



Zootaxa 3987 (1): 001–073
www.mapress.com/zootaxa/

Copyright © 2015 Magnolia Press

Monograph

ISSN 1175-5326 (print edition)

ZOOTAXA

ISSN 1175-5334 (online edition)

<http://dx.doi.org/10.11646/zootaxa.3987.1.1>

<http://zoobank.org/urn:lsid:zoobank.org:pub:23513C51-E33E-4684-A9E8-C79605BDC1C6>

ZOOTAXA

3987

CURRENT STATUS OF KNOWLEDGE OF SPHINGIDAE LATREILLE, 1802 (LEPIDOPTERA: BOMBYCOIDEA) IN COLOMBIA

YENNY CORREA-CARMONA^{1,2}, ANDRÉS H. VÉLEZ-BRAVO¹ & MARTA ISABEL WOLFF ECHEVERRI¹

¹*Grupo de Entomología Universidad de Antioquia (GEUA). Medellín-Colombia. AA 1226.*

²*Corresponding author: E-mail: biomorpho@gmail.com*



Magnolia Press
Auckland, New Zealand

YENNY CORREA-CARMONA, ANDRÉS H. VÉLEZ-BRAVO & MARTA ISABEL WOLFF
ECHEVERRI
**CURRENT STATUS OF KNOWLEDGE OF SPHINGIDAE LATREILLE, 1802 (LEPIDOPTERA:
BOMBYCOIDEA) IN COLOMBIA**
(*Zootaxa* 3987)

73 pp.; 30 cm.

22 Month 2015

ISBN 978-1-77557-745-4 (paperback)

ISBN 978-1-77557-746-1 (Online edition)

FIRST PUBLISHED IN 2015 BY

Magnolia Press

P.O. Box 41-383

Auckland 1346

New Zealand

e-mail: zootaxa@mapress.com

<http://www.mapress.com/zootaxa/>

© 2015 Magnolia Press

All rights reserved.

No part of this publication may be reproduced, stored, transmitted or disseminated, in any form, or by any means, without prior written permission from the publisher, to whom all requests to reproduce copyright material should be directed in writing.

This authorization does not extend to any other kind of copying, by any means, in any form, and for any purpose other than private research use.

ISSN 1175-5326 (Print edition)

ISSN 1175-5334 (Online edition)

Table of contents

Abstract	4
Resumen	4
Introduction	4
Materials and Methods	5
Results	5
Data Analysis	5
Descriptions of hawkmoths	18
Subfamily Macroglossinae Harris, 1839	18
Key to the subfamilies of Sphingidae present in Colombia	18
Key to the genera of Macroglossinae present in Colombia	18
Tribe Dilophonotini Burmeister, 1878	23
<i>Aellopos</i> Hübner, [1819]	24
<i>Aleuron</i> Boisduval, 1870	25
<i>Callionima</i> Lucas, 1857	26
<i>Enyo</i> Hübner, [1819]	27
<i>Erinnyis</i> Hübner, [1819]	29
<i>Eupyrrhoglossum</i> Grote, 1865	31
<i>Hemeroplanes</i> Hübner, [1819]	31
<i>Isognathus</i> C. & R. Felder, 1862	32
<i>Madoryx</i> Boisduval, [1875]	33
<i>Nyceryx</i> Boisduval, [1875]	33
<i>Oryba</i> Walker, 1856	34
<i>Pachygonidia</i> Fletcher, 1982	34
<i>Pachylia</i> Walker, 1856	35
<i>Pachylioides</i> Hodges, 1971	36
<i>Perigonia</i> Herrich-Schäffer, 1854	36
<i>Phryxus</i> Hübner, [1819]	37
<i>Pseudosphinx</i> Burmeister, 1855	37
<i>Unzela</i> Walker, 1856	39
Tribe Macroglossini Harris, 1839	39
<i>Hyles</i> Hübner, [1819]	40
<i>Xylophanes</i> Hübner, [1819]	41
Tribe Philampelini Burmeister, 1878	45
<i>Eumorpha</i> Hübner, [1807]	45
Subfamily Smerinthinae Grote & Robinson, 1865	47
Key to the genera of the tribe Ambulycini (Smerinthinae) present in Colombia	48
Tribe Ambulycini Butler, 1876	48
<i>Adhemarius</i> Oiticica Filho, 1939	49
<i>Protambulyx</i> Rothschild & Jordan, 1903	50
Sphinginae subfamily Latreille, [1802]	51
Key to the genera of Sphinginae present in Colombia	51
Tribe Acherontiini Boisduval, [1875]	51
<i>Agrius</i> Hübner, [1819]	52
Tribe Sphingini Latreille, [1802]	54
<i>Amphimoea</i> Rothschild & Jordan, 1903	54
<i>Cocytius</i> Hübner, [1819]	55
<i>Euryglottis</i> Boisduval, [1875]	56
<i>Lintneria</i> Butler, 1876	57
<i>Manduca</i> Hübner, [1807]	58
<i>Neococytius</i> Hodges, 1971	59
Acknowledgments	60
References	61
Plates 21–31	63

Abstract

A list of species and a photographic catalog of moths of the family Sphingidae reported for Colombia is presented. Following examination of 1463 specimens deposited in major entomological collections of Colombia, and a review of the literature, 188 species are reported for the country, of which 19 species and *Phryxus* genus are reported for the first time for Colombia. The genus *Xylophanes* has the most species recorded and also the most geographical records. The Andean region has the highest number of records. A diagnosis of each subfamily and genus, comments on the biology of many of the reported species and dichotomous keys are also presented.

Key words: Hawkmoths, Macroglossinae, Smerinthinae, Sphinginae, diagnosis, dichotomous keys, photographic catalog.

Resumen

Se presenta aquí una lista de especies y un catálogo fotográfico de las polillas de la familia Sphingidae reportadas para Colombia. Después de la revisión de 1.463 especímenes, depositados en las principales colecciones entomológicas de Colombia, y la revisión de la literatura se reportaron para el país 188 especies, de los cuales 19 especies y el género *Phryxus* se registraron por primera vez para Colombia. *Xylophanes* fue el género con más especies registradas y con más registros geográficos en toda Colombia. La región andina tuvo el mayor número de registros. También se presenta un diagnóstico para cada subfamilia y géneros, observaciones sobre la biología de muchas especies reportadas y claves dicotómicas.

Introduction

The hawkmoths are a family of moths with over 1500 species that occur on all continents except Antarctica (Kitching 2013), and are renowned for being the main pollinators of many plants with sphingophilous flowers (Moré *et al.* 2005). The adults of most species have nocturnal and crepuscular habits, although a few species of genera such as *Aellopos* Hübner, *Eupyrrhoglossum* Grote and occasionally *Hyles* Hübner are diurnal (Moré *et al.* 2005). Within the hawkmoth fauna of Colombia, some species of the genera *Erinnyis* Hübner and *Manduca* Hübner are considered economically important (Vélez 1997; Madrigal 2002, 2003).

The first author to catalogue the species of hawkmoth in Colombia was Druce (1881–1900), who reported just 14 species. Later, Rothschild & Jordan (1903), in their global revision, reported 45 species for country, Schreiber (1978) reported 158 species and D'Abrera ([1987]) in his illustrated book reported 43 species and Haxaire has reported in some works (1986, 1990, 1996) species for the country. Other Colombians authors reported some hawkmoths species for the country, for example Gallego (1938) reported 10 species from different parts of the country, and the same author in 1946 compiled a new list including seven more species. Amarillo-S (1998) reported 14 species and the most recent records were made by Calero *et al.* (2014), who reported 10 species for the country. Some authors as Butler (1875), Clark (1916), Schaus (1932, 1941), Cadiou (1995), Eitschberger (1998) and Haxaire (2003, 2014), have described the species collected in Colombia. According to the literature cited previously, 169 species and eight subspecies of hawkmoth have been reported for Colombia so far. Developing works that aim to understand the distribution, ecology, systematics and natural history of flora and fauna are essential to implement conservation decisions, which is even more critical for Colombia as one of richest countries in the world in terms of biological diversity. But this high biodiversity is threatened every day by decreasing natural vegetation cover (deforestation), over-exploitation of forest resources, indiscriminate hunting of wildlife and alteration of the natural environment (Rangel 2006). For these reasons, it is essential to publish works that help to increase our knowledge of the biodiversity present in Colombia, and groups like butterflies and hawkmoths, which are both diverse and extensively studied in the tropics, can serve as indicators of the state of conservation of natural ecosystems (Amarillo-S 1998).

Therefore, the main aim of the present work is to a list and a photographic catalog of most of the species of hawkmoths present in Colombia, compile the known information on the distribution of all species, and make new contributions concerning the biology of some of these species. Additionally, we provide dichotomous keys to enable identification of Colombian hawkmoths to the genus level.