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SPIDERS

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Spiders are eight-legged creatures familiar to everyone and feared by most. Most unfortunately our natural fear of them has created a bad but unjust reputation which causes many to be destroyed needlessly. Contrary to popular belief, these much maligned creatures are generally beneficial to man and play an important part in controlling pest insects.

Some spiders, however, are poisonous. Others invade homes and storage structures in search of food and shelter, making them quite a nuisance. Not only is it disconcerting to walk into and feel a web catch in one's face, but spider webs in houses collect dust and add to housekeeping chores.

General Characteristics

Spiders are easily distinguished from insects, pillbugs, millipedes and other

arthropods by their two distinct body regions (cephalothorax and abdomen), the four pairs of legs on the cephalothorax and the lack of antennae. They can be further separated from scorpions, pseudo-scorpions, mites and sun spiders by their sac-like, unsegmented abdomen which is narrowly attached to the cephalothorax. Also, spiders have no pincers such as scorpions, pseudo-scorpions, whip scorpions and crayfish.

Silk webs are spun by most species to capture prey. Silk is also used in constructing the egg case, burrow-lining

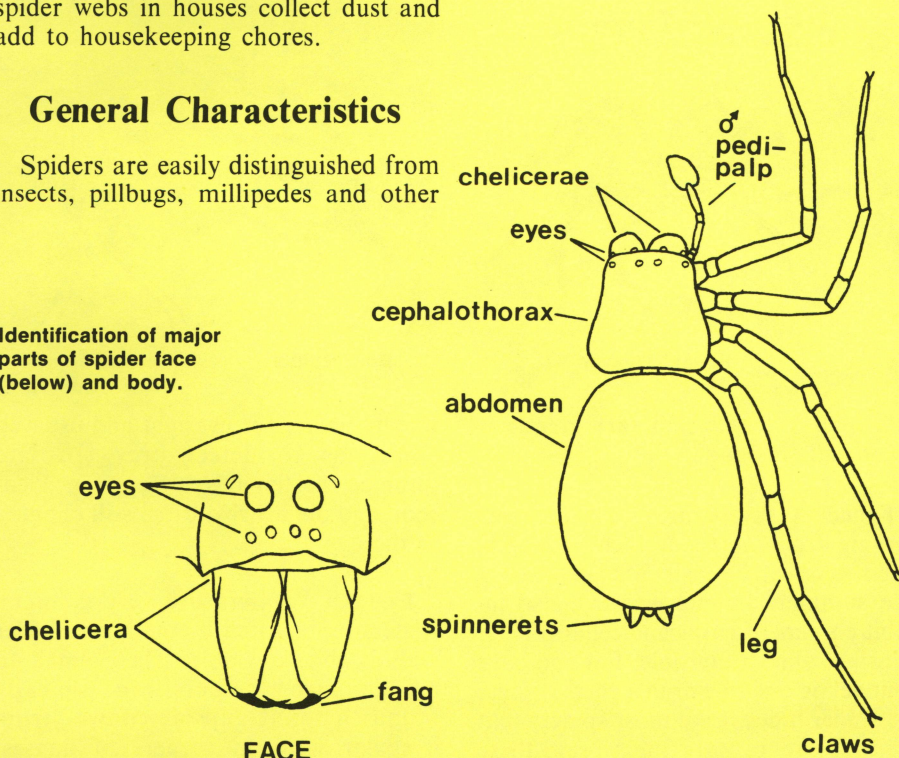
and drag lines and for ballooning and attachment. Immature spiders travel long distances by ballooning. They climb upon a perch and spin a silk strand which is carried into the wind. When the silk line is long enough the spider is lifted from the perch and carried to a new location.

Spiders are entirely carnivorous. Their main food sources are insects, other spiders and other related small animals. Spiders are beneficial predators and should be encouraged anywhere (except in the case of poisonous spiders) in the house or yard area. Most spiders are innocuous or beneficial to people.

Feeding is done by two basic methods. Most spiders inject digestive fluid into their prey, then suck out the dissolved body contents. Some large spiders, however, simply macerate their food with their jaws and ingest the fluid and body contents.

When a person is bitten by a poisonous spider it is generally because the spider is accidentally squeezed and bites in self-defense or the web is disturbed and the spider bites instinctively, sensing prey in the web. Most spiders cannot bite through an adult's skin but may be able to penetrate the skin of a small child. People differ in their reaction to arthropod bites. If a bite causes unusual reactions, excessive swelling or breathing difficulty, contact a physician. The only poisonous spider in Idaho is the black widow.*

Identification of major parts of spider face (below) and body.



*If bitten by an unknown spider, capture it and take it to your physician, health department or County Extension Agent for identification.

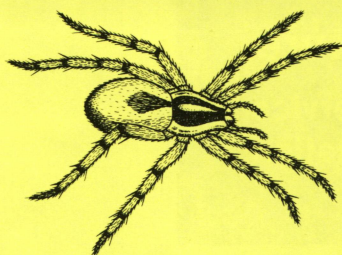
HUNTING SPIDERS



Trap-Door Spider

Tarantulas and Trap-Door Spiders are the largest of the North American spiders. These are large hairy spiders that most people fear unjustly. Tarantulas find their prey by touch at night. Trap-door spiders detect prey walking near their nest. The bites of these spiders are no worse than bee stings. If encountered they can easily be avoided, left alone or observed without fear of being bitten. These spiders are quite commonly found in southern and western United States but not often found in Idaho.

Wolf Spiders are fairly large hunting spiders, averaging 1 inch in length. They are probably the most common spider encountered in natural situations in Idaho. Many species are household invaders during summer and fall. They have good eyesight and are very good at catching prey. Wolf spiders are often found under stones, boards or in damp environments. Females are often found carrying the egg case under their body.



Wolf Spider

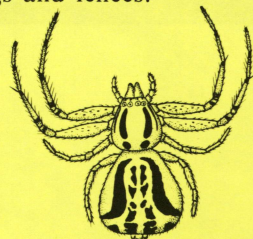
Newly hatched spiderlings will ride on the female's back for a period of time. These spiders make good pets and are easily kept. Many of the small spiders found on fences and shrubs in late fall are young wolf spiders.



Jumping Spider

Jumping Spiders are the most brightly colored spiders in Idaho. Their bodies are often densely covered with colored hairs or scales. Some are almost iridescent. These spiders can be distinguished by their colors, stout body, large eyes and unique behavior patterns. They are medium-sized spiders, $\frac{1}{4}$ to $\frac{3}{4}$ inch long and are represented by many species in North America. Jumping

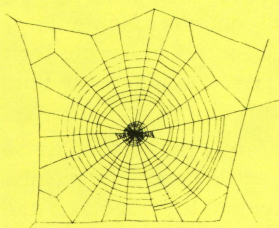
spiders are active during the day and perhaps have the best eyesight of any spiders. They can walk sideways and backwards as well as forwards and can jump many times their body length to catch prey. These spiders are commonly found in gardens and on the sides of buildings and fences.



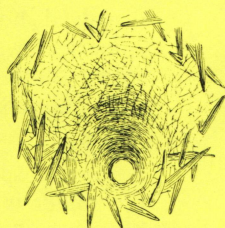
Crab Spider

Crab Spiders are so named because of their appearance. Small to medium in size, their body is flattened and the front two pair of legs are generally longer than the back legs. The first legs are held to the side giving the spider a definite crab-like appearance. These spiders also move sideways more than forward to backward. Prey is obtained by chasing and catching or by lying in ambush. The most commonly seen crab spiders are found in or around flowers and are often white or brightly colored to match the flower. This coloration camouflages the spider so well that insects will land close enough to be captured.

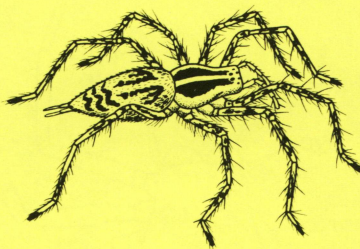
WEB WEAVERS



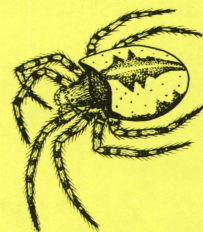
Orbweaver Web



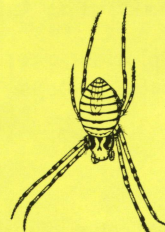
Funnel Weaver Web



Funnel Weaver



Barn Spider
(Orb Weaver)



Garden Spider
(Orb Weaver)

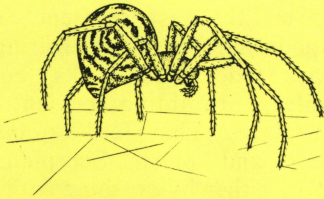
Orb Weavers are easily recognized by their characteristic webs that have threads radiating from a central point with concentric rings or spirals of silk supported on the radiating strands. These spiders see poorly and detect prey through vibrations in the web. The prey is bitten, neatly wrapped in silk and carried back to the center of the web where it is consumed. Several hundred species of orb weavers exist in North America. These spiders range from $\frac{1}{8}$

to 1 inch in length and vary greatly in color and shape.

Funnel Weavers are medium-sized, varying from $\frac{1}{8}$ to $\frac{3}{4}$ inch in length. Their webs can be easily seen in lawns in late summer. Funnel weavers also inhabit corners of barns and cellars. Their webs are almost invisible, flat and have a funnel on one side or in a corner where the spider hides. Like most spiders that use webs to capture their prey, these

spiders have poor eyesight and use web vibrations to detect prey. In late summer the females lay eggs in a cocoon and die nearby, often still clinging to the egg sac.

Cobweb Weavers are very common spiders represented by the house spider and the black widow. These small to medium-sized spiders are typically found hanging upside down from irregular webs in corners of houses,



Cobweb Weaver Spider

barns, etc. When prey is tangled in the web, these spiders use their combed feet to throw a silk strand over the prey to anchor it before eating. These spiders do not completely wrap the prey as do the orb weavers.

The **Black Widow** and **Northern Widow** spiders are the only two poisonous spiders known to occur in Idaho. The brown recluse spider *is not* presently in Idaho. Brown recluse bites have been reported in Idaho but no spiders have ever been seen.

The black widow is the poisonous spider most often encountered in barns, garages, basements, outdoor privies, woodpiles and occasionally in the living area of the home. Both the black widow and the northern widow inhabit similar areas under natural conditions. They

may be found under or among rocks, under low bushes or shrubs and in old animal burrows. A favorite place of these spiders is an old hollow stump.

The widow spiders are actually the largest of the cobweb weavers. The females are shiny black and the body measures ½ inch in length. A full grown female may reach 1 ½ inches in actual size including the legs. Almost everyone is familiar with the hourglass shaped



**Black Widow Spider (left)
Brown Recluse Spider (right)**

red mark on the bottom of the black widow's abdomen. The northern widow has a similar mark but the middle of the hourglass is missing. Sometimes these spiders also have a row of red spots along the back or a single red spot at the posterior end. The color patterns can be quite variable.

The **Male Widow** is half the size or less of the female. It is brown in color

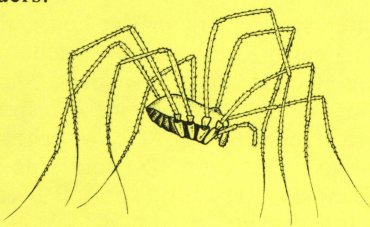
with light or white stripes along the abdomen. *Male widow's mouthparts are not strong enough to bite people.*

Widows do not aggressively seek to bite humans. In fact, undisturbed widows with abundant food can live very close to people without incident. Most people are bitten when the widow is accidentally squeezed or the hand is thrust into the web. The bite itself feels like a bee sting. Within a few minutes to an hour intense pain will develop in the area of the bite. If a finger is bitten, the pain from the nerve poison will spread up the arm and to the shoulder. The chest is affected next and the abdomen may cramp. It may become difficult to breathe as the diaphragm becomes partially paralyzed. A bitten person may also suffer leg cramps, nausea, headache or fever.

Although very painful, the black widow bite is seldom if ever fatal to healthy adult people. Most symptoms are gone within 24 hours but may last up to 48 hours. If bitten, contact a physician immediately and follow his instructions. Antiserums and injections are available to relieve some of the pain. Hot baths also give relief.

SPIDER RELATIVES

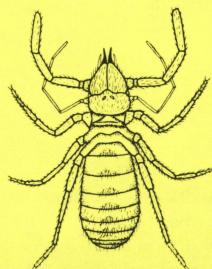
Daddy longlegs, sun scorpions, centipedes and scorpions are related to spiders.



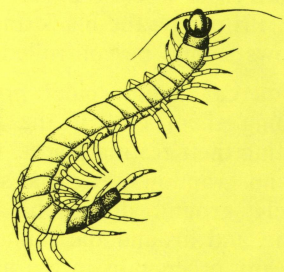
Harvestman (Daddy Longlegs)

Daddy Longlegs or Harvestmen are spider-like creatures most commonly found around sheds, gardens, board piles and in homes. They are usually grey in color and blend well with their chosen resting site. They appear to have only one globe-like body segment with very long, thin legs emanating from it. These harmless arthropods are capable of remarkably fast, agile movement despite their awkward appearance. Daddy longlegs are active mainly at night and this is when they seek their prey.

Sun Scorpions are encountered in many areas of Idaho. They are active mostly at night. They can move quite rapidly to capture prey and have been reported to eat lizards as well as their primary prey, insects. These yellowish or brown arachnids can reach a length of 2 inches. Their size coupled with their greatly enlarged jaws give them a formidable appearance. They do not possess poison glands but their bites are about as painful as a bee sting. They have large, leg-like pedipalps which function as feelers along with reduced first pair of legs.



Sun Scorpion



Centipede

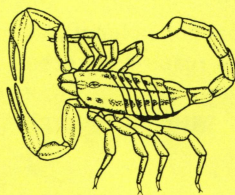
Centipedes are worm-like in appearance but are flattened on top and bottom. One pair of antennae is present on the head. Each body segment has one pair of legs and the last segment has legs which are often different from the others. Also, the legs on the first segment behind the head are modified into a pair of poison jaws. The centipede uses these poison jaws to kill its prey. The major food sources for centipedes are insects, spiders and other arthropods. Larger centipedes have been reported to feed on toads, small snakes and small birds. Centipedes are nocturnal and hide in moist areas un-

derneath boards, bark, rocks, etc., during the day.

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Centipedes are capable of biting humans and many cases are reported each year. Usually, not watching where the hands are put are the major cause of being bitten. The bite of the centipede

causes localized pain and swelling similar to a bee or wasp sting. The larger centipede bites can be quite painful but they still only hurt at the site of the bite.



Scorpion

Scorpions are interesting animals familiar to everyone who has seen jungle or desert action movies. Invariably the hero or heroine is confronted by this "deadly" arthropod while in bed.

Scorpions are characterized by their crab-like front claws and the long segmented, curved abdomen with the

stinger on the last segment. These arthropods are nocturnal. During the day they hide under rocks, boards, woodpiles, crumbling cement and similar places. They feed on insects, millipedes and spiders. Scorpions kill their prey either by crushing with their claws or by stinging. The sting of Idaho scorpions will cause pain and swelling similar to a bee sting. Most scorpion stings to humans are caused by carelessness. People do not look when they pick boards off of the ground, handle firewood or roll rocks.

There are around 700 species of scorpions in the world. Approximately 20 to 30 species occur in North America. Their size ranges from 2 to 7 inches in length. The species dangerous to people in the United States are in southern Arizona, Texas and extreme southern California. Where these poisonous species occur the primary danger is to children 5 years of age or younger. *No poisonous scorpions occur in Idaho.*

CONTROL MEASURES

There is no need to control spiders around the yard and garden except in certain cases where they have become a pest. Primarily, the black and northern widows should be controlled.

You can avoid spider problems by keeping them out of the home and limiting their resting places. Close gaps around windows, weatherstrip completely around doors, fill cracks in siding and around the foundation and seal any other gaps in the house.

Also keep the yard and house in good condition. Eliminate messy woodpiles, reset loose bricks and siding and keep shrubs trimmed away from the house.

This will help deny resting places to spiders.

In conjunction with these steps, you can use sprays to keep spiders out of the home. Apply residual sprays on and around the foundation of the house in a 6-foot wide swath. Spray walls, windows, framework and corners of eaves of the house and outbuildings. Spray firewood storage area before filling. If it is already filled, spray the firewood. The best time for this residual spray is early fall.

Outside sprays using Diazinon, Malathion or Korlan are all effective for spider control. Follow label direc-

tions for use of these chemicals. These preventive measures and residual sprays will also keep other unwanted insects, clover mites and pillbugs from migrating into the house. Do not get the residual spray material on foliage, unless it is stated on the pesticide label, to prevent possible foliar injury.

After spiders are in the house they can be easily controlled by mechanical means (rolled up newspapers, shoes, broom, etc.) or by pressurized sprays containing Baygon, Pyrethrins, Vapona, Dursban, Spectricide or Resmethrin. Very little spray is needed to kill a spider.

All pesticides are poisonous to warm-blooded animals in some degree. Handle them cautiously to prevent poisoning pets, livestock, wildlife, children or yourself. When applying or storing any chemical, follow label instructions precisely. Destroy containers as label directs.

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