600 species of spiders in Ohio

Farms are great places to learn about spiders, and it was no exception for me. I was introduced to a wide array of spider species on our Missouri farm.

I learned to avoid the brown recluse in the dim dry areas of the barn, and to avoid the black widow along the block wall in the cellar. However, there were plenty of other spiders that are not poisonous to entertain a child.

I enjoyed touching the webs of funnel spiders and watching them shoot out of their tunnels. There were other times that I accidentally found spiders. The most memorable spider occurrence was in a corn patch.

I was running between the corn rows and ran into a giant orb web of a garden spider between two rows, coming eye to eye with the spider — the largest spider I had ever seen but also the most beautiful with its black and yellow markings.

Spiders and their webs are most abundant at this time of year. Joe Boggs, an Ohio State University entomologist, has recently written a nice tribute to spiders and their webs. The following information has been taken from his many discussions on spiders.

There are over 600 species of spiders found in Ohio and most feed almost exclusively on insects. The spiders that are currently dominating landscapes with their webs are sheetweb weavers, funnel weavers, and orb weavers.

Funnel weavers produce large, flat, sheet-like webs spun across grass, under rocks or boards, or over the branches of shrubs such as yews and junipers. The webs slope gently towards a narrow funnel or tube where the spider resides, awaiting its next victim.

The funnel spiders are medium-sized and resemble small wolf spiders. Funnel webs may measure more than 1 foot across and can become very evident with dew, or when the snare dust during drought conditions.

Sheetweb weavers construct several types of webs depending upon the spider species. Some species spin flat or slightly curved webs that overlay vegetation and rival the sizes of webs spun by funnel weavers.

However, sheetweb spiders do not create a funnel in the web. The spiders hide beneath one edge of the web, or in plant foliage along the edge of the web, to await their prey.

One of the most interesting sheetweb weavers is the bowl and doily weaver. This is one of the few spider species with males capable of producing webs. However, females still dominate web weaving.

This spider constructs a complex web structure consisting of distinctly bowl-shaped webbing suspended from plant stems by a crisscrossing array of silk threads. This is the “bowl” in the common name.

The bowl is anchored below by a horizontal array of interwoven silk threads, the “doily.” Flying insects drop into the web bowl after bouncing in pinball fashion off the interlacing silk threads used to suspend the web. Of course, when they drop into the web bowl, they fall into the “arms” (and fangs) of the waiting spider.

As their common name describes, orb weavers produce flat, circular, orb webs. The webs are intricate structures involving both sticky and non-sticky silk. Non-sticky silk is used for “radial threads” which radiate from a central point like spokes on a bicycle wheel.

The non-sticky silk is also used for “frame threads” which encircle the web like a bicycle wheel to hold the radial threads in place and to attach the web to supports such as plant stems. “Spiral threads” are composed of sticky silk arranged in a spiral pattern emanating from the center of the web. It is the sticky silk that captures the spider’s prey.

A “stabilimentum” is a vertical pattern of dense silk centered in the web that is produced by many orb weavers. The stabilimentum produced by the large, showy black and yellow garden spider usually has a zigzag pattern. The dense webbing reflects ultraviolet light which attracts insects to their doom.

Look closely between the branch tips of shrubs and you may spot the diminutive trashline spider. The silk in their stabilimentum enshrouds the drained bodies of previous victims. The morbid structure is responsible for the “trashline” common name.

The spiders rest in the middle of their trashline. Their small size and mottled coloration makes them very difficult to see among their similarly sized and colored bundles of trash. Indeed, research has shown that the trashline bundle serves to confuse predators, such as birds and wasps intent on making a meal of the spider.

Spider web photography and printing can be an enjoyable and rewarding hobby.

Morning dew is a great web highlighter. However, you can also position black paper or a black notebook in the background to provide contrast; whatever is handy.

To do web printing, position a black notebook behind a web that was heavy with dew and carefully pull the notebook through the web to make a print.

To see images of the spiders and their webs discussed in this article go to https://bygl.osu.edu/node/920.

Lentz is extension educator for agriculture and natural resources for the Ohio State University Extension Service in Hancock County. He can be reached at 419-422-3851 or via email at lentz.38@osu.edu.

Lentz can be heard with Wawn Wickerham on weekdays at 6:35 a.m. on WFIN, at 5:43 a.m. on WKXA-FM, and at 5:28 a.m. at 106.3 The Fox.