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***Pothea berengeri* sp. nov. from Brazil, with taxonomic notes on *Pothea furtadoi* Gil-Santana & Costa and *Pothea jaguaris* (Carpintero) and reinstatement of *Parapothea* Carpintero as junior synonym of *Pothea* Amyot & Serville (Hemiptera: Heteroptera: Reduviidae: Ectrichodiinae)**

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Abstract

Pothea berengeri sp. nov. from Brazil is described based on male and female specimens. Based on intraspecific variation of *Parapothea jaguaris* and morphological similarities with the species of *Pothea* studied, the monotypic genus *Parapothea* Carpintero is reinstated as a junior synonym of *Pothea* Amyot & Serville with the subsequent combination *Pothea jaguaris* (Carpintero). Intraspecific morphological and color variations of *Pothea jaguaris* (Carpintero) and *Pothea furtadoi* Gil-Santana & Costa are documented and discussed. Male genitalia of all three species are described and illustrated. *Pothea jaguaris* is recorded from French Guiana for the first time and comments on its sexual dimorphism are provided.

Key words: Ectrichodiinae, Neotropical Region, new species, color variation

Introduction

In the Americas, 23 genera and more than one hundred species of Ectrichodiinae have been described (Maldonado 1990, Carpintero & Maldonado 1996, Bérenger & Gil-Santana 2005, Gil-Santana & Baena 2009, Gil-Santana *et al.* 2013a).

In the revision of the New World Ectrichodiinae, Dougherty (1995) recognized 19 valid genera, some of which were discordant to the 17 accepted by Carpintero & Maldonado (1996). Among these, *Parapothea* Carpintero, 1980 and *Jorgcoris* Carpintero, 1980 were considered as synonyms of *Pothea* Amyot & Serville, 1843 by Dougherty (1995). Dougherty argued “these taxa represent unique variations from what is already seen in the diverse *Pothea* the difference does not appear great enough to warrant generic status.” Carpintero & Maldonado (1996) either did not recognize or overlooked this synonymy (Forero 2006), and since then, the genus has been recognized as valid by Forero (2004, 2006). Carpintero (1980) also created a new subgenus, *Pothea* (*Brachypothea*) Carpintero, 1980 with *P. hepperi* Carpintero, 1978 as the type species and described two more species in this subgenus, *P. yungaensis* Carpintero, 1980 and *P. carvalhoi* Carpintero, 1980. By consequence, in his catalogue, Maldonado (1990) considered only these three species as included in *P. (Brachypothea)* and more than 25 other species as belonging to *Pothea (Pothea)* Amyot & Serville, 1843. In addition to arguing that *P. aeneonitens* Stål, 1864 “may fit” in *P. (Brachypothea)*, Carpintero & Maldonado (1990) included five more species in *P. (Brachypothea)* in their species key to this subgenus. Carpintero & Maldonado (1996) included 21 species in *P. (Pothea)* and nine species in *P. (Brachypothea)*. Dougherty (1995) made no mention of the subgenera of *Pothea*, while Forero (2004, 2006) considered them as valid.

Recently, Gil-Santana *et al.* (2013a) included all genera considered valid by Carpintero & Maldonado (1996) and those described by Dougherty (1995) and Bérenger & Gil-Santana (2005) in their key to New World genera of Ectrichodiinae. The genera can be recognized from this compilation.

In *Pothea*, the longitudinal sulcus on the anterior lobe of the pronotum has been considered obsolete, reduced to a medial or discal fovea by Carpintero (1978) and Carpintero & Maldonado (1996). However, in a footnote

(Carpintero 1980, Maldonado & Carpintero 1996, Forero 2006, Gil-Santana *et al.* 2013a) from other New World Ectrichodiinae genera, particularly from *Pothea*, the validity of *Parapothea* is challenged. It is noteworthy to highlight that, before the description of *Parapothea jaguaris* (Carpintero 1980) in a revision of *Pothea*, the same author (Carpintero 1978) recognized that the longitudinal sulcus on the anterior lobe of the pronotum could be exceptionally profound in its proximal portion in *Pothea* spp. This was similar to what was observed later in *P. jaguaris* as well.

The other features that were considered as diagnostic of *Parapothea*, very strong legs (Carpintero 1980), and 17 mm [of length] (Carpintero & Maldonado 1996), have been shown to be variable among *P. jaguaris* specimens and, more importantly, are included in the range of variation of the other two species of *Pothea* examined. In fact, the femora of *P. jaguaris*, particularly the fore and mid pairs, were thick, but were inconsistently less thick in some specimens. In these latter the femora thickness was similar to that observed in *P. furtadoi* or even in the female paratype of *P. berengeri* **sp. nov.** with the reddish coloration. Also, the range of length in *P. jaguaris* specimens examined here varied between 16.2–18.5 mm (females, Tab. 1) and 14.6–18.5 mm (males, Tab. 4), while in *P. furtadoi*, the length varied between 17.1–21.0 mm (only males), and in *P. berengeri* **sp. nov.**, between 17.3 mm (male holotype) and 17.0–17.5 mm (females paratypes). Indeed, Carpintero & Maldonado (1996) themselves recorded in the diagnosis of *Pothea*: “species slender or robust, from 8 to 22 mm..., profemora slightly or very incrassate...” Coloration of *P. jaguaris*, even if considered distinct (Carpintero 1980), can only be regarded as of specific value. As the present work has shown, *Pothea jaguaris* has many similarities in structure, vestiture, and other morphological features, including male genitalia structures with other *Pothea* spp. Although Forero (2004) had considered the possibility of the tubercle on the gula (Figs. 53, 57), observed by him in an undescribed species, could be an autapomorphy of *Parapothea*, the value of this feature alone as such would need to be confirmed in future more extensive works. This is even more important given it has been shown here to be variable or absent in *P. jaguaris*, as is the other feature already considered as diagnostic of *Parapothea* (two protuberant paramedial lobes on the fore lobe of the pronotum). All these arguments reinforce the placement of *P. jaguaris* in *Pothea*.

Also, many morphological similarities among all three species studied here were observed, including structure, vestiture, and patterns of color variation and male genital structures, suggesting they are possibly taxonomically close and their inclusion in the same genus seems to be established at this moment. On the other hand, more extensive taxonomical studies, including cladistic analyses should be carried out to assess the taxonomic validity and systematic position of the New World taxa of Ectrichodiinae.

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