

SPIDERS OF LITZSINGER



By Jennifer Thompson

Introduction

This booklet describes spiders collected or observed at Litzinger Road Ecology Center in St. Louis County, Missouri over the months of June and July of 2015. As a part of my horticulture internship I was able to explore 35 acres of prairie, woodland, and creek habitat between the hours of 8 am to 4:30 pm. All in all the survey contains 18 families, 35 genera, and 27 species.

Methods

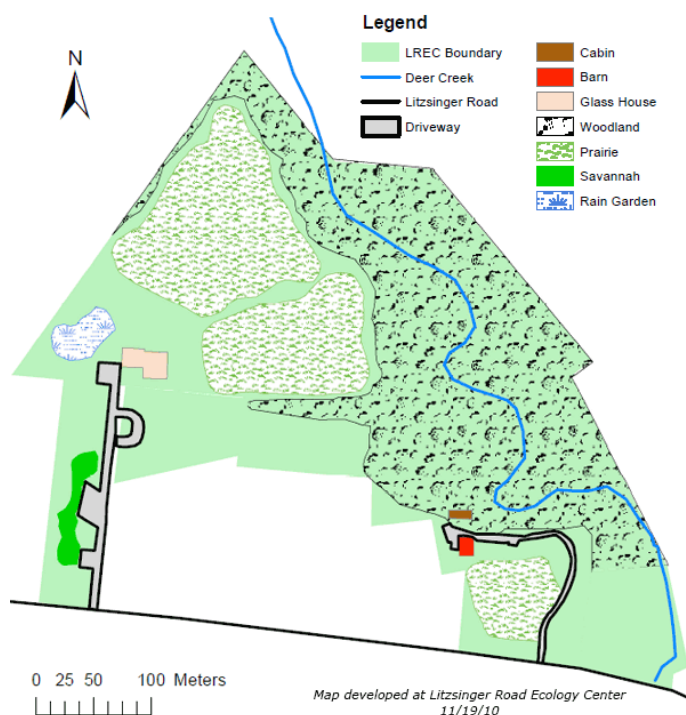
Searching by eye was my preferred method in all habitats. This allowed me to observe the spider in its natural setting and lessened the impact on other animals, as opposed to methods such as sweeping and pitfall traps. After finding a spider, I observed it for notable behaviors and sex, and gave an initial guess of its family/genus/species. The specimens were preserved in 70 percent alcohol and labeled with numbers. I identified specimens to genus with Spiders of North America: an identification manual by Ubick, etc., and to species with taxonomy articles and bugguide.net.

Habitats

There are three, 30 year old tallgrass prairies totaling twelve acres. Two of the prairies are side by side, separated by mowed paths and a treeline. From the rich bottom land soil grows big blue stem, cup plant, asters, coneflowers, mints, rattle snake master, and milkweed. When the sun is out the prairies seems to radiate heat but provide a cool, damp respite in the undergrowth. Bordering three sides of these two prairies are woodlands. The woodlands have oak, sycamore, buckeye, dogwood, cottonwood, box elder, pawpaw, and river birch and understory growth including stinging nettle, jewel weed, violets, spiderwort, phlox. Some areas have large patches of honeysuckle and wintercreeper. A half mile of Deer Creek, part of a larger watershed in St. Louis County cuts through the woodland. The woodland on the northeast side of the creek is dense with bushes and vines but has game trails that provide access.

Weather

St. Louis County received large amounts of rain throughout June and early July of 2015. The temperatures in June ranged from the mid 80's to low 90's during the day. In July the temperatures reached the upper 90's. The creek overflowed its banks during especially heavy rains in June and allowed me to observe the escape responses of nearby invertebrates. As I walked through the woods in rain boots I found centipedes, beetles, slugs, crickets, and spiders resting on plant stalks and leaves. I thought the predators would have taken advantage of the sudden abundance of prey items but did not see any predation.



Notes on Spider Biology

Life Cycles

According to Richard A. Bradley, there are two systems of spider life cycles. Orb weavers typically breed and lay eggs in the fall. Adults then die and their young will not leave their egg sacs until after winter. In the second system spiders reach maturity in winter. They breed in early spring and lay eggs in late spring or early summer. Young spiders grow through the autumn. Most spiders do not live more than a year.

Male or female?

When spiders reach maturity both sexes have characteristics distinguishing their sex. Most mature females have a sclerotized (hard tissue) spot on the underside of their abdomen, directly below where their carapace is joined to their abdomen. This spot is called the epigynum, which overlies the female's reproductive organs. Males insert sperm into openings bordering the epigynum. While some females have flattened epigyna, others have extensions ranging from bumps to "scapes:" tongue-like projections. Mature males have their outward sexual organs on the tips of their pedipalps, which are a shortened pair of "legs" beside their chelicerae. The basic structures that develop are a bulb, which stores the sperm, and a whip-like embolus for sperm transfer. Males close to maturity will have swollen palps but no external sclerotized organs. Sexual organ structures vary widely among species and are important for identification.

Spider Silk

When searching for spiders the webbing was often what I noticed first. Webbing is an important tool for spiders throughout their lives. Orb weavers construct aerial webs that trap flying insects with their sticky threads. Sheet webs convey the vibrations of wandering prey to the funnel web spiders, which is waiting in the safety of its funnel. Besides silk used to capture prey, females produce separate types of silk to enclose eggs. Male spiders detect adult females by sensing pheromones on the female's silk.

Social Behavior

Aside from mating, most spiders spend their lives in solitude. Some species have been studied as social or sub-social spiders, an example being members of the genus *Anelosimus*, which "exhibit cooperative web construction, indiscriminate brood care, and colony permanence" (Brach 1977). Most spiders are territorial, and will not permit spiders other than mating partners to enter their domain. I observed two adult jumping spiders in a conflict at the base on a tree trunk in the woods. The two would face each other several feet apart, (jumping spiders have excellent eyesight), and the smaller individual would turn around and escape further down the tree. The larger aggressor would give chase, stop, and they would have another face off. This continued until the loser exited the tree.

Toxicity

Spider venom is used to kill small invertebrates, thus the vast majority of spiders have venom considered medically insignificant to humans. Biting is not the first defensive strategy of most spiders. A study in 2014 that found that the western black widow (*Latrodectus hesperus*), a spider known for its neurotoxic venom, would not bite a fake finger that poked it, but would bite if it were pinched. If the spider were poked it would either move away or throw silk at the offender (Nelson 2014). Brown recluses (*Loxosceles reclusa*) are also feared for the necrotic effect of their bites. Yet most supposed recluse bites are actually insect bites, staphylococcal infections, herpes, fungal infections, or squamous-cell carcinoma, to name some of the possibilities. According to one study, some recluse bite claims were made in states outside of the brown recluse's geographical range (Swanson 2005). Thankfully, most of the fear we have of spiders is only in our heads.

Litzsinger Road Ecology Center Spider Survey: Master List
 Summer 2015
 Jennifer Thompson

Families	Genera	Species	Page
Agelenidae	Agelenopsis		5
	Coras		5
Araneidae	Araneus		6
	Cyclosa		6
	Eustala	anastera	7
	Mangora	placida	7
	Micrathena	gracilis	8
	Neoscona	crucifera	8
	Verrucosa	arenata	9
Atypidae	Sphodros	rufipes	9
Clubionidae	Clubiona		10
Corinnidae	Phrurotimpus	borealis	10
Gnaphosidae	Micaria		11
Linyphiidae	Ceraticelus		11
	Bathyphantes	pallidus	12
	Frontinella	communis	12
Lycosidae	Rabidosa	punctulata	13
Oxyopidae	Oxyopes	scalaris	13
Philodromidae	Philodromus	marxi	14
Pisauridae	Dolomedes	tenebrosus	14
	Pisaurina	mira	15
Salticidae	Paraphidippus	aurantius	15
	Phidippus	audux	16
Segestriidae	Ariadna	bicolor	16, 17
Sicariidae	Loxosceles	recluse	17
Tetragnathidae	Leucauge	venusta	18
	Tetragnatha		18
Theridiidae	Argyrodes	cancellatus	19
	Parasteatoda	tepidariorum	19
	Steatoda	borealis	20
	Theridion	albidum	20
Thomisidae	Ozyptila	americana	21
	Misumena	vatia	21
	Tmarus		22
Uloboridae	Ulorobus	glomosus	22
Total: 18	Total: 35	Total: 27	

Habitat distribution

Buildings

Agelenopsis
Ariadne bicolor
Cyclosa
Dolomedes tenebrosus
Loxosceles reclusa
Micaria
Micrathena gracilis
Ozyptila americana
Parasteatoda tepidariorum
Philodromus marxi
Rabidosia punctulata
Steatoda borealis

Total: 12

Prairie

Clubiona
Cyclosa
Frontinella communis
Oxyopes scalaris
Micaria
Misumena vatia
Phidippus audux

Total: 7

Woodland

Araneus	Micaria
Argyrodes cancellatus	Micrathena gracilis
Ariadne bicolor	Neoscona crucifera
Bathyphantes pallidus	Ozyptila americana
Ceraticelus	Paraphidippus aurantius
Clubiona	Philodromus marxi
Coras	Phrurotimpus borealis
Cyclosa	Pisaurina mira
Dolomedes tenebrosus	Sphodros rufipes
Eustala anastera	Theridium albidum
Frontinella communis	Tmarus
Leucauge venusta	Uloborus glomosus
Mangora placida	Verrucosa arenata

Total: 26

Creek

Agelenopsis
Sphodros rufipes
Tetragnatha

Total: 3



Collection Descriptions

Family Agelenidae

Agelenopsis sp. Giebel 1869a
grass spider

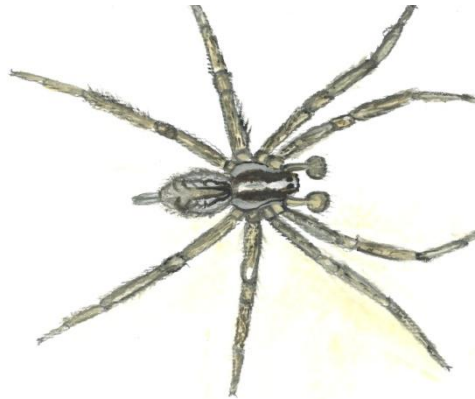


Description: larger spider (4-18mm), brown and tan, **long legs** with many spines, carapace with **median tan line bordered by brown** with tan border on carapace edges, **long spinnerets**, abdomen a narrow oval

Location: They build a **funnel web** from which extends a large, horizontal sheet of web. They are often seen around manmade structures, with webs in/near gutter pipes, trashcans, plant pots, etc.



Adult female Agelenopsis at mouth of funnel web



Male Agelenopsis

Coras sp. Simon 1898a



Description: larger spider (around 20 mm), tan and black, banded legs, semi-starburst black pattern on carapace, mottled **chevron pattern** on oval abdomen; reddish brown, robust chelicerae; conspicuous, widely spaced spinnerets

Location: The female specimen was found in a funnel retreat on the inside corner of a brick sitting in the woods. The retreat was not much longer than the spider. The woods were upland from the creek.

Notes: This spider's classification is currently stuck between families Agelenidae and Amaurobiidae.



Adult female Coras sp.

Family Araneidae

orbweavers

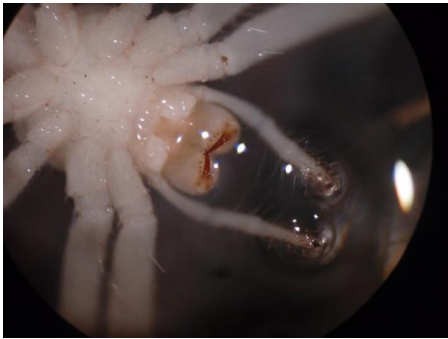


Araneus sp. Clerck 1757

Description: 5 mm from carapace to spinnerets, greenish white body when live, creamy white body in alcohol, except the abdomen, which is a brighter white; grey patch on dorsum of ovoid abdomen.

Location: The female specimen was found hanging on a thread from a tree in the woods.

Notes: Upon re-inspection under the microscope I found the specimen had molted before I captured her. This explains the white color as the soft exoskeleton had not hardened yet. The fangs and eyes had a reddish color as well, because they had not hardened and darkened. It surprised me that a spider would be that active soon after molting.

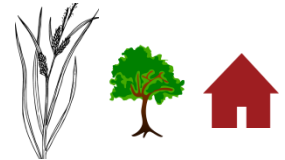


Fangs of postmolt female



Female Araneus sp. Postmolt

Cyclosa sp. Menge 1866
trashline orbweaver



Description: 2-5 mm, black and white “Rorschach test-like” pattern on abdomen, abdomen with rounded **conical projection** at tip, black carapace

Location: Individuals are found on vertical orb webs suspended between grasses or manmade structures. The spider disguises itself by sitting in a line of discarded prey and litter along a line perpendicular to the ground and passing through the hub of the web.

Notes: If you poke the web this orb-weaver may vibrate rapidly back and forth as a defense response.



Adult female Cyclosa sp.

Eustala anastera (Walckenaer, 1841)
humpbacked orbweaver

Description: 8 mm from carapace to abdomen, dark grey legs, yellow carapace, **abdomen with rounded pointed tip**, anterior of abdomen to posterior with white patch bordered by **foliated black border**, and white patch with 3 pairs of small red dots, dappled grey sides of abdomen, venter of abdomen with **median white streak bordered by black patches**.

Location: The female specimen was found sitting on underside of leaf beside web nest on prairie/woodland border

Notes: This species varies widely in coloration of the abdomen (Levi).



Adult female

Mangora placida (Hentz 1847)
tuftlegged orbweaver



Description: small orbweaver (2-5mm), light brown carapace with median black line, slender oval abdomen oriented at unique angle to the carapace, abdomen with black **longneck bottle- shaped pattern with 2 white spots in the middle**. **Tuft** of fine hairs on **tibia of third leg**, visible under a microscope.

Location: The adult female was found in a vertical web inside a dark tree line off the roadside.



Adult female

Micrathena gracilis (Walckenaer, 1805)
spined micrathena



Description: larger orbweaver (7-11 mm) black carapace, short shiny black legs, **10 spines** along the dorsum of the abdomen, “wrinkled” venter with **pointed spinneret region**

All the individuals I found in the area are black and white; however, their color varies throughout their range.

Location: They hang from vertically-slanted webs at face height. They often build their webs in inconvenient places such as across trails or in front of cabin doors.



by Bruce Marlin, *Adult female*

Neoscona crucifera (Lucas, 1838)
arboreal orbweaver



Description: larger orbweaver (5-19 mm), **banded legs**, light median line down dorsum of abdomen with perpendicular light patches with a black border; some individuals do not have a pattern on the abdomen

Location: The large female was sitting on the underside of a tree branch near its deconstructed web. This was on the woodland-creek border.



Individual with cross pattern



Verrucosa arenata (Walckenaer, 1841)
triangulate orbweaver



Description: medium sized orbweaver (4-9 mm), black carapace and black bordered triangulate abdomen with large **white triangle**, small protruding points around dorsum of abdomen
immature male with tannish brown carapace, triangulate abdomen with dappled pink and white semi-triangle shape

Location: The immature male was found in a vertical orb web in the woods. I found a breeding pair sitting underneath a tree branch on the northwest side of the creek near a trail.



Subadult male



By MO Dept. of Conservation Staff, female

Family Atypidae purseweb spiders

Sphodros rufipes (Latreille, 1829)
red legged purseweb spider



Description: male about 14 mm, bright **red, shiny legs**; proportionately large carapace to abdomen, **huge chelicerae** about $\frac{3}{4}$ length of carapace, downward pointing fangs characteristic of **mygalomorph** (includes tarantulas) spiders

Location: A male was found wandering in mid-June across a trail in the south woods. After some searching a web was discovered in the area the male was found. The **tube web** was anchored to a tree beside a trail in a pawpaw grove. 30-50 feet away was a pond and 20 feet on the other side of the trail was lower, saturated soil. The trunk of the pawpaw was 2 cm in width. The tube web was 6 inches above the ground. The lower $\frac{3}{4}$ portion of the tube was a mixture of soil and webbing. I tore into some of the upper tubing and when I returned five days later the web was completely repaired. I searched for other webs nearby but found none. Many of the smaller trees in the woods had winter creeper vines wrapped around the base and which may be a deterrent to the species.

Notes: When feeling threatened the male would lower his cephalothorax to the ground, angled his chelicerae upward and spread them apart, and raised his abdomen.



By Danelle Haake, Litzsinger Road Ecology Center, Adult male



Tube web at base of pawpaw tree

Family Clubionidae

sac spiders



Clubiona sp. (Latreille, 1804b)

Description: female 10 mm, **silky yellow-white** legs, carapace and abdomen, abdomen long oval, anterior median of abdomen with **darker spearhead mark**, **chelicerae reddish brown** fading into eye region.

Location: This female was found wandered on a woodland plant. I found a female webbed in a fallen **leaf** with its eggs in the undergrowth of the south prairie.

Notes: These spiders **wander and hunt** on woodland plants at **night**.



By Robert Lord Zimlich, *Clubiona sp.*

Family Corinnidae

Phrurotimpus borealis (Emerton, 1911)



Description: female 3 mm, almost entire **tibia of front legs black** with long **spines** resting ventrally, rest of legs yellow, yellow carapace with black outline, grey and yellow chevron pattern with **iridescent** scales on abdomen

Location: The female was in a web in a hollow of a tree branch.

Notes: Phrurotimpus species are normally found under logs and leaf litter. *Phrurotimpus alarias* (Hentz 1847) has black banding or spots on its hind legs (Bradley).



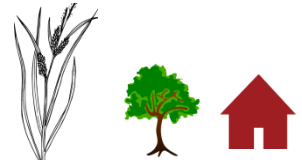
Adult female



spermicathae

Family Gnaphosidae

Micaria sp. (Westring, 1851)



Description: male 5 mm, **ant-like body and movement**, black body with brown to tan legs, two white **stripes** halfway down cylindrical abdomen, **iridescent** scales

Location: The male was crawling on me on the woodland-prairie border. *Micaria* are ground hunters often seen during the day.



By Arlo Pelegrin, *Micaria longispini*

Family Linyphiidae

sheet-web weaver spiders

subfamily Erigoninae

dwarf sheet-web weaver spiders

Ceraticelus sp. (Simon, 1884r)

Description: female 2 mm, red carapace and circular tan-red abdomen tapered to spinnerets

Location: in tree web in woodlands



Tiny adult female

subfamily Linyphiinae

larger sheet-web weaver spiders

Bathyphantes pallidus (Banks, 1892)



Description: female 3 mm, oval abdomen, grey-black with symmetric tan patches, reddish brown carapace, long delicate tan legs, **chelicerae angled outward**

Location: She was wandering over log debris in the woods



Adult female



Impressive chelicerae and fangs

Frontinella communis (Hentz, 1850)

bowl and doily spider



Description: abdomen brown with **white squiggly lines** along sides, tan legs, rectangular shaped abdomen from the side

Location: Bowl and Doily spiders are named for their distinctive webs. The spider hangs beneath its “bowl,” beneath which lies a “doily,” or sheet of web. A network of threads above the bowl portion anchors it to plants. These are common in the prairies and low trees or bushes.



By Donald Drife, *bowl and doily web*



Adult female

Family Lycosidae

wolf spiders

Rabidosa punctulata (Hentz, 1844)
dotted wolf spider



Description: (11-21 mm) off white, long legs; slender oval abdomen with median dark brown stripe surrounded by white, carapace off **white with two dark brown stripes** passing through the large posterior eyes, eyes arranged in three rows with two large eyes on the front of carapace

Location: I found this spider wandering on the side of the restoration center underneath an overhang low to the ground.

Notes: All lycosidae have the above described eye arrangement. The larger eyes give them excellent vision, which is used in courtship and hunting. Species are either diurnal or nocturnal.



Live under a microscope



Lycosid eye arrangement

Family Oxyopidae

lynx spiders

Oxyopes scalaris (Hentz, 1845)



Description: female 8 mm, **spiny legs**, anterior of abdomen rounded, tapering to pointed posterior, yellow and grey boxy carapace, median of abdomen grey fading into black sides with two pairs of triangular tan marks posteriorly, brown stripes on venters of front three legs

Location: The female was sitting on a prairie plant eating a beetle.

Notes: *Oxyopes* species rest at right while hanging from a silk line underneath a leaf (Cutler, Jennings, and Moody 1977).



By Kevin Pfeiffer, female *Oxyopes scalaris*

Family Philodromidae

running crab spiders

Philodromus marxi (Keyserling, 1884)

metallic crab spider



Description: male 3 mm, long **orange legs**, metallic **pink-orange** carapace with **metallic green or purple-pink** abdomen; female 2.5 mm, off white legs, off white median area on carapace with black sides and off white abdomen with black undulated side marks.

Location: Several males were found wandering around the restoration center in early June. The female was found in the woodlands.



By Edward Trammel, *Adult male*



Adult female

Family Pisauridae

nursery web and fishing spiders

Dolomedes tenebrosus (Hentz, 1843)

fishing spider



Description: female 19 mm., black, brown and tan, banded legs, eyes rounded with black, red faded to black chelicerae, 4 **W-shaped marks** on abdomen

Location: I found a large female on the side of the restoration center sitting against the house under a pan. I found many sitting on the underside of **logs** in the woods.

Notes: Litzinger staff found an adult female with her spiderlings in a white plastic trash bag/ nursery outside!



Adult female



Young individual under log, lower left

Pisaurina mira (Walckenaer, 1837)
nursery web spider



Description: female 13 mm., light brown body, dark brown legs, orange-brown carapace, slender oval abdomen, tan patch on abdomen, small white marks on posterior of abdomen

Location: On a day of heavy rain in June this spider was crawling up some tall grass on the woodland edge by the prairie.



© Troy Bartlett, *Nursery Web Spider*

Family Salticidae
jumping spiders

Paraphidippus aurantius (Lucas, 1833)
emerald jumper



Description: female 8 mm., large front eyes, thick first legs, **iridescent green** on median of carapace and abdomen, eye region black, **orange stripe** bordering anterior of abdomen ending with orange spots, also orange stripes along the sides of carapace, abdomen with three pairs of white spots bordered laterally with smudges of black
male 5 mm., same patterns but more pronounced and the stripe and spots bordering the front of the abdomen and sides of the carapace are white

Location: The male was found on the grass in the woods near the edge while the female was found on the woodland-prairie border.



Female left and male right

Phidippus audux (Hentz, 1845)
bold jumper



Description: female 8-15 mm., black body and legs, **iridescent green chelicerae**, three white spots on abdomen
male 6-13 mm., similar coloration except a white stripe borders the front of the carapace and there is white fringing along the legs, longer chelicerae

Location: I spotted the male on a woodland plant off the trail. The female was in a thickly webbed retreat under a wooden stand in the north prairie.



Female



Male

Family Segestriidae
tubeweb spiders

Ariadne bicolor (Hentz 1842)
tubeweb spider



Description: females 6-15 mm., six eyes, **carries front three pairs of legs forward**, legs shiny and tan, with dark brown on anterior legs, carapace light brown; dark grey, **pill-shaped abdomen** with a **high sheen**

Location: The first individual I found was in a tube web in the crevice on a short branch coming off a log on the ground in the woods. The area was covered in winter creeper vine. Some days later while inspecting the outside of a wooden cabin at the education center end of the property I found many small tube webs built into crevices in the wood. There were often 2-3 tubes close together. Along the seam of a doorway there was a larger individual. The tubes began with a 1-2 inch tube running parallel to the ground then angled perpendicular another 2-5 inches. The tubes I found in logs were usually shorter.



Tube webs on door



Individual emerged from tube



Live under microscope

Family Sicariidae

recluse spiders

Loxosceles reclusa (Gertsch & Mulaik, 1940)

brown recluse



Description: male 8 mm., long tan to brown legs, tan carapace with median brown **violin shape**, brown **concolorous abdomen**, three groups of eyes, **six eyes**, mature male with uncovered bulb on palp (haplogyne group).

Location: My fellow intern, Brandon, found the male in a bathroom sink. I found others in the tool shed.

Notes: This spider is one of the few species in America with **medically significant** venom. The venom can cause localized necrosis (death) of tissue. Although recluse spiders are commonly found in houses, bites are rare. Bites usually occur when people put on a piece of clothing with the spider inside, putting direct pressure on the spider.



By MO Dept. Of Conservation staff

Family Tetragnathidae

long jawed orb-weavers

Leucauge venusta (Walckenaer, 1841)
orchard orb-weaver



Description: 3-8 mm. Long oval-shaped abdomen colored mostly **silver** with black branched lines, venter of abdomen with **orange bow-tie** shape, **green legs**

Location: These spiders are commonly found in low, horizontal webs attached to **woodland** plants. They hang in the middle of the web during the day and run to the edge if disturbed. Many spiderlings were identified by the orange dot on their undersides.



By Keith Thompson, *adult female*

Tetragnatha sp. (Latreille, 1804b)



Description: 5-13 mm. **Long legs**, with the third noticeably shorter, bumps at leg joints, front of abdomen squared off, **abdomen is long** and tapers to the end, brown and yellow pattern along abdomen; **chelicerae 1.5 times longer than carapace**, angled outward with long curved fangs

Location: The large individual was found resting on a **branch** beside its **orb web**, which was **anchored over the creek**.

Notes: Members of *Tetragnatha* are commonly found near bodies of **water**.



Individual on branch hanging over water

Family Theridiidae

cobweb weavers

Argyroides cancellatus (Hentz, 1850)
dewdrop spider



Description: male 3 mm., **triangular** abdomen colored brown with silver flecks, clypeus (area below eyes) depressed into groove with bulging projection below, long thin, tan to brown legs

Location: I found this male in a web with other spiders of similar size, all of brown or red coloration. The web was low in a tree in the woods. I did not collect others to see if they were of the same or different species.

Notes: Members of argyroides are kleptoparasites, which means they will live near or in other spiders' webs, stealing prey and in some cases even feeding on larger host spiders. This species in particular may live communally with its own kind (Exline and Levi, 1962).



Adult male



Parasteatoda tepidariorum (C. L. Koch, 1841)
common house spider



Description: male 4 mm., red legs and carapace, white and grey patterned abdomen
female 5-7 mm., large teardrop-shaped abdomen, brown, tan, white, and black pattern on abdomen of varying shades.

Location: The female commonly builds her web on the outside and inside of buildings. She hangs upside down in it. The male is usually found hanging in her web.

Notes: Females usually lay 2-3 egg sacs, which are tan and teardrop-shaped.



By Oliver1, male left and female right

Steatoda borealis (Hentz, 1850)



Description: female 6 mm., black carapace and abdomen with reddish brown legs, oval abdomen with pairs of dimples on dorsum, white line bordering dorsal front of abdomen

Location: I found the female in a small web at eye level in a tree in the woods.



Live adult female

Theridion albidum (Banks, 1895)



Description: female 4 mm., large round abdomen with white median stripe with three pairs of black dots embedded in outside of stripe, white stripe on either side of abdomen, yellow carapace with black median line, delicate yellow legs with black patches at ends of tibiae

Location: in woodland-prairie border plant nest

Notes: *Theridion albidum* is almost indistinguishable from *Theridion frondeum*. Examination of the epigynum is necessary.



Adult female

Family Thomisidae

crab spiders



Ozyptila americana (Banks, 1895)
leaf litter crab spider

Description: male 3 mm., first three legs facing forward, carapace with black sides and white media patch, legs **mottled black, white and tan**, abdomen as wide as long with squared off anterior border, abdomen brown with black stripes at the back

Location: The male was wandering on the **ground** in front of the restoration center.



Adult male

Misumena vatia (Clerck, 1757)
goldenrod crab spider



Description: female 6 mm., white abdomen, off white legs and carapace, abdomen round and squared at the front from the side

Location: The female was hanging from a tree beside the restoration center. I found adult females with red markings on the abdomen and legs sitting in between the umbel and leaves of *Monarda* in the south prairie.

Notes: The spiders rely on camouflage to hunt pollinators that visit flowers. They are able to change their coloration between white and yellow to better match the flowers they occupy (Bradley 240).



Female on Monarda leaf

Tmarus sp. (Simon, 1875)



Description: female 2 mm., very flat body, median of body grey and sides of body brown, light colored venter, chelicerae and clypeus angled forward rather than downward

Location: I saw this spider moving on a woodland plant not far from the creek. When disturbed, the spider would either drop down a silk line onto another branch, or lay flush against the wood, legs fully extended.

Notes: The spider's coloration and flatness of body helps it blend in with the surface of woody plants.



Female

Family Uloboridae

hackled band orb-weavers

Ulorobus glomosus (Walckenaer, 1842)

featherlegged orb-weaver



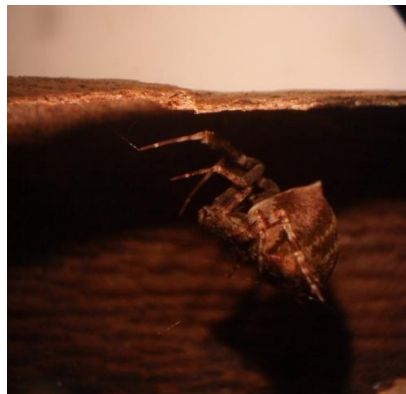
Description: female 3-4 mm., brown and tan coloration, silky texture, first pair of tibiae with conspicuous **tufts of bristles** at ends, abdomen flat on venter but high dorsally, with four humps towards front

Location: I found females hanging from horizontal webs lower to the ground in **trees**, commonly in hollows of trees either where a limb fell off or made by a woodpecker.

Notes: The family Uloboridae is the only known group of spiders **lacking venom glands**. They have a cribellum, a portion anterior to their main spinnerets that contains hundreds of tiny spinnerets producing a specialized silk. They use short, thick spines along their fourth legs to comb out this silk, giving it a wooly texture. This fine, tangled **cribellate silk** traps prey. You can see the cribellate silk as a zig-zag running as a line or spiral through the hub of the web, called a “**stabilimentum**.” Spiderlings tend to build a stabilimentum that spirals around the hub. Uloboridae subdue their prey by wrapping them to death in silk.



In web with zigzag stabilimentum



Adult female live under microscope

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Credits

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