



FAMILY ACROCERIDAE

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Abstract

A catalog of the Acroceridae from Colombia is provided. Five species and five genera are recorded for the country, including one undescribed *Ocnaea* species.

Key words: catalogue, Colombia, Distribution, Neotropical, Spider flies, spider parasitoid

Introduction

Spider-flies are very diverse in shape, size and color, although all species have a greatly enlarged calypter and broad eyes that encompass almost the entire head. Some species are balloon-shaped with greatly swollen abdomens, while others may be slender bodied and extremely hunchbacked. Body size is particularly variable, ranging from 2 to 20 mm. Coloration may be metallic, varying from blue, purple, green, red, gold, orange, to yellow, while some species may be black or brown (Schlinger 1981, Nartshuk 1997). Some species mimic wasps, bees, and even beetles (e.g., *Leucopsina*, *Mesophysa*, *Pterodontia*) (Cole 1919).

In general, species of Acrocerinae are small, have a minute head, scarce pilosity covering the body, and a swollen abdomen. Panopinae species, on the other hand, are usually bigger and covered by dense pilosity, and may have a slender or very swollen abdomen. Species of Philopotinae are very conspicuous flies with a hunchback body shape, in which the postpronotal lobes are greatly developed and fused medially forming a collar behind the head, and with a great variety of sizes and colors. In most acrocerid species, the eyes are holoptic in both sexes and may be pilose or bare. The antennae may be inserted at the upper portion of the head, in the middle of the frons, or at the lower part of the head. Proboscis length is extremely variable, ranging from longer than body length to smaller than the antennae; in some species, however, the mouthparts are lacking or are vestigial, not forming a proboscis. The wings may be hyaline or maculated, and the presence or absence of wing markings may be a dimorphic character in some species (e.g., *Philopota*). The wing venation is remarkably variable; some genera have a relatively complete set of wing veins, in which costa, R_1 , R_{2+3} , R_4 , R_5 , M_1 , M_2 , M_3 , CuA_1 , CuA_2 and A_1 are present, while others have a varying degree of wing losses. In Acroceridae, cell r_{4+5} is generally bisected by crossvein $2r-m$, and the presence of this additional crossvein may be a synapomorphy of the group. The costal vein can be complete, ending at the anal lobe, or it can be incomplete and end at the wing tip. In some genera, M_3 is fused to CuA_1 before wing margin, leading to the formation of a cell m_3 .

The adults feed on nectar and may be efficient pollinators with variable mouthpart length, but some species do not feed. Sexual dimorphism takes place in many species, but in some species the sexes are quite indistinguishable. Immatures are internal parasitoids of spiders with a hypermetamorphic life cycle comprised of four larval instars. The first instar is a small, free-living planidium that either actively search for the spider host or sit and wait for it to pass by (Schlinger 1987, Cady *et al.* 1993).

Acroceridae are worldwide distributed and comprise approximately 530 species in 55 genera (Schlinger *et al.* 2013). Neotropical fauna comprises all three subfamilies and is represented by 19 genera and approximately 100 species. There are five species and five genera recorded for Colombia, but the actual diversity is presumably much greater. The family is traditionally divided into three subfamilies (Acrocerinae, Panopinae and Philopotinae), but the monophyly of Acrocerinae has recently been questioned (Winterton *et al.* 2007).

Material from several collections in Brazil and in the USA was examined, including Evert I. Schlinger's collection, currently housed in the California Academy of Sciences (CAS). Within these material, only one specimen from Colombia was found, a new species of the genus *Ocnaea*. Thus, the list of Colombian species is based mainly on data from the literature. Three catalogs were consulted: Hunter (1901), Kertész (1909) and Arnaud (1979), and records obtained from the Diptera Site (Pape & Thompson 2011) were also included.

Four described and one undescribed species are recorded for Colombia. The undescribed species belongs to the genus *Ocnaea* and was not included in the catalog. A list of the Colombian species is presented in Table 1.

Acronyms used for the depositories

CAS—California Academy of Sciences, San Francisco, CA, USA.

OUMNH—Hope Entomological Collections, University Museum, Oxford, UK.

List of abbreviations

cat.—catalog

diag.—diagnosis

distr.—geographic distribution

F (f#)—Female

HT—holotype

M (m#)—Male

refs.—references

orig. des.— by original designation

Catalogue of Acroceridae of Colombia

Family **Acroceridae** Leach, 1815

Subfamily **Acrocerinae** Schiner, 1868

Genus ***Ogcodes*** Latreille

Ogcodes Latreille, 1797: 154. Type species, *Musca gibbosa* Linnaeus, 1758 (by subsequent monotypy (Latreille, 1802: 432)).

colombiensis Schlinger, 1960: 311. Type locality: Colombia, Cundinamarca, 1 mile west of Villeta. HT M (CAS). Distr.: Colombia (Cundinamarca). Refs.: Arnaud, 1979: 204 (location of holotype).

Subfamily **Panopinae**, Schiner, 1868

Genus ***Pterodontia*** Gray

Pterodontia Gray, 1832: 779. Type species, *P. flavipes* Gray (by monotypy).

analis Macquart, 1846: 226. Type locality: Colombia, "Region temperee". HT M (OUMNH, Coll. Bigot). Distr.: Colombia. Refs.: Walker, 1855: 347 (diag.); Hunter, 1901: 150 (cat.); Howard, 1902: 134 (note); Kertész, 1909: 6 (cat.); Carrera, 1946: 81 (distinction from *P. flavonigra*); Sabrosky, 1948: 392 (notes).

dimidiata Westwood, 1876: 513. Type locality: "Colombia". HT sex unspecified (OUMNH). Distr.: Colombia.

Refs.: Hunter, 1901: 151 (cat.); Kertész, 1909: 6 (cat.); Carrera, 1946: 81 (distinction from *P. flavonigra*); Sabrosky, 1948: 392 (note).

Genus *Pteropexus* Macquart

Pteropexus Macquart, 1846: 225. Type species, *P. bicolor* Macquart (orig. des.).

bicolor Macquart 1846: 226. Type locality: “Colombia”. HT sex unspecified (OUMNH). Distr.: Colombia. Refs.: Walker, 1855: 335 (diag., synonymical notes); Wulp, 1882: 88, pl. 10, fig. 1 (drawing of wing); Kertész, 1909: 11 (cat.); Verrall, 1909: 451, fig. 259C (drawing of wing).

TABLE 1. List of the Acroceridae recorded from Colombia.

Subfamily	Genus	Species	Author
Acrocerinae	<i>Ogcodes</i>	<i>colombiensis</i>	Schlinger, 1960
Panopinae	<i>Ocnaea</i>	sp.	undescribed
	<i>Pterodontia</i>	<i> analis</i>	Macquart, 1846
		<i> dimidiata</i>	Westwood, 1876
	<i>Pteropexus</i>	<i> bicolor</i>	Macquart, 1846

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