

Colorado Insect of Interest

Io Moth

Scientific Name: *Automeris io* (F.)

Order: Lepidoptera (Butterflies, Moths, Skippers)

Family: Saturniidae (Giant Silk Moths)

Identification and Descriptive Features:

The caterpillars are pale green with a lateral stripe of pink and creamy white down each side, covered with clusters of branching spines. The spines (“hairs”) can produce a painful sting with contact.



Figure 1. Caterpillar of the Io moth. Photograph by Steven Katovich.

Adults are large moths with a wing-span of two and one half to three inches. Each hindwing has

a prominent black and blue eyespot that is exposed when the forewings spread. Coloration of the forewings is variable, particularly between sexes. Females have brownish or purplish-red wings with indistinct wavy bands. The males are somewhat smaller and have yellowish wings



Figure 2. Female Io moth displaying eyespot markings. Photograph by Ron Billings.

Distribution in Colorado: State records in Colorado are largely restricted to the counties along the Front Range and foothills from Fremont/Pueblo counties and north.

Life History and Habits: Io moth spends the winter as a pupa, within a tough brown cocoon covered usually amongst fallen leaves or other sheltering debris. The cocoon, which also incorporates the stinging hairs of the larva, can produce similarly painful reactions on contact.



Figure 3. Male Io moth. Photograph by Lacy Hyche.

Adults emerge in late spring and early summer and mate during the evening. Females lay eggs in groups on stems or leaves of host plants. Adult moths live for only a brief period and do not feed, surviving on the stored food of the larval stage. Host plants for the larvae include oak, willow, hackberry, currant and various wild cherries.



Figure 4. Io moth pupa exposed within cocoon.

Upon egg hatch larvae initially feed gregariously and travel among plants in long “trains”. Later stage caterpillars disperse and feed alone. When full grown they move to ground and pupate, usually amongst fallen leaves or in sheltering crevices. In Colorado only one generation per year is likely produced.

Related Species: Caterpillars of the Io moth are the primary insect in the state that possess spines connected to poison glands capable of producing a very painful sting (urticating hairs). Also present in

Colorado are several species of the closely related “buck moths” and larvae of these species also have spines that can cause irritation. Most common is the Nevada buck moth, *Hemileuca nevadensis* Stretch, which occasionally is abundant on various *Populus* and *Salix*. Also known from Colorado are *H. diana* Packard, on gambel oak; *H. magnifica* (Rotger) on *Artemisia tridentata*; *H. eglanterina annulata* Ferguson on many plants including *Amelanchier*, rose, *Prunus*, *Purshia tridentata*, and *Symphoricarpos*; *H. nuttalli nuttalli* (Strecker) which primarily feeds on Antelope bitterbrush (*P. tridentata*) and snowberry; and *H. neumoegeni* Hy. Edwards which feeds on desert almond, skunkbrush, sumac and Apache plum.