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Hippotion celerio: An unfamiliar guest in our balcony

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Introduction

Hippotion Celerio was described by Carl Linnaeus (1758) in the 10th edition of Systema Naturae. It is also called as striped hawk-moth, vine hawk- moth, or Taro hawk moth. It belongs to the phylum: Arthropoda, Family: Sphingidae, Class: Insecta, Order: Lepidoptera, Genus: Hippotion and Species: celerio. Striped hawk-moth is cosmopolitan, except in the Americas. It is found in Africa, Central & Southern Asia, India and Srilanka. It also migrates to Southern Europe and Australia (Sunitha, 2017).

We observed the hawk moth in our residential building located at Sheshadripuram located at 12° 59′ 0″ N, 77° 34′ 0″ E. The moth was sitting on the balcony wall on 15th Nov 2022. It was immovable for two days and we were curious to know whether it was alive or dead. Upon disturbing also, it resisted to move, but later flew away the following day.

Hence, we decided to learn and report more about striped hawk moth and here is the description of its morphology, lifecycle and ecological significance.

Habitat

Hawk moths are found commonly in gardens but can also be seen in a variety of habitats where flowers are plentiful. They are nocturnal and seen resting on rocks and walls during the day. (Dino *et.al.*, 2009).

Hawk moths in the tropic and subtropics are one group of pollinating insects that have multiple requirements for survival and persistence. But they do have demands like source of nectar, larval host plants, relatively undisturbed sites where their caterpillars can grow and then pupate. As caterpillars, they can sometimes be pests. The caterpillars grow large and need a lot of food to reach full size. Some of the food plants include Grapevines, Rumex etc. (Soumya and Krishnamoorthy, 2020). Hawk-moth exhibit sexual dimorphism (Aldo Catania, 2015).

Description of males

The body is 26.40 mm with big compound eyes and ciliate antenna. The labial palp covered with green and dark hairs. It has a frenulum on hind wing and has an opened fantail.



Fig. 1: Picture of Hawk moth seen in our balcony

Description of females

The body is 29.73 mm long with crescent shaped fantail and filiform antenna. In

general a female is larger than the male (Jeenkoed *et.al.*, 2016).

Reproduction

- Oviposition is usually on the underside of the leaves on which the larvae feed.
- Towards pupation they move to the soil and form a cocoon at the surface.
- Adults emerge 2-3 weeks later, fly mostly at night for long distance to feed on nectar and are attracted to light.
- A female produces about 150 eggs, placing them underneath the leave of host plant.
- Egg & larvae are susceptible to low temperature which cause much mortality (Jeenkoed *et al.*, 2016).

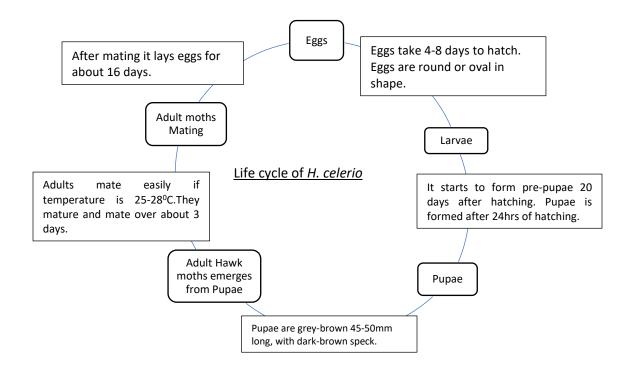


Fig. 2: Life cycle (Schematic representation prepared by Author)

Ecological Significance

They are pollinators because of their extremely long proboscises - straw like tongue. Pollen can be spread more than 18 miles away from source (Jeenkoed *et al.*, 2016). *H. celerio* can be important pollinator, they are also a vital resource for garden life, like bats, reptiles, and other predatory insects. Healthy plants can withstand any damage. However, heavy infestations can cause plant die back, stunting growth. However, damage is seldom severe. This species of hawk moth affects papaya crop, grape vine crops the most (Sunitha, 2017).

Conclusion

This article suggests that *Hippotion celerio* is found in Africa, Southern Asia, India and Srilanka. They play significant role as pollinators but they do need host plants, appropriate temperature, nectar source and undisturbed sites where their caterpillars can grow and then pupate. They do not pollinate food crops but they play vital role in saving many native plants.

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