



PHOTOS BY BONNIE COURTER

Orb-weavers like the black-and-yellow argiopes create a zigzag structure, called the stablementum, in the middle of their web. Scientists are unsure as to the function of the stablementum.

Orb-weavers a sure sign of fall

Question: I recently noticed this beautiful black and yellow spider in my flower garden. Can you tell me something about it?

AnsWER: When I see the black-and-yellow argiope astride her unique web, I know that fall is right around the corner. Argiope aurantia, also known as the writing spider or zipper spider, is one of the orb-weaving spiders and shows up in gardens in the late summer.

I just counted a total of seven just in my front flower garden alone!

What you usually see is the female spider that grows to over an inch long – the males have the same yellow and black markings but are much smaller (1/4” to 3/8” long).

Orb-weavers spin their webs in a circular shape and have three claws per foot on each leg instead of the normal two claws in other spiders. They use this third claw to help handle the threads while spinning their webs.

Black-and-yellow argiopes prefer to construct their webs in sunny places where they are protected from the wind. The females spin their webs by firmly grasping a grass or flower stem, then she lifts



Bonnie Courter
Master Gardener

her abdomen, emitting several strands of silk from her spinnerets that merge into one thread. The free end of the thread then drifts until it touches another anchor stem.

The next step involves making bridge lines and other scaffolding for the framework of her web, creating a hub that resembles the spokes of a wheel. Switching to a sticky silk, she spirals these threads around this hub which actually catches her prey.

Also included is the conspicuous white zigzag structure in the middle of the web called the stablementum. Scientists aren't quite sure what the function of this zigzag structure is: possibly as a stabilizer for the web, an attractant for insects or it possibly keeps birds from flying through the web and damaging it.

The whole intricate process takes several hours and when night time comes again, she will eat the sticky strands and rebuild it each night. It is

thought that the spiders gain some nutrition from any tiny insects in the web along with any organic matter caught as well. The entire web can be up to 2 feet across.

The female is most active during the day, attacking any flying insects that get trapped in her web. She will hang in the center of the web, head down, while waiting for her prey, often holding her legs together in pairs to appear to only have four legs instead of eight.

When an insect hits the web and starts to struggle, the vibration alerts the spider and she instantly pounces on it. With a venomous bite, she quickly paralyzes her prey. This spider can consume prey that are twice its size.

The black-and-yellow argiope breeds once a year. Adult males roam in search of potential female mates in the fall, and when they find one, they build a small web with the stablementum nearby or at the edge of the female's web. Then they court her by plucking and vibrating her web.

Once mating occurs, the female produces one or more round, brown, papery egg sacs that are up to an inch in width, each containing 300-1,400 eggs.



Female black-and-yellow argiope astride grows to over an inch long. Males are much smaller, ranging from 1/4-3/4 of an inch long.

The egg sac is then attached to one side of the female's web, close to her center resting position for protection. The eggs will hatch in the sac but not emerge until the following spring.

These spiders live mostly only one year, from their hatching in the fall until the first hard frost in the following year.

The black-and-yellow argiope is very beneficial to our environment, catching insects like mosquitos, moths, mud dauber wasps, grasshoppers,

aphids and flies. So when you welcome the fall season, also welcome this attractive garden spider to your garden.

Do you have a gardening or insect question? Contact the Douglas County Master Gardeners at douglasmg@oregonstate.edu or 541-672-4461 or visit 1134 SE Douglas Ave., Roseburg. Douglas County Master Gardeners are trained volunteers who help the OSU Extension Service serve the people of Douglas County.