

“Bumble Bee Clearwing” Moths

Scientific Names: *Hemaris thysbe* (F.) (hummingbird clearwing), *Hemaris diffinis* (Boisduval) (snowberry clearwing), *Hemaris thetis* (Boisduval) (Rocky Mountain clearwing)

Order: Lepidoptera (Butterflies, Moths, and Skippers)

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

Identification and Descriptive Features: Adults of these insects are moderately large moths that have some superficial resemblance to bumble bees. They most often attract attention when they are seen hovering at flowers in late spring and early summer.

It can be difficult to distinguish the three “bumble bee clearwing” moths that occur in Colorado, particularly when they are actively moving about plants. The three species are approximately the same size, with wingspans that range between 3.2-5.5 cm. The hummingbird clearwing is the largest and distinguished by having yellow legs, an olive/olive yellow thorax and dark abdomen with small patches. The edges of the wings have a thick bordering edge of reddish brown. The snowberry clearwing has black legs, a black band that runs through the eye and along the thorax, a golden/olive golden thorax and a brown or black abdomen with 1-2 yellow bands. The head and thorax of the Rocky Mountain clearwing is brownish olive or olive green and the abdomen black or olive green above, with yellow underside.

Although the caterpillar stage of all the clearwing sphinx moths feed on foliage of various shrubs and trees, damage is minimal, none are considered pest species. The larvae, a type of “hornworm”, are very rarely observed and never abundant.



Figure 1. *Hemaris thysbe*, the hummingbird clearwing. Photograph courtesy of David Cappaert.



Figure 2. *Hemaris diffinis*, the snowberry clearwing.



Figure 3. Larva of the snowberry clearwing.

Distribution in Colorado: Within Colorado *Hemaris thysbe* can be found statewide; *Hemaris diffinis* is restricted to areas east of continental divide; *Hemaris thetis* primarily (but not exclusively) occurs west of the Continental Divide.

Life History and Habits: Life history is little studied for these species. The overwintering stage apparently is a pupa, usually found in soil or under covering debris in the near vicinity of host plants used the previous season. Adults emerge

in midspring and are usually present between the end of April into August.

Eggs are laid on leaves of host plants on which the larvae feed. The hummingbird clearwing reportedly develops on honeysuckle (*Lonicera*), hawthorn, cherries, plums, *Viburnum opulus* (European cranberrybush), and *Symphoricarpos* (snowberry). Reported hosts of the snowberry clearwing are snowberry, honeysuckle, dogbane (*Apocynum*), and dwarf honeysuckle (*Diervilla lonicera*). Snowberry is the reported host of the Rocky Mountain clearwing. Larval development likely takes about 4-6 weeks to complete, after which they wander from the plant and pupate in the soil. All three species likely produce two generations/year under normal conditions; one generation may be normal in cooler areas.