to the female and reduces the chance of her mistaking the male for a potential meal. In the dimorphic jumper, there are two very different color forms of adult males. One form is almost completely black with three large tufts of stiff hairs on the head. The other form is drab with shades of gray on the body. Even the gray-form males are ornamented with black stripes on the undersides of the front legs, and sometimes have red bands across the abdomen. The female has different color varieties too. The most common form has two reddish stripes on the abdomen: these are black in the alternate form. The display of tufted males is much more complex than non-tufted males. It features the

St/Sb STRUCTURES SHRUBBERY



FEMALE: 1/4" - 3/8" (7 - 10mm) MALE: 1/4" (5 - 7mm)

male standing up as if on its tiptoes, waving his palps and swinging his abdomen. The bold pattern of the tufted male presumably makes him more conspicuous to the female from a distance, and these tufted males begin their courtship farther from the female than grayform males. This may reduce the chance that they become a meal instead of a mate. On the downside, the boldy patterned tufted males may also attract the unwelcome attention of predators.



▲ males, untufted (left) and tufted (right) forms





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# **EMERALD JUMPER**

### Paraphidippus aurantius Par-ah-fid-ip-us • ar-an-tee-us

Both male and female emerald jumpers have bodies covered with iridescent scales. These impart a living rainbow of color, with bright green usually dominating. There is also a band of white scales at the front of the abdomen, a stripe along the side of the cephalothorax, and a series of white spots further back on the abdomen. This colorful spider's appearance is enhanced by their habit of foraging in sunny places on low bushes. Males have large, hairy front legs and they wave these around like semaphore flags when they sense that a female is nearby.





SIZE
FEMALE:
3/8" (10mm)

MALE:
1/3" (9mm)







JUN JUL AUG SEP OCT NOV

SEASONALITY: FEBRUARY TO SEPTEMBER

COMMON SPIDERS OF OHIO



# ZEBRA JUMPER

Salticus scenicus Salt-ih-kus • see-nih-kus

The bold black and white stripes on this spider make it a conspicuous visitor to many yards and porches. It is also one of the few species of jumpers that can be confidently identified at a glance. Zebra jumpers frequently forage on sunny vertical walls. Some individuals have the black replaced by dark brown. Both males and females share the striking color pattern, but the males are equipped with larger, spreading fangs. This spider is common in Europe as well as North America. Some authorities believe this spider may have been introduced from Europe long ago. They are typically found on or near buildings, fences or other human structures.





SIZE

FEMALE:
1/5" (5.4mm)

MALE:
1/5" (4.8mm)









# SPITTING SPIDER

Scytodes thoracica Sky-toh-dees • thor-as-ih-ka

Spitting spiders are cosmopolitan, found throughout the world, sometimes in buildings. This is one of our most remarkable spiders. They capture prey in a unique way. When a spitting spider locates a suitable victim, often another spider, they move slowly into position then forcefully "spit" onto the victim. The spitting action is actually a rapid-fire stream of glue released from both open fangs, which vibrate as they release the glue. This creates a dual ziz-zag pattern of adhesive that serves to fasten the prey to the substrate (often a wall or ceiling) with a tough gluey silk. The spitting takedown occurs so fast that all a human observer can notice is a momentary shudder of the spider's body. After immobilizing the prey in this way, the spider slowly approaches and bites the prey to administer the venom and then begins feeding. The female spitting spider is an attentive mother. She holds the eggs in a thin basket of silk underneath her body with her palps and silk from the spinnerets. After the eggs hatch, the tiny spiderlings remain in a tight cluster, attended by their mother until they molt and are ready to disperse.





FEMALE: 1/8" - 3/8" (4 - 9mm) MALE: 1/8" - 1/4" (4 - 6mm)



▲ female holding egg sac with palps



JUN JUL AUG SEP OCT NOV

ADULT SEASONALITY: JUNE TO SEPTEMBER

COMMON SPIDERS OF OHIO



## BROWN RECLUSE

Loxosceles reclusa

The recluses are the most misunderstood spiders in Ohio. They are actually quite rare here. Brown recluse is represented by only nine specimens from three localities out of over 24,400 records in the Ohio Spider Survey database. Most spiders sent in as "brown recluse," even by medical or pest control professionals, are misidentified common and harmless spiders. While there are claims that some recluse live in parks around Cincinnati, at the extreme northeastern edge of their natural range, we have no verified specimen records of recluse spiders found outdoors in Ohio. The few records come from within buildings. They build a very thin sheet of silk. Usually the only way people encounter them is during the mating season when the males wander in search of females. At dawn these wandering individuals may take refuge in clothing lying on the floor. When someone picks up the clothing and puts it on, the spider is crushed against the skin and may bite.





FEMALE: 3/8" (11mm) MALE: 1/4" - 3/8" (7 - 10mm)



JUN JUL AUG SEP OCT NOV

AND JUL SEASONALITY: MAY TO SEPTEMBER

COMMON SPIDERS OF OHIO



### MEDITERRANEAN RECLUSE

Loxosceles rufescens
Lox-oh-sel-ees • roo-fes-ens

Mediterranean recluse, a cosmopolitan species similar to the brown recluse, has been found in buildings in several cities in Ohio. People regularly claim to be victims of recluse bites, but this is seldom the case. If you do not notice the spider at the time of the bite, or if you cannot find a crushed spider in your clothing or bed, you have probably not been bitten by a recluse. Recluse spiders bite in self defense, typically as they are being crushed. The Mediterranean recluse is a small, delicate spider with very thin spineless slightly fuzzy legs and a body that is usually less than ½ inch (12 mm) in total length. A number of medical conditions can, and often are, misdiagnosed as spider bites. These include an increasing number of difficult-to-treat spreading wounds from antibiotic resistant Staphylococcus aureus bacterial infections (MRSA). Because these wounds bear some resemblance to historical records of late stage recluse bite wounds, there is confusion. Recluse spiders frequently hide under cardboard boxes or in other protected places.





FEMALE: 3/8" (11mm) MALE: 1/4" - 3/8" (7 - 10mm)



▲ closeup of female's face

JUN JUL AUG SEP OCT WOLL AND TO SEPTEMBER DEC



# LONG-JAWED ORBWEAVER

#### Tetragnatha elongata Tet-ra-na-tha • e-long-ate-ah

These spiders usually build their horizontal orb webs over water, or in moist habitats where newly hatched insects are likely to fly up from below. They are very successful mosquito catchers. Thus, long-lawed spiders are among the many species of beneficial spiders, from a human point of view. The name refers to the fact that adults have extremely long jaws. Both the base and fang are extended, and sometimes splayed out so as to appear as large as the entire remainder of the cephalothorax! The males possess peculiar spike-like processes on their enlarged fang bases; they lock these into the jaws of females during courtship. Thus, the mating male and female are held together by their interlocking jaws. The name for the family, Tetragnathidae, reflects this behavior; tetra (four) gnath (jaws).





FEMALE: 3/8" (9mm) MALE: 1/4" (5 - 7mm)



▲ female hanging in web







# ORCHARD SPIDER

Leucauge venusta Loo-ka-u-gee • ven-u-sta

The webs of orchard spiders are the first clue to their identity. They spin an orb web, but it is typically at an oblique angle, nearly horizontal. Members of the orbweaver family usually build vertical webs. The horizontal web of the orchard spider hints at its relationship to the long-jawed spiders. The second thing one notices about this spider is that the female's legs are green. She usually hangs under her tilted web. The body has a beautiful silvery sheen that can be viewed by peering from below. The normal view from above the web reveals a two-lobed orange spot on the upper body. Sometimes this causes confusion with the red hour-glass of a black widow. The orb web is much different from the tangle web of the widows, and the color of the spider (green) is distinctively different. Orchard spiders are most common in moist woods, but they can be found in a great variety of habitats.





FEMALE: 1/4" - 3/8" (5 - 8mm) MALE: 1/8" (3 - 4mm)



▲ closeup of female's face





# CHECKERED COBWEB SPIDER

Steatoda triangulosa Ste-ah-to-da • tri-an-gu-lo-sa

This is one of the spiders most often associated with human-built structures. In Ohio they are only occasionally found away from buildings. The abdomen is marked with a series of offset angular markings that form two rows along the back. Against the pale base color of the abdomen, these marks sometimes form a checkerboard pattern. The spider hangs in a tangled cob web much like the widows and false widows. The cobwebs are often found near windows indoors. Soft white egg cases can often be found in the webs of mature females. These spiders have been reported to eat ants.





FEMALE: 1/5" (4.5mm) MALE: 1/8" (3.8mm)



▲ female hanging in web with egg case



JUN AUG SEP OCT WOLL SEASONALITY: MAY TO LATE-DECEMBER OF OHIO



Spintharus flavidus
Spin-thar-us • fla-vih-dus

Clown-faced spiders are most often found in southern Ohio. They are quite variable in color, but most individuals have bright colored markings on the abdomen that somewhat resemble a face. The variable coloration includes red, pink, yellow and white markings combined with dramatic black lines. Most of the spider is a very pale cream color, nearly white. They sometimes look quite ghostly walking along in the dark. The species hides under leaves during the day, usually in the understory vegetation of woodlands. They leave their retreats in the early evening and wander over vegetation. This spider is a member of the cobweb weaver family, but instead of a large space-filling cobweb, they build a much reduced web. Clown-faced spiders are typically found near the edge of a leaf with their front legs in contact with a simple web of a few, nearly invisible, strands. If a wandering insect hits one of these lines the spider attacks. It seems remarkable that this strategy works, but it must, because this is a reasonably common spider where it occurs. Southern Ohio represents the northern edge







of its range in this region. In late summer the males have sometimes been found wandering among the vegetation, presumably looking for females.







COMMON SPIDERS OF OHIO

GUST TO SEPTEMBER



# COMMON HOUSE SPIDER

Parasteatoda tepidariorum Par-ah-ste-ah-to-da • tep-ih-dar-ee-or-um

There are several spiders that are sometimes called "common house spider" but this one is the most aptly named. They are indeed very common in and around most human structures in Ohio. Common house spiders are very prolific; one adult female can fill as many as a dozen egg cases, each with several hundred eggs. The spiderlings are tiny, and they disperse widely. The spiderlings can easily move through window screening and enter a house. Their tangled webs are very common around windows. The three-dimensional tangled cobwebs of this species are a familiar sight both indoors and outdoors, throughout the state. The egg cases are tear-drop shaped, and a uniform tan color. The spiders are quite variable in appearance. Females are usually a mottled gray or tan, but they can be yellowish or nearly black. The males are much smaller and usually reddish in color.





FEMALE: 1/8" - 1/4" (5 - 6mm) MALE: 1/8" (3 - 5mm)



▲ female quarding egg case







# FALSE BLACK WIDOW

Steatoda borealis Ste-ah-to-da • bor-ee-al-iss

This is a very common spider in Ohio, much more frequent than the black widow which it somewhat resembles. Both species are found in tangled cobwebs in protected places. Also, both species hang upside down in their webs. and both appear to have a shiny globular abdomen that looks quite dark or black in the shadows where they live. The false black widow does not have the red hourglass marking of the black widow, however. Nor is it pure black. Seen in bright light false black widows look purplish-brown, and larger individuals have a light colored T-shaped mark on the abdomen. These harmless spiders have often been reported from garages and other outbuildings. The males wander in search of females, often blundering into houses in the spring. The small males can sometimes be observed in a corner of the larger female's web.





FEMALE: 1/4" - 3/8" (6 - 11mm) MALE: 1/8" - 1/4" (4 - 7mm)





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### NORTHERN & SOUTHERN BLACK WIDOW

Latrodectus variolus / mactans

These infamous spiders are not nearly as common in Ohio as they are in the southern states. Within our state they occur most frequently in the southern unglaciated portions. The females are very distinctive, with a shiny black body marked with bright redorange spots. On the center of the abdomen, below, there is a red hourglass-shaped mark. In the southern widow, the red hourglass mark is connected. In the northern widow it is broken near the center, forming two separate marks. The northern widow often has red marks on the top of the abdomen as well. The tiny males of widow spiders are sometimes marked with white, red, and black patterns. Only the females pose a bite risk. Their bite can be serious, and anyone bitten should seek medical attention immediately. The spiders are not aggressive; they only bite when disturbed. Most bites occur when someone brushes up against their web. The spiders can also bite defensively, so it is wise to avoid handling them carelessly. Widows build their tangle webs under rock ledges, in old abandoned barns and other buildings, and under benches and chairs. They seek dry protected sites.





FEMALE: 1/4" - 3/8" (8 - 10mm) MALE: 1/8" - 1/4" (3 - 6mm)



▲ ventral markings of the northern (left) and southern (right) black widows

JUL AUG SEP OCT NOV

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# PARASITIC COBWEB SPIDER

Argyrodes trigonum
Ar-gee-ro-dees • tri-go-num

This unusual spider is known for its habit of invading the webs of other spiders, usually killing the resident, then stealing the web. Sometimes they coexist with the builder, merely stealing some of the captured prev. The body is a triangular shape, hence the species name trigonum. These spiders are camouflaged by their unusual shape. They look like little broken bits of leaf hanging motionless, as they often do, in the web. The egg case is remarkable. It looks like an inverted vase, appearing white when freshly spun, then changing to a light brown color after a week or so. Sometimes the egg case is seen more readily than the spider. There are two other less common, closely related species in Ohio.





FEMALE: 3/16" (3.9mm) MALE: 1/8" (3.3mm)



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JUN JUL AUG SEP OCT NOV



## RAY ORBWEAVER

#### Theridiosoma gemmosum Ther-ih-dee-o-so-ma • jem-o-sum

Ray orbweavers build remarkable webs. The spider first spins a small orb-shaped web, then attaches a line to the hub and draws the orb into a cone-shape. The spider then holds the web taut, sometimes for hours. If a potential prey hits the web, the spider can release the tension suddenly, entangling the prey. This species is diminutive; even the adult females are only about 2 mm (1/16 inch) long. They build their unusual webs near the ground or in wet shady areas, often near water. One key to finding this spider is to look for the egg cases. They are tiny light-colored balls suspended from stiff silk lines about an inch long. The presence of these distinctive cases usually indicates that ray orbweavers are nearby.





SIZE

FEMALE:
1/16" (1.6mm)

MALE:
1/8" (2.7mm)





JUN JUN AND SEPTEMBER DEC AND COMMON SPIDERS OF OHIO



# BROWN CRAB SPIDER

Xysticus ferox

This is the most common member of a group of 14 drab brownish-colored crab spider species in Ohio. They can be found on plants, sometimes at flowers, but are most often observed near the ground or under rocks and leaves. They also frequent the loose bark of trees or logs on the ground. Brown crab spiders are well camouflaged, matching their background very effectively. Both the cephalothorax and abdomen are well clothed with spiny hairs. The tiny black eyes are often surrounded by raised white areas. The body is relatively flat, which allows them to squeeze into remarkably small cracks to hide. Like other crab spiders, members of this group are distinctive because of the odd crab-like posture in which they hold their legs.





FEMALE: 1/4" (6.5mm) MALE: 1/5" (5mm)



▲ female eating ant on Queen Anne's Lace





JUN AND SEP OCT NOV DE TOUR SEASONALITY: APRIL TO LATE AUGUS?



# GOLDENROD CRAB SPIDER

Misumena vatia
Mis-u-men-ah • vat-ee-ah

Goldenrod crab spiders are one of the most frequently illustrated spiders. Their habit of waiting at flowers to ambush prey is well known. The adult females can grow to a relatively large size, with an abdomen perhaps 1/4 inch long. They are famous for their chameleonlike ability to change color. When perched on a white flower, such as a Oueen Anne's lace flower head, they assume a pale cream or white coloration. Later in the year when goldenrods dominate the fields, they adopt a bright yellow coloration. Adult females sometimes have red bands of color on the sides of their abdomen. Their camouflaging coloration and motionless behavior serve them well. When an insect alights on a nearby flower, the spider lunges and grasps the prey with its spiny front legs. A guick bite rapidly immobilizes the prey. These spiders can capture prey that are much larger than themselves. It is not unusual for someone to relate a story of observing a particularly cooperative, motionless butterfly. When carefully observed, it is revealed that the immobile butterfly is actually in the grasp of a crab spider.





FEMALE: 1/4" - 3/8" (5 - 10mm) MALE: 1/8" (3 - 4mm)



▲ female poised to pounce







# NORTHERN CRAB SPIDER

### Misumenops asperatus Mis-u-men-ops • as-per-ate-us

This crab spider is probably more common than the other species of crab spiders described in this booklet. They are, however, much less frequently observed. This is partially because of their smaller body size and less conspicuous behavior. One feature that can be used to distinguish this species from its larger cousins is the presence of several red rings around the front pairs of legs. They are also much hairier than the other crab spiders. Both the cephalothorax and abdomen have a conspicuously spiny appearance. The female crab spider retreats to a folded leaf when laying eggs. She remains there, near the egg case, probably to protect it from potential predators or parasites.





FEMALE: 1/8" - 1/4" (4 - 6mm) MALE: 1/8" (3 - 4mm)



▲ female on Ox-eye daisy





JUN JUL AUG SEP OCT WOV OF OBER



# RED-BANDED CRAB SPIDER

Misumenoides formosipes Mis-u-men-o-eye-dees • for-mo-sip-ees

Much like the goldenrod crab spider, these spiders can change color to match their background. They can be white, yellow, or even pink depending upon which flower they have chosen as their lair. In Ohio this is probably the most frequently observed crab spider. They can usually be distinguished from the goldenrod crab spider by the fact that the sides of the cephalothorax are darker than the center portion. Also, on close inspection they possess a white ridge, called a carina, just between the eyes and jaws. When female redbanded crab spiders have coloration on their abdomen, it usually takes the form of a series of spots or broken bands. They rarely possess the larger solid marks seen in goldenrod crab spider females. The tiny males of this species have a greenish cephalothorax, a plain yellow abdomen, and outsized reddish-brown front legs.





FEMALE: 1/8" - 3/8" (5 - 11mm) MALE: 1/16" - 1/8" (2 - 4mm)









# TRIANGLE WEAVER

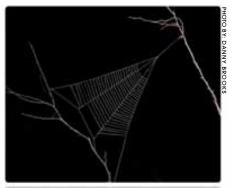
Hyptiotes cavatus
Hip-tee-o-tees • cav-ay-tus

This is another small spider with a very unusual web. Triangle weavers are only a fraction of an inch long, but they build an extremely distinctive web. The web is like one pie-slice of an orb web. It has four radial lines, converging at one central point of attachment. The radials are connected by sticky strands, similar in many ways to portions of the sticky spiral of a typical circular orb web. The spider hangs near the point where the single support line meets the four radial lines. The web is held taut by the spider. When prey contact the web, the spider releases the tension and the web springs free and collapses, entangling the prey. This strategy is similar to that of the ray orbweaver. The distinctive triangular web is most often found attached to dry twigs of dead shrubs or fallen tree branches in woods. Upon close inspection, the spider has a series of small bumps on the abdomen that break up the curve of its silhouette. This feature, combined with its camouflaged brown coloration, make it easy to mistake for a bit of loose bark or a crumpled dead leaf. Triangle weavers are one of only three species of Ohio spiders that lack venom.





FEMALE: 1/8" (3 - 4mm) MALE: 1/10" (2 - 3mm)





SEASONALITY: AUGUST TO LATE-SEATEMBER



# FOLDINGDOOR SPIDER

Antrodiaetus unicolor

These burrowing spiders are large, but not often seen. Most of their lives are spent deep in the ground in a silk-lined burrow that is about a ½ inch in diameter. Burrows are found in loose sediment near rock cliffs, cave entrances, or at the base of trees in moist forests. They are occasionally observed on sloping ground near a trail or road cut, or where a tree has fallen. The top of the burrow is closed with a split silken lid disguised with bits of material found near the entrance. This makes for perfect camouflage. In the evening, or sometimes late afternoon, the spider opens the burrow entrance and waits in the shadows just inside the burrow. If a suitable insect happens by, the spider will lunge out and grab the prey, then quickly retreat into the burrow. Usually the back legs will remain in contact with the burrow collar during the lunge. The entire capture-retreat sequence takes only a second or two. Near dawn the spider draws the two sides of the lid shut. During the day the burrow entrance is invisible. Open burrows can sometimes be located by searching at night in appropriate habitat. The





FEMALE: 1/2" (13mm) MALE: 7/16" (11mm)

best time to find a foldingdoor spider is during October when the adult males wander away from their burrows in search of a mate.



A female concealed within burrow





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# **GLOSSARY**







- **Abdomen** The rear section of a spider's body; contains vital organs and silk spinnerets.
- **Arabesque** A ballet pose and sometimes the dance itself, the regular elegant movement of the Arabesque Orbweaver.
- Arachnid A class of invertebrates that includes spiders, ticks, harvestman, scorpions, and mites. All members of the Arachnida have eight legs.
- **Arachnophobia** A strong and irrational fear of spiders.
- **Ballooning** A method of dispersal used by young spiders, which use silk strands to catch breezes and thus float to new locales.
- **Carapace** The hard shell-like exoskeleton covering the upper cephalothorax.
- **Carina** An elevated ridge on some crab spiders located between the eyes and jaw.
- **Cephalothorax** The front part of the body where the legs are attached, comprised of the fused head and thorax.

- Cribellum An unusual type of silk secreting structure that takes the form of a plate located in front of the spinnerets of many spiders. Spiders with cribella are called cribellate and spin an odd fluffy type of sticky line.
- **Cuticle** The thin waxy coating over the exoskeleton or rigid outer covering of a spider.
- **Diurnal** Active during the day.
- **Drag line** A silken safety line released by spiders when walking or jumping as a backup should the jumper fail to reach its target.
- **Exoskeleton** An external structure that protects and supports the spider body. As opposed to mammals, which have endoskeletons.
- **Gravid** Pregnant and swollen with eggs.
- **Invertebrate** Lacking a backbone or spinal column.
- **Knock-down line** Dangling silk strands placed near the central web, used to knock flying prey into the capture web.



**Bold jumper, Phidippus audax** 

PHOTO BY: THOMAS SHAHAN

**Molt** – The process of shedding an exoskeleton in place of a new, slightly larger one. Spiders grow through a series of molts.

Order – A taxonomic rank that is part of the classification scheme of organisms. The hierarchy of classification is as follows: Kingdom, Phylum, Class, Order, Family, Genus, and Species.

**Palps** – More formally known as pedipalps, they are appendages at the front of the head similar to small legs, used by spiders as sensory organs, and in males, to transfer sperm packets to females.

**Pedicel** – A narrow stalk that connects the abdomen and cephalothorax.

Pheromone – A chemical odor used to stimulate a response in individuals of the same species. Typically pheromones are used to lure the opposite sex so that mating can occur.

**Sedentary** – Remains in one place or very localized area.

Signal line – A silken strand attached to a web's central hub, and extending to the spider's nearby retreat. When prey struggles in the web, it jiggles the signal line and alerts the spider to its presence.

**Spinneret** – Finger-like silk-spinning organs located on the underside and towards the rear of the spider's abdomen. Most species have six, although some have two or four.

**Stridulation** – The act of making sounds by rubbing body parts together. Some male spiders stridulate as part of their courtship.

**Subadult** – The last juvenile stage prior to the final molt, after which the spider is an adult.

Suborder - A lower division of an Order.

**Tangle web** – A seemingly haphazardly constructed multidimensional web not on a single plane, also called a cobweb.

**Thorax** – The rear part of the cephalothorax; separated from the head part by a slight groove.

**Venom** – Chemical toxins injected into prey through the spider's fangs. Used to paralyze victims so that the spider can better overpower them, or as a defensive tactic.

**Web** – Silken structures of various forms, used to capture prey or serve as a shelter.

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**Bold Jumper** • *Phidippus audax* photo by Thomas Shahan

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