Cecropia Moth, Cecropia Silk Moth, Robin Moth, 
Hyalophora cecropia Linnaeus (Insecta: Lepidoptera: 
Saturniidae: Saturniinae: Attacini)¹

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Introduction

The cecropia moth, Hyalophora cecropia Linnaeus, is among 
the most spectacular of the North American Lepidoptera. 
It is a member of the Saturniidae, a family of moths prized 
by collectors and nature lovers alike for their large size and 
extremely showy appearance.

Adults are occasionally seen attracted to lights during 
spring and early summer, a common habit of many 
moths. It is unclear exactly why these insects visit lights, 
although a number of theories exist. One such theory 
postulates that artificial lights interfere with the moths’ internal 
navigational equipment. Moths, and indeed many other 
night-flying insects, use light from the moon to find their 
way in the dark of night. Since the moon is effectively 
at optical infinity, its distant rays enter the moth’s eye in 
parallel, making it an extremely useful navigational tool. A 
moth is confused as it approaches an artificial point source 
of light, such as a street lamp, and may often fly in circles in 
a constant attempt to maintain a direct flight path.

Synonymy

Hyalophora Duncan, 1841 
Samia. - auct. (not Häbner, [1819]) 
Platysamia Grote, 1865

cecropia (Linnaeus, 1758) 
diana (Castiglioni, 1790) 
macula (Reiff, 1911)

Distribution

The range of Hyalophora cecropia is from Nova Scotia in 
eastern Canada and Maine, south to Florida, and west to 
the Canadian and U.S. Rocky Mountains.

Description and Life Cycle

Eggs:
The large and mottled reddish/brown eggs are laid by the 
female on both sides of the host leaf in small groups.

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Larvae:

There are typically five larval instars, each lasting approximately one week. First instar larvae are black and feed gregariously.

Second instar larvae are variable from dark yellow to yellow, and also feed gregariously.

Third, fourth, and fifth instar larvae are similar in their exuberant appearance. The body is very large, with fifth instar larvae reaching up to 4.5 inches in length. Color is bright green or sea green with prominent dorsal protuberances, all with distal black spines. Thoracic protuberances are orange to red, abdominal protuberances are yellow, and side protuberances are pale blue. The larvae of the Columbia Silkmoth (*H. columbia*) are very similar, but have red thoracic protuberances, yellow-pink abdominal protuberances, and side protuberances which are more white than blue with black bases.
Pupae:
The pupae are large, dark brown, and encased within a silk cocoon that is attached lengthwise along a stem or branch of the host plant or nearby plant.

Adults:
Size is variable but usually quite large, with a wingspan approaching up to 6 inches. Wings are brownish with red near the base of the forewing. Crescent-shaped spots of red with whitish center are obvious on all wings, but are larger on the hindwings. All wings have whitish coloration followed by reddish bands of shading beyond the postmedial line that runs longitudinally down the center of all four wings. The body is hairy, with reddish coloring anteriorly, and fading to reddish/whitish. The abdomen has alternating bands of red and white.
For an excellent photographic account of the *H. cecropia* life cycle, see *Hyalophora cecropia: Changes of Color and Contrast* (Britton 2009).

### Hosts

Plant families and species:

- **Aceraceae** - *Acer negundo, A. rubrum, A. saccharinum, A. spicatum*
- **Betulaceae** - *Alnus serrulata, Betula alba, B. allagheniensis, B. lenta, B. papyrifera, Corylus Americana, C. cornuta, Ostrya virginiana*
- **Berberidaceae** - *Berberis vulgaris*
- **Cannabidaceae** - *Humulus lupulus*
- **Caprifoliaceae** - *Sambucus candensis, S. pubens, Symphoricarpos albus*
- **Ericaceae** - *Gaylussacia frondosa, Vaccinium sp.*
- **Fagaceae** - *Fagus sp., Quercus alba*
- **Juglandaceae** - *Carya illinoinensis*
- **Lauraceae** - *Sassafras albidum*
- **Leguminosae** - *Gleditsia triacanthos, Wisteria sinensis*
- **Lythraceae** - *Decondon verticillatus*
- **Naucleaceae** - *Cephalanthus occidentalis*
- **Oleaceae** - *Fraxinus sp., Syringa vulgaris*
- **Paeoniaceae** - *Paeonia officinalis*
- **Philadelphaceae** - *Philadelphus inodorus*
- **Pinaceae** - *Picea sp.*
- **Salicaceae** - *Populus balsamifera, P. tremuloides, Salix alba, S. humilis, S. lucida, S. viminalis*
- **Saxifragaceae** - *Ribes americanum, R. grossularia, R. nigrum, R. rubrum, R. sativum*
- **Tiliaceae** - *Tilia Americana, T. europaea*
- **Ulmaceae** - *Ulmus Americana, U. rubra, U. thomasii*
- **Vitaceae** - *Parthenocissus quinquefolia*

(from Heppner 2003)

### Economic Importance

While *H. cecropia* larvae are large and feed on a wide range of host plants, this species is not considered a serious pest in any parts of its range.

Some populations of *H. cecropia* may be in decline due to a number of factors, including nontarget effects of introduced biological control agents. Boettner et al. (2000) suggested that the generalist parasitoid fly *Compsilura concinnata*...
Due to its size and hardiness, *H. cecropia* has been used extensively in physiological and biochemical research. Carroll Williams conducted pioneering work on juvenile hormone and its role in molting and metamorphosis using this species.

Owing to its impressive size and appearance, *H. cecropia* has become a favorite of collectors and amateur Lepidopterists. Eggs and pupae are commercially available, and a small livestock industry has developed around this and other related species.

**Selected References**


