

## Colorado Insect of Interest

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# Whitelined Sphinx

**Scientific Name:** *Hyles lineata*  
(Fabricius)

**Order:** Lepidoptera (Butterflies, Moths, Skippers)

**Family:** Sphingidae (Sphinx moths/Hawk moths, Hornworms)



Figure 1. Adult of the whitelined sphinx



Figure 2 Full grown larva of the whitelined sphinx, green form



Figure 3. Dark form larva of the whitelined sphinx crossing a highway

**Description and Distinctive Features:** The whitelined sphinx is a large moth with a wingspan of between  $2 \frac{7}{16}$  to  $3 \frac{9}{16}$  inch (6.3-9 cm). The fore wing is generally dark olive brown to gray with a strong white lengthwise band running through the center. Smaller white veins cross the wing. The hind wing is dark gray-black with a central pink area.

The caterpillars of this species are extremely variable in coloration and patterning. Predominantly greenish forms are marked with yellow, black and red. Very dark, nearly black forms also can occur, which have yellow markings. Yellow forms also exist. Full-grown larvae may be about 3 inches long and possess a prominent flexible spine on the tip of the abdomen, typical of most other hornworms.

**Distribution in Colorado:** Statewide and sometimes very common.

**Life History and Habits:** The whitelined sphinx is a highly migratory species that annually colonizes Colorado from more southern areas. It is not thought to survive winters within the state.

Eggs are laid singly on host plants and this species feeds on a very wide range of plants.



Figure 4. Whitelined sphinx larva with egg in foreground



Figure 5. Pupa of the whitelined sphinx

Evening primrose (*Oenothera*) and purslane (*Portulaca*) are often the most common hosts, but larvae have been found developing on many other plants including grape, elm, apple and *Epilobium*. In some years very high populations of the caterpillars develop in late summer and these may be seen migrating across fields and highways after they have completed development or consumed their host plants. They then move into the soil and create an underground chamber within which they pupate. Two generations may be completed during a growing season.

The adult moths feed on nectar, which they extract with their very long tubelike mouthparts. Often they may be active during the day and their flights and size are very reminiscent of hummingbirds; the whitelined sphinx is, by far, the most common species of “hummingbird moth” that occurs in the Rocky Mountain region.

Adults

also fly at night and can often be attracted to lights.

**Related Species:** The whitelined sphinx on one of over two dozen (27-28) sphinx moths that occur in Colorado. Two species of hornworms are also commonly known to vegetable gardeners, the tomato hornworm/fivespotted hawk moth (*Manduca quinquemaculata*) and the tobacco hornworm/Carolina sphinx (*Manduca sexta*). Another common species with caterpillars that are often found wandering in late summer is the Achemon sphinx (*Eumorpha achemon*), a species of “hornless hornworm” associated with grape and Virginia creeper. These species, and others, are covered in Colorado State University Extension Fact Sheet 5.517, *Hornworms and Hummingbird Moths* (<http://www.ext.colostate.edu/pubs/insect/05517.html>).



Figure 6. Adult of the whitelind sphinx visiting flower. Photograph courtesy of William Ciesla.

