

Spiders

Spiders are not Insects – they are arthropod relatives of insects. All spiders are predaceous, mostly on insects. There are about 50 families of spiders in the United States. Most provide benefit as natural control agents. Spiders are generalist predators and many do not discriminate as to type of prey.

Spiders have a body of two distinct sections (vs. 3 in insects). The cephalothorax is the anterior and smaller part. It bears the eyes, mouthparts and legs of the spider. The abdomen is the second part. It includes most of the internal organs, the reproductive organs and silk glands. Spiders have 8 legs (insects have 6) and lack antennae and wings.



Spiders capture their prey in three main ways. The largest group construct a web. Common web spinners include the orb weavers, the sheet web spiders, the comb-footed spiders, and the funnel web spiders. The second most common method of capturing prey is active hunting and running down prey. Examples of hunting spiders include the wolf spiders, the jumping spiders, and the lynx spider. The third method, as seen in crab spiders, is the ambush method. These spiders, which are common on flowers and vegetation, stay motionless until their prey comes within easy

grasp.

Virtually any active stage of an insect's life cycle can fall prey to a spider. Some spiders will even eat insect eggs or pupae. Individual spider species are more likely to catch a certain prey type, based upon the method of prey capture. For example, orb weavers are more likely to capture adult flying insects than crawling insects.

Spiders tend to have only a single generation per year, and therefore are unable to rapidly increase their numbers. Spiders are considered to be part of the overall natural enemy complex that helps add stability and a buffering capacity to keep pest populations from rapidly expanding. Spiders are more diverse in habitats with greater variety of plants and plant types. They are susceptible to pesticides, both directly – when their nests are sprayed – and when suitable spray is reduced from a spray application.

Here are representative types of spiders we find in Delaware.

Jumping Spiders: These are small to medium spiders with short legs and stout bodies. The body is hairy and may be brightly colored or iridescent. They are found primarily under stones and in debris. They "jump short distances or move in quick, jerky moves to escape potential harm when disturbed.

Crab Spiders: As the name suggests, these medium sized spiders are crab-like in appearance. They walk sideways or backwards to escape harm. Crab spiders spin no webs. They forage for their insect prey or wait in ambush for it. They are expert in camouflage. One species can even change color depending upon the color of the flower it is resting on.

Fishing Spiders: These spiders may be quite large. Some have a leg spread of three inches. Most live near water and can walk over the surface and even dive into water. They feed on aquatic insects and small fish. These spiders are rovers. Females carry the egg sac underneath the body until the young spiders are ready to hatch at which time she ties it to a plant and wraps leaves around it.

Orb Weavers: Included in this group are the garden spiders many of which are brightly colored black and yellow or black and red. These spiders are usually found resting head downward near the center of their large orb web. They weave during the night. They feed on a wide variety of insects that fly into their web. [The illustration is of an orb weaver].

Wolf and Ground Spiders: Most of these common spiders are quite large and dark brown in color. They may be found running along the ground chasing their prey. Few build webs. The females carry the egg sac and when the young hatch, they are carried on the female's back for a few days.

Household Spiders: Common household spiders are the cobweb spiders and yellow house spiders. Cobweb spiders construct webs in corners and areas of little traffic such as basements. They trap all manner of insects that may invade homes. Yellow spiders make much smaller webs and hunt along window sills, walls or floors for suitable prey.

Harvestman or Daddy-Longlegs: Technically not spiders, the daddy-longlegs is a separate order of arachnids, they deserve mention here because they are found in our gardens. These arachnids have a small oval body and extremely long legs. They feed on plant juices and dead insects.

Spiders to Avoid:

Tarantulas:

These spiders are feared because of their size and formidable appearance. The bodies may get up to 3-3 1/2 inches in length. Actually they are sluggish spiders and will attack only when they are harmed or cornered. Many are kept for pets. The larger species can inflict a painful wound with their powerful jaws. Tarantulas are desert spiders and are not naturally found in Delaware but are a somewhat common household pet.

Black Widow:

The female black widow spider is shiny black. They are about 1/2 inch long with long slender legs. There usually is a reddish or orange mark in the underside of the globular abdomen in the shape of an hourglass. Black widow spiders are timid by nature. When they are accidentally squeezed or threatened they will bite in self defense. The venom is highly toxic. The bite causes extreme pain which usually extends to the abdominal muscles. Black Widows seek out dark places in which to construct a retreat. This may bring them in close proximity with man in basements, in sheds, under lawn furniture, in lumber piles or debris in the yard and in outdoor toilets.

Brown Recluse:

This spider is known to cause sores that are slow to heal when it bites. These spiders are not found in Delaware but other spiders are frequently confused for them. Since these spiders are easily transported, it is wise to check vacation gear when returning from a southern and western vacation. The spiders hide in dark corners and are generally shy. If you feel intense pain after being bitten by a small (3/8 inch long) brown spider, call your physician.

Control

Although most spiders are beneficial, homeowners often consider them a nuisance when found in the home. Common household spiders are the cobweb spiders, which can be found in basements and little-used areas, and yellow house spiders, which make small webs and are active hunters; they can give a nasty bite if accidentally cornered or handled. Eliminate food sources to reduce the numbers of both spiders. If spiders become a problem in the house, they may be controlled with a household aerosol insecticide. The insecticide should be sprayed in corners of the rooms, both at floor and ceiling levels. In combination with an insecticide, good housekeeping, such as removing webs with a dust cloth or broom, should be practiced and vacuuming regularly will help.