

Just how POISONOUS are they?

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JOSHUA TREE NATIONAL MONUMENT
74485 PALM VISTA DRIVE

TWENTYNINE PALMS, CALIFORNIA 92277



Think Twice and You Probably Won't Regret Once

HOW POISONOUS ARE THEY?

DEADLY??



One often hears the words "deadly poisonous" in reference to animals of the deserts of the Southwest. Joshua Tree National Monument has no animals whose bites or stings have been scientifically classified as "deadly." This really refers to how toxic a foreign substance such as venom (a liquid chemical) is to you as an individual. To some people the venom of a honey-bee can be deadly, especially if they are stung on a certain nerve center such as the back of the neck. How deadly also depends on the physical condition and size of a person. Poor health and small size account for most deaths of children stung by a species of scorpion (*Centruroides sculpturatus*) that is found across southern Arizona and in the bottom of Grand Canyon.

An open wound from a nail, thorn, a splinter of wood, tin can or pocket knife, or even the bite of a non-poisonous animal, can be as "deadly" as poisonous species, *if infection sets in and medical help is not obtained.* Certain non-poisonous wild mammals are sometimes rabid, and if so, are as deadly as a cobra.

PLAN AHEAD

If a member of your family is overly allergic to certain toxins such as the venom of a bee, then include the necessary antitoxins in your regular camping provisions. Be sure the antitoxin is always fresh, and that you know how to administer it when needed.

GOOD AND BAD GUYS

Most desert visitors consider anything that crawls or wiggles to be a "bug" and one of the "bad guys." More often than not, they are good guys. Misinformation is gradually causing the extinction of some species of "bugs" of which there are three basic types. Those with six legs (not including the feelers or antennae) are insects, and include flies, gnats, mosquitos, wasps, butterflies, conenose bugs and moths, and many non-flying species. True bugs are only one family of insects. Those with eight legs are arachnids. Examples are spiders and scorpions. Small animals with more than eight legs include centipedes and millipedes.



The Most Common Dangers Are Man-Made

In addition to the animals and buried thorns that can cause injury to bare feet and hands, man has discarded many items which have become potential dangers. Barbed wire fences have become partially buried. Target shooting at bottles has left hundreds of thousands of sharp fragments. Mine shafts and wells covered by boards and hidden by drifting sands and weeds have become weakened and are death traps. Horseshoes and old wood around corrals can have nails that carry tetanus. Far more injuries, and especially deaths, are caused by man-made dangers in the desert than from natural causes. The writer has lived many years in various southwestern deserts without suffering injury from natural or man-made dangers. A few simple rules have made this possible.

DON'T PUT HANDS, FEET OR SEAT ANYWHERE WITHOUT FIRST LOOKING CAREFULLY. KEEP GARBAGE AWAY FROM CAMPING SITES. POLICE ALL CRUMBS OF FOOD FROM CAMPSITES AS THESE ATTRACT INSECTS AND SMALL ANIMALS WHICH ARE FOOD FOR SCORPIONS, CENTIPEDES, SPIDERS AND SNAKES. SHAKE OUT ALL BEDDING AND CLOTHING BEFORE USING.

TREATMENTS FOR BITES AND STINGS

SMALL CHILDREN SHOULD ALWAYS BE EXAMINED BY A DOCTOR.

CENTIPEDE: Work antiseptic well into the fang punctures. No universal first aid treatment has been developed. Ice or cold water might reduce pain.

SCORPION: Same as with centipedes.

BLACK WIDOW SPIDER: Effects are immediate, and first aid is not practical. Apply an antiseptic to the fang puncture. Cold water or ice might help reduce pain and help keep some effects local. KEEP PATIENT QUIET AND TAKE TO A DOCTOR.

BROWN RECLUSE SPIDER: The bite is often not felt, so first aid measures are not given. If flesh tends to rot around a spot or hard welts form, see a doctor.

TARANTULA SPIDER: Apply antiseptic to fang punctures. Application of cold water or ice might relieve or reduce the pain.

CONENOSE BUG: Apply antiseptic to the bite. Cold water or ice might reduce itching or pain. Bites of diseased ones usually become inflamed and swollen. A doctor should treat the infection.

HONEYBEE: Scrape out stinger and venom sack with a knife (pulling squirts more venom). Bathe stung areas with household ammonia. Apply hot water to affected areas. Victims of multiple stings should be checked by a doctor.

WASP, YELLOWJACKET, HORNET, BUMBLEBEE: No particular single treatment has been developed. Applications of household ammonia help in most cases. Try applications of cold water or ice cubes. If these fail, try hot applications as recommended for honeybee stings. If victim continues in pain confer with a doctor.

TREATMENT OF SNAKE BITES

Non-poisonous: Wash well with antiseptic and encourage some bleeding.

Poisonous: It is *not* recommended that inexperienced people make knife or razor incisions through the fang marks. An artery, vein or nerve might accidentally be severed and result in greater injury. Sucking poison from bites might help, but be sure the person doing this does not have open wounds in the mouth, or bleeding gums. Kill the snake so that it can be identified by the doctor who must decide what antivenim and treatment is needed. Keep the victim quiet. Apply a wide constricting band, with room for two fingers, near the wound on the side nearest the heart. RELEASE CONSTRICTION EVERY 15 MINUTES FOR 5 SECONDS, OTHERWISE DAMAGE WILL OCCUR.

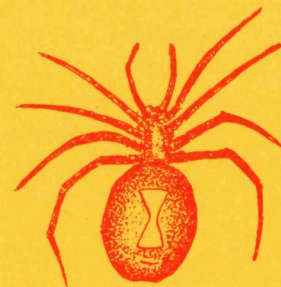
Remove victim to a doctor. There are doctors in Twentynine Palms, Yucca Valley, Palm Springs, Desert Hot Springs and sometimes in campgrounds.

THINK TWICE AND YOU PROBABLY WON'T REGRET ONCE

BLACK WIDOW SPIDERS

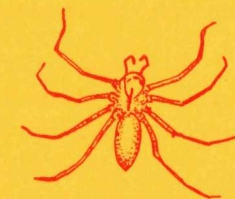
The black widow spider is a common, very poisonous animal. It is usually present around homes, and in shady, protected rock piles and old buildings. It might be attracted to your camping lights at night to dine on the other bugs that drop to the ground. The venom usually acts quickly, is felt immediately, and acts on the nervous system. Fangs of the widow are often too short to puncture the thicker exposed human skin. However care should be taken when using outdoor privies as these are favorite nesting areas of spiders. Ounce for ounce, the widow's poison is much more potent than that of rattlesnakes.

Immature "widows" often do not have a distinctive hour-glass pattern on the underside, and may have a variety of patterns and colors.



RECLUSE SPIDERS

If a little ulcer forms, and skin and underlying flesh deteriorate, suspect the bite of a recluse spider. The bite might not be noticed at the time of venom injection, but 2-8 hours later. The most common species in this area is *Loxosceles unicolor*, which is not as toxic as the brown recluse (*L. reclusa*).



TARANTULAS

They have been unfairly condemned by false rumors concerning more poisonous Central and South American species of spiders. The southwestern tarantula is slow, mildly poisonous, and rather docile, serving as a pet for some people. It is doubtful that its bite has ever caused more discomfort than a bee sting.



SUN SPIDERS



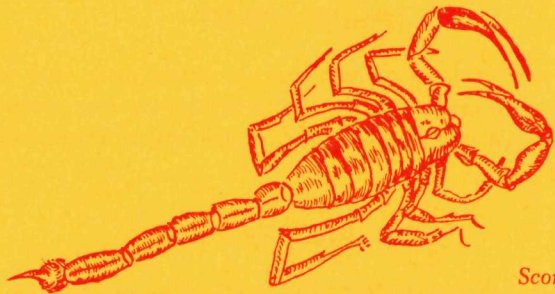
Sun spider

These have also been overly condemned by rumors of being "deadly." Actually, they have no poison injecting devices and must depend on four pointed mouth parts to crush their prey. They are good for controlling other insects around the home, and should be protected for this reason. They are "scary" looking, but harmless.

SCORPIONS

The largest species (about four inches in length) is the least poisonous. Stings of the native species are about like those of honeybees or wasps. The degree of reaction depends on the physical condition and size of the victim.

Scorpions might be attracted to your campsite to feed on the bugs that are attracted to lights or to crumbs of food left on the ground or in bedding.



Scorpion

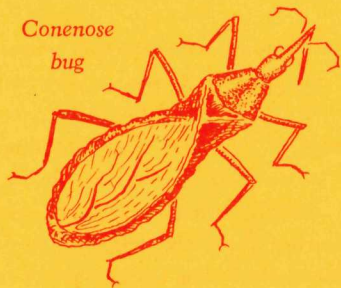
CENTIPEDES

Their venom is mildly poisonous and is secreted by two pairs of leg-like structures on the body just behind the mouth parts. If a centipede or any other poisonous "bug" runs across exposed skin, it is usually best to let it run until it leaves the exposed area before it is brushed off or slapped. If excited while running and trying to escape, it might sting or bite. Some Arizona and Texas centipedes are six or more inches long. The local species are seldom more than two or three inches long.



Centipede

INSECTS



Conenose bug

Conenose bugs thrive on blood and are regular residents of mammal nests, especially of packrats. Visitors climbing rocks and investigating rock shelters harboring animal's nests are likely victims. Even beds of pets are likely places for the bugs to hide during the daytime, and to feed at night. When infected with disease, the bitten area might become inflamed and swollen within a 12-inch radius. Hard welts 1-3 inches in diameter are not uncommon. Severe itching of the bitten area

is a clue that a conenose has done some feeding. It has a variety of common names including cross bug, bellows bug, Walapai tiger and kissing bug. Conenoses are true "bugs." Bed rolls and bedding should be shaken out before use, as should clothing before dressing.

Hymenoptera is a family of insects that includes bees, wasps, ants, hornets, yellowjackets and numerous others. These are able to inflict pain, but seldom death. Most of them are attracted to garbage, and especially to moisture dripping from drains or water put out for pets to drink. Hundreds will collect around the moisture or even drown in the containers. Small children, prone to play in water, might suffer multiple stings, as might pets swallowing water-logged but living bees. HONEYBEES sting only once as the barbed stinger is caught in the flesh and is torn from the bee which later dies. YELLOWJACKETS, HORNETS, WASPS AND BUMBLEBEES can sting several times which makes them more dangerous than honeybees. They are not normally looking for things to sting, but are very curious, or are attracted by the fragrance of perfume, shaving lotion or other odors associated with modern life. Hornets are especially fond of meat; pet food placed outdoors might attract them.

Females of certain species of wasps have no wings and scurry around on the ground appearing like a large velvet-covered ant. Some are brilliant orange to red; others appear to be small scampering tufts of white cotton. Both can sting severely.

Bumblebee



Female ground wasp



GUESTS ON PETS AND WILD ANIMALS

Fleas and Ticks

Both thrive on blood of wild mammals. Fleas can carry bubonic plague, and ticks are sometimes infected with Rocky Mountain Spotted Fever. Avoid animal trails as these are likely places for both. Consult a doctor about any bite that becomes infected or fails to heal in a reasonable period of time.



Dog flea



Dog tick

RATTLESNAKES

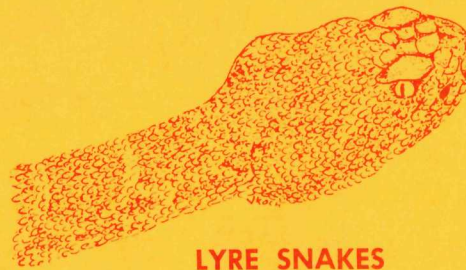


Six species have been reported within the Monument. The most poisonous is the Mojave (*Crotalus scutulatus*) which has a venom which is both a hemotoxin and a neurotoxin. The others are sidewinder, western, red diamond, speckled, and western diamondback. Sidewinders are more common in the lower sandy areas. They often bury all except their heads while lying along game trails waiting for small rodents. When walking cross-country, always walk in open areas where the sun strikes during the day. Snakes are prone to stay back under shady brush, especially during the hot summer months. Walking barefooted *anytime* in the desert is a definite "no-no."

Sidewinder



Our six species of rattlesnakes are considered by most visitors to be "bad guys" since their bites inject venom that makes most people ill. However, prompt medical care by qualified persons can reduce the period of discomfort. Visitors planning extended trips into isolated areas would do well to check with their doctors regarding emergency treatment that they can administer. Heads of rattlesnakes are usually broad, and their eyes have narrow vertical pupils.



LYRE SNAKES

Also known as "cat-eyed snake," the lyre has a "V" or "lyre"-shaped pattern on its head. Venom is mild and is injected by enlarged grooved teeth at the rear of the jaw. The snake must chew to work in the poison. Before having time to do this, the snake can usually be dislodged. The bite may be a little painful, but not serious.



Lyre snake

LIZARDS

NO POISONOUS LIZARDS HAVE BEEN REPORTED IN THE MONUMENT

Some visitors think the chuckwalla lizard is the poisonous gila ("heela") monster found in southern Arizona. Chuckwallas are non-poisonous and were used as food by both Indians and prospectors. "Chuckwalla" Wilson acquired a nickname from his use of them. Gecko lizards are sometimes confused with baby gila monsters. This small, harmless lizard aids in insect control and is very beneficial.



Chuckwalla



Bat

RABID ANIMALS

Rabies can be passed from one mammal to another. Beware of animals not acting natural, such as bats flying in the daytime or foxes, coyotes, skunks or other large mammals that might appear overly bold or "friendly" or actually attack moving objects. If bitten by a wild animal, it is best to capture the animal if possible and without danger to other people, so it can be quarantined. Get a tetanus shot, and confer with your doctor regarding the care of the wound.

NO WILD ANIMAL IS TAME. SOME ARE JUST MORE BOLD THAN OTHERS



BLOOD-CARRIED DISEASE

Beware that blood of wild animals does not come in contact with wounds or breaks in the skin. Rabbit fever (Tularemia) can be contracted in this manner.

