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Cecropias, Life Cycles

A cecropia moth lives for one year. That's the whole story for one of these remarkable creatures, and only two months of that story, a sixth of its lifetime, is it out and about in the sunshine. The rest of the time, which would be about seventy-five years for many of us folks, the cecropia is not a moth and not walking around. It lives inside an amazing safe house of its own construction, made of "silk" so strong scientists and inventors have been figuring out how to make it in the lab or factory for all kinds of industrial and medical uses. So far, no one has proposed we curl up inside a sleeping bag of this material and come out decades later so we can fly, mate, lay eggs for the rest of our days. For a cecropia moth this is its last two months, for us, think fifteen years of our whole life cycle.

The cecropia is named for a mythical king of Athens who had a man's body for his upper half and a snake's from the waist down. He was called Cecrops, meaning "face with a tail." The moth, once emerged from the cocoon, has huge wings with bright colors against a greybrown background, and so-called reniform spots and curving lines that to someone looked snake-like. So, name the creature "cecropia." It's possible those patterns on the wings, which are five inches across, could frighten off a predator. Maybe the predator would think the moth was a snake, or an ancient king who is half snake.

Our cecropia moth is one of the "giant silkworm moths," a group which includes the polyphemus moth, the promethea moth, the tulip-tree silk moth, the Columbia silk moth, and our well known luna moth.

The eggs are small and white. A female moth lays about one hundred of them early in the summer. She does not eat and only flies at night. The job of the adult moths is to get those eggs fertilized and set up on the right sort of leaves. Two weeks later they hatch as little black caterpillars and for their first meal they eat up their egg shell. Then they start on the leaves. As they grow, these caterpillars get to be too big for their skin so they must molt. They do this four times, and they change as they grow, turning yellow and then green with

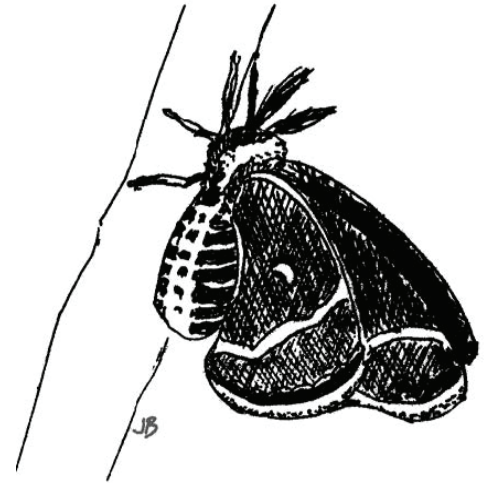
remarkable decorations all along their bodies. Some of these knobs are bright orange or red, some blue. Some knobs also have little black "spinules" sticking up, all symmetrically arranged and handsome. By this time, the caterpillar has quit eating and growing. It is time to start on the cocoon, which when finished looks like a few dead leaves stuck together to make a sort of purse which is attached to a bare twig and is pointed at the downward end.

After the first week and a half in this cocoon, the brilliant caterpillar sheds its outer skin one last time and becomes a pupa. There it stays safe and sound until the next summer, when it emerges: a cecropia moth. For a few hours it stays in place by the cocoon, "inflating" its wings. The males have big brushy antennae, the females have very big abdomens. Now they must find each other. The female stays put, emitting molecules of pheromones. The male sweeps the air with those antennae and can detect the presence of a female, even three miles away. He starts flying upwind in the direction of a greater and greater concentration of pheromone molecules until he finds her. They touch tip to tip at the tail end of their abdomens and the eggs are fertilized. Sometimes they stay joined for a whole day.

Now the female goes to lay her one hundred eggs, in small groups in just the right places. They will hatch in two weeks, start munching and growing, and so the cecropias live on and on, cycling year after year, life after life.



Rick Mielke took this wonderful cecropia caterpillar photograph (above). And go to the National Park Service website (nps.gov) for good photographs of both adults and caterpillars. Find "species spotlight" and put in the name of this creature.



And while researching "cecropia," be diverted to the cecropia tree! Is it half man, half snake? Can it fly and lay eggs? I don't want to spoil it for any eager readers, but this tree has long skinny fruits called achenes that might seem snake-ish to some, being six inches long and half an inch in diameter. They grow at the tips of the branches in clusters and stand up straight at first, then hang down. They taste like honey or maple syrup, and if the weather keeps on like this they may come north from Central and South America to grow in tropical New England.

We'll see how our cecropia moths like adjusting to the great big foot-wide leaves that cluster at the top of these subtropical trees that share the name. If things work out well, that mythical king of Athens will be smiling.

— Bonner McAllester