



<http://dx.doi.org/10.11646/zootaxa.3994.4.5>

<http://zoobank.org/urn:lsid:zoobank.org:pub:C91A4E61-7826-4733-99F8-F84275C17869>

Three new species of *Horismenus* Walker (Hymenoptera: Eulophidae) associated with seed pods of *Pithecellobium dulce* (Fabaceae)

TIAGO G. PIKART^{1,2,7}, VALMIR A. COSTA³, CHRISTER HANSSON^{4,5},
JOSÉ C. ZANUNCIO¹ & JOSÉ E. SERRÃO⁶

¹Departamento de Entomologia, Universidade Federal de Viçosa, 36570-000, Viçosa, Minas Gerais, Brasil

²Laboratório de Entomologia, Departamento de Agronomia, Centro de Ciências Agroveterinárias, Universidade do Estado de Santa Catarina, 88520-000 Lages, Santa Catarina, Brasil

³Instituto Biológico/APTA, 13001-970, Campinas, São Paulo, Brasil, C.P. 70

⁴Museum of Biology (Entomology), Lund University, Lund, Sweden

⁵Scientific Associate, the Natural History Museum, London, United Kingdom

⁶Departamento de Biologia Geral, Universidade Federal de Viçosa, 36570-000, Viçosa, Minas Gerais, Brasil

⁷Corresponding author. E-mail: tiago.florestal@gmail.com

Abstract

Horismenus abnormicaulis sp. nov., *H. patensis* sp. nov. and *H. zuleidae* sp. nov. (Hymenoptera: Eulophidae), all authored by Pikart, Costa & Hansson, are described from material obtained from seed pods of *Pithecellobium dulce* (Roxb.) Benth. (Fabaceae) collected in Northeastern Brazil. The seed pods were infested with larvae of Coleoptera (Chrysomelidae (Bruchinae) and Curculionidae). The associations of the *Horismenus* species and the beetle larvae have not been established. Morphological similarities between these new species and previously described species with host known suggest that *H. patensis* and *H. zuleidae* are primary parasitoids of Bruchinae, whereas *H. abnormicaulis* may act as a hyperparasitoid on other *Horismenus* species. The three species are compared with similar species of *Horismenus*.

Key words: Coleoptera, Entedoninae, neotropical fauna, parasitoids, taxonomy

Introduction

Eulophidae is one of the largest families of Chalcidoidea, comprising 326 genera and nearly 5,600 described species in five subfamilies: Entiinae, Eulophinae, Entedoninae, Opheliminae and Tetrastichinae (Noyes 2013). The representatives of this family are among the most collected Chalcidoidea in all biogeographic regions (Schauff *et al.* 1997) and, due to their abundance, they have important ecological roles in the neotropics (LaSalle & Schauff 1992). Many Eulophidae parasitize insect larvae that develop inside plant tissues, especially leaves and seeds. Several species are important natural enemies of insect pests (LaSalle and Schauff 1995) and have been studied for programs of biological control (Pereira *et al.* 2008; Zanuncio *et al.* 2008).

Horismenus Walker is one of the largest genera of Eulophidae (Hymenoptera) and, except for *Horismenus absonus* Narendran & Girish Kumar (India) and *Horismenus specularis* (Erdős) (Europe), they are distributed in the Americas (Burks 1971; Hansson 2009; Narendran *et al.* 2011), mainly in tropical parts. Their hosts include eggs and larvae of several families of Coleoptera, Diptera, Hymenoptera, Lepidoptera, Mantodea, Neuroptera and Orthoptera, and eggs/egg sacs of four families of spiders (Hansson 2009; Hansson *et al.* 2011; Hansson *et al.* 2014).

A total of 411 *Horismenus* species are known, and about 85% of them have been described only recently (Hansson 2009; Hansson *et al.* 2011; Narendran *et al.* 2011; Hansson *et al.* 2014). Except for a revision of the Nearctic species (Burks 1971), most of the older taxonomic data consist of descriptions of one or a few species. Hansson (2009) revised *Horismenus*, and found 348 new species and provided redescriptions for 51 already known species, excluding only four species whose holotypes were missing and the original descriptions too vague to allow