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A revision of the Palaearctic species of *Reikosiella* (*Hirticauda*) (Hymenoptera, Eupelmidae)

LUCIAN FUSU
Faculty of Biology, Alexandru Ioan Cuza University, Bd. Carol I nr. 11, 700506, Iasi, Romania. E-mail: lucfusu@hotmail.com

Abstract

The Palaearctic species of *Reikosiella* Yoshimoto, subgenus *R.* (*Hirticauda* Bouček), are revised. Illustrated keys are given to identify females of the ten recognized species and all known males. In addition to *R.* (*Hirticauda*) *hungarica* (Erdős), previously the only formally recognized Palaearctic species, two species are newly transferred to the genus and subgenus, *R.* (*Hirticauda*) *bolivari* (Kalina) **comb. nov.** and *R.* (*Hirticauda*) *rostrata* (Ruschka) **comb. nov.**, both from *Eupelmus* Dalman. Seven species are described as new: *R.* (*Hirticauda*) *andriescui* **sp. nov.** from Canary Islands, *R.* (*Hirticauda*) *gordoni* **sp. nov.** and *R.* (*Hirticauda*) *graeca* **sp. nov.** from Greece, *R.* (*Hirticauda*) *vanharteni* **sp. nov.** from United Arab Emirates, and *R.* (*Hirticauda*) *cornuta* **sp. nov.**, *R.* (*Hirticauda*) *koreana* **sp. nov.**, and *R.* (*Hirticauda*) *tripotinorum* **sp. nov.** from Korea. A lectotype is designated for *Eupelmus rostratus* Ruschka. Host records are critically discussed for several species in the light of their new generic placement.

Key words: Chalcidoidea, illustrated keys, taxonomy, new species

Introduction

Reikosiella Yoshimoto (Hymenoptera, Eupelmidae) is a cosmopolitan genus of parasitoid wasps that includes 27 currently recognized species (Noyes 2012). Of these, only three species (Gibson 1995, Narendran 1996, Narendran & Sheela 1996) were actually described in *Reikosiella* besides *R. melina* Yoshimoto, the type species of the genus (Yoshimoto 1969). Most of the species were included in the polyphyletic genus *Eupelmus* Dalman prior to the monograph of Bouček (1988). This same author transferred six Australian species to *Reikosiella*, most of them from *Eupelmus*, and stated that the number of included species at a worldwide level was unknown because the genus was until then ill defined (Bouček 1988). Further species where later transferred to *Reikosiella* by Gibson (1995, 2004, 2011), Gibson *et al*. (2012), and Narendran & Sheela (1996). Gibson (1995) proposed two alternative phylogenetic hypotheses concerning the relationship of *Reikosiella* with *Merostenus* Walker. According to the first, the two genera are sister groups, whereas according to the second, species of *Merostenus* are nested within *Reikosiella* (*Hirticauda*), thus rendering *Reikosiella* paraphyletic. No new morphological or molecular evidence has been found since Gibson (1995) to favor one of the two hypotheses over the other. Therefore, it remains premature to place *Reikosiella* Yoshimoto, 1969 in synonymy under *Merostenus* Walker, 1837. If this synonymy was made but shown to be false through subsequent studies, it would cause unnecessary taxonomic instability in a genus that already has a complicated taxonomic history. However, the male of *Merostenus excavatus* (Dalman) is described briefly and illustrated because it is morphologically similar to some males of *Reikosiella* (*Hirticauda*).

Gibson (1995) listed *Reikosiella* (*Hirticauda*) as present in the Palaearctic region but without mentioning any species. Recently, one European species (originally described as *Eupelmus hungaricus* Erdős) was transferred to *R.* (*Hirticauda*) based on the opinion of G. Gibson (Nieves-Aldrey *et al*. 2003; Askew & Nieves-Aldrey 2004) and it currently is the only Palaearctic species included in the genus. Based on karyotype dissimilarities and morphology, Fusu (2008) proposed that *Eupelmus rostratus* also belongs to *Reikosiella*, but a new combination was not formally proposed until a comprehensive revision of the genus in Palaearctic region. Species of *Reikosiella* are rarely collected or reared and almost nothing is known about their biology or diversity in the Palaearctic region.

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