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Revision of the New World species of *Erythrodolius* (Hymenoptera: Ichneumonidae: Sisyrrostolinae), with a key to the world species

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Abstract

The genus *Erythrodolius* previously comprised ten species of ichneumonids: nine from Madagascar and one from Costa Rica. The current study revises the New World species of *Erythrodolius* including descriptions of three new species from Central America which brings the world total to 13 species: *E. incompletus* sp. n., *E. luteus* sp. n. and *E. tenebrosus* sp. n. A key to the world species is provided. Justification for the preference of the subfamily name Sisyrrostolinae instead of Brachyscleromatinae is provided.

Key words: *Erythrodolius*, Ichneumonidae, Sisyrrostolinae, Brachyscleromatinae, New World revision, parasitoid, taxonomy, tropical

Introduction

Erythrodolius Seyrig (Hymenoptera: Ichneumonidae: Sisyrrostolinae) is a small genus of moderately large parasitoid wasps (fore wing length 7.0 to 19.0 mm) that was thought to be restricted to Madagascar (Seyrig 1932, 1934) until a single species was discovered in Costa Rica (Gauld et al. 1997). Considering undescribed material, the genus is more widespread in central and southern Africa (Gauld et al. 1997) and several species occur in Central America, as detailed in this study. Based on its relatively widespread distribution in both the New World tropics and sub-Saharan Africa, *Erythrodolius* is possibly also present in the Oriental tropics, but to date, no specimens have been collected from this region. The finding of three, all apparently rare, new species from Central America is surprising as no species of the genus have been found during the large-scale and long-term ichneumonid sampling programmes taking place in tropical South America (e.g. Sääksjärvi et al. 2004, Veijalainen et al. 2013). However, these studies have concentrated especially on ichneumonids occurring in tropical lowland rain forests and more intense sampling effort may produce new species of *Erythrodolius* from the tropical Andes. These tropical highlands have produced some interesting new findings of rare and large-sized ichneumonids during the last few years, e.g. the first South American species of Acaenitinae (Castillo et al. 2011). Nothing is known of the biology of any species of *Erythrodolius* (but see generic description below for biology of putatively related taxa). The current paper describes three new species, one each from Mexico, Guatemala and Honduras bringing the total number of described species in the genus to 13. In addition, the study produced some new information on intraspecific variation and distribution of the previously described Central American species, *E. griffithsorum* Gauld. We also provide a key to the world species of the genus and justification for the preference of the subfamily name Sisyrrostolinae instead of Brachyscleromatinae.