The species of *Eulaema (Eulaema)* Lepeletier, 1841 (Hymenoptera: Apidae: Euglossina) from eastern Brazil, with description of *Eulaema quadragintanovem* sp. n. from the state of Ceará

ANDRÉ NEMÉSIO1 & RAFAEL R. FERRARI2

1 Instituto de Biologia, Universidade Federal de Uberlândia. Rua Ceará, S/N, Campus Umuarama, Uberlândia, MG. 38.400-902. Brazil. E-mail: andre.nemesio@gmail.com

2 Departamento de Zoologia, Instituto de Ciências Biológicas, Universidade Federal de Minas Gerais, CP 486, Belo Horizonte, MG. 30161-970. Brazil

**Abstract**

*Eulaema (Eulaema) quadragintanovem* sp. n., a species similar to *Eulaema (E.) seabrai* Moure, 1960 and *Eulaema (E.) helvola* Moure, 2003, is described from ‘Serra do Baturité’ and ‘Parque Nacional de Ubajara’, state of Ceará, northeastern Brazil. This species seems to be restricted to ‘brejos de altitude’—Atlantic Forest physiognomies at the top of mountains in northeastern Brazil—in the state of Ceará. Since these forested areas are rapidly disappearing, it is possible that in the near future no suitable habitat will be left for this species. The recent record of *Eulaema bombiformis* (Packard, 1869) in Ceará is also discussed. Six species of *Eulaema (Eulaema)* are now known to occur in eastern Brazil and an updated identification key for them is provided.

**Key words:** Atlantic Forest, ‘Brejo de altitude’, conservation, new species, orchid bee, taxonomy

**Introduction**

The species of *Eulaema* Lepeletier, 1841 are among the largest orchid bees (Hymenoptera: Apidae: Apini: Euglossina), an exclusively Neotropical group of bees well known for the association between their males and orchids (reviewed by Dressler, 1982). Contrary to most other genera of orchid bees, for which taxonomy and phylogeny remain in flux (e.g. Kimsey 1982, 1987; Michener 1990; Engel 1999; Cameron 2004; Oliveira 2006b; Nemésio, 2009b; Ramírez et al. 2010; Nemésio & Ferrari 2011a, b), the identity of the species of *Eulaema* as well as their relationships are almost consensual (e.g. Moure 2003; Michel-Salzat et al. 2004; Oliveira 2006b; Ramírez et al. 2010), with only a few disagreements on the status of some species by Moure (2003) and Oliveira (2008) and by Nemésio (2005, 2009a) and Oliveira (2008) [see Nemésio (2009a: 239–242) for a review of these disagreements]. The subdivision of *Eulaema* into two monophyletic subgenera, *Eulaema s. str.* and *Apeulaema* Moure, 1950, is also currently a matter of agreement among researchers (e.g. Moure 2003; Oliveira 2006; Ramírez et al. 2010).