



## *Exaerete salsai* sp. n. (Hymenoptera: Apidae): a new orchid bee from eastern Brazil

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### Abstract

*Exaerete salsai* sp. n. (Hymenoptera: Apidae: Apini: Euglossina) is described from southern Bahia and northeastern Minas Gerais, eastern Brazil. Its relationships with the other members of the genus are discussed, and it is considered to be a close ally of the Amazonian *Exaerete trochanterica* (Friese, 1900) and the Central American *Exaerete kimseyae* Oliveira, 2011.

**Key words:** cleptoparasite, euglossine, new species, taxonomy

### Introduction

The genus *Exaerete* Hoffmannsegg, 1817 (Hymenoptera: Apidae: Apini: Euglossina) comprises seven cleptoparasitic species on nests of other orchid bees in the genera *Eulaema* Lepelletier, 1841 and *Eufriesea* Cockerell, 1908 (Moure 1964; Kimsey 1979; Engel 1999; Oliveira & Nemésio 2003; Nemésio & Silveira 2006a; Anjos-Silva *et al.* 2007; Nemésio 2009). Moure (1964) has long recognized two tentative monophyletic groups in *Exaerete*: the first including *E. frontalis* (Guérin-Méneville, 1844) and *E. smaragdina* (Guérin-Méneville, 1844) and the second including *E. dentata* (Linnaeus, 1758) and *E. azteca* Moure, 1964 (see Kimsey 1979 for a review). Kimsey (1979) agreed with this arrangement and considered *E. trochanterica* (Friese, 1900) to present characters of both species groups being, thus, an intermediate between them, but considering it most closely related to the *E. frontalis* group—Moure (1964) had not examined the latter species.

This basic arrangement was supported by Engel's (1999) phylogenetic study, but *E. trochanterica* was then placed in the *E. dentata* group. Recent recognition of two additional species—*E. lepeletieri* Oliveira & Nemésio, 2003 and *E. guaykuru* Anjos-Silva & Rebêlo, 2006—led to more phylogenetic studies within *Exaerete* and the most recent ones, based both on morphological (Anjos-Silva *et al.* 2007) and molecular (Ramírez *et al.* 2010) data, did not change this relationship, only adding *E. lepeletieri* to the *E. frontalis* group and *E. guaykuru* to the *E. dentata* group—albeit Anjos-Silva and colleagues' (2007) further split *E. dentata* group into two subgroups: one containing *E. dentata* itself and *E. azteca*, and the remaining one containing *E. trochanterica* and *E. guaykuru*.

Recently, however, Oliveira (2011) shed some light on some mistakes made by Kimsey (1979), who had mistaken the male of an undescribed species from Central America for the male of *E. trochanterica*. This confusion led all subsequent taxonomists to consider the male characters pointed out by Kimsey (1979) for *E. trochanterica* as the actual morphological characters of this species. As these characters differ from the specimens collected in the Amazon Basin, Anjos-Silva & Rebêlo (2006) – who had not examined the holotype of *E. trochanterica* (a female) and the male from Central America upon which Kimsey (1979) based her drawings (they reproduced the same drawings from Kimsey's work, though not acknowledging it)—described again *E. trochanterica* as *Exaerete guaykuru*. Oliveira (2011) realized Kimsey's (1979) mistake, described the Central American species as *Exaerete kimseyae* Oliveira, 2011 and correctly considered *Exaerete guaykuru* as a junior synonym of *E. trochanterica*, as already previously suggested by Nemésio (2009: 242, footnote 97). Oliveira's (2011) position is followed here. Thus, male characters pointed out by Kimsey (1979) for *E. trochanterica*, in fact, refers to *E. kimseyae* and male characters described by Anjos-Silva & Rebêlo (2006) for *E. guaykuru* refers to *E. trochanterica*.