



Stinging Caterpillars: Slug Caterpillars and Flannel Moths

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Description

Slug caterpillars in the family Limacodidae move with a slow gliding motion much like a slug. Some slug caterpillars are brightly colored with bumps, protuberances, or appendages. Most have irritating hairs or spines capable of delivering a painful sting.

Larvae of the flannel moths in the family Megalopygidae possess warty growths with stinging hairs. These warts may be completely concealed under a dense covering of fine hairs, or the warts may be exposed but surrounded by tufts of very long hairs.

Adults of both the Limacodidae and the Megalopygidae are stout, hairy moths that hold their wings in a tented position over their backs. Limacodid moths also tend to hold the tip of the abdomen elevated over their backs. Adult moths of stinging caterpillars are not known to cause dermatitis and attract far less attention than the rather bizarre-looking larvae.

Life Cycle

All stinging caterpillars are the larval stage of a moth. Moths have a complete life cycle consisting of egg, larval, pupal, and adult stages. The stinging hairs or spines of the larval stage may be incorporated into the woven silk cocoon to protect the insect during pupation. Depending on the species, there are usually 1-2 generations per year with possibly more generations in warmer southern climates.

Damage

Stinging caterpillars possess urticating hairs, poison spines, or sometimes both hairs and spines. Urticating hairs are often simple bristles that easily dislodge upon contact. There may be tiny barbs along the hair shaft that help the hairs embed in a victim's skin. Hairs of this type generally cause a non-venomous, mechanical dermatitis. In contrast, poison spines are hollow hairs connected to an underlying poison gland under the insect's skin. These hollow hairs break easily on contact and allow poison to flow out of the broken spine onto the victim's skin. This differs from the sting of a bee or a wasp, which deliberately insert a stinger into a victim's skin and pump venom through it.

Both urticating hairs and poison spines can cause a stinging, burning reaction upon contact that can be as painful as a bee sting. Often a person "stung" by a caterpillar will instinctively brush or knock the caterpillar off, which may break more hairs and further spread the irritating hairs or poison. The site of contact may redden, swell, and possibly blister. The irritation can last for a day or two and may be accompanied by nausea during the first few hours in sensitive individuals. Usually the injury resolves without any complications.

The severity of the reaction produced by a stinging caterpillar may vary according to a person's sensitivity. Some people may be more sensitive to the hairs or poison that otherwise may not cause dermatitis in another person. However, some species of stinging caterpillars are capable of causing a painful reaction in just about everyone who encounters them.

Habitat

Slug caterpillars are primarily herbivores of woody plants, but rarely do they cause severe injury to their host plant.

Control

A person "stung" by a poisonous caterpillar should immediately wash the affected area to remove any insect hairs and poison that remain on the skin. Adhesive tape can be applied to the skin and removed quickly to pull out hairs or spines embedded in the skin. Use fresh tape for each application to prevent spreading the hairs to new skin. An ice pack will help reduce swelling; creams and lotions containing steroids will lessen the discomfort and promote healing. Persons known to be sensitive to insect stings should consult a medical professional if there are any concerns. Anyone who may have contacted a stinging caterpillar in or around their eyes should also seek prompt medical attention.

Stinging caterpillars rarely occur in sufficient numbers to be considered plant pests. People who work with ornamental plants or garden vegetables should learn to recognize and avoid stinging caterpillars. Consider wearing long sleeve shirts and gloves in areas where stinging caterpillars have been seen.

Note There are many different species of stinging caterpillars found in Virginia and only a few are listed by name in this factsheet. However, treatment for injury by stinging caterpillars remains the same regardless of the species causing the injury. To avoid being stung, exercise caution in handling any of these or similar-looking caterpillars. Another common stinging caterpillar found in Virginia not discussed here is the buck moth (*Hemileuca maia*, Family Saturnidae). See Virginia Cooperative Extension fact sheet ENTO-18NP for more information about buck moths.

Slug Caterpillars, Family Limacodidae

Monkey Slug or Hag Moth

[*Phobetron pithecium* (J.E. Smith)] This larva is a

truly bizarre caterpillar (Fig. 1). It is densely furred with gray to brown hairs and numerous paired appendages projecting along the sides of the body. Some of these "arms" are longer than the others and are often mistaken for the caterpillar's legs. These appendages are often curled or twisted and they break off easily without apparent harm to the caterpillar. Some larvae may have stunted or missing "arms." This strange appearance may be mimicry of a large hairy spider to scare off potential predators, especially during the pupal stage, which is spent under the cast skin of the caterpillar. Monkey slug caterpillars feed on a wide range of host trees and shrubs, including fruit trees, rose, dogwood, oak, hickory, birch, and willow. Mature larvae measure about 2.5 cm (1 inch) long. The appearance of the adult hag moth varies by sex. Female moths have lavender-gray patches on the wings interrupted with many heavily-scaled dark brown lines, while males have transparent patches on the wings. Both sexes measure 10-15 mm (about 0.5 inches) long and have stout, dark, hairy bodies with fat tufts of light-colored scales on the legs.



Figure 1. Monkey slug caterpillar, *Phobetron pithecium*. (Jerry A. Payne, USDA Agricultural Research Service, Bugwood.org)

Saddleback Caterpillar

[*Acharia stimulea* (Clemens)]. Older larvae are brown with a bright green rectangle over much of the back. There is a brownish, oval “saddle” centered on the green back (Fig. 2). Both the green rectangle and the saddle are outlined in white and brown. There is a pair of large, fleshy tubercles at the anterior and posterior ends. There are additional pairs of smaller tubercles below the large pairs and along the lower sides of the larva as well. All of the tubercles possess formidable stinging spines. Mature larvae measure about 2 cm (0.8 inch) long. Saddleback caterpillars are found on apple, maple, oak, corn, beans, and ornamental flowering plants. The adult moth is chocolate brown with grayish markings, stout, and measures about 14-22 mm (about 0.6–0.9 inches) long.



Figure 2. Saddleback caterpillar, *Acharia stimulea*. (Herbert A. “Joe” Pase III, Texas A&M Forest Service, Bugwood.org)

Spiny Oak Slug

[*Euclea delphinii* (Boisduval)]. This caterpillar varies in color from yellow-green to brown to pink, usually with a darker central stripe down the back and sometimes with other patches of contrasting color. There are three pairs of fleshy tubercles with poison spines at the head and two pairs towards the tip of the abdomen. Additional smaller tubercles, all bearing poison spines, run in two rows down the back and along the lower sides. Larvae feed on a wide host range, including oak, fruit trees, hickory, maple, sycamore, and many other hardwoods. Adult moths are tan to chocolate brown, stout, and measuring 10-15 mm (about 0.5 inches) long.

Usually there is a large mint-green patch near the head and smaller mint-green spots towards the bottom of the wings, but these green areas may be fused, reduced, or absent (Fig. 4).



Figure 3. Spiny oak slug caterpillar, *Euclea delphinii*. (Sturgis McKeever, Georgia Southern University, Bugwood.org)



Figure 4. Spiny oak slug moth, *Euclea delphinii*. (Mark Dreiling, Bugwood.org)

Hackberry Leaf Slug or White Flannel Moth

[*Norape ovina* (Sepp)]. These handsome larvae have tawny-orange patches at the head and end of the abdomen, and a black rectangle in between with numerous lemon-yellow spots at regular intervals (Fig. 5). Each yellow spot sports tufts of long, fine black hairs with shorter, stout white spines at the

base of the tuft. Mature larvae measure about 2.5 cm (1 inch) long and feed on hackberry, redbud, and black locust. The moth is a uniform whitish-gray with a hairy, chunky body.



Figure 5. Hackberry leaf slug caterpillars, *Norape ovina*. (Lacy L. Hyche, Auburn University, Bugwood.org)

Puss Caterpillar or Southern Flannel Moth

[*Megalopyge opercularis* (J.E. Smith)]. The larva of this species is entirely covered by a thick carpet of long grayish-tan to dark brown hairs with a rusty stripe down the center of the back (Fig. 6). Younger larvae have a thick tuft of hairs extending beyond the tip of the abdomen like a tail. Overall the caterpillar resembles a tiny mouse (about 2.5 cm or 1 inch). Older larvae tend to lose their tidy appearance and the hairs are sparser, unkempt, and do not conceal the stinging spines as well. Larvae feed on fruit and nut trees, oak, birch, and rose. Adult moths are stout and exceptionally furry, measuring about 2.5 cm (1 inch) long (Fig. 7). They are a light tan with darker brown shading on the head, thorax, and forewings. White lines interrupt the darker areas of the forewings. The legs are furry with blackish feet and white on the upper portion of the legs.



Figure 6. Puss caterpillar, *Megalopyge opercularis*. (Sturgis McKeever, Georgia Southern University, Bugwood.org)



Figure 7. Southern flannel moth, *Megalopyge opercularis*. (Rebekah D. Wallace, University of Georgia, Bugwood.org)

Revised

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