



## Tersilochinae (Hymenoptera: Ichneumonidae) of Costa Rica, part 1. Genera *Allophrys* Förster, *Barycnemis* Förster and *Meggoleus* Townes

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### Abstract

The Costa Rican fauna of three tersilochine genera, *Allophrys* Förster, *Barycnemis* Förster and *Meggoleus* Townes, is revised. Seven species, *A. barycnemica* sp. nov., *A. bribria* sp. nov., *A. compressor* sp. nov., *A. hansonii* sp. nov., *A. megafrons* sp. nov., *A. noyesi* sp. nov. and *B. costaricensis* sp. nov., are described as new. *Allophrys divaricata* Horstmann, *M. spirator* Townes and two groups of undescribed species of *Allophrys* are newly recorded from Costa Rica. A key to the Costa Rican species of *Allophrys* is provided. Finger-shaped sensory flagellar structures, previously known in two European species of *Phradis* Förster, are registered in all Costa Rican species of *Allophrys*, *Barycnemis* and *Meggoleus*.

### Introduction

Costa Rica is a small Central American country with a great diversity of biotopes, nearly equivalent to that of the entire North America (Gauld 1991). As a brief summary, the Atlantic and Pacific coasts are separated by a mountain ridge rising up to 3500 m. The Atlantic coastal plane is more humid, dominated by tropical wet forests, and differs from the Pacific plane with its tropical rain forests in the south and tropical dry forests in the north.

The Ichneumonidae is one of the largest insect families, with over 30,000 described species worldwide (Yu *et al.* 2005). Of the 25 subfamilies of Ichneumonidae occurring in Costa Rica (Gauld *et al.* 2002) 19 subfamilies (Acaenitinae, Anomaloninae, Banchinae, Brachycyrtinae, Cremastinae, Ctenopelmatinae, Cylloceriinae, Diplazoninae, Labeninae, Lycorininae, Metopiinae, Ophioninae, Oxytorinae, Phrudinae, Pimplinae, Poemeniinae, Rhysinae, Tryphoninae and Xoridinae), together totalling over 1000 species (most of which were described as new) have been monographed by the late Ian Gauld and co-workers (Gauld 1988, 1991, 2000; Gauld *et al.* 1997, 1998, 2002). Thus, the Costa Rican fauna of Ichneumonidae is one of the best studied faunas in the world. Nevertheless, there are no revisions of the remaining six subfamilies: Campopleginae (although a monograph started by Ian Gauld will be completed posthumously; D. Wahl pers. comm.), Cryptinae, Ichneumoninae, Mesochorinae, Orthocentrinae and Tersilochinae. For the Tersilochinae, Gauld (1991) estimated about 35 species in Costa Rica, and mentioned many species of *Stethantyx* Townes and one species of *Meggoleus* Townes.

This paper begins a series of publications on the Costa Rican Tersilochinae. This is a medium sized subfamily of worldwide distribution represented by about 300 described species. Most of the known species are Palearctic, whereas tropical faunas are largely undescribed. In the New World the Nearctic species of the genera *Allophrys* Förster (1 species), *Barycnemis* Förster (13 species), *Ctenophion* Horstmann (1 species), *Sathropterus* Förster (1 species), *Spinolochus* Horstmann (2 species) and *Stethantyx* Townes (3 species) have been revised by Horstmann (2010), two species of *Barycnemis* were described from Mexico (Khalaim 2002), and one species of *Meggoleus* (Townes 1971) and eight species of *Stethantyx* (Blanchard 1945; Graf 1980) were described from South America. Much of the New World tersilochine fauna therefore remains unrevised.