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Description of new species of *Surimya* Reemer and *Carreramyia* Doesburg (Diptera: Syrphidae) from the Brazilian Amazon

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Abstract

Surimya reemeri sp. n. and *Carreramyia jatai* sp. n. are described from the Brazilian Amazon. The diagnosis of *Surimya* Reemer is emended to include *S. reemeri* sp. n. that differs from other species of the genus mainly by the shape of male terminalia and basoflagellomere length. In addition, *S. rolanderi* Reemer is recorded for Brazil for the first time. The key to species of *Carreramyia* Doesburg by Reemer (2008) is modified to include *C. jatai* sp. n., and a key to species of *Surimya* is provided.

Key words: Cyclorrhapha, flower flies, hover flies, Microdontinae

Introduction

Microdontinae is a cosmopolitan subfamily of Syrphidae (flower flies), that includes about 454 species, and has its greatest species richness in tropical regions (Reemer & Ståhls 2013b). The Neotropical fauna is by far the richest, with 203 described species (Reemer & Ståhls 2013a, b). However, this figure may represent only a small percentage of the true diversity of the group, since the Microdontinae fauna of some South American regions, like the Amazon, remains poorly studied.

Until recently, species identification of Microdontinae was a difficult task, as many species were poorly characterized or simply not included in existing identification keys. Fortunately, the revisionary works of Cheng & Thompson (2008), Reemer (2013, 2014), and Reemer and Ståhls (2013a) have provided identification tools, such as taxonomic keys and photographs of the specimens, that facilitate the identification of the genera and species of this subfamily.

The genus *Surimya* was erected by Reemer (2008) to harbour *S. rolanderi* Reemer and *Paragodon minutulus* (Doesburg), both currently only known from Surinam. Compared to *Paragodon* Thompson, *Surimya* differs by a bare postpronotum and thorax, and by a strong and erect pile on the abdomen (Reemer 2008, Reemer & Ståhls 2013a, b).

The genus *Carreramyia* was erected by Doesburg (1966), based upon the type-species *Microdon megacephalus* Shannon from Panama (Shannon 1925). Hull (1949) placed this species in the genus *Masarygus* Bréthes, and Thompson *et al.* (1976) considered it as belonging to *Ubristes* Walker (at that time a subgenus of *Microdon* Meigen). Cheng & Thompson (2008) considered *Carreramyia* as a subgenus of *Ubristes*, whereas Reemer & Ståhls (2013a, b) ranked *Carreramyia* as a genus, based on the results of their phylogenetic analyses, also transferring *Ceratophya flava* Sack to the genus (Reemer & Ståhls 2013a). And recently, Reemer (2014) described two new species, *C. megacera* Reemer and *C. tigrina* Reemer.

In this paper, one additional species of *Surimya* and one *Carreramyia* are described, both originating from the Brazilian Amazon.

Material and methods

The specimens described in this study are deposited in the Entomological Collection of Museu Paraense Emílio Goeldi (MPEG), Belém, state of Pará, Brazil.

Type material. Holotype f# labeled as follows: “Brasil Pará/ Serra Norte/ Est. MANGAN/ 13 a 16.8.1984 [White label with printed and handwritten information]”; “Armadilha/ 20m/ suspensa [= suspended trap at a height of 20 meters] [White label with printed and handwritten information]”; “MPEG DIP/ 12170377 [White label with printed information]”. Specimen in good condition. Paratype f# labeled as follow: “Brasil Pará/ Serra Norte/ Est. Manganês/ 5 a 9.IX.1983 [White label with printed and handwrite information]”; “Armadilha/ suspensa/ 1,6m [= suspended trap at a height of 1.6 meters] [White label with printed and handwrite information]”; “MPEG DIP/ 12170506 [White label with printed information]”. Specimen in good condition, with head and antennae glued on a piece of cardboard pinned with the specimen.

Etymology: *Jataí* is the common name for some stingless bees of the genus *Tetragonisca* Moure (Hymenoptera: Apidae) in Brazil, alluding to the similarity of *Carreramyia jatai* to some *Tetragonisca* species. It should be treated as a noun in apposition.

Geographic distribution: Brazil (Pará).

Remarks. *Carreramyia jatai* sp. n. is similar to *C. flava* (Sack) in having abdomen and thorax yellowish and with brown marks. However, *C. flava* differs from *C. jatai* sp. n. in having a basoflagellomere with a conspicuous median protuberance just distal of the insertion of the arista; frons with two separated brown spots, one on each side of the antennal fossa, and vertex and scutellum covered with yellow pile (see Reemer (2013) for a detailed redescription of the species). In *C. jatai* sp. n. the frons has only one large brown spot located dorsad of the antennal fossa and extending laterally to it; the pile of the thorax is dark-brown and the pile of scutellum is yellow basally and black apically, and the median protuberance of the basoflagellomere is absent (Figs 17, 18).

Modified key to species of *Carreramyia* (after Reemer 2013)

- 1 Abdomen unicolorous, black (Surinam) *C. megacera* Reemer
- Abdomen predominately yellow, with or without dark brown spots 2
- 2 Abdomen entirely yellow (Costa Rica, Panama). *C. megacephalus* (Shannon)
- Abdomen with dark vittae medially and laterally 3
- 3. Scutum mostly black; with yellow margins and narrow yellow lines; scutellum black laterally, yellow medially; female basoflagellomere without arista (Peru). *C. tigrina* Reemer
- Scutum mostly yellow, with dark stripe only laterally between transverse suture and posterior margin; scutellum yellow; female basoflagellomere with arista 4
- 4 Female basoflagellomere with a dorsal median protuberance just dorsal the arista insertion (Reemer 2013: fig. 7); vertex with yellow pile; frons with a brown spot in each side of antenna insertion; scutellum with yellow pile basally and black pile apically (Peru). *C. flava* (Sack)
- Female basoflagellomere without protuberance just dorsal the arista insertion; vertex with brown pile; frons with only one long spot dorsal to antenna insertion extending laterally (Figs 17, 18); scutellum with black pile (Fig. 15) (Brazilian Amazon) *C. jatai* sp. n.

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