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A catalogue of the types of Stratiomyidae (Diptera: Brachycera) in the collection of the Museu de Zoologia da Universidade de São Paulo, Brazil

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Abstract

Following a recommendation of the International Code of Zoological Nomenclature, a catalogue of the type specimens of Stratiomyidae (Diptera: Brachycera) held in the collection of the Museu de Zoologia da Universidade de São Paulo, Brazil (MZUSP) is provided, with information on 30 type specimens (including 14 primary types) of 17 Neotropical species.

Key words: MZUSP, scientific collections, Stratiomyidae, taxonomy, type material

Introduction

Stratiomyidae is a family of the infraorder Stratiomyomorpha, sister-group of the family Xylomyidae (Woodley 1989). These flies are easily recognized by the wing venation, with the radial veins concentrated anteriorly and a small discal cell from which medial veins radiate (Woodley 2009).

There are about 2,800 described species of Stratiomyidae in the world, included in 377 genera (Woodley 2001, 2011). From these, 993 species in 162 genera belong to the Neotropical fauna. Among the twelve subfamilies, more than half of the Neotropical diversity belongs to the subfamilies Pachygastrinae, Sarginae and Stratiomyinae, with 137, 267 and 166 described species respectively, corresponding to 570 described species of the total mentioned. There are many speciose genera in these subfamilies—for example, *Merosargus* Loew, 1855 (Sarginae), *Ptecticus* Loew, 1855 (Sarginae) and *Hedriodiscus* Enderlein, 1914 (Stratiomyinae), with 142, 52 and 25 described species respectively (Woodley 2001), and some of them with large number of known species, as well as many undescribed species. Despite the relatively large number of described taxa, the Neotropical fauna of Stratiomyidae still remains largely unknown. Many genera and species are known exclusively from their original descriptions, often short or superficial, with little additional information found in the literature.

Following a recommendation of the International Code of Zoological Nomenclature (ICZN 1999: 72F.4), the present paper provides a list with information on 30 type specimens (including 14 primary types) of 17 Neotropical species of the family Stratiomyidae held in the collection of the Museu de Zoologia da Universidade de São Paulo, São Paulo, Brazil (MZUSP). The MZUSP houses the largest and most important collection of Neotropical Diptera in Brazil, with more than half a million mounted specimens distributed among more than 8,000 species.

The list given below is in alphabetical order of subfamily, genus and epithet. Names, combinations and spellings follow *A World Catalog of the Stratiomyidae* (Woodley 2001, 2011). For each species section, the first line provides the name, author and publication date. The next lines provide the taxon's original name (including figure citations), relevant citations from publications other than original description, type locality, as well as information regarding the specimen's preservation, including a list of the missing structures. Label data are quoted in double quotation marks. Each line in the text of each label is separated by a vertical line. In case of handwriting on printed labels, the handwritten text is reproduced in italics; completely handwritten and printed labels are

Type locality: Brazil, São Paulo, Avanhandava, Barra Mansa.

Holotype ♀ with labels: (1) printed on white paper: “Est. S. Paulo [State of São Paulo, Brazil] | Avanhandava | Barra Mansa | Barreto col. | 2-946 [ii.1946] [in vertical position]”; (2) printed on red paper: “HOLOTIPO”; (3) handwritten on white paper: “Rhingiopsis jamesi, n. sp. Barreto, 1947”.

Condition of type: right hind leg glued on paper triangle

Additional note: Woodley (2001: 293) stated that the depository institution of this species as Departamento de Parasitologia da Faculdade de Medicina, Universidade de São Paulo, São Paulo, Brazil (DPCB). This collection, whose curator was Dr. Mauro Pereira Barreto, was incorporated into the collection of MZUSP, which is herein being considered as the depository institution.

***Rhingiopsis lanei* Barreto, 1947**

Barreto, 1947: 441–443 (original description); 440, figs 2 (abdomen, dorsal view) and 3 (wing).

Type locality: Brazil, São Paulo, Serra da Cantareira, Chapadão.

Holotype ♀ with labels: (1) handwritten on white paper: “Est. S. Paulo [State of São Paulo, Brazil] | Cantareira | Chapadão | F. Lane col. | 10.46 [x.1946] [in vertical position]”; (2) printed on red paper: “HOLOTIPO”; (3) printed on white paper: “27071”; (4) printed on white paper: “Rhingiopsis lanei, n. sp. Barreto, 1947”.

Condition of type: good.

Additional remarks

Uruahy-Rodrigues & Pujol-Luz (2007) erroneously considered all 19 specimens (5 ♂, 14 ♀) of *Artemita brasiliiana* Lindner, 1964 from Fortalesa, State of Rio Grande do Sul, Brazil, as paratypes and deposited in the MZUSP. In fact, all syntypes of this species are from Nova Teutônia, State of Santa Catarina, Brazil and are deposited in the Staatliches Museum für Naturkunde, Stuttgart, Germany.

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References

- Barreto, M.P. (1947) Estudos sobre “Stratiomyidae” Brasileiros. I. Duas novas espécies de “*Rhingiopsis*” Röder, 1886 (Diptera). *Revista Brasileira de Biologia*, 7 (4), 439–443.
- Godoi, F.S.P. & Rafael, J.A. (2013) A new species of *Dicranophora* Macquart (Diptera, Stratiomyidae) from Bahia State, Brazil and a key to species of the genus. *Zootaxa*, 3641 (1), 83–91.
<http://dx.doi.org/10.11646/zootaxa.3641.1.9>
- Iide, P. (1966) Estudo sobre as espécies Brasileiras do gênero *Chrysochlorina* James, 1939 (Diptera, Stratiomyidae). *Arquivos de Zoologia*, 14 (fasc. 2), 69–112.
- ICZN (International Commission of Zoological Nomenclature) (1999) *International Code of Zoological Nomenclature*. Fourth edition, adopted by the International Union of Biological Sciences. International Trust for Zoological Nomenclature. The Natural History Museum, London, xxx + 306 pp.
- James, M.T. (1939) Studies in Neotropical Stratiomyidae (Diptera). I. The American species formerly referred to *Chrysochlorina* Latreille. *Journal of the Kansas Entomological Society*, 12 (1), 32–36.
- James, M.T. (1941) A preliminary study of the New World Geosarginae (Diptera: Stratiomyidae). *Lloydia*, 4, 300–309.
- James, M.T. (1943) Studies in Neotropical Stratiomyidae (Diptera). V. The Classification of Raphiocerinae. *Annals of the Entomological Society of America*, 36 (3), 365–379.

<http://dx.doi.org/10.1093/aesa/36.3.365>

- Leal, M. do C.A. (1977) Sobre três espécies novas de *Ptecticus* Loew, 1855 (Diptera, Stratiomyidae). *Revista Brasileira de Biologia*, 37 (1), 65–70.
- Mello, R.L. & Lamas, C.J.E. (2011) A catalogue of types of Conopoidea, Diopsoidea, Nerioida and Tephritoidea (Diptera, Schizophora) in the collection of the Museu de Zoologia da Universidade de São Paulo. *Revista Brasileira de Entomologia*, 55 (2), 187–205.
<http://dx.doi.org/10.1590/S0085-56262011005000021>
- Pimentel, T. & Pujol-Luz, J.R. (2000) Os gêneros de Raphiocerinae (Diptera, Stratiomyidae) do Brasil e Algumas espécies da América do Sul. Parte 1 – A Tribo Anacolcerini (*sensu* Enderlein, 1914). *Contribuições Avulsas Sobre a História Natural do Brasil, Série Zoologia*, 23, 1–18.
- Pimentel, T. & Pujol-Luz, J.R. (2001) Os gêneros de Raphiocerinae (Diptera, Stratiomyidae) do Brasil e Algumas espécies da América do Sul. Parte 2 – A Tribo Raphiocerini (*sensu* Schiner). *Contribuições Avulsas Sobre a História Natural do Brasil, Série Zoologia*, 33, 1–31.
- Pimentel, T. & Pujol-Luz, J.R. (2002) A new species of the genus *Raphiocera* (Diptera: Stratiomyidae) from Santa Catarina, Brazil. *Studia Dipterologica*, 9, 513–517.
- Ribeiro, G.C., Lamas, C.J.E. & Azevedo, L.N.S (2007) A catalogue of the types of Limoniidae and Tipulidae (Diptera: Tipulomorpha) in the collection of the Museu de Zoologia da Universidade de São Paulo, Brazil. *Zootaxa*, 1497, 1–22.
- Ururahy-Rodrigues, A. & Pujol-Luz, J.R. (2007) Redescrição de três espécies de *Artemita* Walker (Diptera, Stratiomyidae) do Brasil. *Revista Brasileira de Entomologia*, 51 (3), 341–345.
<http://dx.doi.org/10.1590/S0085-56262007000300011>
- Woodley, N.E. (1989) Phylogeny and classification of the “orthorrhaphous” Brachycera. In: McAlpine, J.F., Peterson, B.V., Shewell, G.E., Teskey, H.J., Vockeroth, J.R. & Wood, D.M. (Eds.), *Manual of Nearctic Diptera*. Volume 3. *Agriculture Canada Monograph*, 32, pp. 1371–1395.
- Woodley, N.E. (2001) *A World Catalog of the Stratiomyidae (Insecta: Diptera)*. Backhuys Publishers, Leiden, 473 pp.
- Woodley, N.E. (2009) Stratiomyidae [Chapter] 38. In: Brown, B.V., Borkent, A., Cumming, J.M., Wood, D.M., Woodley, N.E. & Zumbado, M.A. (Eds.), *Manual of Central American Diptera*. Volume. 1. NRC Research Press, Ottawa, Ontario, Canada, pp. 521–550.
- Woodley, N.E. (2011) A world catalog of the Stratiomyidae (Insecta: Diptera): a supplement with revisionary notes and errata. In: Thompson, F.C., Brake, I. & Lonsdale, O. (Eds.), Contributions to the Biosystematic Database of World Diptera. *Myia*, 12, 443–484.
- Yamaguchi, C. & Lamas, C.J.E. (2009) A catalogue of the types of Asiloidea (Diptera) in the collection of the Museu de Zoologia da Universidade de São Paulo, Brazil (Part 1: Bombyliidae and Mydidae). *Zootaxa*, 2146, 35–42.