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# STINGING CATERPILLARS



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Texas residents frequently encounter a fuzzy or spiny caterpillar which inflicts a painful "sting" upon contact. Reaction to the sting ranges from mild, with local reddening, swelling and itching, to rather severe, which occasionally requires hospital care for unusually sensitive persons. Hypersensitive persons may experience severe swelling, nausea and generalized systemic reactions.

Several kinds of stinging caterpillars occur in Texas, but the most common are the puss caterpillar (*Megalopyge opercularis*), the io moth (*Automeris io*), the saddleback caterpillar (*Sibine stimulea*), the buck moth (*Hemileuca maia*) and the hag moth (*Phobetron pithecium*). These caterpillars are the immature stages of various moths and do not have a "stinger" such as a wasp or bee. Instead, their venom is contained in glands which bear rather stiff, hollow spines through which it flows upon contact or breakage of the spines. The caterpillars feed upon the foliage of many plants, including trees, shrubs and flowers. They rarely occur in numbers sufficient to damage plants, but instead they are important because of their medical effects. Stings usually occur when a person either brushes against a caterpillar or attempts to remove it from the body or clothing.

## Puss Caterpillar

The most common venomous larva is the puss caterpillar (see Figure 1). Because the puss caterpillar larvae belong to the so-called "flannel moths," several species of which can produce similar stinging caterpillars, the puss caterpillar has often been incorrectly termed an "asp." The moth emerges from an overwintered cocoon in late spring and early summer to deposit its eggs on various trees, shrubs or bushes. The eggs hatch in a few days into tiny, fuzzy, whitish larvae which resemble small tufts of cotton. They

develop gradually over a period of a few weeks, shedding their skins at intervals to allow for growth to about 1-inch long when mature. Their color gradually changes with each molt from whitish to tan to grayish, with darker markings when mature. Interspersed among the long body hairs are numerous short spines which discharge venom upon contact. When viewed from above, the puss caterpillar's head, true legs and abdominal prolegs are obscured beneath the body.

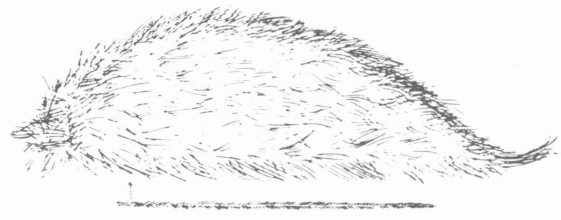


Figure 1. Drawing of puss caterpillar with enlarged featherlike hair.

A person's first symptom following contact with a puss caterpillar is an intense, local burning at the site of contact. The pain may soon radiate a considerable distance as localized swelling begins to occur. The area of contact may become greatly reddened with minute papules, and the inflammation may spread several inches around the sting. In sensitive persons, lymph nodes under the arms or in the groin may become enlarged and painful and a severe headache may begin. The victim may become weak and nauseated, and shock-like symptoms may occur. If these conditions occur, it will usually be within 2 hours after contact. Even when such systemic reactions do not occur, the sting site may remain inflamed and irritated for several days. The severity of the symptoms apparently is related to individual sensitivity, maturity of the larvae, the

number of spines contacted, the degree of pressure against the caterpillar and the site of the sting.

### Io Moth

The io moth larva is a pale-green caterpillar, with yellowish and reddish to maroon stripes edged with white running lengthwise on the body (see Figure 2). It appears "spiny" as compared to the furry puss caterpillar, and it lacks the long hairs over its body. Instead, each body segment is equipped with several fleshy tubercles armed with numerous long, greenish venomous spines tipped with black.

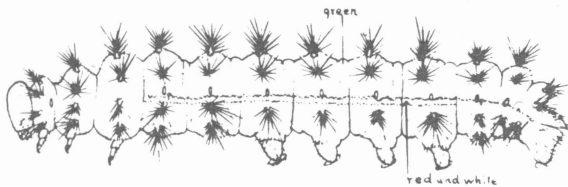


Figure 2. Drawing of io moth larva showing typical spiny tubercles.

After hatching in late spring or early summer from eggs deposited on various trees and shrubs, the caterpillars feed for several weeks on foliage before reaching their mature size of 2 to 2½ inches in length. They probably have only one generation during most years. They pass the winter as a pupa inside a tough oval cocoon, often enclosed in leaves on the ground. Moths then emerge in the spring and summer to mate and deposit eggs.

The sting mechanism is similar to that of the puss caterpillar. The pain apparently is less severe, and complications are less frequently reported, perhaps because of the less-frequent occurrence of the io moth.

### Buck Moth

The buck moth larvae are similar in size and appearance to that of the io moth, but they can be readily distinguished by their color. The buck moth caterpillar is purple-black with a reddish head, and the spiny tubercles on the body are reddish to black (see Figure 3). The prolegs (false legs on the abdomen) are red, and the true legs on the thorax are glossy black. It lacks body stripes, but it has numerous small, pale-yellow dots scattered over the body.

Probably only one generation occurs each year. The insects overwinter as tiny larvae inside egg cases

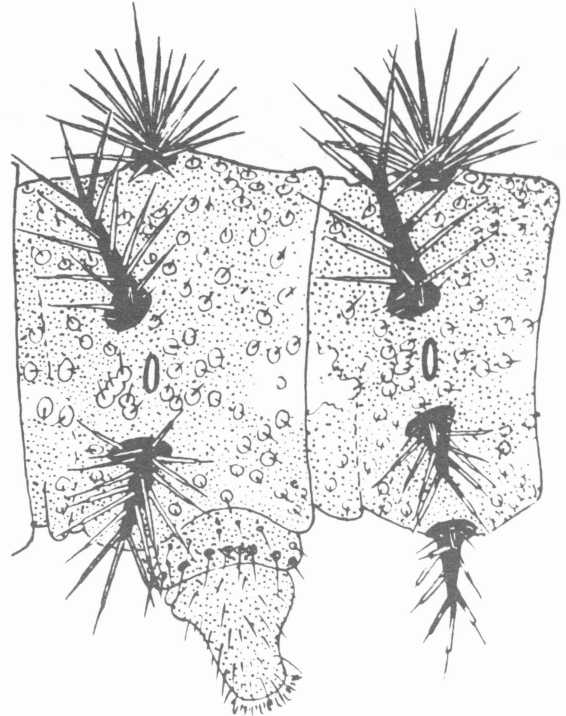


Figure 3. Drawing of sixth and seventh abdominal segments of buck moth larva, showing typical dark color of spine-bearing tubercles.

and emerge to begin feeding in groups, principally on oak trees, in late spring and summer. Following pupation, the moths emerge in September and October to deposit eggs in collar-like masses which usually encircle a small twig. Peak moth activity in the more northern states coincides closely with the rutting season of the whitetail deer, hence the insect's name.

The sting characteristics and effects of the buck moth larvae are similar to those of the io moth.

### Saddleback Caterpillar

The saddleback caterpillar (see Figure 4) is a striking, venomous, slug-like larva. It is about 1-inch long when mature. The basic body color is brown, but in the center of the body its back and sides are green, suggesting a saddle blanket. In the center of the green blanket is an oval, purplish-brown spot which suggests a saddle. The evenly rounded larva is armed along the sides with groups of spines, and two larger tubercles are situated at the front and rear of the body. Thoracic legs are very small, and the abdominal prolegs are absent.

Saddleback caterpillars have a wide host range including trees, shrubs and even corn plants. Although not rare in Texas, these insects are less

commonly encountered in this area than other species previously discussed.

Little information on life history or the habits of this moth is available. Presumably, not more than one, possibly two, generations occur each year. Reports indicate that its sting is somewhat less painful than that of other stinging caterpillars.

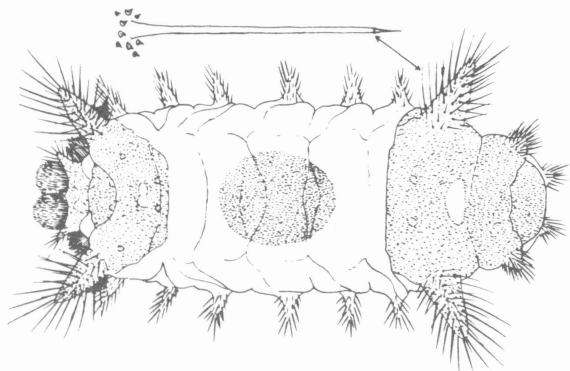


Figure 4. Drawing of saddleback caterpillar and enlarged hollow spine.

### Hag Moth

The larva of the hag moth (see Figure 5) feeds on many kinds of shrubs and on low branches of deciduous trees. When full-grown, it is about 5/8-inch long and is light brown. It has 9 pairs of variable-length lateral processes upon which the stinging hairs are borne. The longer processes are curved and

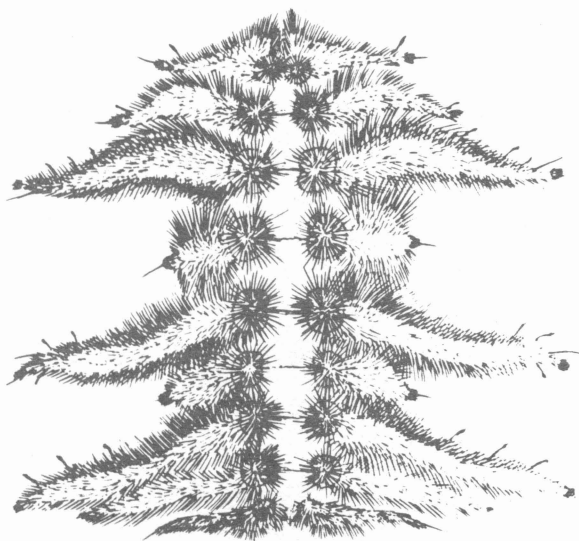


Figure 5. Drawing of hag moth larva with typical spine-bearing lateral body processes.

twisted, suggesting the disheveled locks of a hag, for which it is aptly named.

This insect is probably the least common of the stinging caterpillars. Its sting is said to be comparable to that of the saddleback caterpillar.

### First Aid for Caterpillar Stings

No really effective home first-aid treatments for caterpillar "stings" are available. Immediate application of adhesive or transparent tape over the sting area may be helpful in removing broken spines. Washing the affected skin area thoroughly with soap and water may help to remove irritating venom. Prompt application of an ice pack and a baking soda poultice may help to reduce pain and prevent swelling somewhat. Antihistaminic drugs, often administered for bee and wasp stings, are reportedly ineffective. Household analgesics such as aspirin appear to also be ineffective for alleviating pain and headache. Some physicians reportedly have successfully treated severe cases with intravenous calcium gluconate and prescription analgesics. Prompt referral to, and treatment by, a physician should be accomplished if severe reactions are indicated. Very young, aged or unhealthy individuals are more likely to suffer severe reaction symptoms, and medical precautions should be taken with such persons.

### Insecticidal Control of Stinging Caterpillars

Where stinging caterpillars present hazards to persons, such as around residences or schools, infested shrubs and trees may be sprayed to reduce or eliminate the caterpillars. An environmentally safe insecticide should be selected, and the product mixed and applied according to label directions, with all precautions being carefully observed.

Many other species of harmless fuzzy or spiny worms commonly occur around the home. Since it is sometimes difficult to distinguish these from venomous species, contact with any suspicious specimen should be avoided. Children especially should be cautioned about playing with insect larvae because youngsters are usually more sensitive to the venom of harmful species.

Illustrations courtesy of the U.S. Department of Health, Education and Welfare Center for Disease Control, Atlanta, Georgia.

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