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Lectotype designations and new synonymies in the Neotropical bee genus *Centris* Fabricius, 1804 (Hymenoptera: Apidae)

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Abstract

Ten name-bearing specimens of *Centris* Fabricius deposited in the Hungarian Natural History Museum are examined and nine lectotypes are designated for the following species: *C. atripes* Mocsáry, 1899; *C. flavilabris boliviensis* Mocsáry, 1899; *C. facialis* Mocsáry, 1899; *C. fusciventris* Mocsáry, 1899; *C. mariae* Mocsáry, 1896; *C. minuta* Mocsáry, 1899; *C. obsoleta pleuralis* Friese, 1901; *C. proxima* Friese, 1899, and *C. vidua* Mocsáry, 1899. Two names are newly established as synonyms: *C. nitida geminata* Cockerell, 1914 **syn. nov.** = *C. facialis* Mocsáry, 1899; *C. pleuralis* Friese, 1901 **syn. nov.** = *C. obsoleta* Lepeletier de Saint Fargeau, 1841. Comments on the repository of the holotype of *C. horvathi* Friese are also provided.

Key words: Nomenclature, Neotropical, Oil-collecting bees, Centridini.

Introduction

The species-rich Neotropical bee genus *Centris* Fabricius 1804 (Apidae: Centridini) is famously associated with oil-secreting flowers from which they exploit floral oils (Vogel 1974; Neff & Simpson 1981; Rasmussen & Olesen 2000). Many species of *Centris* are also large and colorful and were often amongst the conspicuous bee specimens brought to Europe by early natural history collectors, at least more often so than smaller bee species (e.g., of 12 taxa listed in Rasmussen *et al*. 2007 only *Augochloropsis* Cockerell would be considered small). Maybe in part therefore the majority of the 341 proposed *Centris* species-group names (Moure *et al*. 2007 and pers. obs.) dates to more than a century ago and consequently their identity is difficult to infer from the often superficial antiquated descriptions and lack of comparative notes. Certainly the species status of numerous species described by these older workers remains to be the revised (Gonzalez *et al*. 2013); of the 341 proposed names, 232 are considered valid species today (Moure *et al*. 2007 and pers. obs.). The Hungarian Natural History Museum (HNHM) holds the primary types for approximately 21 species of *Centris* of which a few are of uncertain species status. To stabilize the application of the names for a forthcoming taxonomic revision of the genus by the junior author, we here revise the status and designate lectotypes for seven species described by Sándor Mocsáry (1841–1915) and three species described by Heinrich Friese (1860–1948). Friese was mostly an independent bee worker who proposed 95 new species-group taxa in *Centris* (Rasmussen & Ascher 2008), whereas Sándor Mocsáry, as Alexander Mocsáry in German literature, was the founder and first appointed curator for the HNHM entomological section since 1870 (Móczár 1967). Mocsáry proposed 15 new species-group taxa in *Centris* (Mocsáry 1896, 1899; Friese 1901). Moure & Seabra (1960) already revised the status of *Centris* (*Melacentris*) *conspersa* Mocsáry, 1899, from HNHM, including designation of the lectotype, but otherwise no lectotypes have been designated from the HNHM collection. In addition to the here studied type material, we examined supposed type material of *Centris flavilabris* Mocsáry, 1899, but the label information did not correspond to that of the original description and is not considered from the type series. Also, no specimens were located of *Centris* (*Ptilotopus*) *zonata* Mocsáry, 1899, despite active searching.

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***Centris* (*Trachina*) *vidua* Mocsáry, 1899**

Centris vidua Mocsáry, 1899: 252 [New lectotype designation]

Centris vidua lectotype (♂): A single examined male labeled "Honduras / San Pedro Sula / ex. coll. Fruhstorfer" [printed], "31.", "*C*. ♂ / *vidua* / det. Friese 1898 [printed] / Mocs.", "HOLOTYPE / Centris vidua / Mocsáry, 1899" [red printed]. Friese must have received this specimen directly from the collection of Hans Fruhstorfer (1866–1922), a naturalist and insect dealer. The type locality is San Pedro Sula, Cortés, Honduras, where Fruhstorfer apparently never collected (Lamas 2005). The species was correctly interpreted by Snelling (Snelling 1984) and Moure *et al*. (2007).

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