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Catalogue of Neotropical Diptera. Lygistorrhinidae¹

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Abstract. The catalogue of the Lygistorrhinidae in the Neotropical region is updated. It includes 9 species, eight of which formally described, belonging to the subgenus *Lygistorrhina* (*Probolaeus*) Williston—from Mexico, Trinidad, St. Vincent, and Brazil—, and one undescribed species belonging to *L.* (*Lygistorrhina*) Skuse, from Mexico.

Introduction

The family Lygistorrhinidae is widely distributed in tropical and subtropical regions of the world (Grimaldi & Blagoderov, 2001; Hipa *et al.*, 2005). A total of 15 genera are now recognized in the family, including eight extant genera and seven known only from fossils (Pape *et al.*, 2011; Fungus Gnats Online, 2012).

The most diverse lygistorrhinid genus is *Lygistorrhina* Skuse, 1890, now with 21 species in the world. Most authors accept two subgenera, *Lygistorrhina* s. str. and *Probolaeus* Williston. Papavero (1977) accepted the generic status originally given by Williston (1896) to *Probolaeus*, but this has been questioned by Thompson (1975), Grimaldi & Blagoderov (2001), Hipa *et al.* (2005), and Huerta & Ibañez-Bernal (2008). Actually, it is likely that *Lygistorrhina* is paraphyletic in relation to *Probolaeus*, so neither generic or subgeneric status to *Probolaeus* correspond to true solutions for the problem of the group without a complete revision of *Lygistorrhina* s.l. For the time being, we keep the species of *Probolaeus* in a separate subgenus until a comprehensive study of the group is made, resulting in new combinations for the species that were under *Probolaeus* having generic status.

Papavero (1977) reported seven species of *Lygistorrhina* (*Probolaeus*) in the Neotropical region. More recently, the known distribution of *L.* (*Probolaeus*) was extended to reach the Yucatan Province in Mexico (Huerta & Ibañez-Bernal, 2008) and southeastern USA (Thompson, 1975). Huerta & Ibañez-Bernal (2008) reported as well an undescribed species of the subgenus *L.* (*Lygistorrhina*) from mountain areas in central Mexico. Information on the Neotropical species of *Lygistorrhina*—brief descriptions, photos of some of the types, distribution—can be found in Fungus Gnats Online (2012).

It is worth of note that one of the species included in catalogue of the Lygistorrhinidae (Papavero 1977)—*Aphanizophleps coxatus* Enderlein, 1910—actually belongs to the genus *Manota* Williston and is not included here. Papavero's (1977) position was probably induced by lygistorrhinid specimens in the MZUSP collection misidentified by John Lane as *A. coxatus*. Papavero (1977), however, overlooked Edwards's (1913: 55) comment that *Aphanizophleps* Enderlein was indistinguishable from *Manota* Williston (see also Hipa, 2008).

The acronyms of the depositary institutions of the types are given below.

NHM – Natural History Museum, Department of Entomology, London, United Kingdom.

CAIM – Collection of Arthropods with Medical Importance, Mexico City, Mexico.

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MZUSP – Museu de Zoologia da Universidade de São Paulo, São Paulo, Brazil.

A synthesis of the number of Neotropical species of the family is given in Table I.

Table I. Synopsis of the Neotropical diversity of the family Lygistorrhinidae.

Subgenus	Number of known species
<i>Lygistorrhina</i> (<i>Lygistorrhina</i>) Skuse	1
<i>Lygistorrhina</i> (<i>Probolaeus</i>) Williston	8
Total	9

Family **LYGISTORRHINIDAE** Edwards, 1925

Lygistorrhinae Edwards, 1925: 530.

Lygistorrhinae Brues & Melander, 1932: 277.

Lygistorrhinidae Hendel, 1936: 1880, 1894.

Ref. – Grimaldi & Blagoderov, 2001; Hippa *et al.*, 2005; Blagoderov *et al.*, 2009.

Genus **Lygistorrhina** Skuse

Lygistorrhina Skuse, 1890: 598. Type-species, *L. insignis* Skuse, 1890: 600 (mon.)

Subgenus **Lygistorrhina (Probolaeus)** Williston

Probolaeus Williston, 1896: 261. Type-species, *P. singularis* Williston (mon.) (as a genus). Ref. - Thompson (1975), Grimaldi & Blagoderov (2001), Hippa *et al.* (2005).

alexi Huerta & Ibañez-Bernal, 2008: 45. Type-locality: Mexico, Yucatan, Reserva de Ría Lagartos. Type M, CAIM.

barrettoi Lane, 1947: 346. Type-locality: Brazil, Goiás, Corumbá. Ref. – Papavero, 1977 (cat.). Type F, MZUSP. **n. comb.**

borkenti Huerta & Ibañez-Bernal, 2008: 49. Type-locality: Mexico, Parque Nacional “Lagunas de Zempoala”, límite Morelos. Type M, CAIM.

brasiliensis Edwards, 1932: 139. Type-locality: Brazil, Rio de Janeiro. Ref. – Papavero, 1977 (cat.). Distr. - Brazil (Rio de Janeiro to Santa Catarina). Type M, NHM. **n. comb.**

cerqueirai Lane, 1958: 209, figs. 1 (wing), 2 (M terminalia). Type-locality: Brazil, Amazonas, Manaus, Igarapé do Mariano. Ref. – Papavero, 1977, 2002 (cats.). Distr. - Brazil (Amazonas). Type M, MZUSP. **n. comb.**

edwardsi Lane, 1947: 347. Type-locality: Brazil, São Paulo, Ferraz de Vasconcelos. Ref. – Papavero, 1977 (cat.). Type F, MZUSP. **n. comb.**

singularis (Williston, 1896: 261), pl. 8, fig. 15 (wing), 15a (head), 15b (mouthparts), 15c (genitalia). Type-locality: St. Vincent (W. I.). Ref. – Johannsen, 1909: 93 (descr., distr.), Papavero, 1977 (cat.). Type M, NHM.

urichi Edwards, 1912: 204. Type-locality: Trinidad, Diego Martin. Ref. – Papavero, 1977, 2002 (cats.). Distr. - Trinidad, Brazil (Amapá). Ref. - Lane, 1959: 106. Type M, NHM. **n. comb.**

Subgenus **Lygistorrhina (Lygistorrhina)** Skuse

sp. Huerta & Ibañez-Bernal, 2008: 51. Locality: Mexico, Hidalgo, Tlanchinol. Specimen F.

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