Spiders

Many people think of spiders as sinister presences lurking in dark, cobwebby corners waiting to jump out and attack. The truth is that these much-maligned animals are some of nature's best pest control agents, since their entire lives are devoted to capturing and gobbling insects.

Despite their reputation, most spiders are shy and harmless to humans. No spider species generally considered dangerous to humans is native to New Hampshire. Spider experts say the occasional Black Widow or Brown Recluse discovered in or around a New Hampshire home has hitched a ride into New Hampshire from elsewhere.

Spiders belong to a class of animals known as *arachnids*, which also includes ticks, mites and daddy-longlegs. All arachnids have 8 legs and 2 body sections. Insects, on the other hand, have 6 legs and 3 body sections. Male spiders are typically smaller than females. Young spiders (spiderlings) look like adults except for their coloring and smaller size. The United States is home to about 1000 species of spiders, 500 of which live in New Hampshire.

Spiders can be grouped into two broad categories: *trapping spiders*, which snare their victims with webs, and *hunting spiders*, which actively chase down their prey. The trapping spiders are more primitive and prey mostly on flying insects that become entangled in their webs. The more aggressive hunting spiders tackle a wider variety of insects, including some caterpillars and beetle larvae.

Spiders are variously equipped with all sorts of specialized mechanisms for catching insects. Some swing from long strands of silk onto their prey as it flies by. Fishing spiders walk on water and can even dive below the surface to catch food. Jumping spiders can pounce on an insect from several inches away. Some members of the spider family even have the ability to change colors in order to blend into their surroundings.

All spiders produce silk from glands near the tip of the abdomen. Experts say that spider silk is stronger for its size than steel. Spiders use their silk not only to make webs, but also to line their nests, construct egg sacs and to make parachutes that enable them to travel great distances.
Spiders lay eggs within a silken egg sac that is often ball-shaped and either hidden in the web or carried by the female. Spiders may produce several egg sacs, each containing several hundred eggs. One female may produce as many as 3,000 eggs in a series of several sacs over a period of time. Eggs may hatch a few weeks later and reach adulthood in one year.

For a spider to grow, it must shed its skin (molt), typically four to twelve times before maturity. Most spiders live either one to two seasons. Some spiders may overwinter as eggs, spiderlings in the egg sac, immature spiders living outside the egg sac, or as adults.

All spiders produce venom, which they inject into their prey through hollow fangs to immobilize the prey. They inject or regurgitate digestive fluids into the prey's body to liquefy it, since spiders can consume only fluids.

Because they produce venom, all spiders technically are "poisonous". But spiders are seldom aggressive and will attempt to bite humans only when threatened or injured. Most have fangs too small or weak to puncture human skin. Even venom from a spider that can inflict a bite on humans usually produces only a mild reaction, such as localized swelling, redness and pain that requires no special treatment.

However, some people react more strongly to spider venom than others, and there are few species of those spiders that can bite humans whose bites produce painful swelling for longer periods of time. Please consult your doctor if you or someone in your family experiences an unusual degree of pain and swelling after being bitten by a spider.

Though their insect-eating habits are beneficial, spiders can become a nuisance when they invade a home. Good sanitation is the most practical method of control. Collect and destroy spider webs, egg sacs and spiders with a strong suction vacuum cleaner. Use attachments to get to hard-to-reach places. Move and dust often behind and under furniture, stored materials and wall hangings. Control excess moisture and humidity. Keep basements, crawl spaces and porches as dry as possible. You'll also need to eliminate other household pests like flies, ants and cockroaches which attract spiders. Finally, be sure to seal or caulk cracks and crevices where spiders can get into the house from outdoors.

*We gratefully acknowledge information drawn from the Ohio State University Extension entomology fact sheet HYG-2060-95, **Spiders In and Around the House**, available on the Internet at http://www.ag.ohio-state.edu/~ohioline/hyg-fact/2000/2060.html*

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*Store pesticides in their original containers in a locked cabinet or shed away from food. Dispose of unused pesticides or empty containers safely, according to NH regulations. If you suspect pesticide poisoning, call the New Hampshire Poison Control Center at **1-800-562-8236.***

UNH Entomologist Dr. Donald Chandler reviewed this information for technical accuracy, 7/01

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