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FACT SHEET

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The Brown Recluse and Black Widow SPIDERS

Philip J. Hamman and Weldon H. Newton*

BROWN RECLUSE

The BROWN RECLUSE SPIDER, *Loxosceles reclusa* Gertsch, has been reported from many southern and mid-western states including Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, Texas, Kansas and Missouri. Members of this species usually are found in or near human habitations. They can be found in bathrooms, bedrooms, closets, on the underside of tables and chairs, behind baseboards and door facings, or in corners and crevices. They also frequent cellars and garages which are not cleaned often and their contents not disturbed for relatively long periods.

It is a nonaggressive species that spins off-white to grayish nondescript webs. Many instances of bites occur when persons roll on the spider in bed while asleep. Or they may inadvertently entrap these spiders in folds of clothing allowed to hang undisturbed for rather long periods.

Description and Life Cycle

The brown recluse is of medium size and varies from 3/10 to 1/2 inch in length. Males usually are slightly smaller than females. Their coloring varies from an orange-yellow to dark brown or almost black, and the body is clothed with short, slight hair. Legs are long, somewhat darker than the body, and well covered with short dark hairs.

Probably the most distinguishing characteristics are three pairs of eyes arranged in a semicircle on the forepart of the head, and a guitar or violin-shaped marking immediately behind the semicircle.

*Extension entomologists, Texas A&M University.

A distinct short median groove forms the neck of the "guitar." See figure 1.

Eggs, deposited in off-white round silken cases approximately 1/3 inch in diameter, are found in sheltered dark areas in the spider's habitat. In 24 to 36 days, spiders numbering 40, 50 or more usually emerge from the egg case. The abandoned egg case contains cast skins of the young spiderlings because they hatch from their eggs and molt once before leaving the case. Development is slow, and is influenced greatly by ecological conditions and nutrition.

Bite and Symptoms

Victims may not be aware of the bite for 2 or 3 hours, or a painful reaction may occur immediately, depending upon the amount of venom injected and the individual's sensitivity. However, a stinging sensation usually is followed by intense pain. Within 24 to 36 hours a systemic response may occur, characterized by restlessness and fever. A small blister surrounded by a large congested and swollen area usually arises. Tissue affected locally by the venom usually is killed and gradually sloughs away, exposing the underlying tissues. Wound edges thicken and are raised while the central area is filled by dense scar tissue. Healing may take 6 to 8 weeks, leaving scars of various dimensions.

In case of bite, the victim should consult a physician immediately and, if possible, take along the biting spider for positive identification. Specific antivenin is not yet available for treatment; therefore, both local and systemic reactions have

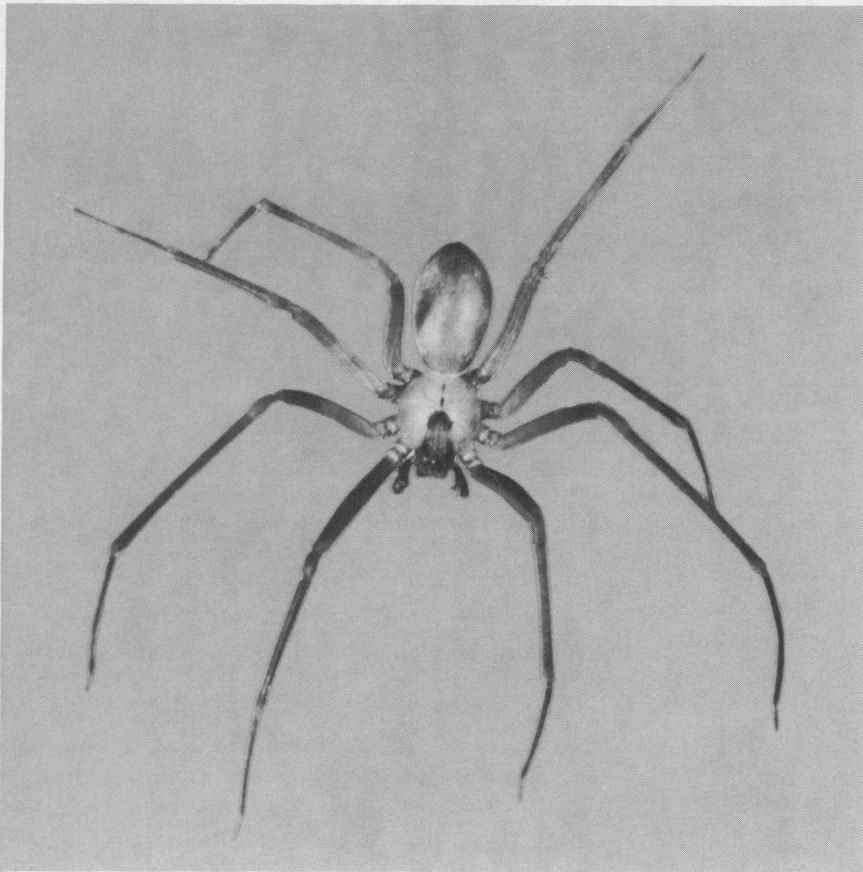


Fig. 1. Top view of brown recluse spider

been treated symptomatically. Some evidence indicates that immediate and adequate treatment with corticosteroids may lessen the necrotic response as well as the systemic reaction.

BLACK WIDOW

The **BLACK WIDOW SPIDER**, *Latrodectus mactans* (Fabr.) is present all over the United States. Its range extends from the western provinces of Canada to Argentina.

This spider is found outdoors in grass, under stones, beneath pieces of wood, in rodent burrows and in protected cavities of all kinds. In and around the house it occurs in privies, garages, cellars, furniture, ventilators, rainspouts, in boxes

sheltering water, gas and electric meters, and any other locality where it is not likely to be disturbed.

Like most spiders, the black widow is shy and retiring. Bites may occur when persons accidentally squeeze the spider in picking up an object to which it is clinging. Or they may occur when putting on clothing or shoes in which the spider is hiding, or when its rather coarse, irregular, tangled web is disturbed.

Description and Life Cycle

Females are usually jet black, although some apparently mature females may have light streaks on the abdomen, a characteristic of the immature forms. The lower side of the rounded abdomen usually has two reddish triangles resembling an

hourglass in shape. It may be irregular in shape or even spotlike in appearance. Overall length of the female is approximately $1\frac{1}{2}$ inches. See figure 2.

Males are characterized by light streaks on the abdomen. They are considerably smaller than the female—about $1\frac{1}{8}$ inches.

Gravid females lay their eggs singly in a loosely woven cup of silk. Egg sacs measure from $\frac{1}{2}$ to $\frac{5}{8}$ inch, are oval in shape and may contain from 25 to 900 or more eggs. After the nocturnal ovipositor is complete, the female spins a few threads across the open end, then encloses the entire cup in a tough watertight covering of silk. Females may spin from 1 to 9 egg sacs at intervals of 1 week to 4 months during a year. Eggs undergo an incubation period, averaging 20 days, with the young spiders spending from 4 days to 1 month in the egg sac.

The first growth stage, during which the spider is spent in the cocoon. Upon emerging, the young spiders tend to congregate near the egg sac a few days. Cannibalism is prevalent during this time. The remaining spiderlings disperse by means of small silk threads. When they are about one-third grown, they establish themselves in some protected place and construct loosely woven webs of no specific design, or on rare occasions they may become established in an abandoned web funnel.

They usually remain in this web for the remainder of their lives. As they mature, they extend their web and capture progressively larger prey. Males molt 3 to 6 times before maturity, and the mature ones leave their web and search out the female. The female molts 6 to 8 times and frequently eats the male after mating.

Bite and Symptoms

The bite feels like a pin prick, and sometimes is not even felt. Usually, a slight swelling and two red spots with local redness indicate where the bite occurred. It becomes intense in 1 to 3 hours and may continue up to 48 hours. Symptoms include abdominal pains, rise in blood pressure, nausea, profuse perspiration, leg cramps, tremors, loss of muscle tone and vomiting. When the toxin

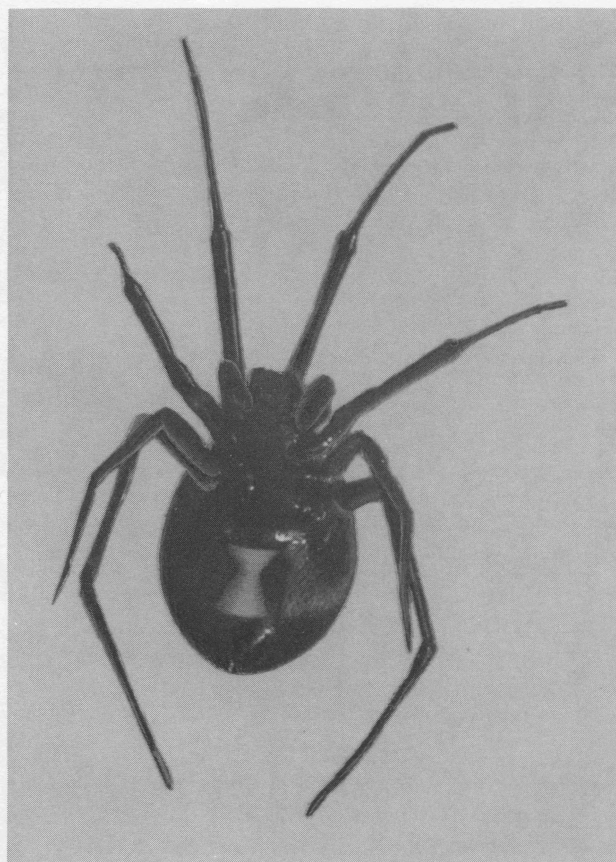


Fig. 2. Bottom view of female black widow spider.

reaches the respiratory centers, there is difficulty in breathing and prostration.

CONTROL OF SPIDERS

These spiders seek out quiet and undisturbed areas for nests. Frequent cleaning in closets and cellars will decrease the number of spiders in these areas. Where possible, window shutters, step areas and related places should be washed off with a hose. Some out-buildings may be handled in the same manner.

Spray or dust outside the home with lindane, dieldrin, chlordane or diazinon. Follow directions on the manufacturer's labels for mixing sprays. Use a 0.2 to 0.5 percent lindane, 0.5 percent diazinon, 2.0 percent chlordane or premium grade malathion household spray inside the home. Spray around windows, door facings and other places where spiders are found. Commercially prepared sprays or aerosol mixtures combining 0.05 percent dichlorvos are also effective.

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