



HAWKMOTHS

(Sphingidae) of Bogotá city

Gimnasio Campestre Field Guides Series^{cc}

Hawkmoths

(Sphingidae) of Bogotá city



Liliana Prada: Investigadora Asociada. Centros de Estudios Gimnasio Campestre. Bogotá, Colombia. lprada@campestre.edu.co

Lucas Botero y Andrés Quijano: Jóvenes Investigadores, Octavo grado del Gimnasio Campestre.

Yenny Correa Carmona: Investigadora Asociada. Grupo de Entomología Universidad de Antioquia (GEUA)



Gimnasio Campestre Field Guides Series^{cc}
Bogotá, D.C, Colombia 2025

Hawkmoths
(*Sphingidae*) of Bogotá city

School's principal:
Ignacio Osuna Soto, Ph.D.

Centros de Estudios Coordinator:
Rodrigo Suárez García

Authors: Liliana Prada Lara, Lucas Botero,
Andrés Quijano and Yenny Correa Carmona

Front and back cover pictures:
Martin Walsh and Alejandro López

Design and layout:
Catalina Cristancho Zarco

Editor:
Lina Rojas Narváez

This publication is a divulgation project made as part of the Jovenes Investigadores program at Gimnasio Campestre. It is licensed under the Creative Commons, meaning it is not intended for profit and aims to promote access to information. This Field Guide has open access; it does not have derivative actions; therefore, it can not be modified in any way, and we encourage contacting the content owners, the Centros de Estudio of Gimnasio Campestre and Fundación Gimnasio Campestre. To learn more about the Field Guides Series developed by the Centros de Estudio of Gimnasio Campestre, visit <https://revistaelastrolabio.com/guias-de-campo/>

ISBN: 978-958-8452-30-2

Gimnasio Campestre
Calle 165 No. 8A -50
Bogotá, Colombia
PBX 6684400

Photograph: Stephen James McWilliam/ *Lalothoe populi*

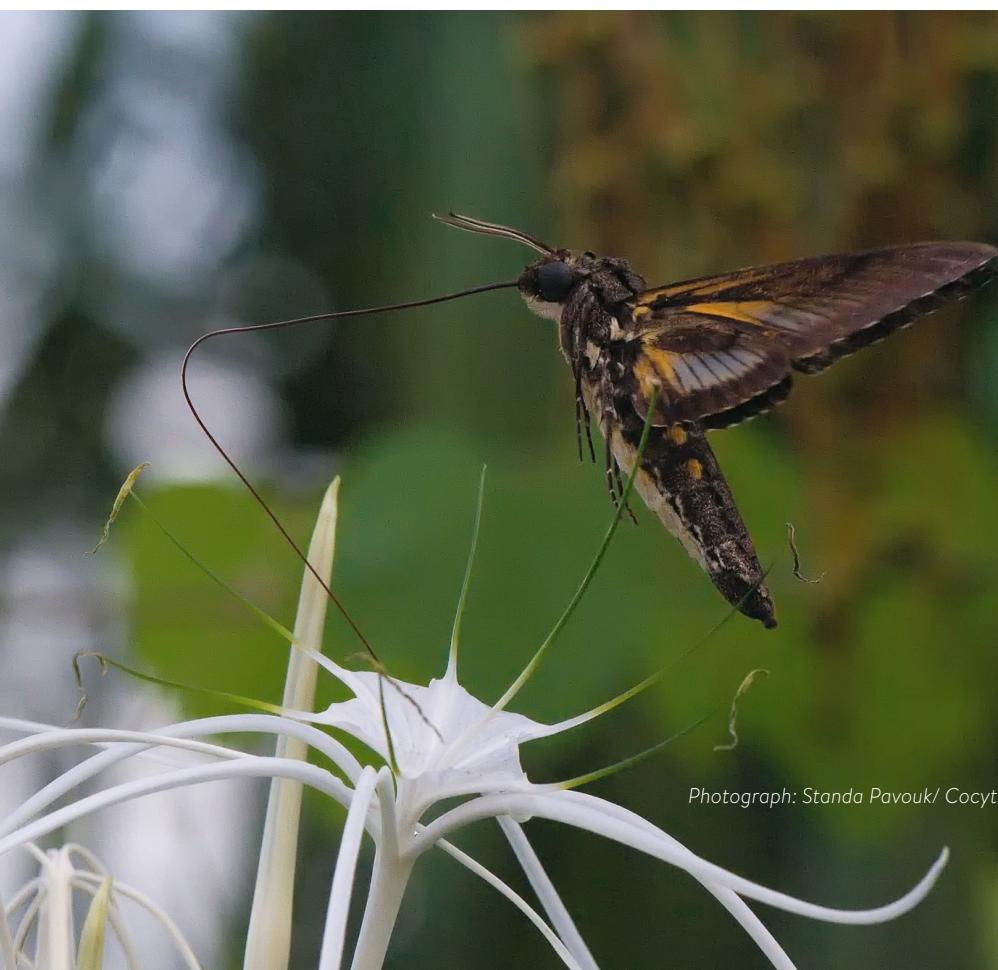


Contents

1. Introduction	6
2. Why are hawkmoths important?	7
3. Hawkmoths' life cycle.....	8
4. How does this guide work?.....	16
5. Which hawkmoth species are frequently observed in Bogotá?	23
6. Acknowledgments	29
7. References.....	52

Introduction

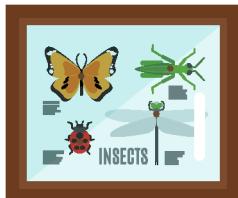
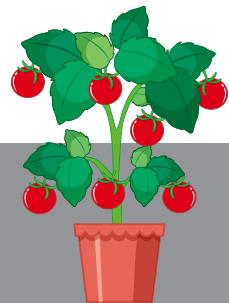
Sphingidae is a fascinating family in the Lepidoptera order, known for their enchanting shape and coloration. These moths are mostly active at night or dusk. However, there are a few diurnal species. What truly captures the attention of these moths is their incredible speed and ability to cover long distances during flight. Furthermore, a captivating spectacle unfolds as many of these moths gracefully hover in front of flowers, resembling the delicate dance of hummingbirds. Hawkmoths are diverse and numerous, with a worldwide distribution of over 1,600 species, around 28% of which are found in the Neotropics. In Colombia, approximately 190 species have been recorded, and Bogotá hosts roughly 28 of these species. This number of species is significant, considering that Bogotá is a vast and densely populated city, where rural environments are increasingly being replaced by buildings, displacing valuable biodiversity. This guide aims to introduce the general public to the Sphingidae and showcase the sphingid species found in Bogotá. Through this exploration, we can develop a more profound appreciation and recognition for these remarkable insects.



Photograph: Standa Pavouk/ *Cocytius antaeus*

Why are Hawkmoths important?

Some species hold economic significance due to their potential to become pests for crops, including tomato, tobacco, potato, papaya, among others.



These moths play a crucial role in research fields such as physiology, biogeography, molecular systematics, and conservation.

They serve as a vital food source for birds, bats, and parasitoids. They play a significant role as pollinators.



Did you know?

- Sphingids are among the fastest flying insects; some can reach speeds of over 5.3 m/s (19 km/h).
- Prior to flight, most species shiver to warm up their flight muscles. During flight body temperatures may surpass 40 °C (104 °F).
- Orchids commonly develop highly specialized relationships with hawkmoths, often on a species-specific level.
- The Death's-head hawkmoth (*Acherontia atropos*) makes a high-pitched squeaking sound, mimicking the sound of a queen bee. This provides protection for the moth, while they rob the hives of honey.

Hawkmoths' *Life cycle*



Photograph: Maria Weyermanns / *Xylophanes chiron*

Egg

Eggs are smooth, flattened, translucent, and greenish.

Usually, a single egg is laid on the host plant.

Development time varies from 3 to 21 days.

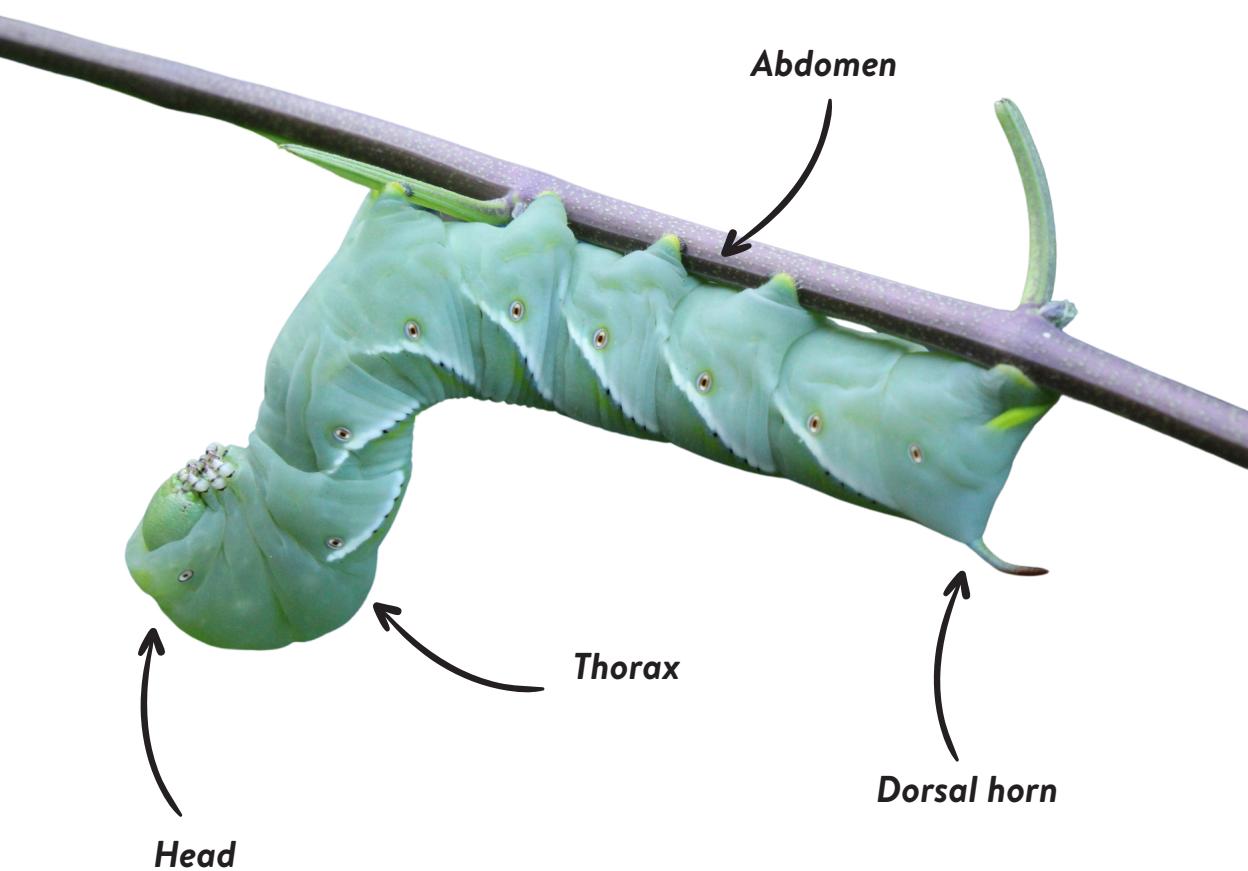


Photograph: Paolo Mazzei/ *Marumba quercus*

Caterpillar

Photograph: Andreas Binder / *Hyles euphorbiae*

Hawkmoth caterpillars are generally sizeable and distinguished by a prominent dorsal horn on their final abdominal segment. These caterpillars lack hairs or tubercles on their bodies. They usually rest upside down; hence, they are paler below and darker above as countershading. However, certain species adopt a posture resembling a prayer position, akin to the Great Sphinx of Giza, giving rise to their name, Sphingidae. Usually, they are solitary, but some species are gregarious.



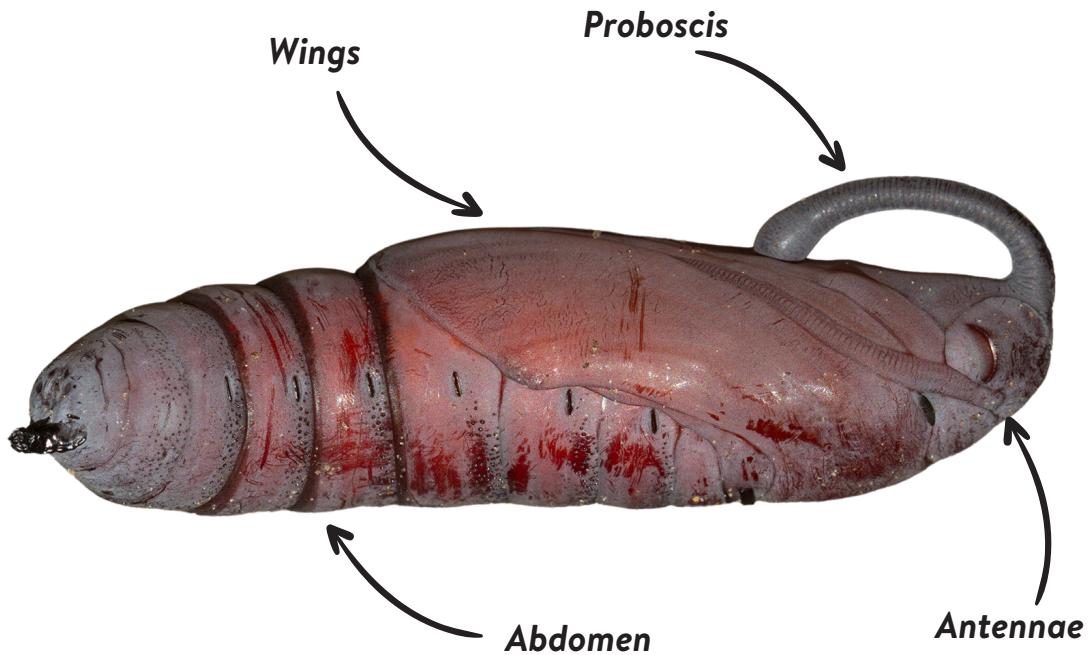
Photograph: Hudson Maher / *Manduca sexta*

Pupa



Photograph: Skel / Isognathus

During the pupation phase, certain caterpillars burrow into the soil, constructing underground chambers, while others create protective cocoons using dry leaves and silk. Within the subfamily Sphinginae, the pupa possesses a unique characteristic: its proboscis remains unattached and free, separate from the pupal case.



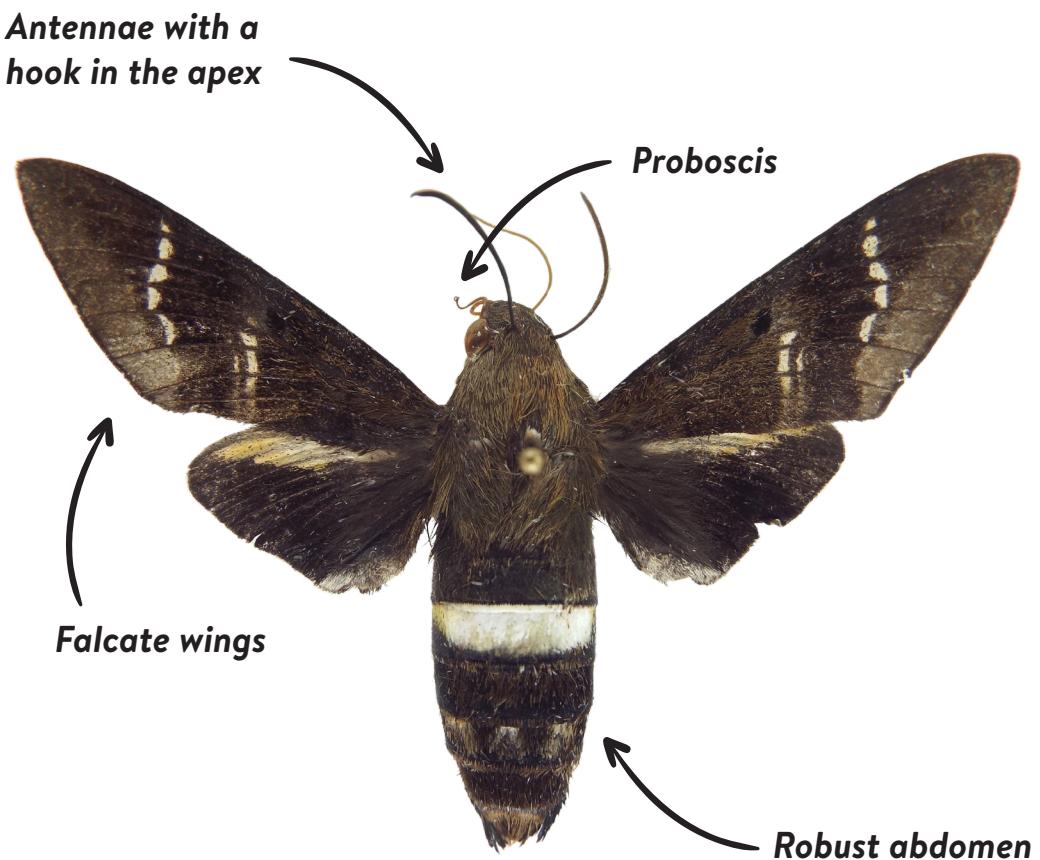
Photograph: Michael and Nancy van der Poorten / *Psilogramma increta*



Adult

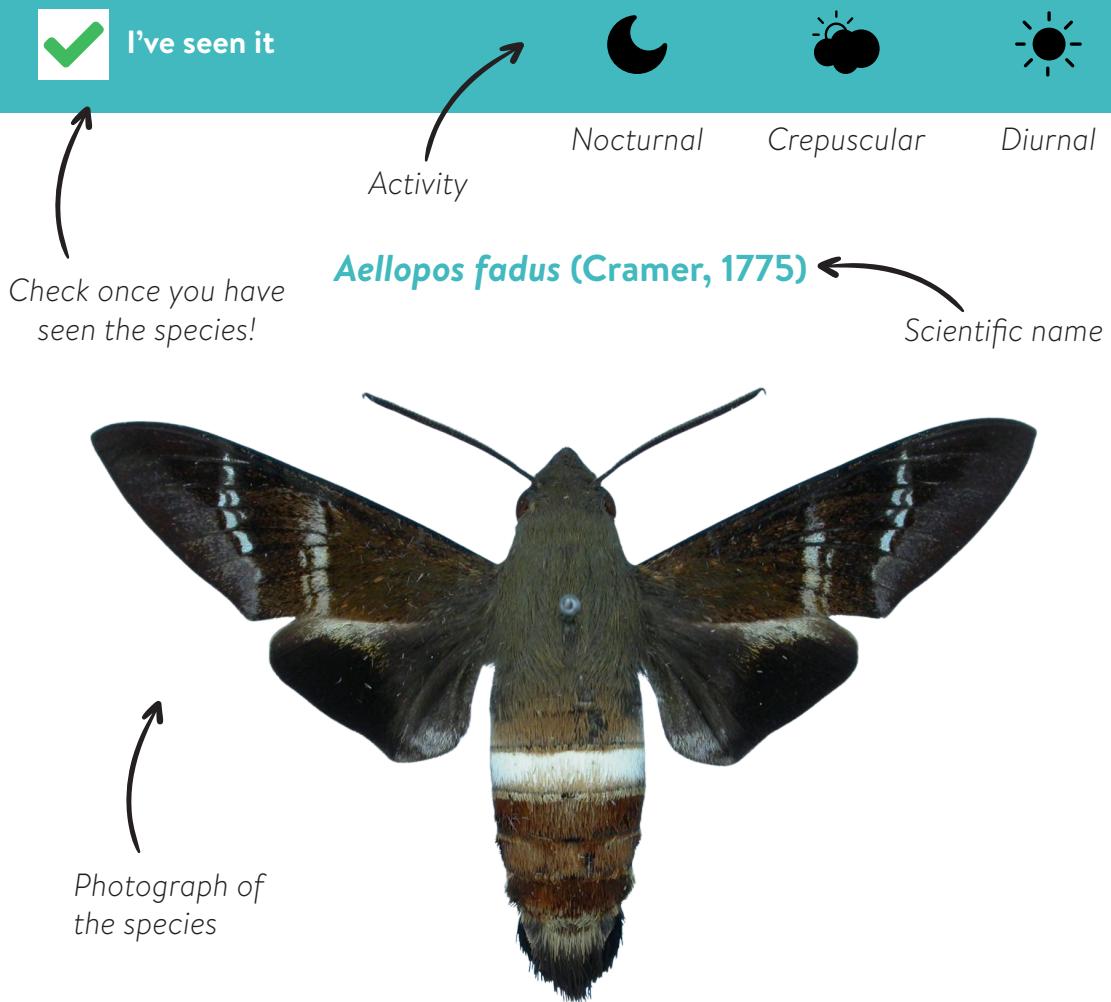
Photograph: stomlinks701 / *Agrius cingulata*

Adults possess filiform antennae with a distinctive hook-shaped apex. The proboscis tends to be well-developed and, in certain species, notably elongated. The abdomen is notably robust, gradually tapering towards its posterior end. Curiously, metathoracic abdominal tympanic organs are absent; however, species belonging to the *Choreocampina* subtribe display tympanic organs situated on the second segment of their labial palps.



Photograph: Liliana Prada /*Aellopos titan*

How does this guide work?



Description: A brief description of the species.

Distribution in Bogotá: The distribution of the species in Bogotá localities.

Distribution in Colombia: The distribution of species in Colombian departments.

Biology: Information regarding the biology and ecology of the species.

Which hawkmoth species are frequently observed in Bogotá?



Photograph: en8patas / *Pachylia ficus*



I've seen it



Diurnal

Aellopos fadus (Cramer, 1775)



Description: A small-sized species. The forewing pattern can identify it. The white outer spots consist of two lines, unlike *A. titan*, which has one line.

Distribution in Bogotá: Chapinero, Fontibón, Kennedy, Rafael Uribe, Teusaquillo, and Usaquén.

Distribution in Colombia: Antioquia, Boyacá, Casanare, Chocó, Cundinamarca, Huila, Meta, Putumayo, San Andrés y Providencia, Santander, Sucre, and Valle del Cauca.

Biology: A diurnal, fast-flying species. Females can lay more than 100 eggs. Caterpillars feed primarily on the plant family Rubiaceae. Recorded parasitoids include wasps from the Braconidae, Chalcidae, Ichneumonidae, and Eulophidae families.



I've seen it



Diurnal

Aellopos titan (Cramer, 1777)



Description: A small-sized species. The forewing pattern can identify it. The white outer spots consist of only one line, unlike *A. fadus*, which has two lines.

Distribution in Bogotá: Chapinero, Fontibón, La Candelaria, Suba, and Teusaquillo.

Distribution in Colombia: Antioquia, Bolívar, Boyacá, Casanare, Cauca, Chocó, Cundinamarca, Meta, Nariño, Norte de Santander, Putumayo, Santander, Sucre, Tolima, Valle del Cauca, and Vaupés.

Biology: A diurnal, fast-flying species. Caterpillars have been found feeding on different species of Rubiaceae plants, such as *Alibertia* sp, *Chomelia* sp, *Genipa* sp, *Guettarda* sp, and *Randia* sp. It is common to observe them flying in low areas near coasts or bodies of water, where they frequently submerge. Recorded parasitoids include Eulophidae, Ichneumonidae, and Tachinidae families.



I've seen it



Nocturnal



Crepuscular



Diurnal

Agrius cingulata (Fabricius, 1775)



Description: A medium-sized species. It can be identified by the pink basal bands on the hindwings and tergites A2 to A6 (abdomen).

Distribution in Bogotá: Bosa, Chapinero, Ciudad Bolívar, Fontibón, Kennedy, La Candelaria, Puente Aranda, Suba, Teusaquillo, and Usme.

Distribution in Colombia: Antioquia, Atlántico, Bolívar, Boyacá, Caldas, Caquetá, Casanare, Cauca, Chocó, Cundinamarca, Guajira, Huila, Magdalena, Meta, Nariño, Norte de Santander, Risaralda, Santander, Sucre, Tolima, and Valle del Cauca.

Biology: It is the only species of this genus in the Americas. Recorded host plants include some Convolvulaceae species: *Ipomoea* sp., *Merremia* sp., *Turbinaria* sp., and *Convolvulus* sp. Recorded parasitoids include Braconidae wasps and Tachinidae flies.



I've seen it



Nocturnal



Diurnal

Cocytius antaeus (Drury, 1773)



Description: A large-sized species. Hindwings have a noticeable transparent and basal yellow area, tergites A2 to A4 with yellow lateral spots (abdomen). Worth noting that it can be separated from *Cocytius duponchel* by the small dark triangles along the outer edge of the transparent area of the hindwing.

Distribution in Bogotá: Teusaquillo, and Usaquén.

Distribution in Colombia: Amazonas, Antioquia, Atlántico, Bolívar, Casanare, Cundinamarca, Huila, Magdalena, Meta, Quindío, San Andrés y Providencia, Santander, Sucre, and Valle del Cauca.

Biology: Caterpillars feed on *Annona* sp., *Guatteria* sp., and *Xylophia* sp. (Annonaceae family). Recorded parasitoids include Tachinidae flies.



I've seen it



Nocturnal



Diurnal

Cocytius duponchel (Poey, 1832)



Description: A large-sized species. Hindwings have a noticeable transparent area with a basal yellow area. Tergites A2 to A4 with yellow lateral spots (abdomen). Forewing with apical black discal dashes and a white dash discal spot.

Distribution in Bogotá: Antonio Nariño and Ciudad Bolívar.

Distribution in Colombia: Amazonas, Antioquia, Atlántico, Bolívar, Boyacá, Caldas, Casanare, Chocó, Cundinamarca, La Guajira, Magdalena, Meta, Putumayo, Quindío, Risaralda, Santander, Sucre, Tolima, Valle del Cauca, Vaupés, and Vichada.

Biology: Caterpillars feed on *Annona* sp., and *Xylophia* sp. (Annonaceae). Recorded parasitoids include Tachinidae and Ichneumonidae families.



I've seen it



Nocturnal

Erinnyis alope (Drury, 1773)



Description: A medium-sized species. The head, thorax, and forewings are dark brown. The hindwings have a yellow base, unique in the genus, and the abdomen has white basal bands.

Distribution in Bogotá: Chapinero and Suba.

Distribution in Colombia: Antioquia, Amazonas, Boyacá, Caldas, Casanare, Cauca, Cesar, Chocó, Cundinamarca, Huila, Meta, Nariño, Norte de Santander, Putumayo, Quindío, Risaralda, Santander, Sucre, Tolima, and Valle del Cauca.

Biology: Caterpillar feeds on *Chamaesyce* sp., *Euphorbia* sp., *Hura* sp., *Manihot* sp. (Euphorbiaceae), *Jacaratia* sp., and *Carica* sp. (Caricaceae). Recorded parasitoids include Tachinidae, Braconidae, Eulophidae, and Ichneumonidae families.



I've seen it



Nocturnal

Erinnyis crameri (Schaus, 1898)



Description: A medium-sized species. The hindwings are orange, with a dark brown marginal band broken into a series of clearly defined diamond-shaped spots on the ends of the veins.

Distribution in Bogotá: Chapinero and Teusaquillo.

Distribution in Colombia: Antioquia, Atlántico, Bolívar, Boyacá, Caldas, Casanare, Cesar, Choco, Cundinamarca, Meta, Norte de Santander, Santander, Sucre, and Tolima.

Biology: Caterpillar feeds on *Stemmadenia* sp., *Rauvolfia* sp., and *Tabernaemontana* sp. (Apocynaceae). Recorded parasitoids include Tachinidae flies.



I've seen it



Nocturnal



Crepuscular



Diurnal

Erinnyis ello (Linnaeus, 1758)



Description: A medium-sized and very common species. Hindwings are orange with a black and grey banded pattern on the abdomen. This species is sexually dimorphic; females lack the black longitudinal line on forewings.

Distribution in Bogotá: Barrios Unidos, Bosa, Ciudad Bolívar, Chapinero, Fontibón, Kennedy, La Candelaria, Santa Fe, Suba and Usaquén.

Distribution in Colombia: Amazonas, Antioquia, Atlántico, Bolívar, Boyacá, Caldas, Caquetá, Casanare, Cauca, Cesar, Chocó, Córdoba, Cundinamarca, Guaviare, Huila, Magdalena, Meta, Nariño, Norte de Santander, Putumayo, Quindío, Risaralda, Santander, Sucre, Tolima, Valle del Cauca, and Vichada.

Biology: Caterpillars feed on Apocynaceae, Euphorbiaceae, and Caricaceae plant families. This species is economically important in tomato, tobacco, cotton, cassava, and rubber crops.



I've seen it



Nocturnal

Erinnyis obscura (Fabricius, 1775)



Description: A small-sized species with orange hindwings. The abdomen is grey with two dark, parallel lines along the abdomen. This species displays sexual dimorphism as in *Erinnyis ello*, with males having a median longitudinal black streak that is absent in females.

Distribution in Bogotá: Teusaquillo.

Distribution in Colombia: Antioquia, Arauca, Bolívar, Boyacá, Caldas, Cundinamarca, Casanare, Huila, Magdalena, Meta, Putumayo, Quindío, Santander, Sucre, and Valle del Cauca.

Biology: Caterpillars have been found feeding on *Blepharodon* sp. (Asclepiadaceae).



I've seen it



Nocturnal

Erinnyis oenotrus Cramer, 1780



Description: A medium-sized species. Forewings upperside greyish white with black patches. Hindwings are orange and brown. The underside of the abdomen has black dots. This species displays sexual dimorphism; the forewing in females is lighter and grayer.

Distribution in Bogotá: Kennedy, Ciudad Bolívar, Suba, Fontibón, and Usaquén.

Distribution in Colombia: Amazonas, Antioquia, Boyacá, Bolívar, Cesar, Chocó, Cundinamarca, Magdalena, Meta, Nariño, Santander, and Tolima.

Biology: Caterpillars have been found feeding on *Mandevilla* sp. (Apocynaceae).



I've seen it



Nocturnal

Eumorpha anchemolus (Cramer, 1779)



Description: A large-sized species. Forewings outer margin is slightly crenulated, the costa (near the apex) has a triangular dark patch, and a trapezoidal dark patch halfway along the posterior margin.

Distribution in Bogotá: Chapinero, Usaquén, Santa Fe, Teusaquillo, Suba, and Fontibón.

Distribution in Colombia: Amazonas, Antioquia, Boyacá, Caldas, Cauca, Casanare, Chocó, Córdoba, Cundinamarca, Guaviare, Magdalena, Meta, Quindío, Risaralda, Santander, Tolima, and Valle del Cauca.

Biology: Feeds on Vitaceae, Dillenaceae, and Actinidiaceae plant families. Tachinidae flies have been recorded as parasitoids.



I've seen it



Nocturnal



Crepuscular

Eumorpha fasciatus (Sulzer, 1776)



Description: A medium-sized species. It can be identified by the x-shaped pattern on the upperside of the forewings and the pink marginal band of the hindwings.

Distribution in Bogotá: Suba, Ciudad Bolívar, Antonio Nariño, Santa Fe, Chapinero, Rafael Uribe, Soacha, Usaquén, Puente Aranda, Fontibón, Teusaquillo, and Engativá.

Distribution in Colombia: Antioquia, Arauca, Atlántico, Bolívar, Boyacá, Casanare, Cesar, Chocó, Córdoba, Cundinamarca, Guajira, Huila, Magdalena, Meta, Nariño, Norte de Santander, Risaralda, Santander, Sucre, Tolima, and Valle del Cauca.

Biology: Caterpillars have been recorded feeding on *Ludwigia* sp. (Onagraceae). Tachinidae flies have been recorded as parasitoids.



I've seen it



Nocturnal



Crepuscular



Diurnal

Eumorpha labruscae (Linnaeus, 1758)



Description: A large-sized and conspicuous species, easily identified by the intense green color on the wings and body and the colorful pattern on the upperside of the hindwings. In some parts of Colombia, people called them “lorito” moths.

Distribution in Bogotá: Santa Fe, Puente Aranda, Kennedy, Tunjuelito, Engativá, Usaquén, Chapinero, Barrios Unidos, Usme and Suba.

Distribution in Colombia: Amazonas, Antioquia, Atlántico, Bolívar, Boyacá, Caldas, Caquetá, Casanare, Cesar, Córdoba, Cundinamarca, Guajira, Huila, Quindío, Magdalena, Meta, Risaralda, Santander, Sucre, Tolima, and Valle del Cauca.

Biology: Caterpillars have been recorded feeding on *Cissus* sp. (Vitaceae). Tachinidae flies and Braconidae wasps have been recorded as parasitoids.



I've seen it



Nocturnal

Eumorpha vitis (Linnaeus, 1758)



Description: A medium-sized species. Similar to *Eumorpha fasciatus*, but, this species lacks a continuous pink marginal band on the hindwings. In addition, the discal spot of the forewing is rounded and highlighted in white.

Distribution in Bogotá: Usaquén.

Distribution in Colombia: Amazonas, Antioquia, Atlántico, Arauca, Bolívar, Boyacá, Caldas, Cauca, Casanare, Caquetá, Cesar, Chocó, Cundinamarca, Guajira, Huila, Magdalena, Meta, Nariño, Norte de Santander, Quindío, Risaralda, Santander, Tolima, and Valle del Cauca.

Biology: Caterpillars have been recorded feeding on *Cissus* sp. (Vitaceae).



I've seen it



Nocturnal



Crepuscular



Diurnal

Enyo lugubris (Linnaeus, 1771)



Description: A small-sized species. The general coloration is dark brown. Forewing with a distinct discal spot. This species exhibits sexual dimorphism, with males having a darker wing pattern.

Distribution in Bogotá: Kennedy, and Suba.

Distribution in Colombia: Antioquia, Bolívar, Boyacá, Caldas, Caquetá, Cauca, Chocó, Cundinamarca, Guajira, Guaviare, Magdalena, Meta, Quindío, Risaralda, Santander, Sucre, and Valle del Cauca.

Biology: Caterpillars have been recorded feeding on Dilleniaceae (*Doliocarpus* sp., *Davilla* sp., *Tetracera* sp., *Curatella* sp.), and Vitaceae (*Cissus* sp.) plants. Tachinidae flies have been reported as parasitoids.



Euryglottis aper (Walker, 1856)



Description: A large-sized and hairy-bodied species. Underside of the abdomen with apical dots on sternites 3-5, but indistinct compared with *Euryglottis guttiventris*. Forewing with three gold submarginal lines.

Distribution in Bogotá: Suba, Usaquén, Sumapaz, La Candelaria, and San Cristóbal.

Distribution in Colombia: Antioquia, Boyacá, Caldas, Casanare, Cauca, Chocó, Cesar, Córdoba, Cundinamarca, Huila, Magdalena, Nariño, Norte de Santander, Quindío, Risaralda, Santander, Tolima, and Valle del Cauca.

Biology: It is believed that species from this genus are adapted to life at high elevations due to the density of its body hairs.



I've seen it



Nocturnal

Euryglottis guttiventris Rothschild & Jordan, 1903



Description: A large-sized and hairy-bodied species. The lower part of the abdomen with apical spots on sternites 3-5 are well defined, more than in *Euryglottis aper*. The upper forewing has a disc band, and the vein pattern is less distinct than in *Euryglottis aper*.

Distribution in Bogotá: Unspecified.

Distribution in Colombia: Antioquia, Caldas, Cundinamarca, Huila, Meta.

Biology: This species is very similar to *Euryglottis aper*, and it was proposed as a subspecies of *Euryglottis aper* but was later considered as a species. The biology of this species is not well known.



I've seen it



Nocturnal



Crepuscular



Diurnal

Hyles lineata (Fabricius, 1775)



Description: A small-sized species. It has a very conspicuous and easily distinguishable pattern. The forewing has a thick light spot running across the wing, and the hindwing has a pinkish pattern. The abdomen has dark black patches. It's the only known species of this genus in Colombia.

Distribution in Bogotá: Unspecified.

Distribution in Colombia: Antioquia, Atlántico, Boyacá, Cundinamarca, Guajira, Huila, Magdalena, Sucre, and Tolima.

Biology: Larvae of this species have been found feeding on the leaves of *Nasturtium officinale* commonly known as watercress.



I've seen it



Nocturnal

Lintneria merops (Boisduval, 1870)



Description: A medium-sized species. It has a conspicuous and easily distinguishable pattern. The wings are pale yellow, with black horizontal lines. The abdomen has black line-shaped spots.

Distribution in Bogotá: Unspecified.

Distribution in Colombia: Antioquia, Cundinamarca, Huila, Meta, and Quindío.

Biology: It is the only species of this genus reported from Colombia, with very few records. It previously belonged to the genus *Sphinx*.



Neococytius cluentius (Cramer, 1775)



Description: A very large-sized species with extremely long proboscis. It is one of the largest lepidopterans in the world. The hindwings have dark yellow patches, while the abdomen has lateral dark yellow patches.

Distribution in Bogotá: Kennedy, Santa Fe, and Teusaquillo.

Distribution in Colombia: Amazonas, Antioquia, Atlántico, Boyacá, Casanare, Cundinamarca, Huila, Magdalena, Meta, Putumayo, Risaralda, Santander, Sucre, and Tolima.

Biology: Caterpillars have been recorded feeding on Annonaceae (*Annona* sp.), and Piperaceae (*Piper* sp.).



Pachylia ficus (Linnaeus, 1758)



Description: A medium-sized and very common species in urban areas. Forewings with a slight to strongly dentate outer margin, with a white spot on the anal angle, and a semicircle on the apex, making them easily recognizable.

Distribution in Bogotá: Barrios Unidos, Chapinero, Kennedy, Fontibón, Teusaquillo, Usaquén, and Usme.

Distribution in Colombia: Amazonas, Antioquia, Atlántico, Bolívar, Boyacá, Casanare, Cauca, Córdoba, Cundinamarca, Huila, Magdalena, Meta, Nariño, Quindío, Putumayo, Risaralda, Santander, Sucre, Tolima, Vaupes, and Valle del Cauca.

Biology: Caterpillars feed primarily on Moraceae species (e.g. *Ficus* sp. and *Maclura* sp.). Adults have been recorded pollinating the ghost orchid (*Dendrophylax lindenii*). Tachinidae flies and Braconidae wasps have been recorded as parasitoids.



I've seen it



Nocturnal



Crepuscular

Pachylioides resumens (Walker, 1856)



Description: A medium-sized species. Similar to *Pachylia ficus*, but the discal spot is smaller, and the forewing lacks the semicircle on the apex and the white spot in the anal angle. Tergites with black basal stripes are more visible in the lateral view.

Distribution in Bogotá: Unspecified.

Distribution in Colombia: Amazonas, Antioquia, Boyacá, Caldas, Caquetá, Casanare, Cauca, Cundinamarca, Huila, Meta, Norte de Santander, Putumayo, Risaralda, Santander, Sucre, Tolima, and Valle del Cauca.

Biology: Caterpillars feed primarily on *Forsteronia* sp. (Apocynaceae). Ichneumonidae, Tachinidae, and Sarcophagidae parasitoids have been recorded.



I've seen it



Crepuscular



Diurnal

Perigonia lusca (Fabricius, 1777)



Description: A small-sized species. Forewing with a distinct black submarginal line curving from apex to tornus. Hindwings with a basal yellow band.

Distribution in Bogotá: Suba.

Distribution in Colombia: Antioquia, Cauca, Casanare, Cundinamarca, Caquetá, Cesar, Magdalena, Norte de Santander, Quindío, Santander, and Valle del Cauca.

Biology: Caterpillars feed primarily on Rubiaceae (*Uncaria* sp. and *Guettarda* sp.). Tachinidae flies and Eulophidae wasps have been recorded as parasitoids.

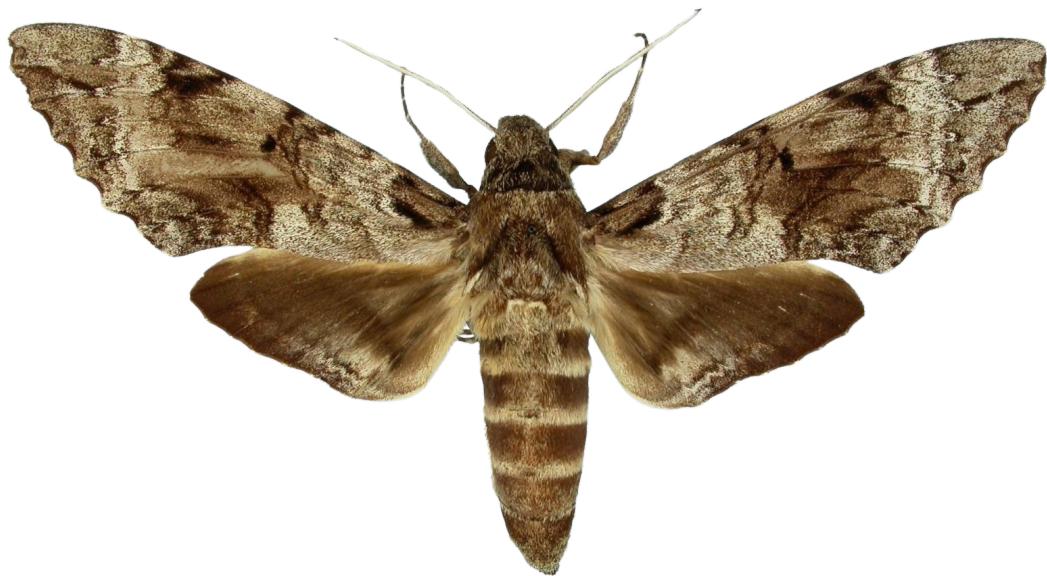


I've seen it



Nocturnal

Pseudosphinx tetrio (Linnaeus, 1771)



Description: A very large-sized and common species with a grey coloration pattern. Slight sexual dimorphism occurs when females are larger and lighter in pattern than males.

Distribution in Bogotá: Suba, Chapinero, Ciudad Bolívar, Teusaquillo, Bosa, Santa Fe, Barrios Unidos, Fontibón, Engativá, Tunjuelito, Usaquén, and Usme.

Distribution in Colombia: Amazonas, Antioquia, Atlántico, Boyacá, Caldas, Casanare, Caquetá, Cesar, Chocó, Córdoba, Cundinamarca, Guajira, Guaviare, Huila, Magdalena, Meta, Nariño, Norte de Santander, Putumayo, Quindío, Risaralda, Santander, Sucre, Tolima, Vaupés, and Valle del Cauca.

Biology: This species has the highest occurrence records in the country. Caterpillars have been recorded feeding on *Plumeria* sp. (Apocynaceae).



Xylophanes chiron (Drury, 1773)



Description: A small to medium-sized species. The coloration pattern is brown-green. Abdomen with a faint white line followed by two rows of dots. The inner base of the forewings has a small whitish-yellow patch. The hindwings are dark with a series of yellow spots.

Distribution in Bogotá: Suba, Engativá, Ciudad Bolívar, Teusaquillo, Fontibón, Puente Aranda, Chapinero, and Tunjuelito.

Distribution in Colombia: Amazonas, Antioquia, Arauca, Bolívar, Boyacá, Casanare, Caldas, Cauca, Caquetá, Chocó, Cundinamarca, Huila, Magdalena, Meta, Putumayo, Quindío, Risaralda, Santander, Sucre, Tolima, Vaupés, and Valle del Cauca.

Biology: Parasitoids include Ichneumonidae, Braconidae, Sceliodidae, and Tachinidae families. Caterpillars feed on Rubiaceae species.

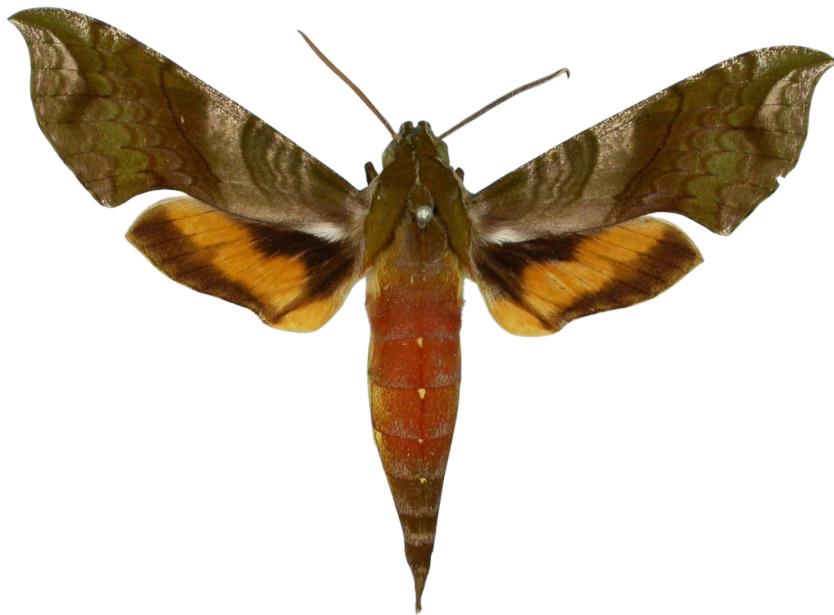


I've seen it



Nocturnal

Xylophanes pluto (Fabricius, 1777)



Description: A medium-sized species. Forewing with a conspicuous and easily distinguishable pattern. Hindwing with a prominent broad yellow band.

Distribution in Bogotá: Unspecified.

Distribution in Colombia: Antioquia, Atlántico, Bolívar, Caldas, Casanare, Cesar, Cundinamarca, Magdalena, Nariño, Tolima, Quindío, and Sucre

Biology: The larvae feed on *Chiococca* sp., *Hamelia patens*, and *Morinda* sp. of the family Rubiaceae, and plants of the genus *Erythroxylum* sp.



I've seen it



Crepuscular



Diurnal

Xylophanes tersa (Linnaeus, 1771)



Description: A small to medium-sized species, with a delicate appearance and whitish-brown coloration. Abdomen with pale dorsal lines on the abdomen. The hindwings have a row of yellow diamond-shaped spots.

Distribution in Bogotá: Engativá, Teusaquillo, and Tunjuelito.

Distribution in Colombia: Antioquia, Arauca, Atlántico, Boyacá, Caldas, Casanare, Cauca, Caquetá, Cesar, Cundinamarca, Magdalena, Meta, Norte de Santander, Putumayo, Risaralda, Quindío, Santander, Sucre, Tolima, Vaupés, and Valle del Cauca.

Biology: Caterpillars feed on different species of Rubiaceae (*Augusta* sp., *Coccocypselum* sp., *Diodia* sp., *Hamelia* sp., *Margaritopsis* sp., *Oldenlandia* sp., *Psychotria* sp., *Spermacoce* sp.). Recorded parasitoids include Braconidae and Ichneumonidae wasps as well as Tachinidae flies.



I've seen it



Nocturnal

Xylophanes virescens (Butler, 1875)



Description: A medium-sized species. General coloration: olive green. The upper side of the forewings has a black spot. The upperside of the hindwings is dark with yellow diamond-shaped spots. This species was described based on a specimen from Bogotá.

Distribution in Bogotá: Chapinero, La Candelaria, and Santa Fe.

Distribution in Colombia: Antioquia, Caldas, Cesar, Cundinamarca, Quindío, Risaralda, Santander, and Valle del Cauca.

Biology: Although not much is known about the biology, this species belongs to a species complex (*Xylophanes crotonis*) in which all species are very similar.

Acknowledgments



Photograph: Miniscops/ Female of *Enyo lugubris*

We thank Gimnasio Campestre for publishing this guide and supporting these research efforts to increase the knowledge of entomology in Colombia. Thanks to Rodrigo Suárez, Research Center Coordinator and Ignacio Osuna, School's principal.

Special thanks to all those who allowed us to use their live specimen pictures, and we sincerely express our gratitude to Ian Kitching and Roy Canty.

The first author would like to thank the Vicerrectoría Académica, Pontificia Universidad Javeriana for the doctoral fellowship program. Thanks to the Vicerrectoría de Investigaciones, project ID 08141.

To Catalina Cristancho for her design and her compromise with scientific divulgation at Gimnasio Campestre.



Photograph: Yanics9 / *Manduca sexta*

References



Photograph: Laura Keene / *Xylophanes tersa*

Barrera, G., Gómez, J., Cuartas, P., León, G. and Villamizar, L. (2014) Caracterización morfológica, biológica y genética de un aislamiento Colombiano de granulovirus de *Erinnyis ello* (L.) (Lepidoptera: Sphingidae). *Revista Colombiana de Biotecnología*, 16(2): 129-140.

Correa-Carmona, Y., Vélez-Bravo, A.H. and Wolff, E.M.I. (2015) Current status of knowledge of Sphingidae Latreille, 1802 (Lepidoptera: Bombycoidea) in Colombia. *Zootaxa*, 3987: 1-73.

Correa-Carmona, Y., Giusti, A., Haxaire, J., Rougerie, R., and Kitching, I. J. (2021) Three new species of the *Xylophanes crotonis* speciesgroup (Lepidoptera: Sphingidae) from Colombia and a neotype designation for *Xylophanes aristor*. *European Journal of Entomology*, 118: 64-81.

D'Abrera, B. ([1987] 1986) *Sphingidae Mundi: Hawkmoths of the World*. E.W. Classey Ltd., Oxon, 266 pp

Huang, Y., Xing, Z., Zhang, H., Xu, Z., Tao, L., Hu, H., Kitching, I., and Wang, X. (2022) Characterization of the Complete Mitochondrial Genome of Eight Diurnal Hawkmoths (Lepidoptera: Sphingidae): New Insights into the Origin and Evolution of Diurnalism in Sphingids. *Insects*, 13:887.

iNaturalist. (2024). <https://www.inaturalist.org/> (last accessed 25 Aug. 2024).

Janzen, D. H. and Hallwachs, W. (2009) Dynamic database for an inventory of the macrocaterpillar fauna, and its food plants and parasitoids, of Area de Conservacion Guanacaste (ACG), northwestern Costa Rica. <http://janzen.sas.upenn.edu/caterpillars/database.htm> (last accessed 25 Aug. 2024).

Kitching, I (2002) The phylogenetic relationships of Morgan's Sphinx, *Xanthopan morganii* (Walker), the tribe Acherontiini, and allied long-tongued hawkmoths (Lepidoptera: Sphingidae, Sphinginae), *Zoological Journal of the Linnean Society*, 135(4):471-527.

Kitching, I.J. and Cadiou, J.M. (2000) Hawkmoths of the world: An annotated and illustrated revisionary checklist (Lepidoptera:Sphingidae). The Natural History Museum, London & Cornell University Press, Ithaca, 227 pp.

Kitching, I.J. (2024) Sphingidae Taxonomic Inventory. URL:<http://sphingidae.myspecies.info/> (last accessed 25 Aug. 2024). Images from page 19 to 46 taken from the website with permission from the author.

Pittaway, A. R. (1993). The Hawkmoths of the Western Palaearctic. Harley Books & Natural History Museum, London.

Stevenson, R., Corbo, K., Baca, L., and Le, Q. (1995) Cage size and flight speed of the tobacco hawkmoth *Manduca sexta*. The Journal of Experimental Biology, 198(8): 1665–1672.



Photograph: Mateus Sanches/Neococytius cluentius

Educational Dissemination Material
Gimnasio Campestre Field Guide Series^{cc}



Cajadecolores
Una empresa editorial del
GIMNASIO CAMPESTRE

