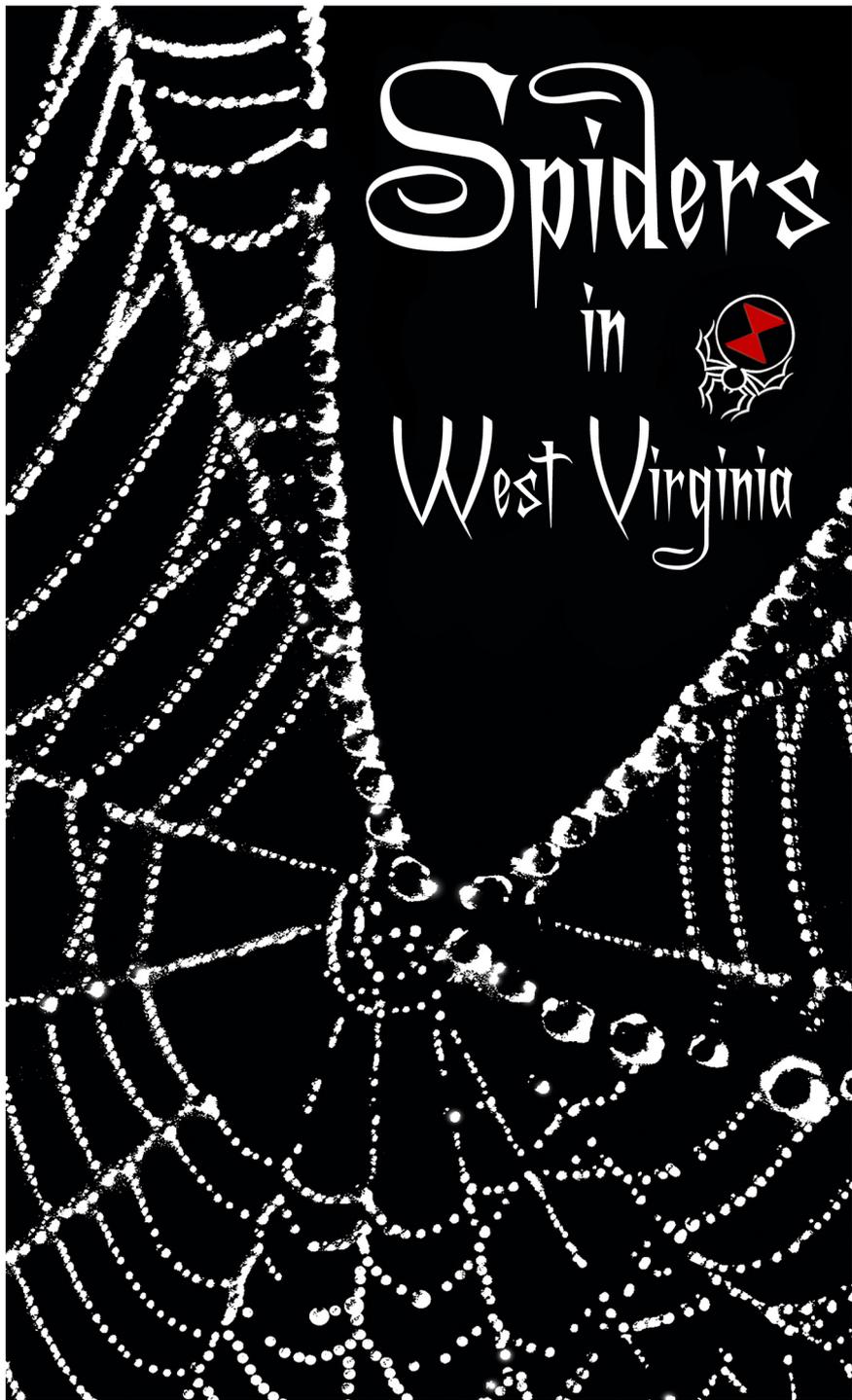


Spiders
in 
West Virginia



Spiders in West Virginia

Looked upon with fear and regarded with disgust by most people, the spider is truly a misunderstood creature. Superstition, folklore, ignorance and the ominous appearance of the spiders themselves has contributed to these attitudes.

The common belief is that all spiders are poisonous to man. The facts are that, except for two small groups of spiders, they are harmless to man and, in fact, are beneficial since they feed mainly upon insects. All spiders do possess venom glands which empty through small holes in the tip of the chelicerae or "jaws". The venom is used to kill or subdue prey, but the great majority of spiders cannot effectively pierce the skin of man or rarely have the opportunity. On the rare occasions when they do "bite" man there is either no reaction or a very slight reaction in the form of transient pain. There are some indications that a few people are "hypersensitive" to the venom of even the harmless spiders and, if bitten, would require attention, however, these individuals are rare. The unjustified phobia or fear of spiders may play as important a part in the reaction as the venom itself.

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Many people fear spiders because they believe they are aggressive and will attack and bite without provocation. Not so! Only one spider in the world is considered aggressive. This is the funnel-web spider of Australia, Atrax robustus, which reputedly will fight anything that comes its way. Other spiders are shy and retiring and will only become aggressive when cornered, injured or annoyed. Many spiders will rush to investigate a disturbance of the web, for this is a natural response for those spiders which depend on the web as a food catcher and does not represent an attack on man.

Spiders have few natural enemies and, in fact, they may be their own worst enemies. The young spiders are often cannibalistic on their own brothers and sisters, older spiders will feed on other spiders and females do occasionally devour the males after mating.

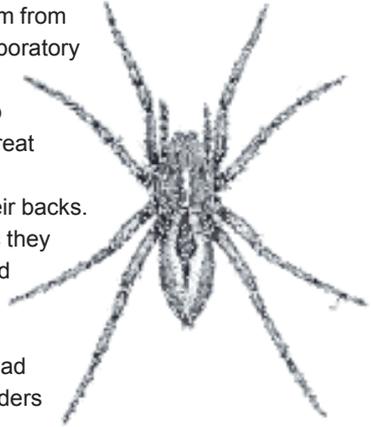
Several species of wasps feed on spiders and when spiders are around, man seldom passes up the chance to kill the ugly rascals.



Wolf Spiders

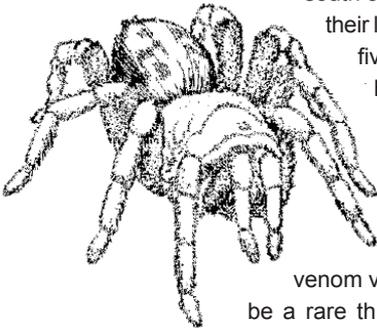
The Wolf Spiders (Lycosidae) are the largest and perhaps one of the most common spiders in West Virginia. Because of their large size, appearance and rapid reactions they are generally feared by man. The venom from two of the largest species has been tested on laboratory animals and found to be harmless. The chances of personal contact is slight since these spiders do not normally inhabit buildings and beat a rapid retreat in man's presence.

Wolf Spiders carry their young around on their backs. After the young spiders emerge from the egg sac they climb up onto the mother's abdomen and are carried by her for a considerable time. If the mother is killed the young will scurry away from her. This reaction has led to the superstition that the dead spider immediately produces hundreds of little spiders to take its place.



Tarantula

The tarantulas are not likely to be seen in West Virginia unless they arrive from the south on imported goods and commodities. Because of their large size (a female may have a leg spread of over five inches) and fierce hairy appearance they truly have an undeserved reputation for dangerousness. The venom of the tarantula is only slightly toxic to man, however, the bite from the strong "jaws" or fangs can inflict a somewhat painful wound.



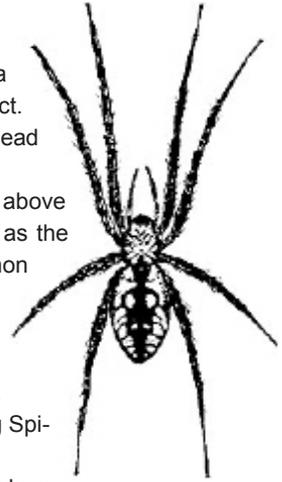
Some tarantulas of the tropics do produce a venom virulent enough to be harmful to man but it would be a rare thing indeed to encounter a tropical tarantula in West Virginia.

The jaws of the tarantula work vertically rather than horizontally as do most spider's jaws. For this reason, when annoyed by man or animals, they raise the front of the body in preparation for using their fangs in a raking manner and appear to be exceptionally fierce. The bite of the tarantula would feel like a pin prick, with mild pain and soreness, however the possibilities of being bitten by a tarantula in West Virginia are remote.

The Orb Weavers

The orb weavers of the family Araneidae are common out-of-doors where they construct webs between the foliage of plants or weeds as snares with which to capture their prey. Some construct a retreat some distance from the snare in which they await a disturbance of the web which would indicate a trapped insect. Others remain motionless in the center of the web, hanging head down in most cases.

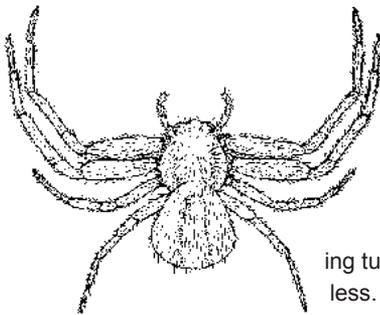
Some of these spiders construct a dense band of silk above or below (or both) the center of the web which is known as the stabilimentum and it may be straight or zigzag. One common spider of the genus Argiope is the common Black and Yellow Garden Spider. This spider constructs a zigzag stabilimentum which many superstitious persons interpret as omens of misfortune or signs of approaching good times. These spiders have received the common name of Writing Spiders for this reason.



Like the other spiders mentioned so far, these are harmless although their habit of spinning large webs between weeds and grass make them an annoyance to hikers or casual strollers.

The Crab Spiders

The crab spiders belong to the family Thomisidae and can be easily recognized by their crab-like habit of moving side ways and by the appearance of the legs, which resemble many of the crabs without large claws.

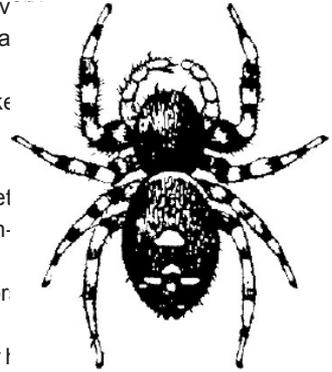


These spiders are wanderers and capture their prey by stealth rather than by weaving snares. They do not construct retreats or hibernating nests.

The eight eyes are peculiarly arranged with the lateral eyes either elevated above or on conjoining tubercles. These spiders are considered harmless.

Jumping Spiders

The jumping spiders of the family Salticidae are very common in West Virginia. They stalk their prey in broad daylight and are common in well lighted areas. They approach their prey slowly and when rather near make a sudden jump. Before jumping, the heavy front legs are extended forward for seizing their prey and a delicate anchor line of silk is attached by the spinneret. When disturbed or teased, they will jump to avoid contact.



These spiders are most common in the out-of-door but may seek shelter in man's abode.

The jumping spiders are easily recognized by their ability of jumping and by the arrangement of the six eyes. These spiders are considered harmless.

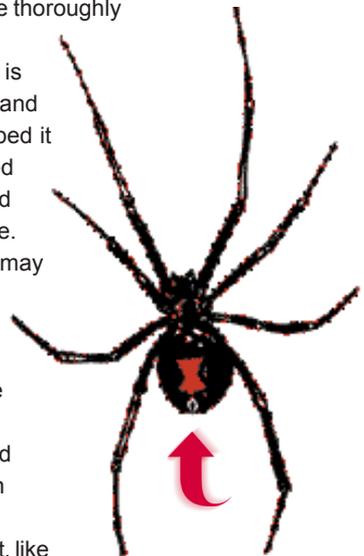
The Black Widow

The Black Widow spider, Latrodectus mactans, is probably the most notorious spider in the United States. Recorded in every state (except Maine where it no doubt does occur), this spider is feared by all but those who are thoroughly familiar with it.

It is true that the venom of the Black Widow is highly virulent, but the spider is really quite timid and has no instinct to bite humans. Even when disturbed it will try to escape rather than attack. When removed from her web, the Black Widow may be subjected to extreme provocation without attempting to bite. When her hidden web is disturbed, however, she may rush out and bite. When trapped in clothing or shoes she may also bite in self-defense.

The Black Widow commonly spins her irregular web in dark sheltered areas away from the weather. They can be found under stones or logs, in outbuildings, in wood logs, under or in discarded cans and similar places. These spiders have been found under greenhouse benches.

The Black Widow gets its name from the fact that, like other spider species, she may kill and eat the male after mating. However, in spite of popular belief she ordinarily will not do this unless she is extremely hungry or unless the male lingers too long. Often the males escape to mate



Characteristic hourglass mark (red) found on the underside of the female's abdomen.

again with other females.

The female Black Widow usually has a characteristic red marking in the shape of an hour glass on the underside of her abdomen. Otherwise, she is jet black. The male is smaller than the female and usually has yellow and red bands as well as spots over the back. The immature spiders are similarly marked.

The Black Widow's Bite

The initial sensation is like a pin-prick when the fangs are first inserted. This is usually followed by a burning sensation, local swelling and redness. The pain may become intense in one to three hours and can last for as long as 48 hours. The abdominal muscles may become rigid with severe cramps and the patient may become nauseous, depressed, tremorous, or be unable to sleep and experience speech defects. These may be a slight rise in body temperature.

What to do...

Do not cut the skin at the site of the bite!

Do no "first aid" other than applying iodine or peroxide at the site of the bite.

Help the person bitten to remain calm and take them to a physician or hospital at once. The doctor may administer antivenin and may use morphine to reduce the pain. Calcium chloride or calcium gluconate is sometimes administered to relieve the symptoms. Complete rest for a day or two plus the knowledge that fatalities are rare (or perhaps nonexistent) should see the patient completely recovered.

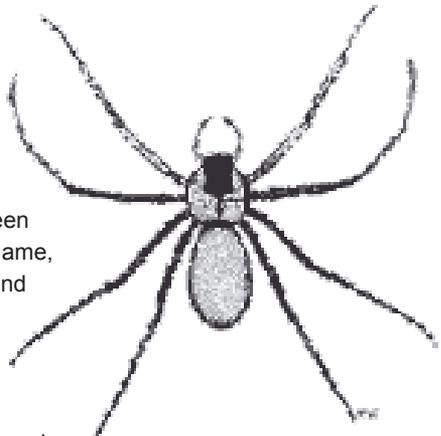
The venom is reputed to be 15 times as toxic as the venom of the prairie rattlesnake. However, only a minute amount of spider venom is injected with a single bite, while a relatively large amount of venom is injected when the rattler bites.

The Brown Recluse

The Brown Recluse spider, Loxocceles reclusa, has in recent years made a name for itself by proving that it can bite and cause serious, or occasionally, a dangerous condition in man.

To date, this spider has not been found in West Virginia even though it has been recovered in Ohio and Kentucky. As its name, reclusa, would indicate it lives in secluded and undisturbed places and is not likely to be detected until someone suffers a bite that requires attention.

When the Brown Recluse occurs indoors it may seek shelter behind curtains, in closets, or in seldom used clothing and shoes. It



is from these places that most bites have been recorded to have occurred. Outdoors it lives under rock ledges and other areas where it is not likely to be encountered.

The Brown Recluse is slightly smaller than the Black Widow and its color varies from orangish-yellow to dark brown. The legs are long and somewhat darker than the body. The most distinguishing characteristics are the peculiar arrangement of its six eyes and a violin shaped darker area on the cephalothorax (this section of the body is comprised of the head and the thorax and bears the legs and mouth parts.) This colored marking has led to the spider being called the “violin” or “fiddleback” spider in some areas.

The Brown Recluse’s Bite

Both males and females have venom and both are capable of inflicting poisonous bites. The symptoms are not at all similar to the symptoms of the black widow’s bite.

Typically the victim may not be aware of having been bitten for two or three hours, however a painful reaction may sometimes occur immediately. The initial stinging sensation is usually followed by intense pain. A small blister may arise at the site of the bite and a large area around the bite becomes swollen and congested. The patient may develop fever, become restless and have difficulty in sleeping. The tissue affected locally by the venom is killed and gradually sloughs away, exposing the underlying tissue. The edges of the wound become thickened and raised while the central area is filled with dense scar tissue. Sinker scars ranging from the size of a dime to that of a half-dollar have been reported.

The necrotic condition just described is typical of all bites of the Brown Recluse. In some cases a general systemic reaction has also occurred. The patient may break out in a rash resembling scarlet fever or the kidneys may be affected causing bloody urine to be passed. These reactions are rare and no doubt result from a maximum amount of venom being injected. The young, elderly and people in ill health are most likely to be seriously affected. Hospitalization would usually be required in these cases.

What to do...

First Aid treatment should be confined to the application of an antiseptic to the bite area to prevent infection and the use of ice packs to localize the venom. As soon as possible the patient should be placed under the care of a physician. At present there is no specific antivenin and therapy is usually supportive and symptomatic.

If possible, the spider inflicting the bite should be placed in alcohol in as good a condition as possible and sent to the West Virginia Department of Agriculture, Agricultural Pest Survey Programs Unit, 1900 Kanawha Boulevard, East, Charleston, West Virginia, 25305, for positive identification.

Benefits of Spiders

There are hundreds of species of spiders in West Virginia that are either beneficial or neutral in relation to man. The great majority are distinctly beneficial to man by destroying injurious or unwanted insects in the garden or home. Mass extermination of spiders should be avoided except when they become a nuisance. In many southern parts of the United States, spiders are not only tolerated but encouraged to live in the house as assistants in the job of pest control. Some spiders have been known to eat bees, but this undesirable behavior should be overlooked when you consider that they also eat hundreds of harmful insects such as mosquitoes and flies.

Other Common Spiders

In addition to the spiders previously discussed, the homeowner will often encounter the common house spider and the long-legged cellar spider or daddy longlegs. The latter is not a true spider, but it is a close relative. The house spider spins webs in darker corners and feeds on whatever insects are available. The daddy longlegs are often found in basement areas, under porches and in old sheds. They feed on plant juices and both dead and living insects.

Spider Control

Sanitation is the most practical method of control. Clean up all webs when they are first noticed; and when needed, insecticide sprays may be used as directed on the package. Many products for the home are available in aerosol containers.

For specific, current chemical insecticide recommendations, contact the **West Virginia Department of Agriculture's Agricultural Pest Survey Programs Unit**, your county extension agent or the extension specialist in plant pathology and entomology at West Virginia University.

Use Pesticides With Care And Follow Label Directions

For additional information about spiders, the following book "How To Know The Spiders" by B.J. Kaston, is recommended.

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~ Contacts ~

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WVDA Plant Industries Division:
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