



Neotropical *Hemerodromia* Meigen (Diptera: Empididae), a world of discovery I: new generic record and new species from Brazilian Amazon Basin

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Abstract

Ten new species of *Hemerodromia* Meigen, 1822 are described and illustrated from the Brazilian state of Amazonas: *H. amazonensis* sp. nov., *H. breviradia* sp. nov., *H. cercusdilatata* sp. nov., *H. collini* sp. nov., *H. epandriocurvialis* sp. nov., *H. jauensis* sp. nov., *H. lamellata* sp. nov., *H. longilamellata* sp. nov., *H. maturaca* sp. nov., *H. smithi* sp. nov. This is the first record of the genus from the Brazilian Amazon Basin.

Key words: Empidoidea, Hemerodromiinae, Hemerodromiini, Neotropical, taxonomy

Introduction

Hemerodromia Meigen, 1822 is the largest genus within Hemerodromiinae, comprising 140 described species with worldwide distribution. Despite the great diversity and wide distribution, very little has been published about the taxonomy of the genus in the Neotropical Region with only 10 species being described over the last 100 years (Yang *et al.* 2007).

Hemerodromia is readily distinguished from other members of the tribe Hemerodromiini *sensu* Sinclair & Cumming (2006) as modified by Plant (2007) by the wing with both R₄₊₅ and M₁₊₂ forked, cells bm+dm fused, cell cup absent; vein Sc fused with C basally, becoming more or less separated about level with radiocubital node; h crossvein absent; head strongly dorsoventrally flattened, eyes with anterior ommatidia enlarged (especially in males); postpedicel shortly lanceolate, stylus no longer than postpedicel and with basal article present but weakly differentiated; thorax with only notopleural and sometimes scutellar setae well developed, acrostichal and dorsocentral setulae usually present but minute; fore femur with two or occasionally one row of minute black denticles and with adjacent posteroventral and anteroventral rows of more normal setae variably developed.

In Brazil, only one species had been recorded: *H. mesomelaena* Bezzi, 1909 from the southern state of Paraná (Yang *et al.* 2007). Herein, we extend the geographic distribution of the genus to northern Brazil by describing ten new species from the state of Amazonas. This is the first paper of a series of descriptions of Neotropical species of *Hemerodromia*.

Material and methods

This study is based on the examination of specimens housed in the Invertebrate Collection of the Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, Amazonas, Brazil. Types are deposited mainly in Brazilian institutions: INPA; Museu Nacional do Rio de Janeiro (MNRJ), Rio de Janeiro, Brazil; Museu Paraense Emílio Goeldi (MPEG), Belém, Pará, Brazil; and Museu de Zoologia da Universidade de São Paulo (MZUSP), São Paulo, Brazil. Species with long series of representatives will be distributed in the National Museum of Wales, Cardiff,

Variation. Body length varying from 1.6 mm to 2.6 mm and wing length varying from 1.5 to 2.1 mm.

Remarks. *Hemerodromia smithi* **sp. nov.** differs from another species by tergite 1, anterior margin of tergite 2, tergites 6–7 yellow and shape of the cercus.

Discussion

Most species of *Hemerodromia* of the Amazon Basin are similar to ‘typical’ forms of the genus, but some species present regional modifications. *Hemerodromia breviradia* **sp. nov.** has a modified wing vein (R_{2+3} very short), *H. lamellata* **sp. nov.** and *H. longilamellata* **sp. nov.** have long gonocoxal and ejaculatory apodemes, and the male cercus is greatly enlarged in *H. cercusdilatata* **sp. nov.** The phylogenetic significance of these characters remains unclear but they are being further investigated. The Amazon Basin is the largest drainage system in the world and undoubtedly has a very diverse *Hemerodromia* fauna, so we consider that the actual number of species that will eventually be found in the region will be much higher than that reported to date.

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