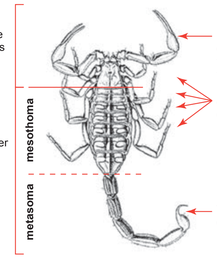
ARACHNIDS OF IRAQ AND KUWAIT

SCORPIONS



What do they look like?

Color – most species are yellow or brown or combinations of these colors. Some are black. Some species have colorful patterns. All scorpions glow a greenish-blue color under a black light.

Size – 20mm to over 120mm long *(¾ to 4¾ inches).*

Where are they found?

Greatest numbers are found in hot, dry desert areas. Also found in grasslands, savannas, forests, and in mountainous areas.

Scorpions are commonly encountered in buildings and ruins, under household furnishings, in cracks and crevices of walls, under stones, and in wood and debris piles.

Scorpion burrow under a rock

What is their behavior?

Most scorpions are nocturnal. They hide under rocks, in cracks, or within burrows during the day, and come out after sunset.

Scorpions eat insects, spiders, and small snakes, lizards, or rodents. They are attracted to areas that provide shelter for their prey.

Most scorpions are nocturnal

Information on their sting.

Scorpions sting with a poison-filled telson on the tip of the tail.

Nine species of scorpions found in Iraq and Kuwait have life-threatening stings. Other species have venoms that produce severe pain and some swelling at the site of the sting. Most stings *(80-90%)* occur on hands or forearms.

Scorpions with potentially lethal venoms tend to have slender pincers and thick tails. Scorpions with non-lethal venoms tend to have thin tails and broad and powerful pincers.

Most scorpion stings occur on hands

Localized reaction to a scorpion sting

Most dangerous

- Some of the deadliest scorpions in the world.
- Highly poisonous venom.
- Aggressive behavior.
- Death caused by breathing or heart failure.

Androctonus crassicauda

Leiurus quinquestriatus

Androctonus amoreuxi

Dangerous

- Stings can cause severe symptoms throughout the body.
- Very poisonous venom.
- Symptoms include numbness, difficulty swallowing, thick tongue, blurred vision, roving eye movements, seizures, salivation and difficulty breathing.
- Death can occur but is rare.

Hemiscorpius lepturus

Hottentotta saulcyi

Hottentotta scaber

Hottentotta schach

Mesobuthus eupeus

Odontobuthus doriae

Least dangerous

- Stings can cause mild symptoms at the site of the sting.
- Slightly poisonous venom.
- Symptoms include pain, tingling, or burning at the sting site. Tingling may spread away from the sting site. There is some swelling, warmth and redness around the sting site.
- Death will only occur if person has a severe, untreated allergy to the venom (anaphylactic shock).

Buthacus leptochelys

Compsobuthus matthiesseni

Compsobuthus werneri

Olivierus caucasicus

Orthochirus scrobiculosus

Scorpio maurus

Compsobuthus arabicus

Apistobuthus pterygocercus

Euscorpius italicus

PREVENTING SCORPION, SPIDER, AND SOLPUGID BITES AND STINGS

Do not handle or disturb scorpions, spiders, and solpugids.

Eliminate as many of the hiding places as possible for scorpions, spiders, and solpugids and their prey.

Sandbag around edges of tents to seal entry gaps.

Always shake out shoes, sleeping bags, and clothing before you use them.

Never walk barefoot; wear shoes or boots *(avoid open-toed footwear)* when walking outdoors.

If possible, avoid sleeping on the ground. Ensure bedding does not touch tent or room walls.

In buildings, prevent scorpion, spider, and solpugid entry by sealing and weather stripping around thresholds and gaps where utilities enter structures.

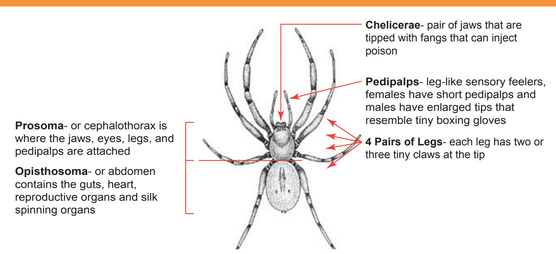
Use sticky boards placed along tent and building edges and under furniture to capture scorpions, spiders, and solpugids.

Take proper precautions: wear gloves when handling tentage, rocks, crates, and lumber or when moving materials that have been in contact with the ground.

Scorpions, spiders or solpugids found on your body should be brushed off, not swatted.

Look before you reach into, under, over, or around.

SPIDERS



	Black Widow Spider	Tarantula	Yellow Sac Spider
Most dangerous spiders			
What do they look like?	Color – Usually shiny, jet black with a rounded, bulbous abdomen *(opisthosoma).* Size – Small size, 8-15 mm, or approximately ½ inch in length. There are at least three different species of black widow spiders that live in the region. Depending on the species, abdomen may or may not have red or orange spots or hourglass markings.	Color – Mixture of browns, reds, and black. Their color often matches the soil or terrain where they live. Size – Adults average 35-50 mm *(1½-2 inches)* in length. They are covered with hairs. These spiders have very large fangs that bite downwards. A tarantula must raise its body to bite down onto its prey. Although large, these spiders can move very fast.	Color – pale yellow to pale green or orange brown to red. Size – the bodies of female sac spiders average about 10mm in length *(5/16 to ⅜ inch).*
Where are they found?	Common throughout Iraq and Kuwait. Frequently encountered in wood, stone, and debris piles, outhouses, dark corners of barns and homes, under stacked inventory in warehouses, in rodent burrows, and in utility boxes and meters. They are also found in tall grass, weeds, and field crops.	Most commonly encountered in dry regions of Iraq and Kuwait. These spiders rest during the day in burrows that they dig in the soil and line with cobwebs (spider silk). 	Commonly encountered in urban and agricultural areas of Iraq and Kuwait. Usually found indoors, especially during cooler months. They build silk retreats in high corners or where walls and ceilings meet, and stay in them during the day.
What is their behavior?	Most active at night. Found in dry, secluded, dimly lit areas during the daytime. Only the females can bite humans and they are usually not aggressive except when they are hungry, agitated or protecting their egg sacs.	Hide during the day and hunt for food at night. Not aggressive. Given a choice, they will retreat into their burrows if disturbed. When cornered these spiders will assume a defensive posture, raising their front legs and baring their fangs. 	Hide during the day and hunt for food at night. Outdoors they are found among rocks and wood piles, and in protected areas of barns, outbuildings, sheds, meter boxes, etc. They are also found in tall grass, weeds, and leaf litter. Believed to produce most of the spider bites suffered by people, probably because they wander about when people cannot see well or are asleep.
Information on their bite.	Most bites occur when a person disturbs a spider's hiding/resting place during the day. Bite victim often feels only a pinprick sensation at the bite site, becoming a dull ache within 30 to 40 minutes. Venom affects the nervous system, causing pain and spasms in the large muscles of the body within 30 minutes to 3 hours. Severe bites can cause respiratory failure, coma and death.	Most bites occur when a person disturbs their hiding places during the day or when a foraging spider crawls onto a person at night. The venom of tarantulas is not dangerous to humans. The majority of tarantula bites cause minor swelling and discomfort like a bee sting. The major danger from a tarantula bite is an allergic or anaphylactic reaction to the venom.	Most bites occur when the spider crawls into clothing and is pressed close to the skin. In most cases, the bite produces no more than localized redness, slight swelling, and a burning sensation at the site of the bite. Sometimes the bite will itch. Severe bites can kill the tissue around the wound.

SCORPION VENOMS AND THEIR EFFECTS

All scorpions have a tail spine, called a telson, that is modified into a stinger with venom glands. Scorpions use their sting to capture their prey and to protect themselves from creatures that are bigger than themselves. Some of the world's most dangerous scorpions live in Iraq and Kuwait. Nine species of scorpions which live in the region, including *Androctonus spp., Leirus quinquestriatus, Odontobuthus doriae, Mesobuthus eupeus, Hemiscorpius lepturus, and Hottentotta spp.,* have venom toxic enough to kill humans. *(See scorpion species photos at lower left)*

How dangerous the venom is to a person depends on many factors. These factors include the health of the person, the age of the person, where on the body a person was stung, the type of scorpion, the size of the scorpion and how badly the scorpion was agitated. Not all scorpions that live in Iraq and Kuwait have venom strong enough to be dangerous to humans. Sting victims of scorpions with less toxic venom may only feel a painful, tingling, burning sensation at the sting sight, much like a bee or wasp sting.

Most of the dangerous scorpions in the region have a neurotoxic venom *(a venom that affects the brain and nerves)* which produces severe pain and swelling at the site of the sting. Numbness, frothing at the mouth, difficulty or inability to breathe, muscle twitching and convulsions may follow. Death is usually due to heart or breathing failure. *Hemiscorpius lepturus* has a highly cytotoxic *(deadly to cells)* venom, which can cause serious wounds and inflammations that look like third degree burns.

If stung, always seek medical attention immediately. The only effective treatment for a life-threatening scorpion sting is an antivenin designed for the specific type of scorpion. This antivenin can only be administered in a medical facility by trained medical personnel.

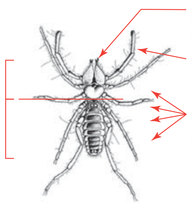
Close-up of scorpion telson

Wound from H. lepturus sting

HABITATS

Most scorpions, tarantulas, and solpugids prefer to live in arid environments and they are most abundant in the hot desert regions of Iraq and Kuwait. However, these arachnids also live in savannas, grasslands, scrub forests, and palm groves. Scorpions are commonly encountered in buildings and ruins, under household furnishings, in cracks and crevices of walls, and under stones or in wood or debris piles. Abandoned equipment and munitions depots, infantry trenches and fighting positions may harbor large numbers of some scorpion species. Most scorpions, solpugids, and tarantulas are nocturnal. They build scrapes or burrows in the sand or soil and will invade tents and structures, crawling into or under any object that affords some protection from sunlight and hot temperatures. The larger solpugid species in Iraq and Kuwait are attracted to lights at night, and are commonly found near campfires and under streetlamps. Black widow spiders are found throughout the region. They are usually encountered in dry, secluded, dimly lit areas such as crawl spaces, cluttered areas in homes and warehouses, crumbling rock faces, wood or trash piles, and under logs and stones in forests and fields.

SOLPUGIDS



What do they look like?

Color – Usually light grey, tan, or reddish-brown in color.

Size – 25 to over 100 mm *(1 to 4+ inches)* in length.

Spider-like in shape with a bulbous, segmented abdomen *(opisthosoma).*

Legs and body covered with long hairs that glisten in sunlight.

Large, paired jaws *(chelicerae),* used to grab and crush prey, are jointed like pliers. Each chelicera forms a pincer and can worked independently of the other.

Also known as "solfugids", "camel spiders", "sunspiders", or "wind scorpions".

Where are they found?

Greatest numbers are found in hot, dry, desert areas.

Most active at night. During the daytime will retreat to scrapes they build in the sand, or under logs, rocks, or debris piles.

Will routinely seek out prey *(insects, scorpions, spiders, small lizards)* inside tents and buildings.

What is their behavior?

If active during the day they will try to stay in shadows to avoid hot ground. Will follow a moving human shadow, making it seem like they are chasing you.

Run very fast with their pedipalps and front pair of legs held up over their heads.

Attracted to campfires, streetlights, and other sources of light at night.

Information on their bite.

Do not have any poisonous stingers or fangs.

Jaws are capable of inflicting painful pinches and small wounds to the skin.

If you are pinched, clean the wound to prevent infection.

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