

# A new species of *Graphomya* Robineau-Desvoidy (Diptera, Muscidae)

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**ABSTRACT.** *Graphomya* Robineau-Desvoidy is known from 12 neotropical species, only two of them with occurrence in Brazil. A new species from the Amazon is described and illustrated – *G. amazonensis* **sp. nov.** This is also the first record of the genus to the Amazon State, Brazil.

**KEY WORDS.** Amazon, *G. amazonensis* **sp. nov.**, morphology, taxonomy.

**RESUMO.** Uma nova espécie de *Graphomya* Robineau-Desvoidy (Diptera, Muscidae). *Graphomya* Robineau-Desvoidy é conhecido por 12 espécies neotropicais, apenas duas com ocorrência no Brasil. Uma nova espécie da Amazônia é descrita e ilustrada – *G. amazonensis* **sp. nov.** Este é também o primeiro registro do gênero para o Estado do Amazonas, Brasil.

**PALAVRAS CHAVE.** Amazonas, *G. amazonensis* **sp. nov.**, morfologia, taxonomia.

*Graphomya* Robineau-Desvoidy is a neotropical genus known from 12 species, only two of them recorded to Brazil – *G. analis* (Macquart, 1851) and *G. meridionalis* Townsend, 1892. (CARVALHO *et al.* 2005)

COURI & CARVALHO (2002) published a parcial key to the identification of three males and three females *Graphomya* species.

The aim of this paper is to add a new species from Brazil to *Graphomya*: *G. amazonensis*, **sp. nov.** and record the genus for the first time to the Amazon State, Brazil.

## MATERIAL AND METHODS

The material examined belongs to Museu Nacional, Rio de Janeiro (Brazil) collection (MNRJ).

The terminalia were prepared in solution of potassium hydroxide at 10%, in water-bath, for ten minutes. They were then dissected in glycerol and drawn and packed in microtube with glycerol and fixed to the pin together with the specimen.

### *Graphomya amazonensis* **sp. nov.**

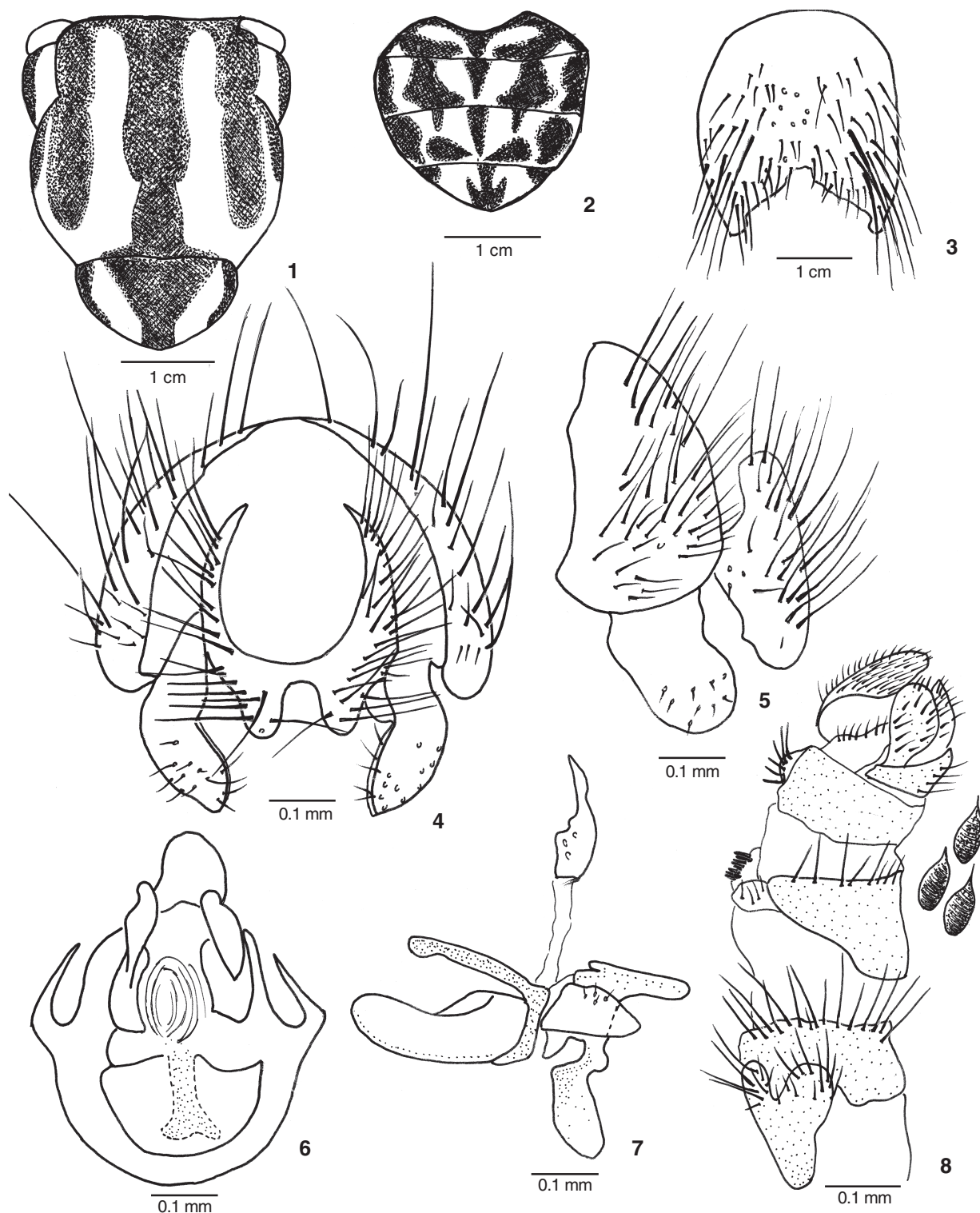
Colour. Dark brown with grey pollinosity. Head with frons, face, fronto-orbital plate and gena silver; antenna dark brown, arista brown; palpus dark brown. Mesonotum brown, with grey pollinosity; three large brown vittae as in figure 1, scutellum with a dark brown triangular area on center and two brown lateral areas on basal half. Calypters white; halter yellow; wing hyaline. Legs brown; pulvillus yellowish; claws yellow on basal half and black on apical. Abdomen marked as in figure 2; some specimens with lateral yellow areas on tergites 4 and 5.

Length. Male: body 7.5-7.9 mm; wing 7.3-7.5 mm.

Head. Eye densely haired; holoptic, interocular space about 0.13-0.16 of head width, at level of anterior ocelli. Nine pairs of frontal setae, the three ones closer to antenna longer, fine hairs between the frontal setae. Inner and outer vertical seta delicate. Ocellar seta medium, similar in length with the upper frontals. Antenna inserted a little below middle of eyes; flagellum about 3.0-3.2 times the pedicel. Arista with long plumae. Vibrissa strong and long; 5-7 supra and subvibrissal setulae.

Thorax. Acrostichal 0:1; dorsocentrals setae 2:4; 2 strong humerals; 1 post-humeral; 1 presutural and two 2 pos-sutural intra-alars; 2 supra-alars. Scutellum with one sub-basal, one lateral and one apical pair of bristles, all strong. Notopleuron with two long and similar bristles. Anepisternum with a row of about 10 bristles and many long cilia. Calypter inferior about 2.0-2.3. Fore femur with a complete posterodorsal, dorsal and anterodorsal row of setae. Fore tibia with one pre-apical dorsal and one posteroventral apical. Mid femur with an anterodorsal row of setae on basal half, longer at middle and an anteroventral complete row of short setae. Mid tibia with one posterior median seta, one submedian shorter, apical seta on posteroventral, anteroventral and ventral surfaces with apical seta, the last one longer. Hind femur with an anterodorsal and anteroventral row of setae and one dorsal preapical. Hind tibia with one median anteroventral seta, one short posteroventral and one pre-apical dorsal.

Abdomen. Tergites with no longer and distinct setae. Tergite 5 with fine setae on disk. Sternite 5 quadrangular with many setae on apical 3/4, 3 or 4 longer on lateral middle (Fig. 3).



Figures 1-8. *Graphomya amazonensis* sp. nov. (1-7) Male: (1) mesonotum, dorsal view; (2) abdomen, dorsal view; (3) sternite 5; (4) epandrium, cercal plate and surstilly, dorsal view; (5) Epandrium, cercal plate and surstilly, lateral view; (6) phallic complex, dorsal view; (7) phallic complex, lateral view; (8) female: ovipositor, lateral view and spermathecae.

Terminalia. Cercal plate short on middle with two fine lateral arms, with long setae, specially laterally (Fig. 4 and 5). Phallic complex as in figures 6 and 7.

Female: Length: body: 7.5-7.8 mm; wing: 7.4 mm.

Similar to male differing as follows: Dichoptic, interocular space about one third of head width, at level of anterior ocelli.

Ovipositor medium sized, with large tergites and sternites; sternite 7 with short spines, sternite 8 with setae (Fig. 8). Three elongated spermathecae (Fig. 8).

Discussion. The marks on mesothorax and abdomen easily distinguishes *G. amazonensis* from its congeners. Among the species occurring in Brazil, *G. analis* has the tergite 5 golden yellow, contrasting with the other tergites and *G. meridionalis* has the abdomen almost all yellow in colour. The marks at mesonotum are also different in the three species.

Material examined. Holotype male, BRAZIL, Amazonas: Manaus (BR 17, Km 38), 9.VIII.1969, E.V. Silva leg. Paratypes: same locality and collector as holotype: 4 females, BR 17, 10.VIII.1969; 3 females,

BR 17, 5.VIII.1969; 2 females, BR 17, Km. 38, 17.VIII.1969; 1 female, BR 17, Km. 38, 9.VIII.1969; 1 female, BR 17, Km. 38, 9.VIII.1969; 1 female, BR 17, Km. 38, 7.VIII.1969; 1 female, BR 17, 12.VIII.1969; Reserva Ducke, 1 female, 18.VI.1976, L. Albuquerque leg.

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