

Colorado Insect of Interest

Leafy Spurge Hawk Moth

Scientific Name: *Hyles euphorbiae* (Linnaeus)

Order: Lepidoptera (Butterflies, Moths, and Skippers)

Family: Sphingidae (Sphinx Moths/Hawk Moths, Hornworms)

Identification and Descriptive Features: The stage most commonly observed are the brightly colored caterpillars found feeding on leafy spurge. Younger larvae tend to be dark colored but the late stage caterpillars develop vivid markings that include yellow or red striping, light colored spots, red and black prolegs. All stages have a prominent “horn” on the tip of the abdomen. Full grown caterpillars may be about 4 inches long (10-11 cm).

The adult is a large, heavy bodied moth with a wing span of about 2 inches (5 cm). General coloration is an olive-brown, with darker areas marking the forewing.

Distribution in Colorado: This species has been purposefully introduced into Colorado for the suppression of leafy spurge. It has become established at some sites and subsequently dispersed locally. It is known to be present in Larimer and Morgan Counties, but probably has a considerably wider range within the state.

Life History and Habits: Winter is spent in the pupal stage, which occurs in a belowground earthen cell a few inches below the soil surface. Adults emerge in late May or June and may sometimes be seen visiting flowers at dusk where they feed on nectar. The adults are “hawk moths” that hover when feeding, much in the manner of a hummingbird. Females lay between 70-150 eggs, in small batches on the leaves and flower bracts of their host plant.

Upon hatch the larvae feed on the foliage of leafy spurge, and the younger stages often remain loosely attached to the plants with silk. Later stage larvae more actively disperse among plants



Figures 1-3. Late stage caterpillars of the leafy spurge hawk moth. Colors and patterning change in each larval instar.



Figure 4. Pupa of the leafy spurge hawk moth..



Figure 5. Leafy spurge hawk moth.

within patches of leafy spurge and become full-grown about 3-4 weeks after egg hatch. They then enter the soil where they pupate.

A second generation is typically produced with adults emerging in late July and early August, producing caterpillars that may be seen in late summer. Upon pupation these will go into a dormant state (diapause) and suspend development until the next spring. In years with cool early season weather some of the pupae from the first generation may go into diapause, so that there is only a partial second generation produced.

Populations of the leafy spurge hawk moth fluctuate greatly from season-to-season. Periodically they may be quite abundant, but then may be relatively uncommon in subsequent years. During outbreaks they may cause extensive defoliation of leafy spurge stands, but their effects on suppressing these weeds are considered marginal.