

Scientific Note

New record of *Parsteres pilosus* Gadelha, Nunes & Oliveira, 2016, a rare species from a monotypic doryctine genus (Hymenoptera: Braconidae)

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Abstract. Despite the huge diversity of Doryctinae, with about 3,000 species estimated, the subfamily also has about 30% of its approximately 205 genera as monotypic. Most of these monotypic genera are known from a few specimens used to describe its species and then remain without further records. Here we were able to enlarge the distribution knowledge of a monotypic genera making the first record of *Parsteres pilosus* Gadelha, Nunes & Oliveira, 2016, to the Atlantic Forest biome at Salvador, Bahia, Brazil.

Keywords: Ichneumonoidea, Doryctinae, Atlantic Forest, Amazon Forest, Cerrado.

The subfamily Doryctinae is mainly composed by idiobiont parasitoids of wood-boring beetle larvae (Marsh 2002) and it is known as one of the most diverse subfamilies of Braconidae with about 205 genera described (Braet 2016) and about 3,000 species estimated. The family has a world wide distribution, and it is particularly diverse at the tropics (Marsh 1997). Despite the well-known distribution of the family, the same cannot be said about all of its genera, while some are very abundant as *Heterospilus* Haliday, 1836, and *Spathius* Nees, 1819 with more than 400 species each (Marsh et al. 2013; Yu et al. 2016; Zaldívar-Riverón et al. 2018) and therefore with a good understanding on its distribution, most genera have less than 10 species described, and actually about 60 of them are monotypic (Braet 2016). Although we cannot be sure about species rarity (as in some cases it could be a reflection of insufficient collecting), data present so far suggests that apart of some exceptions, these monotypic genera are composed of rare species known from few specimens, sometimes only by the holotype, and therefore their distribution tends to be considered endemic/restrict. In this sense, new data on the distribution of rare species are important to provide a more reliable knowledge of their real distribution, therefore enabling future efforts in order to preserve and study them.

Since its description, no more records of *Parsteres* Gadelha, Nunes & Oliveira, 2016 specimens were made and it was believed that the genus distribution was limited to the Brazilian Amazon forest and North Cerrado. In this study we report the occurrence of *Parsteres pilosus* Gadelha, Nunes & Oliveira, 2016 in Brazilian Atlantic Forest Biome (Fig. 1A), based on a specimen collected at Salvador, Bahia state, Brazil, in a residential area (12°57'1" S; 38°24'3" W) approximately 800 meters away from a fragment of Atlantic Forest known as *Parque Metropolitano de Pituacu*, therefore expanding the distribution range of the genus to that biome. New and future studies should explore this taxon status of rarity as their occurrence in multiple biomes could suggest insufficient collecting. The specimen was deposited in the Invertebrates Collection of Instituto Nacional de Pesquisas da Amazônia (INPA). Photomicrographs were prepared using a Leica M205A coupled with a Leica DMC4500 and stacked using the software Leica Application Suite V4.10.0 Interactive Measurements, Montage.

The distribution map was built using the online software SimpleMapp (Shorthouse 2010).

Parsteres pilosus Gadelha, Nunes & Oliveira, 2016

(Fig. 1 B and C)

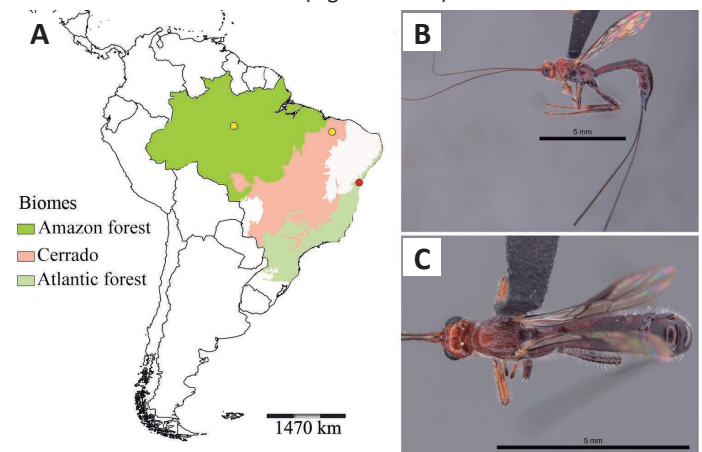


Figure 1. *Parsteres pilosus* Gadelha, Nunes & Oliveira, 2016 and its occurrence. Map of South America with geographic records of *P. pilosus*, yellow dots represent previous records and red dot the new record made at this work (A). *P. pilosus* in lateral habitus (B) and dorsal view (C).

Parsteres pilosus Gadelha, Nunes & Oliveira, 2016: 361. [Type species of *Parsteres* Gadelha, Nunes & Oliveira, 2016; Holotype deposited at INPA]

Geographic records. Brazil (Amazonas, Bahia, and Maranhão).

Material analyzed. BRA, Bahia, Salvador, Bairro Patamares, Cond. Colina C, 12°57'1" S, 38°24'3" W, 05.xi.2018, T.Mahlmann & J.Hipólito Leg. (1♀ INPA).

Comments. The monotypic genus *Parsteres* Gadelha, Nunes & Oliveira, 2016, was described from four Brazilian specimens, two of which belong to the Amazon rainforest, a female from Amazonas state identified as *P. pilosus*, and a male from Roraima state which was not assigned to the same species, and the other two specimens of *P.*

pilosus (which includes the holotype) collected in an ecotone between the Amazon Forest and Cerrado in the *Área de Proteção Ambiental do Inhamum* (Environmental Protection Area of Inhamum or APA of Inhamum), which is located in the municipality of Caxias, Maranhão state, northeastern Brazil. The APA of Inhamum is covered primarily by two distinct types of Cerrado vegetation (shrubby-arboreal and grassland) on the flatter terrain, with stands of buriti palms (*Mauritia flexuosa* L.) associated with watercourses, in depressions (Neres & Conceição 2010).

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Authors' Contributions

First author performed species identification and wrote the first version of this manuscript. Second and Third authors collected the specimen. All authors contributed substantially to paper writing and approved the final version on the manuscript. There is no conflict of interest between authors.

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