

ON THE WILD SIDE

Nature's weavers worth study

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One hot summer day, I knew it wasn't going to rain. The grass spiders, *Agelenopsis sp.*, had spun their webs flat across the grass. At least that's what my grandmother used to tell me, and it is part of spider folklore. The flat webs are easiest to see on bushes and the grass when the morning dew has settled on them. Weathermen could get a tip from grass spiders.

Grass spiders are also called grass funnel-web spiders. Don't worry; the grass funnel-web spiders native to the United States are not harmful. Around here they are usually small brown spiders with longitudinal stripes. They build flat webs with a funnel in the center or off to the side.

Try carefully approaching the web, taking care to not let your shadow cross it, and you might see the spider at the base of the funnel, waiting for an unsuspecting insect to fall in. If its catch is good to eat, it will bite and kill it with its venom.

Sometimes the webs are sticky, sometimes not and the prey simply gets tangled in the web and has trouble escaping. Strangely, sticky webs may be dangerous for the spiders that spin them. They don't know how to walk on sticky webs and may become prey themselves for birds or dragonflies.

Female grass funnel-web spiders are the hunters. They stay close to the web, eating their prey and building up strength to lay eggs. The eggs are laid in sacs and are often found still attached to the dead female in a crevice or corner, waiting for spring, when they hatch and the cycle starts over. The life of the male is the life of a wanderer — searching for a mate before he dies.

Is Charlotte in your garden? Charlotte from "Charlotte's Web" I mean. Charlotte and other spiders like her are from a group of spiders called the orb-weaver spiders (*Araneidae sp.*), which build large circular nets to trap their prey. Most of the silk in the web is not sticky. The sticky part is called the capture silk and it's the last part of the



PHOTO BY ANNMARIE COLLETTE

There are a variety of spiders native to this area that spin their silky webs to catch prey.

web to be built. Orb-weaver spiders are cautious about the prey they capture on the web. A venomous wasp is wrapped in many layers of silk before the spider bites it. Orb-weaver spiders are excellent house cleaners. They eat their webs at the end of each day, prey and all, and build new ones in the morning. Talk about recycling!

Fairies fly on gossamer wings, and so do baby ballooning spiders. In the fall the air can be filled with thin filaments gliding in the wind. These strands of spider silk or gossamer are parachutes for baby spiders. They spin out silk until it catches the wind, and then they are off to parts unknown. This is one of the ways spiders have distributed themselves around the world. Unlike fairies, they have been found high in the atmosphere and floating hundreds of miles out to sea.

Spider silk is one of the wonders of the natural world. It is one of the strongest materials known, and is both elastic and biodegradable. Scientists study gossamer, trying to find a way to manufacture it in quantities that would make it marketable.

Experiments using large collections of silk-spinning spiders have ended in mass carnage, as spiders, unlike silkworms, like to eat each other. After five years of trying, millions of spiders, a trained team of spider handlers and many difficulties, golden orb spiders in Madagascar produced a breathtaking 11-foot long sample of spider silk cloth. The result is beautiful, but a bit impractical commercially.

Although not commercially valuable, spiders are invaluable as members of our native wildlife community. They eat lots of insects and are eaten by birds and other insects. All it takes to study spiders is patience, a magnifying glass and an identification guide. There is no need to be afraid of local spiders. The only truly venomous spider native to the area is the Northern Black Widow, *Lactrodectus variolus*, and it is nocturnal and reclusive. It is easy to identify by the red spots and incomplete hourglass on its abdomen.

Observing spiders and all kinds of wildlife can enrich your world and help you understand the need to preserve it for the future. Modest changes in your yard, or just recognition of what you already have, will help you qualify your yard as a Certified Wildlife Habitat. We hope to certify 150 yards in Norton and celebrate Norton as a Wildlife Habitat during Norton's Tricentennial Year.

For local information, see the Land Preservation Society of Norton website:
<http://www.nortonlandpreservation.org/>

For complete information, go to the National Wildlife Federation website:
<http://www.nwf.org/In-Your-Backyard.aspx>

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