A new species of *Telmatoscopus* Eaton (Diptera, Psychodidae) from Brazil

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**Abstract:** A new Brazilian species of *Telmatoscopus* Eaton (Diptera, Psychodidae) is described and illustrated. A key to males of Neotropic species of *Telmatoscopus* is provided.

**Keywords:** Diptera, Psychodidae, Amazon, new species, Brazil.

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**Resumo:** Neste trabalho é descrita e ilustrada uma espécie nova de *Telmatoscopus* Eaton (Diptera, Psychodidae) do Brasil. É fornecida uma chave para os machos das espécies Neotropicais de *Telmatoscopus*.

**Palavras-chave:** Diptera, Psychodidae, Amazônia, espécie nova, Brasil.
Introduction

The genus *Telmatoscopus* Eaton has worldwide distribution and comprises, according to The Diptera Site (Thomson 2007), approximately 109 species. The genus *Telmatoscopus* is poorly represented in the Neotropical region, having only 6 described species (Duckhouse 1968, Wagner 1993, 2000, Quate 1996). Only one species is known from Brazil, *Telmatoscopus calcaratus* Duckhouse, from Nova Teutônia, Santa Catarina State, in southern Brazil (Duckhouse 1968), and only from female specimens. A new species of *Tematoscopus* from the Brazilian Amazon region is described here.

Material and Methods

The specimens studied were treated with 10% KOH, dehydrated and mounted in Canada balsam. Morphological terminology follows that of McAlpine (1981). The specific morphological terminology for Psychodidae follows that of Duckhouse (1990) and Bravo (2006, 2007). The specimens were deposited in the Coleção de Invertebrados do Instituto Nacional de Pesquisas da Amazônia (INPA) and Coleção Entomológica Prof. Johann Becker do Museu de Zoologia da Universidade Estadual de Feira de Santana, Feira de Santana, Bahia, Brazil (MZUEFS).

Results

1. *Telmatoscopus brevicolis* Bravo & Souza, sp. nov. (Figures 1-10)

1. Diagnosis

Hair patch of frons undivided, with a single row of scap extending to upper eye margin nearly to suture; Sc enlarged apically, R1 enlarged at base, CuA enlarged near center; hypandrium U-shaped; aedeagus symmetrical, subcircular; gonocoxal apodemes extended posteriorly, canal-like, longer than the length of aedeagus.

2. Description

Male: Eye bridge with 4 facet rows, separated by 1 facet diameter. Interocular suture present, complete, V-shaped (Figure 1). Hair patch of frons undivided, with single row of scarp extending to upper eye margin nearly to suture (Figure 1). Lacinia blade-like (Figure 2). Labela with apical bristles (Figure 2). Antenna: scape cylindrical 1.4x length of pedicel (Figure 3); pedicel spherical (Figure 3); 14 flagellomeres present; flagellomeres nodiform and asymmetrical (Figures 3, 4); 1st flagellomere with short internode (Figure 3); following internodes longer than first (Figures 3, 4); 14th with long apiculus (Figure 4); pair of ascoids curved (Figure 3); sensory organ of flagellomeres absent. 

Type Material:


New species of Psychodidae

Figures 7-10. Telmatoscopus brevicolis Bravo & Souza, sp. nov. Male terminalia. 7) Lateral. 8) Ventral. 9) Dorsal. 10) Aedeago. (ae = aedeagus; ae.ap. = aedeagal apodeme; ce = cercus; ep = epandrium; hyp = hypandrium; gx.ap. = gonocoxal apodeme; ma = membranous area; p.gx.bd. = posterior prolongation of gonogaxal bridge; S10 = sternite 10; T10 = tergite 10).

Figuras 7-10. Telmatoscopus brevicolis Bravo & Souza, sp. nov. Terminália masculina. 7) Vista lateral. 8) Vista ventral. 9) Vista dorsal. e 10) Aedeago. (ae = edegago; ae.ap. = apódega edegalo; ep = epândrio; ce = cerco; hyp = hipândrio; gx.ap. = apódega gonogaxal; ma = área membranosa; p.gx.bd. = prolóngamento posterior da ponte gonogaxal; S10 = esterno 10; T10 = tergito 10).

Alterada), 25.XI.1998, RF/RDN/FLS col., holotype male (INPA); 1 paratype male, same locality, date, and collectors as holotype (INPA); 7 paratype males, same locality and collectors, 27.XI.1998 (INPA, MZUEFS).

Etymology: “brevis” Latin, short; “colis”, Latin, penis; referring to the short aedeagus in comparison to the posterior expansion of the gonogaxal bridge.

Comments

The genus Telmatoscopus was defined by Quate (1996). All of the characters mentioned by Quate (1996) to distinguish Telmatoscopus are recognized in the new species Telmatoscopus brevicolis.

The Brazilian species Telmatoscopus calcaratus, known only from females, differs from other Neotropical species of the genus in demonstrating a fusion of the 13th and 14th flagellomeres (Duckhouse 1968), a characteristic not observed in other Telmatoscopus species from this biogeographical region. It is important to note that the enlargement of some veins, as observed in the new species T. brevicolis, was also observed in the three Costa Rican species: T. clavatus Quate, T. congruus Quate, and T. mergacolis Quate (see descriptions in Quate 1996). The difference between these species resides in the enlargement of veins Sc, R1, and CuA in the new species (in some specimens, R, also demonstrates enlargement), while only the Sc and CuA veins are enlarged in Costa Rican species.

Duckhouse (1968) recorded another species of Telmatoscopus from Brazil (Nova Teutônia, Santa Catarina State): T. furcatus (Kincaid). This species was first described from the United States, and Duckhouse (1968) presumes that T. furcatus was introduced into Brazil. The generic status of this species is controversial. The Diptera Site (Thompson 2007) recorded this species as T. furcatus. Quate (1996) transferred T. furcatus to the genus Duckhousiella Vaillant, because of its similarity to D. ustulatus (Walker), and he presented a new record of this species from Costa Rica.

Duckhouse (1978) synonymized Duckhousiella with Paramormia Enderlein. This synonymy was accepted by The Diptera Site (Thompson 2007) and by the Fauna Europaea Web Service (2004). Ježek (2004a, b), on the other hand, recognizes Duckhousiella as one of the three subgenera of the genus Paramormia. The Brazilian species is recorded as Paramormia furcata in the ZooBank (2007). Ježek (2004a, b) accepted the presence of one species of Paramormia from the Nearctic and Neotropical regions. The ascoids of males of P. furcata are typical of the genus Paramormia and, as Quate (1996) noted, the male terminalia of P. furcata is similar to male terminalia of P. ustulata (Walker), a Palaeartecic species. Until new taxonomic studies can be undertaken, the name P. furcata is accepted in this paper.

Key to males of Neotropical Telmatoscopus

1. Cercus with 4-5 tenacula .................................................. 2  
   - Cercus with more than 5 tenacula ........................................ 5

2. Sc enlarged apically and CuA enlarged near center ............ 3
   - Sc and CuA not enlarged, uniformly wide .................. T. caribicus Wagner (Saint Vincent, Caribbean)
   - Cercus with more than 5 tenacula .................................................. 2

3. Gonogaxal apodemes extended posteriorly to midline with cluster of 4 non-deciduous spines on metabasal angle and additional 2 further distad ...................... T. clavatus (Costa Rica)
   - Gonogaxal apodemes without posterior extension or, if extended posteriorly, never with spines ........................................ 4

4. R1 enlarged at base; eye bridge separated by 1 facet diameter .......... T. brevicolis sp. nov. (Brazil, Amazonian)
   - R1 not enlarged; eye bridge separated by 2 facet diameters .... T. mergacolis (Costa Rica)

5. Cercus with 15 tenacula; eye bridge separated by 1.5 facet diameters, aedeagal apodeme narrow in dorsal view .......... T. congruus Costa Rica
   - Cercus with 7-9 tenacula; eye bridge separated by 3.5 facet diameters, aedeagal apodeme wide in dorsal view .................. T. thompsoni Wagner Dominican Republic

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