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Tersilochinae (Hymenoptera: Ichneumonidae) of Costa Rica, part 2. Genera *Megalochus* gen. nov. and *Stethantyx* Townes

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Abstract

Two Costa Rican genera, *Megalochus* **gen. nov.** and *Stethantyx* Townes, are revised. These genera comprise a distinctive generic group that we refer to as the *Stethantyx* genus-group, veins *Rs*+2*r* and *Rs* angled more than 90°, vein 2*rs-m* and abscissa of *M* between 2*rs-m* and 2*m-cu* not or very weakly thickened, hind wing with vein *cu*1&*cu-a* (nervellus) more or less vertical, and prepectal carina with upper end not reaching anterior margin of mesopleuron, continuing above and backwards to the subtegular ridge. Both genera include medium sized to large species with body length 4.0 to 15.0 mm.

Megalochus comprises only the type species, *M. grandis* **sp. nov.**, occurring in Costa Rica, Ecuador and southern Brazil. It is the largest representative of the subfamily, with a body length of 10.5 to 15.0 mm. *Megalochus* differs from *Stethantyx*, besides the larger body size, by the slenderer first metasomal segment, which is round in cross-section and lacking glymmae, propodeum and metapleuron with coarse rugae, and shortened antennae with strongly transverse flagellomeres.

Stethantyx is the dominant, most species-rich genus in the Costa Rican tersilochine fauna and probably in the Neotropical region. Twenty two species of this genus were discovered in Costa Rica, all are new: *S. alajuela* **sp. nov.**, *S. altamira* **sp. nov.**, *S. aprica* **sp. nov.**, *S. cacaoensis* **sp. nov.**, *S. cartagoa* **sp. nov.**, *S. cecilia* **sp. nov.**, *S. curvator* **sp. nov.**, *S. guanacasteca* **sp. nov.**, *S. heredia* **sp. nov.**, *S. limona* **sp. nov.**, *S. mesoscutator* **sp. nov.**, *S. niger* **sp. nov.**, *S. nigrofemorata* **sp. nov.**, *S. notaulator* **sp. nov.**, *S. orosia* **sp. nov.**, *S. osa* **sp. nov.**, *S. propodeator* **sp. nov.**, *S. pseudoorosia* **sp. nov.**, *S. pseudoosa* **sp. nov.**, *S. puntarenasa* **sp. nov.**, *S. sanjosea* **sp. nov.** and *S. tenoriosa* **sp. nov.**

A key for distinguishing the genera *Megalochus* and *Stethantyx*, and a key to 22 Costa Rican species of *Stethantyx* are provided.

Key words: Neotropics, Central America, key, fauna, taxonomy, parasitoids

Introduction

Costa Rica is a small country in Central America, near the equator, having an extremely diverse array of habitats and a very rich arthropod fauna. The ichneumonid fauna of this country is one of the best studied in the world and currently comprises over 1000 species in 25 subfamilies (19 subfamilies were revised by I.D. Gauld and co-authors).

A revision of the Costa Rican Tersilochinae was started in our previous work (Khalaim & Broad 2012), where three genera, *Allophrys* Förster, *Barycnemis* Förster and *Meggoleus* Townes, were reviewed. The present paper covers the *Stethantyx* genus-group, designated here for the first time and comprising two genera, *Megalochus* **gen. nov.** and *Stethantyx* Townes. It differs from three other genus-groups, the *Diaparsis*, *Phradis* and *Tersilochus* groups, designated for European genera by Horstmann (1981), by the fore wing (Figs 1–10) with veins *Rs*+2*r* and *Rs* angled more than 90°, vein 2*rs-m* and abscissa of *M* between 2*rs-m* and 2*m-cu* long and not thickened, and prepectal carina with upper end not reaching anterior margin of mesopleuron, continuing above (though sometimes weak or vanishing dorsally) and backwards to the subtegular ridge (Fig. 29). In addition, this genus-group is restricted to the Americas and includes predominantly medium-sized to relatively large species with a body length of 4.0–15.0 mm, while most other tersilochines are smaller, with a body length of 3.0–6.0 mm.

Stethantyx is a large, predominantly Neotropical genus with ten described species: three species, including the introduced South American *S. parkeri* (Blanchard), occur in the Nearctic region (Horstmann 2010), and eight species are known from Argentina, Brazil and Uruguay (Graf 1980; Blanchard 1945). Two unidentified species were recorded from Cuba (Fernández-Triana *et al*. 2006), Townes (1971) reported 23 species in the Neotropical region, and Gauld (1991) mentioned many species of *Stethantyx* in the lowlands and lower montane regions of Costa Rica, but none of them was described.

Some species of *Stethantyx* are known to be parasitoids of the beetle families Nitidulidae and Curculionidae (Coleoptera). Three South American species, *S. argentiensis* (Blanchard), *S. parkeri* and one unidentified species, were reared from vegetable weevils *Listroderes* spp. (Curculionidae) (Parker *et al*. 1950), and introduced to the southern U.S.A. (Kerich 1961; Clancy 1969) and eastern Australia (Kerich 1961; Wilson & Wearne 1962; Gauld 1984) for the control of *Listroderes obliquus* Klug, a pest of many cultivated vegetables. In the Nearctic region, *S. crassa* Horstmann was reared from *Cryptarcha* sp. and/or *Lobiopa undulata* Say (Nitidulidae) from sap spots on oak (Williams *et al*. 1984; Horstmann 2010), and *S. nearctica* Townes was reared from *Balaninus* sp. (Curculionidae) on *Quercus alba* L. (Fagaceae), probably from acorns (Horstmann 2010).