

Stinging Caterpillars Out in Late Summer and Fall

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It has been an interesting season in 2008 with lots of unusual insect activity. The most unusual call we received was from a newspaper columnist from Cecil County who was working on a story on the stinging caterpillar in Kent County that was migrating toward Cecil County. The claim was that this stinging caterpillar had sent a family to the hospital on Kent Island. The culprit caterpillar was the Puss caterpillar (*Megalopyge opercularis*). It turns out this is one of the more bothersome stinging caterpillars found in Maryland. We had calls about this caterpillar defoliating a large number of native holly trees on an individual farm in Kent County in 2007. The caterpillars were again active in 2008 feeding on American hollies in Kent County.

Stinging Caterpillars

Most people are used to the idea that wasps and bees can sting and rarely think about caterpillars which also sting. In the case of Lepidoptera, it is not the adult stage that causes the painful sting action but the larval stages. The pain inflicted on humans is not from an ovipositor (stinger) like a bee or wasp but rather through the hairs on the body of the caterpillar.

Stinging caterpillars bear specialized nettling or urticaceous setae or spines. These structures are hollow and contain toxins from poison-gland cells to which they are joined. The caterpillars use these hairs as defensive structures for protection against predators. The sting of the caterpillar inflicted on humans is not from a deliberate attack, but the result of casual contact with toxin-bearing setae or spines. When brushed against, these structures break away, releasing toxins. In some cases, broken setae may penetrate the skin. Sometimes the toxins spill out and spread on the surface of the skin causing inflammation.

Reactions to caterpillars vary from person to person but a sting is a sting. In some cases the contact causes itching, or burning sensations. Some people develop dermatitis, rash, lesions, or pustules; inflammation, swelling, and numbness at or around the area of contact. In extreme cases a person can have a reaction with fever, nausea and intense pain. The type of reaction depends on the individual person's susceptibility and on the species of caterpillar, degree of contact, and type of toxin. Reactions may be especially severe for individuals with allergies or sensitive skin. Tough skinned people may consider stinging caterpillars a mild nuisance at best.

Slug Caterpillars

Slug caterpillars do not look like your typical caterpillar. The head is hidden within the thorax and the thoracic legs are reduced in size. The prolegs (fleshy appendages on the abdomen) are modified to sucker-like lobes without crochets. Most species tend to be solitary feeders, and seldom occur in high enough numbers to cause significant damage to tree foliage.

Saddleback Caterpillar (*Sibine stimulea*)

The saddleback caterpillar, *Sibine stimulea*, is one of the brightest colored stinging caterpillars found in the USA. Its distribution is throughout the east coast of the United States. The larvae can be found feeding on several herbaceous annual and perennial plants such as Astilbe, obedient plant, dahlia, canna and phlox, to name a few. The larvae are very distinct in coloration. The larvae are brown with a pronounced bright lime-green saddle covering the center of the body. The caterpillar has hair-like spines that connect to poison glands. Four very prominent projections with spines are found on the anterior and posterior of the caterpillar. If you have gloves on you can pick up the caterpillar and examine it closely. If you look at the bottom of the caterpillar you will notice that it has a slug-like ventral side (bottom). The larvae can be found feeding on a number of weed and cultivated herbaceous perennial species as well as trees and shrubs. We have also had reports of them feeding on tropical plants placed outside for the summer. The damage to plants from feeding is generally insignificant. The sting from the spines on the body of the caterpillar is painfully unforgettable. This is a great caterpillar to examine in the landscape but avoid physical contact with the caterpillar unless you have protective gloves. They are most often found in August through early October.



Hag Moth Caterpillar (*Phobetron pithecium*)-The other slug caterpillar found in Maryland

The hag moth larva looks like a dried, hairy leaf - a hairy leaf that can cause a stinging sensation in humans. The full-grown caterpillar is brown, hairy, and about half an inch long. Along the side of the body there are nine pairs of fleshy lateral lobes (long and sometimes twisted) with hidden urticating setae. It gets its common name from the disheveled lobes which are said to resemble hair-like locks of a hag.



Generally a solitary feeder, this caterpillar can be found feeding on foliage of several trees including apple, ash, birch, dogwood, hickory, oak, and willow from July into fall.

One More Stinging Slug Caterpillar

The hackberry leaf slug, *Norape ovina*, is one of the colorful slug type stinging caterpillars. The larvae have stinging hairs in six small tufts found on each segment. The larvae is commonly found feeding on redbud but can be found on red maple and hackberry foliage in Maryland. The hairs are mildly urticating and may cause stinging skin is exposed to the hairs.

Stinging Flannel Moths

Flannel moth caterpillars, like slug caterpillars, look differently than the typical lepidopterous larvae. Instead of having 5 or less than 5 pairs of prolegs like other caterpillars, this family has seven pairs of prolegs. Flannel moth caterpillars have fine long, silky hairs that conceal venomous setae which can cause serious skin irritations. They do not have any large and threatening horns-like projections.

Flannel moth larvae feed on a variety of trees and shrubs. Young larvae feed gregariously; older larvae are often found feeding singly. Usually, they are not found in high enough numbers to cause much damage. Two species of flannel moths, the puss caterpillar and white flannel moth, are found in Maryland.



Puss Caterpillar (*Megalopyge opercularis*)

The puss caterpillar looks like a very shaggy dog or a Mozart – look which is not your typical looking caterpillar. The puss caterpillar (the adult is called southern flannel moth) is one of the most bothersome stinging caterpillars. Contact may produce severe reactions with severe burning of the skin. Some people report severe pain. The hairs can cause reddened flesh and inflammation. Some people develop lesions and swellings on the skin exposed to the caterpillars

People making contact with the caterpillars report pain that persists from one to several hours. In some instances, such as the people on Kent Island in 2008, victims have required medical attention. The larva is urticating in all instars. Newly molted skins retain stinging capabilities.



The tufts of hair (which can be grayish to light to dark brown) hide venomous setae. These hairs form a roof-like peak over the back of the body and taper rearward to form what looks a lot like a tail. There are small patches of white on each side of the body. Larvae grow to be about one inch long, but because of the thick tufts of hair, can appear to be much larger.

Puss caterpillars feed on foliage of a variety of broadleaf trees and shrubs. In Kent County they are most frequently reported feeding on American holly. Some other common tree hosts are apple, elm, hackberry, maple, oak, pecan, and sycamore. Only one generation occurs in Maryland. Larvae are present in August through September.

Giant Silkworms

This family contains some of the largest and most impressive looking of our native caterpillars. Some species spin large, thick cocoons of silk. Many caterpillars are brightly colored and variously armed with conspicuous "horns" and spines. . One species, the Io moth, occurs in Maryland.

Io Moth Caterpillar (*Automeris io*)

This caterpillar is a generalist feeder and can be found on many herbaceous perennials and woody plants in the landscape. Reported tree hosts include apple, black locust, cherry, dogwood, elm, hackberry, hickory, maple, oak, sycamore, and willow. Larvae grow to be two to three inches long. The head and body are yellowish green. The thoracic legs and prolegs are very distinctly red. Caterpillars have distinct white and reddish lines along each side of the body. The raised tubercles are very ornate with a whorl of green branched spines. One generation occurs in Maryland each season. Larvae are present August through October.



Just be Aware and Cautious

Being educated on what these stinging caterpillars look like and avoiding contact with bare skin is all you really need to do for these stinging caterpillars. A customer who has had encounter with a stinging caterpillar may want you to spray to wipe out these stinging devils but suggest restraint and just avoid contact.