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

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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) greeca 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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