

moths

THE CURIOUS SPHINX MOTH



Furnace Creek Canyon is a lonely, beautiful place.

East of the White Mountains near the California-Nevada border, a small creek wanders through a canyon containing a fragile oasis of wildflowers, trees, desert pools, and small wetlands.

We spent a long, hot weekend in the canyon one May. We were amazed at the desert's transformation each evening. At twilight, darkness crept out from cracks and crevices to settle in the canyon. Night-blooming flowers let loose intoxicating scents. Bats fed flying over the creek. Unseen coyotes sang haunting, wild, dog lyrics.

None of these were as mysterious as the canyon's sphinx moths.

For those who've never seen one, sphinxes are on the list for this month's field seminar, *Moths and Butterflies in the Mono Basin*, led by Bartshe Miller, the Mono Lake Committee's education director, and Paul McFarland, executive director of Friends of the Inyo.

My friend and I had seen sphinx moths only once before, on the banks of the Yuba River in Northern California.

"What are those?" we asked each other. Daylight was fading. They were hard to see. And they moved so fast. The creatures were gone before we could figure out what they were.

The sphinx moth (*Macroglossum stellatarum*) is one of the largest and most stunning moths in the world.

With a wingspan up to six inches, the colors and patterns among some species rival butterflies for beauty. Wings and bodies are often subtly tinted, but they can include bright colors: purple, pink, red, yellow, orange, or green sometimes appear among psychedelic patterns.

Yet its most unusual feature is its resemblance to hummingbirds.

At first sight, a lot of sphinx moths are mistaken for hummers, which is why this insect is sometimes called the hummingbird moth. Many sphinx moths have wings and bodies about the same size as hummingbirds.

Size isn't all they have in common. Most sphinx moths feed on flower nectar just like hummingbirds. Instead of long, slender beaks, they suck nectar with beak-like proboscises, or coiled, hollow tubes that can be extended, some up to fourteen inches. In fact, sphinx moths have the longest proboscises of any moth or butterfly on the planet. And they're one of the few types of moths that feed as adults.

When they fly, they don't look like moths at all. Other moths flutter around slowly, appearing to travel almost aimlessly. Thanks to those mongo wings, sphinx moths bomb through the desert like insects well aware of their short life span and of their primary goal: reproduction. Some sphinx moths reportedly have been recorded flying up to thirty miles an hour. The rapid beat of their long, narrow forewings also allows them to hover and dart from one tasty, petalled snack to another, just like hummingbirds. Some species can even fly backward.

Unlike hummingbirds, most species are active at dusk or at night.

The sphinx are also sometimes called hawk moths—a name that officially belongs to another group in the Sphingidae family. And apparently only one moth formally carries the name "hummingbird," the hummingbird clearwing moth. Accounts differ, but some say the sphinx moth got its name from the sphinx-like position its caterpillars take when threatened. They raise their heads and the front of their bodies and bend them into a position sort of like Egyptian sphinxes.

The United States and Canada support about one hundred twenty-

five sphinx moth species. Those identified in the Eastern Sierra include the Clark's sphinx, wild cherry sphinx, one-eyed sphinx, big poplar sphinx, five-spotted hawkmoth and Carolina sphinx, Miller said. The wingspans of these moths range from about one and three-eighths inches to six inches. The smallest of those, Clark's sphinx, is a daytime flier with a short, fat body and orange-yellow hindwing.

The forewings of the five-spotted hawkmoth, *manduca quinquemaculata*, grow to almost five and one-half inches. The forewings of the big poplar sphinx (yellow-brown or dark grey forewings, crimson patch on hindwing) can reach six inches. They are some of the largest species, but unlike most sphinxes, the one-eyed and big poplar don't feed as adults. They don't need to. Their caterpillars—the tobacco hornworm and tomato hornworm—are ravenous insects that can ravage gardens and crops. Some people consider them pests. They're not identified as endangered or threatened.

In the larval phase, most species are hornworm caterpillars with a spine-like yet harmless rear horn or tail. They feed 24/7, and then most pupate underground. A good crop of host plants leads to big caterpillars and big adult moths, Miller said.

The moth species we saw in Furnace Creek Canyon was *hyles lineata*, or the white-lined sphinx. And no surprise.

"The white-lined sphinx moth is definitely the most common in the Eastern Sierra," explained Miller.

The moths appeared at dusk—wings buzzing, proboscises uncurling to gorge on purple vetch growing in the rocky, sloping canyon wall.

At first, we got taken by their scam. Their flight speed and the rapid movement of their wings blowing past us looked and sounded just like the flight of hummingbirds. We were psyched to discover the creatures were sphinx moths when they slowed down to feed.

The insects had three-inch-long, torpedo-shaped bodies. Each tan thorax was marked by black and white stripes. Tan bands ran down the centers of the brown forewings and white stripes ran the width. The hind wings were marked with stunning red.

A bright chunk of moon rose while a tag team of three moths hopped between flowers. Unlike all the other moths we know, these darted with precision and speed and hovered in mid-air to feed on desert blooms. The moths also like coyote flowers and big, yellow evening primroses. After feeding on two or three plants, the moths would tear off, circle around, and return to the feeding site.

We were stunned by how bold these insects were. They were really curious about our colorful water bottles and returned repeatedly to where the bottles sat on the ground no more than four feet away. They hung out around our camp throughout dinner. The sphinxes didn't seem to care that we were sharing the canyon. They were too focused on feeding. They jostled each other for nectar.

The moths eventually sucked the closest flowers dry and moved down the slope. More of these beautiful insects joined them. The mysterious moths made the most of their short lives in the desert. They kept flying as total darkness swallowed them whole. 

Suzanne Hurt and Eric Whalen, from Sacramento, often team up under the auspices of [Wild Journalism.com](http://WildJournalism.com).