



Extension FactSheet

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Sac Spiders

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Several species of sac spiders are suspected of being responsible for most indoor spider bites to humans. These sac spiders include *Cheiracanthium inclusum*, *C. mildei*, and *Trachelas tranquillus*. All have been reported from Ohio. Sac spiders are a concern not only because they commonly enter homes when actively hunting for insect prey, but also because of the bites attributed to them. As with most spiders, sac spiders typically do not bite unless they are trapped against the skin or provoked. Because sac spiders are nocturnal, bites are most likely to occur at night. Sac spiders are among the few medically important spiders in the United States. The vast majority of spiders are harmless to humans (see HYG-2060).

Sac spider venom is cytotoxic, causing tissues at the bite site to die (necrosis). Recluse spider venom also is cytotoxic; hence many victims, even doctors, mistakenly believe a brown recluse spider (see HYG-2061) is responsible for some bites. However, sac spider venom is not very toxic to humans. The bite of a sac spider rarely causes severe necrosis or a large, open wound.

Identification

C. inclusum and *C. mildei* are both commonly called yellow sac spiders; they are light yellow to pale yellowish green, sometimes with a orange-brown stripe on top of the abdomen. The cephalothorax (fused head and thorax) of *T. tranquillus* is orange brown to reddish and the abdomen is pale yellow to light gray.

An adult female sac spider's body typically is 1/4- to 3/8-inch long, and her leg span is up to 1 inch. Males are more slender, with a slightly larger leg span. The first pair of legs is longer than the fourth. These spiders have eight similarly-sized dark eyes arranged in two horizontal rows.

Life Cycle and Habits

Cheiracanthium spp. are thought to overwinter as juveniles and molt into the adult stage during late spring. In June and July, the female lays her eggs in a loose mass and covers them with



Yellow Sac Spider

Class: Arachnida

Order: Araneae

Family: Clubionidae

Common Name	Scientific Name
sac spiders	<i>Cheiracanthium</i> spp. <i>Trachelas</i> spp.

a thin, white silk sac. She conceals the egg sac under leaves, stones, etc. outdoors. However, indoors, she keeps it in a silken retreat in crevices and upper corners. The female guards the egg sac until the eggs hatch. *T. tranquillus* lays eggs in the autumn in the New England states, and the spiderlings probably emerge from the egg sac during the following spring.

Sac spiders construct a silken tube or sac in a protected area, such as within a leaf, under landscape timbers or logs, or at the junction of a wall and ceiling, and they use this sac as their daytime retreat. This is how the spider derives its common name, sac spider. These spiders do not build webs.

Sac spiders are active hunters, emerging at twilight from their silken sac to seek out prey. Outdoors, they often search among foliage, waving their first pair of legs in front of them as they rapidly climb among leaves and stems of plants. Because of their active searching habits, sac spiders often enter homes, particularly during early autumn when their food supply decreases. Indoors, they are commonly seen at night running on walls and ceilings, but dropping to the floor to seek cover when disturbed. Sac spiders may construct their daytime silken retreat in any room in a structure, but most often in an upper corner or at a ceiling-wall junction. In crawl spaces, these retreats are commonly found where joists and band boards meet the subflooring.

Bite Symptoms

Initially, the bite of a sac spider may result in sharp pain, although some persons do not experience any pain. The bite seldom results in more than localized redness, a brief (30-60 minutes) burning sensation, and slight swelling at the site of the bite for a day or two. Usually the reaction to a sac spider bite is mild and is no more severe than a bee sting. As with bee venom, though, some individuals have more severe physiological reactions than others. Such individuals may experience general systemic reactions that include fever, malaise, stomach cramps, and nausea. In extreme cases, some develop an ulcerated lesion at the site of the bite. This ulceration normally heals itself within several weeks.

First Aid

If bitten, remain calm. Use hydrogen peroxide to clean the bite area, then apply an antiseptic such as iodine to help prevent secondary infection. Apply an ice pack directly to the bite area to relieve swelling and pain. Seek immediate medical attention if systemic symptoms occur (contact your physician, hospital and/or poison control center).

Collect the spider (even a mangled specimen has diagnostic value), if possible, for positive identification by a spider expert. A plastic bag, small jar, or pill vial is useful and no preservative is necessary, but rubbing alcohol helps to preserve the spider.

Control Measures

Control of sac spiders is best achieved by following an integrated pest management (IPM) approach that involves multiple tactics, such as preventive measures, exclusion, sanitation, and chemicals applied to targeted sites.

IPM requires a thorough inspection of the building to locate the pest and its harborages. This spider can be readily located indoors during the daytime because its silken retreat typically is positioned in upper corners and along the juncture of the ceiling and wall. The spider will emerge when its silk retreat is gently poked with a pencil or similar object. It then can be captured and identified.

Preventing spider bites

- Shake out clothing and shoes before getting dressed.
- Inspect bedding and towels before use.
- Wear gloves when handling firewood, lumber, and rocks (be sure to inspect the gloves for spiders before putting them on).
- Remove bedskirts. Move the bed away from the wall.

Exclusion

- Install tight-fitting screens on windows and doors; also install weatherstripping and door sweeps.
- Seal or caulk cracks and crevices where spiders can gain entry to the house. These cracks and crevices first should be treated with a residual insecticide in case they already harbor spiders.
- Equip vents in soffits, foundations, and roof gables with tight-fitting screens.
- Install yellow or sodium vapor light bulbs outdoors since these attract fewer insects for spiders to feed upon.
- Reduce lighting outdoors.

Habitat Modification & Sanitation

- Remove debris, wood piles, rock piles, etc. near the foundation that provide hiding places for sac spiders.
- Eliminate household pests (prey) such as flies, ants, and cockroaches that attract spiders.
- Do not stack wood against the house.
- Remove heavy vegetation and leaf litter around the foundation.
- Prune branches of trees and shrubs so that they do not contact exterior walls and the roof.

Non-chemical control

- Vacuum using a corner attachment to remove spiders and their silken sacs (dispose of the vacuum bag in a container outdoors). Note it is easy to detect new activity if the sacs are consistently removed.
- Use a rolled up newspaper or fly swatter to kill individual spiders.
- Place sticky traps or glue boards on floors along walls behind furniture and large appliances to entangle spiders. However, sac spiders often travel upward, so glue boards are less effective against sac spiders than other active hunting spiders.

Insecticides

There are many labeled pesticides for spider control. Some are labeled for homeowner use, while others are labeled only for the licensed, certified pesticide applicator.

Individual exposed spiders can be killed with a nonresidual aerosol spray, but any egg sacs will be unaffected. It generally is best to use a vacuum cleaner so that the egg sac within the silken retreat is removed from the premises.

A wettable powder or microencapsulated “slow-release” formulation of a residual insecticide can be applied to corners, behind and under furniture, behind stored items, etc. to control active hunting spiders. This approach also is useful to prevent

establishment of new spiders. Aerosol flushing agents and insecticide foggers containing pyrethrins, though ineffective by themselves in providing long-term control, can cause spiders to move about so that they contact treated surfaces.

Residual liquid sprays can be applied to the outside perimeter of the home, but control is often achieved secondarily in such cases because the sprays eliminate the sac spiders’ prey, thereby reducing the number of spiders.

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