

## The taxonomy of Neotropical Brunettiina (Diptera, Psychodidae, Psychodinae, Mormiini), with descriptions of ten new species from Brazil and comments on the generic classification of the subtribe

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### Abstract

Ten new species of Brazilian Brunettiina are described. A cladistic analysis was used to test the two generic classifications of Brunettiina in the literature, providing a more objective classification of nine of the ten new species with 14 flagellomeres. The genus *Mormia* Enderlein was chosen to polarize the characters and root the cladogram. Seventeen characters were used for the analysis. The two classificatory proposals are coherent with the topology of the cladogram obtained in this study; however, the classification that recognizes three genera in the subtribe was accepted because it corresponds to the three major groups observed in the cladogram: *Brunettia* Annandale, with four subgenera; *Atrichobrunettia* Satchell, with five subgenera; and *Gerobrunettia* Quate & Quate. A new subgenus was proposed for the nine new species of Brunettiina with 14 flagellomeres. This new subgenus is classified with the subgenera *Atrichobrunettia*, *Mirousiella* Vaillant, *Plesiobrunettia* Duckhouse, and *Horobrunettia* Duckhouse in the genus *Atrichobrunettia*. The taxonomy of the subtribe Brunettiina in the Neotropical Region is re-examined. Keys are provided for the genera and subgenera of Brunettiina and for the Neotropical species of *Brunettia* and *Atrichobrunettia*.

**Key words:** Diptera, Psychodidae, Psychodinae, Brunettiina, new species, Brazil, cladistic analysis

### Introduction

The subtribe Brunettiina of the tribe Mormiini was defined by Ježek & Goutner (1995) and includes three genera: *Gerobrunettia* Quate & Quate, *Atrichobrunettia* Satchell, and *Brunettia* Annandale. The taxonomy of Brunettiina is intimately related to the taxonomy of the genus *Brunettia*, the oldest genus of the subtribe. *Gerobrunettia* is considered an independent genus of *Brunettia*, whereas *Atrichobrunettia* is considered by some authors an independent genus of *Brunettia* or, by others, a subgenus of *Brunettia* (Duckhouse