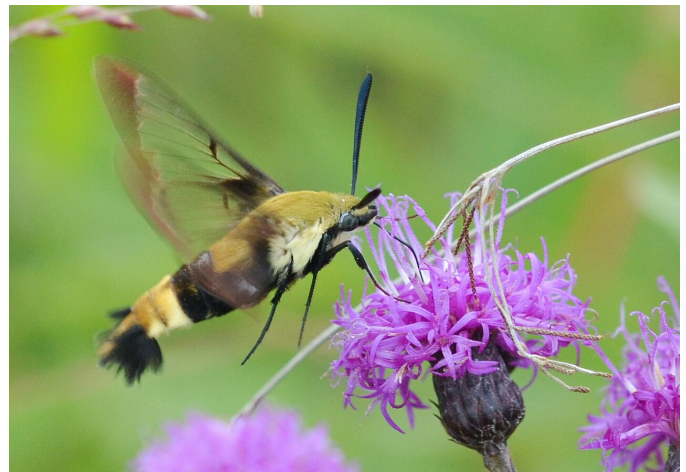


Hummingbird Moths

Genus: *Hemaris* Family: Sphingidae

Hummingbird Moths receive their name because they act and sound like hummingbirds. They fly rapidly forward and backward as they dart from blossom to blossom, beating their wings up to 70 times per second. The rapid wing movement makes an audible humming sound. Like hummingbirds, Hummingbird Moths hover over flowers while feeding on nectar. Both hummingbirds and Hummingbird Moths prefer tubular flowers that are more difficult for other pollinators like bees to reach. Hummingbirds are attracted to bright colors like red, orange, and pink. Hummingbird Moths are not drawn by color, so they are more prone to pollinate less colorful flowers than hummingbirds. Hummingbirds have long, thin bills that reach deep into flowers, While Hummingbird Moths rely on their long proboscis, which they roll under their chin and unfurl to drink nectar. Pollen sticks to their heads and tongues when they reach into flowers and is distributed to the next blossom when they move on. The rapid beating of their wings creates air turbulence, which shakes pollen loose from them and from within the blossoms. Both hummingbirds and hummingbird moths are important pollinators.



Snowberry Clearwing Moth

All Hummingbird Moths are hawk moths, but not all hawk moths are Hummingbird Moths. The hawk or sphinx family (Sphingidae Family) is large - 1,400 species worldwide and 115 species in North America. While the term Hummingbird Moth is used as a common name for many moths in this family because their behavior resembles hummingbirds, scientists reserve the title strictly for the moths in the clearwing *Hemaris* genus. Most hawk moths are nocturnal, but hummingbirds and Hummingbird Moths of the *Hemaris* genus are diurnal. In North America, the *Hemaris* genus has four species of Hummingbird Moths: Snowberry Clearwing (*Hemaris diffinis*), Hummingbird Clearwing (*Hemaris thysbe*), Slender Clearwing (*Hemaris gracilis*), and Rocky Mountain Clearwing (*Hemaris thetis*).

Hummingbird Clearwings are common throughout all of North America, though much less common in the Florida Keys. Their habitat is versatile and includes open second-growth forests, forest edges, gardens, parks, and suburbs. Snowberry Clearwings are common throughout eastern and central North America, but their range does not extend west of the Continental Divide. Their habitat includes meadows, brushy fields, forest edges, gardens, and parks. *Hemaris thetis*, the Rocky Mountain Clearwing, can be found in the Pacific Northwest and other western states as well as British Columbia. Its habitat includes mixed hardwood and conifer forests, open meadows, and mountain stream and lake sides. The Slender Clearwing Hummingbird Moth is much less common and often localized in its range. Its range extends from Nova Scotia and Maine south to central Florida and west into Illinois, Michigan, Minnesota, and North Dakota. It is threatened in Connecticut, of special interest in Massachusetts, and imperiled in Indiana and Wisconsin, where it is highly localized. Its habitat is decreasing due to development and fire suppression. Its habitat includes pine or scrub oak barrens with sparse tree canopies, acidic bogs and peatlands, cranberry and blueberry swamps, and fire-dependent, acidic, nutrient-poor sandy or rocky ecosystems.



Rocky Mountain Clearwing

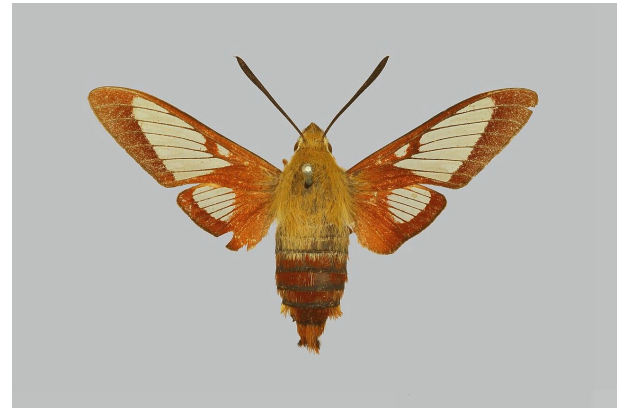
Hummingbird Moths have short, plump bodies and abdomens that end with a fan-like flare, resembling a hummingbird's tail. Their wings have scales, most of which they quickly lose, sometimes on their first flight, leaving the center of their wings transparent. They have six legs, two antennae, and no beak or feet.

The Hummingbird Clearwing Moth has an olive or golden olive thorax dorsally and a yellow thorax ventrally. Its abdomen is dark burgundy on the top with light olive to golden patches below. Its wings are largely clear with reddish-brown scaling along the edges and veining, and its legs are pale yellowish. The Hummingbird Clearwing's body is 1-1.5 inches long, and its wingspan is 1.5 - 2.5 inches.

The Snowberry Clearwing is slightly smaller, with a 0.9 -1.25-inch body and a wingspan of 1.25 - 2 inches. Its appearance varies, with a golden or olive-golden thorax and a black abdomen with one or two terminal dorsal yellowish segments.

A black band crosses its eyes and extends along the lateral sides of its thorax. Its legs are black, and its wings are mostly clear with thin red-brown borders and dark scaling along the veins. Because of its fuzzy gold/yellow and black body, it is often called the bumblebee moth.

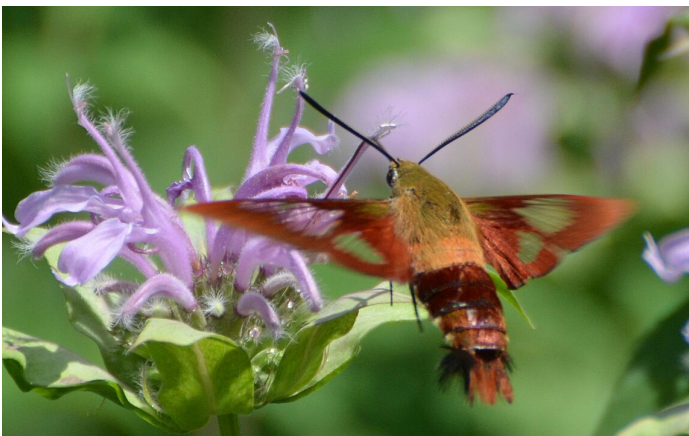
The Rocky Mountain Clearwing Moth is very similar to the Snowberry Clearwing Moth. Its species was just distinguished from the Snowberry in 2009 following a taxonomic study by B. Christian Schmidt using molecular mtDNA sequencing. The Rocky Mountain Clearwing has a more olive-green thorax than the orange-yellow, lightly pale, yellow-striped thorax of the Snowberry Clearwing. The yellow side-striping along the Rocky Mountain's abdomen also stops prematurely at the third segment, and its flared fan "tail " at the end of its abdomen is solid black or with very few yellow hairs compared to the solid yellow anal tuft of the Snowberry Clearwing Moth. Both have black legs. The Rocky Mountain Clearwing's body is slightly larger, measuring 1.2 to 1.6 inches long, and its wingspread is 1.4 to 2 inches.



Female Clearwing Moth

The Slender Clearwing Moth has clear wings except for its reddish-brown margins and very narrow vein lines. Its thorax is olive green with a reddish-brown stripe, and its abdomen is yellowish green with green bands. The anal tuft is orange medially, flanked by black, and its legs are red or reddish-brown. The Slender Clearwing Moth has a wingspan of 1.6 to 1.8 inches and a body length of 1 to 1.5 inches.

Adult Hummingbird Moths enjoy nectar from a variety of plants depending upon their region, including phlox, bee balm, honeysuckle, Canadian violet, beauty berry, butterfly bush, red clover, lilac, snowberry, blueberry, cranberry, fruit tree blossoms, hawkweed, thistle, and in Florida especially, lantana, verbena, pentas, salvia, sage, beauty berry, and coral honeysuckle. Hummingbird larvae, however, have more specific needs.



Hummingbird Clearwing Moth

Hummingbird Moth larvae host plants include snowberry, honeysuckle, hawthorn, dogbane, viburnum, and rose family plants like cherry and plum. Snowberry Clearwings also lay eggs on the underside of beautyberry leaves, and Rocky Mountain Clearwings prefer low bush blueberry and mountain laurel as host plants.

In Florida, hummingbird moths are active year-round and have several generations per year. In the northern part of their range, they start flying in spring but are most active in summer and have only one brood.

Females produce pheromones from glands at the tip of their abdomen to attract mates. After mating, they lay tiny round green eggs on the underside of their host plants. The egg stage lasts 7 to 14 days, and the larval stage lasts 20 to 30 days. Hummingbird Moth caterpillars are called “hornworms” because they are pale green or yellowish green and have a spiky horn on their rear end. Clearwing Hummingbird Moth caterpillars are not considered a nuisance because they do not cause much damage to their host plants. However, the hornworm caterpillars of the Carolina Sphinx Moth, also known as the tobacco hawkmoth, and the tomato hornworm caterpillar, which becomes the Five-spotted Hawkmoth, do cause significant damage to their host plants.



Hornworm caterpillar

Although not true Hummingbird Moths, these moths are often referred to as hummingbird moths and their larvae are sometimes confused with clearwing larvae. After about a month, Hummingbird Moth larvae pupate in cocoons and drop to the ground where they mix into the dead leaves or burrow slightly into the ground. In the north, Hummingbird Moth pupae overwinter in this stage; thus, the pupal stage can last weeks or months.

I would also like to briefly mention another common moth, the White-lined Sphinx, *Hyles lineata*, because it is also frequently called a Hummingbird Moth. Though it is not a true hummingbird moth, it flies forward and backward and hovers. Its rapid wing movement also makes an audible humming sound.



White-lined Sphinx. (Hyles lineata)

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The wings of the White-lined Sphinx Moth are fully scaled, and it is crepuscular, meaning it is most active at dawn and dusk. Its range extends throughout North and Central America, and it migrates because it cannot tolerate harsh winters. It inhabits diverse habitats, including deserts, grasslands, meadows, mountain foothills, and suburban gardens. The White-lined Sphinx Moth is larger than the Clearwing Moths, with a 3.5-inch wingspan. It has dark brown forewings with prominent white striping. Its hind wings and body have a bright pink stripe. The White-lined Sphinx caterpillar can have a wide range of colors and feed on many different host plants.

*This report is compiled by
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