

First record of *Empicoris barberi* (McAtee & Malloch, 1923) (Hemiptera, Reduviidae, Emesinae) from Brazil

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Abstract: *Empicoris barberi* (McAtee & Malloch, 1923) (Hemiptera-Heteroptera, Reduviidae, Emesinae) is recorded for the first time from Brazil.

Key words: Hemiptera, Reduviidae, Emesinae, *Empicoris barberi*, first record, Brazil.

Primer registro de *Empicoris barberi* (McAtee & Malloch, 1923) (Hemiptera, Reduviidae, Emesinae) para Brasil

Resumen: Se presenta el primer registro de *Empicoris barberi* (McAtee & Malloch, 1923) (Hemiptera-Heteroptera, Reduviidae, Emesinae) para Brasil.

Palabras clave: Hemiptera, Reduviidae, Emesinae, *Empicoris barberi*, primer registro, Brasil.

Introduction

The subfamily Emesinae was monographed by Wygodzinsky (1966), who recognized six tribes, comprising approximately 86 genera, among which are some of the smallest, extremely delicate reduviids of only a few millimeters in length, such as members of the genus *Empicoris* Wolff, 1811 (Schuh & Slater, 1995).

Empicoris, which is included in the tribe Ploiariolini, has about 80 extant species with worldwide distribution (Wygodzinsky, 1966; Maldonado Capriles, 1990; Putshkov *et al.*, 1999; Ishikawa *et al.*, 2012). In the Americas, however, there are only 16 recognized species of *Empicoris*, among which 12 have been recorded from the Neotropical region (Wygodzinsky, 1966; Grillo & Alayo, 1979; Maldonado Capriles & Brailovsky, 1983; Maldonado Capriles, 1990; Gil-Santana *et al.*, 2005; Melo & Faúndez, 2011). The relatively low number of *Empicoris* species described from the Neotropics may suggest that the group is poorly diversified there, or more likely, has been poorly studied, taking in account the great variety of habitats and diversity shown by other reduviid groups in this region (Gil-Santana *et al.*, 2005).

Ploiariodes barberi McAtee & Malloch was described based on a male collected in Puerto Rico (McAtee & Malloch *in* Barber, 1923: 7-8). The holotype is deposited at the American Museum of Natural History (AMNH), New York, USA (http://research.amnh.org/iz/types_db/details.php?specimen_id=5702). McAtee & Malloch (1925) transferred this species to the genus *Empicoris*, in which it has remained so far (Wygodzinsky, 1966; Froeschner, 1988; Maldonado Capriles, 1990).

Although *E. barberi* has been regarded as endemic to Puerto Rico (Maldonado Capriles, 1986), it has also been recorded in USA (Florida) (Blatchley, 1926; Froeschner, 1988), Cuba, Peru (Wygodzinsky, 1966), Curaçao (Cobben & Wygodzinsky, 1979; Maldonado Capriles, 1990) and Colombia (Forero, 2006).

In Brazil, other than the cosmopolitan *E. rubromaculatus* (Blackburn, 1889), only three other species of *Empicoris* have been recorded in Brazil so far: *E. errabundus* (Say, 1832), *E. mirabundus* Wygodzinsky, 1966, and *E. priscus* Grillo & Alayo, 1979 (Wygodzinsky, 1966; Maldonado Capriles, 1990; Gil-Santana *et al.*, 2005).

The new record of *Empicoris barberi* for Brazil is presented here.

Material and methods

Three male specimens of *Empicoris* sp. were collected at night, by means of attraction to artificial light in two different forested areas belonging to two different municipalities in the state of Rio de Janeiro, southeastern Brazil. The specimens were identified as *E. barberi*, following the keys and descriptions furnished by McAtee & Malloch (1923, 1925), Blatchley (1926) and Wygodzinsky (1966).

EXAMINED MATERIAL: *Empicoris barberi* (McAtee & Malloch). Brazil.

Rio de Janeiro, Cachoeiras de Macacu (22° 27' S - 42° 46' W), VIII.1997, at light, 1 male; Cabo Frio (22° 40' S - 42° 00' W), XI.1997, at light, 2 males.

Results and discussion

The specimens of *Empicoris* examined here are entirely concordant with the diagnosis and descriptions of *E. barberi* (McAtee & Malloch, 1923, 1925; Blatchley, 1926), as well as with the distinctive features of this species pointed out by Wygodzinsky (1966) and Maldonado Capriles (1986) (fig. 1-3).

The description of *E. barberi* by McAtee & Malloch (*in* Barber, 1923) was repeated by McAtee & Malloch (1925). These authors considered it to be one of the most distinct species known to them, highlighting that it was the only species in which the submedian dorsal pronotal carinae is sharp, similar to the lateral carinae, while only one other species, *E. parshleyi* (Bergroth, 1922), has dark areas on the forewings, with minute hyaline dots too. In addition to a short redescription of *E. barberi*, Blatchley (1926) considered that this species could be easily distinguished by the peculiar white lines on the head (which run from the base of each antenna and connect with another line that runs diagonally from the lower hind margin of the eye to the upper occiput); the whitish sharp dorsal pronotal carinae, similar to lateral carinae; and the hyaline dots on forewings. Wygodzinsky (1966) described a second species of *Empicoris* that also presented a pair of linear submedian sharp whitish carinae on the posterior lobe of the pronotum, similar in structure to lateral carinae: *E. mirabundus*. The latter species and *E. barberi* lack spines on the mesonotum and metanotum, while the spine of the first abdominal tergite is well developed in both of them. However, *E. mirabundus* has conspicuous features that are not presented by *E. barberi*, such as fore femora with several large spines, hind lobe of the pronotum with a mid-posterior tubercle, and forewing mainly dark with a few white intersecting lines, without spots (Wygodzinsky, 1966). Maldonado Capriles (1986) argued that the minute circular hyaline spots on the forewing would be likely to identify *E. barberi*.

Based on the diagnostic criteria emphasized by these authors, the following set of characters present in the specimens studied allow accurate identification of them as *E. barberi*: **1:** a pair of linear submedian sharp whitish carinae on the posterior lobe of the pronotum, similar in structure to lateral carinae (fig. 2); **2:** dark areas on the forewings with minute hyaline dots (fig. 3); **3:** lack of spines on the mesonotum and metanotum, with a well-developed spine on the first abdominal tergite; **4:** white lines on the head, which run from the base of each antenna and connect with another line that runs diagonally from the lower hind margin of the eye to the upper occiput (fig. 2); **5:** pronotum without median tubercle on the posterior margin (fig. 2); **6:** fore femur only with very short spines.

With this new record, *E. barberi* is the fifth species of *Empicoris* registered in Brazil.

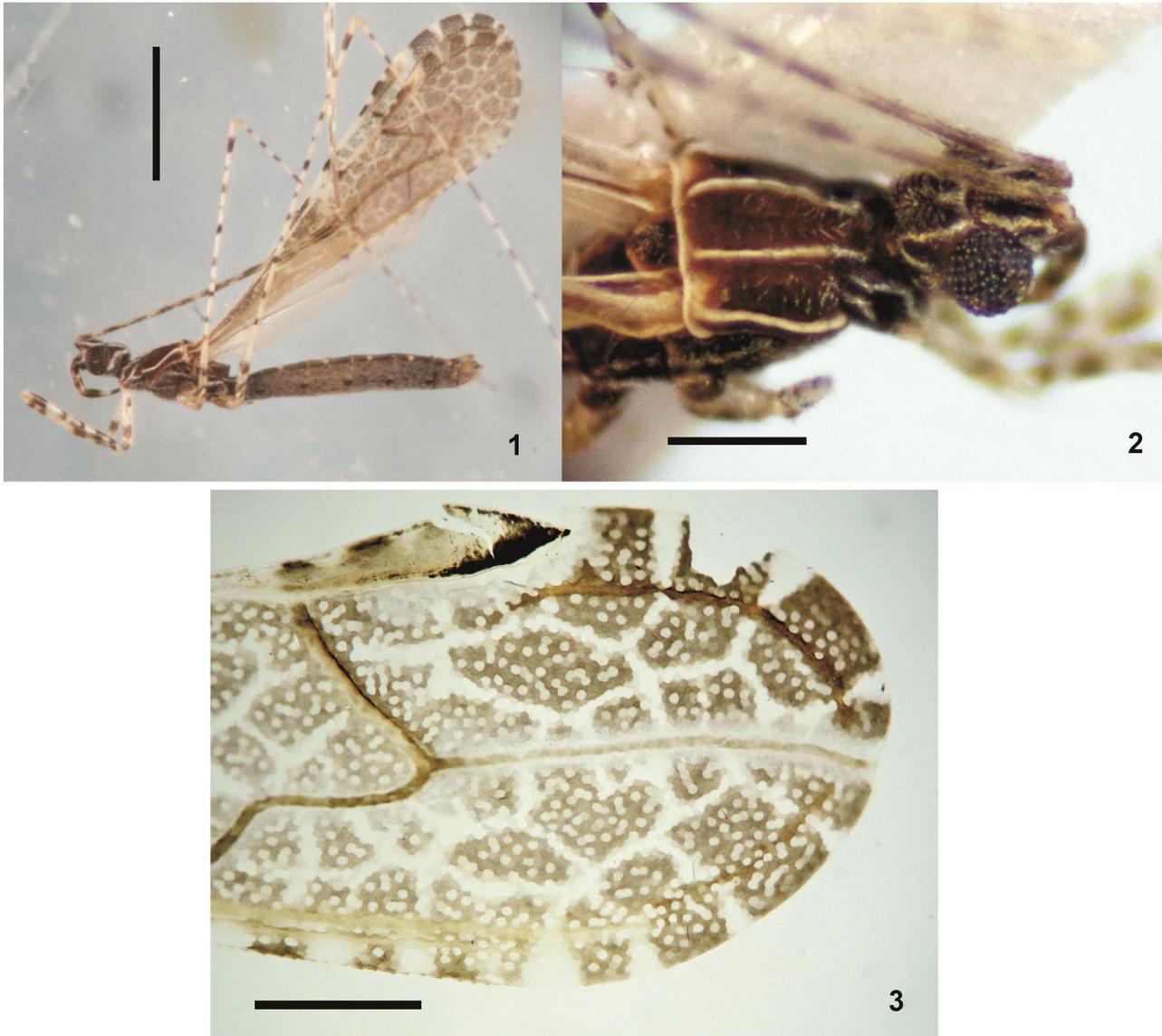


Fig. 1-2-3. *Empicoris barberi*. **1.** Lateral view. Scale bar 1.0 mm. **2.** Head and pronotum, latero dorsal view. Scale bar 0.3 mm. **3.** *Empicoris barberi*, apex of forewing. Scale bar 0.3 mm.

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