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A new species of the stingless bee *Trichotrigona* (Hymenoptera: Apidae, Meliponini)

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Abstract

Trichotrigona camargoiana **sp. nov.** from Candeias do Jamari, Rondônia, Brazil is described and illustrated, along with nesting and behavior, as the second species of the rare and unusual genus *Trichotrigona* Camargo & Moure, 1983. The new species differs from *T. extranea* Camargo & Moure, 1983 by having plumose setae on the face and mesepisterna, wing setae predominantly yellow and black metatibia. The diagnosis for *Trichotrigona* is updated. As believed for *T. extranea*, *T. camargoiana* **sp. nov.** apparently does not store food and is a cleptobiotic social bee associated with *Frieseomelitta*.

Key words: cleptobiosis, male, nest, pollen, resin, Apoidea, taxonomy

Resumo

Trichotrigona camargoiana **sp. nov.**, de Candeias do Jamari, Rondônia, Brasil é descrita e ilustrada, incluindo nidificação e comportamento, sendo a segunda espécie do gênero raro e incomum *Trichotrigona* Camargo & Moure, 1983. A nova espécie difere de *T. extranea* Camargo & Moure, 1983 por apresentar pêlos plumosos na face e mesepisternos, pêlos das asas predominantemente amarelos e tibia posterior preta. A diagnose de *Trichotrigona* é atualizada. Como suposto para *T. extranea*, *T. camargoiana* **sp. nov.** aparentemente não estoca alimento e trata-se de uma abelha social cleptobiótica, associada com *Frieseomelitta*.

Palavras-chave: cleptobiose, macho, ninho, pólen, resina, Apoidea, taxonomia

Introduction

Discovery of this enigmatic stingless bee genus occurred in 1980, when J.M.F. Camargo and M. Mazucato found what appeared to be fragments of a nest, or perhaps an incipient nest, inside a small dried tree trunk shared with another stingless bee, *Frieseomelitta paranigra* (Schwarz, 1940). The material was composed of a few workers, cells and cocoons, besides a young physogastric queen (forewings unworn, without damage; Camargo & Moure 1983; Camargo & Pedro 2007a). The new genus and species were named *Trichotrigona extranea* Camargo & Moure, 1983. On that occasion it was supposed (Roubik 1989; Michener 1990, 2000) that *T. extranea* could be a social parasite as the workers had a reduced penicillum and slender, tapering setae, instead of the stiff rastellar bristles on the metatibia (tibia III), and few plumose setae. Furthermore, the nest was attached to a nest of *F. paranigra* in the same tree cavity.

In terms of morphology, other peculiarities of the genus, compared to other stingless bees, are the hairy compound eye, the spatulate setae on the external surface of worker protibia, the shape of the metasoma, which is wide at its base, acuminate at the apex and with sides slightly curved, and body and wings covered with abundant long, simple, bristle-like setae, with few plumose setae (Camargo & Pedro 2007a).

Three further nests of *T. extranea* were found 19 years later in hollows of dead, dried branches of "Tanimbuca", *Buchenavia suaveolens* Eichler (Combretaceae), in periodically flooded forests ("igapó" forest), near the mouth of