



Species of *Euglossa* Latreille, 1802 (Hymenoptera: Apidae: Euglossina) belonging to the *purpurea* species group occurring in eastern Brazil, with description of *Euglossa monnei* sp. n.

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Abstract

Species of *Euglossa* Latreille, 1802 belonging to the *Euglossa purpurea* Friese, 1899 species group occurring in the Atlantic Forest of eastern Brazil are here revised, illustrated and provided with key for their identification. Seven species of the *E. purpurea* group were found to occur in eastern Brazil, one of them considered as a new species, *Euglossa monnei* sp. n. *Euglossa avicula* is recorded for the first time outside the state of Espírito Santo in the Atlantic Forest and new regional records are presented for other four species. Records of *E. avicula* outside the Atlantic Forest are dismissed and the identity of some species is discussed.

Key words: euglossine bees, new species, orchid bees, taxonomy

Introduction

Euglossa Latreille, 1802 is the most speciose genus of orchid bees (Hymenoptera: Apidae: Euglossina) (Nemésio & Rasmussen 2011) and its species are often the most abundant in orchid-bee inventories carried out in the Neotropics. The genus is often divided into six subgenera (see Moure *et al.* 2007, Ramírez *et al.* 2010, Nemésio & Rasmussen 2011) and some of the subgenera are further subdivided into “species groups”, first proposed by Dressler (1978). *Euglossa* (*Euglossa*) is the most diverse subgenus of *Euglossa* and at least five species groups are recognized within it (Dressler 1978), all of them apparently being monophyletic (Ramírez *et al.* 2010). Among these, the *cordata* species group (*Euglossa cordata* Linnaeus, 1758) and the *purpurea* species group (*Euglossa purpurea* Friese, 1899) are the most species-rich, with more than 20 species each. The *cordata* species group, maybe the most problematic of them due to the close morphological similarity of their species, was recently revised by Bembé (2007). The other species groups within *Euglossa* (*Euglossa*) were only briefly revised by Dressler (1982a, b).

Nemésio & Silveira (2007b) have shown that, among the three largest forest biomes of the Neotropics, the Atlantic Rain Forest of eastern Brazil houses the least rich orchid-bee fauna, also with the smallest number of endemic species. Nemésio (2009) supported this point of view, but since this latter study some new species have been described from the Atlantic Forest (*e.g.* Nemésio 2010a, 2011b, c, d, Faria & Melo 2011). Interestingly, however, the *purpurea* species group is poorly represented in the Atlantic Forest, whereas the *cordata* group is represented by *ca.* ten species (Nemésio 2009), some of them very abundant [*e.g.* *Euglossa melanotricha* Moure (in Sakagami *et al.* 1967), *E. fimbriata* Moure, 1968, *E. securigera* Dressler, 1982b, *E. carolina* Nemésio, 2009].

Five species of the *purpurea* group were recognized by Nemésio (2009) in the Atlantic Forest: (i) *Euglossa avicula* Dressler, 1982b, a rare species, restricted to the northern portion of the state of Espírito Santo (Nemésio 2009); (ii) *Euglossa pleosticta* Dressler, 1982b, a species widely distributed throughout the biome and very common in some localities (*e.g.* Rebêlo & Garófalo 1997); (iii) *Euglossa truncata* Rebêlo & Moure, 1996, a species widely distributed in the inner and drier portions of the biome, very common in some localities (*e.g.* Nemésio & Silveira 2007a, 2010, Nemésio 2008); (iv) *Euglossa anodorhynchi* Nemésio, 2006, the only entirely blue-colored species of *E. purpurea* group, which is restricted to southern Brazil and is not very abundant; and (v) *Euglossa*