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## Revision of *Apocharips* Fergusson (Hymenoptera: Figitidae: Charipinae) with description of three new species from Colombia

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### Abstract

The genus *Apocharips* is here revised. Three previously described species are considered as valid: *Apocharips angelicae* Pujade-Villar & Evenhuis, 2002, *A. hansonii* Menke, 1993, and *A. trapezoidea* (Hartig, 1841). *Apocharips eleaphila* (Silvestri, 1915) and *A. peraperta* (Silvestri, 1915) are synonymized with *A. trapezoidea*. Three new species are here described: *Apocharips colombiana* Ferrer-Suay & Pujade-Villar **n. sp.**, *Apocharips tamanii* Paretas-Martínez & Pujade-Villar **n. sp.** and *Apocharips tropicale* Ferrer-Suay & Paretas-Martínez **n. sp.** A key to the six species included in *Apocharips* is given.

**Key words:** Cynipoidea, Figitidae, Charipinae, *Apocharips*, Colombia

### Introduction

*Apocharips* Fergusson, 1986 is one of the eight valid genera included in the subfamily Charipinae. The other seven genera within the Charipinae are: *Alloxysta* Förster (cosmopolitan), *Phaenoglyphis* Förster (cosmopolitan), *Lytoxysta* Kieffer (North America), *Lobopterocharips* Paretas-Martínez & Pujade-Villar (Nepal), *Dilyta* Förster (cosmopolitan except Australia), *Dilapothor* Paretas-Martínez & Pujade-Villar (Australia), and *Thoreauana* Girault (Australia).

Species of *Apocharips* are endoparasitoids of Encyrtidae (Hymenoptera: Chalcidoidea) that are endoparasitoids of psyllids (Hemiptera: Psyllidae) (Fergusson 1986; Menke and Evenhuis 1991). *Apocharips* biology is significant since they reduce the control impact done by primary parasitoids on psyllids; for this reason it is important to broaden our knowledge of the biodiversity of this genus. As in all charipine genera, *Apocharips* includes very small wasps with a shiny and smooth body. The shape of the radial cell, proportions of the flagellomeres, and shape of the propodeal carinae are the main diagnostic characters to distinguish *Apocharips* species.

The biodiversity of *Apocharips* is very poorly known. *Apocharips* was described by Fergusson (1986) with *Allotria xanthocephala* Thomson, 1862 (deposited in MZLU) as type species, which was later synonymized with *Apocharips trapezoidea* (Hartig, 1841), a species of wide distribution in the Western Palaearctic region (Ferrer-Suay *et al.*, 2012). Since Fergusson's (1986) description, only two works have been focused on this genus: Menke (1993) and Pujade-Villar *et al.* (2002). In their work on North American Charipinae, Menke and Evenhuis (1991) transferred to *Apocharips* two Silvestri species described in 1915, *A. eleaphila* and *A. peraperta*. Thus, until now five species of *Apocharips* have been described: *Apocharips angelicae* Pujade-Villar & Evenhuis, 2002 from Brazil, *Apocharips eleaphila* (Silvestri, 1915) from Italy, *Apocharips hansonii* Menke, 1993 from Costa Rica, *Apocharips peraperta* (Silvestri, 1915) from Ethiopia, and *Apocharips trapezoidea* (Hartig, 1841).

*Apocharips* is easily differentiated from all other charipines having a small basal metasomal tergum (Fig. 5D), which ends just after the ring of setae at the base of the metasoma. *Apocharips* has also been characterized previously by an open radial cell with veins R1 and Rs parallel, and a M-shaped carina on the apex of scutellum; however, these characters are very variable and sometimes difficult to distinguish (Paretas-Martínez and Pujade-Villar 2006; Paretas-Martínez *et al.* 2007; Ferrer-Suay *et al.* 2012). *Apocharips* can be distinguished from the two