

Pest Profile



Photo credit: (Left) Lacy L. Hyche, Auburn University, Bugwood.org; (Right) Steven Katovich, Bugwood.org

Common Name: Io Moth

Scientific Name: *Automeris io*

Order and Family: Lepidoptera, Saturniidae

Size and Appearance:

	Length (mm)	Appearance
Egg	1.7 mm	The eggs are white in color with a yellow slanting area on the sides and a yellow spot on the top of the egg that surrounds the minute opening of the eggshell (micropyle). In three to five days after oviposition, the micropyle turns black in fertilized eggs but will remain yellow if the egg is unfertilized. As the eggs mature, the lateral yellow areas change to an orange or brown color.
Larva	3-60 mm	The larva goes through five different instars or stages between successive molts with the first instar occurring between hatching and the first molt. The first instar of the caterpillar is reddish-brown with six longitudinal light lines and six longitudinal rows of spine-bearing scoli (horns). In instars two to four, the coloration gradually become more yellowish-brown with the longitudinal lines becoming more distinct and lighter in color. The mature larva, or fifth instar, is green in color with a lateral abdominal white stripe, edged on the top and bottom with red stripes. The thoracic legs and the fleshly abdominal legs (prolegs) are reddish and have a reddish patch located on the bottom half of the sides of the abdominal segments. The scoli bear black-tipped venomous spines located dorsally on the body.
Adult	Wingspan: 50-80 mm	The adult female moth is larger than the male moth and can be differentiated by the antennae. The male's antennae are comb-like with four projections per a unit whereas the female's antennae look almost threadlike without magnification. The male forewings vary from yellow to tawny or orangish brown. A male

		yellow phenotype is predominant in the northern area, with a darker form common in southern populations and pupae of males that went through a stage of dormancy (diapause). Females have lightly patterned and purplish-red wings. Both the male and female have the distinctive large, circular, black eyespot on the hindwing. When threatened, adult Io moths flip their forewings forward, exposing their eyespots.
Pupa (if applicable)		The cocoon is thin and papery with the pupa within being dark brown. The female pupae have a longitudinal notch that is located on the underside of the fourth and fifth abdominal segments. The male pupae lack the notches and bear two short knob-like structures (tubercles) on the fifth abdominal segment.

Type of feeder (Chewing, sucking, etc.): The larvae have chewing mouthparts.

Host/s: The caterpillar feeds on a variety of deciduous shade trees, but the caterpillar can have a regional host preference. This includes willow, elm, apple, maple, hickory, and sycamore. Mesquite (*Prosopis* spp.) has been recorded as a preferred host for the larvae along the Texas Gulf Coast. The adults do not feed.

Description of Damage (larvae and adults): The caterpillars feed on the leaves of trees and small shrubs, but the larvae are usually not abundant enough to cause significant injury. The larvae, though, possess numerous hairs that can deliver a painful sting if touched. Symptoms include itching, welts, and a reddened inflammatory response by the skin.

References:

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