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Acantholachesilla gen. n. (Psocodea:'Psocoptera': Lachesillidae: Eolachesillinae: Graphocaeciliini) from Valle del Cauca, Colombia

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Abstract

Acantholachesilla saltoensis **gen. et sp. n.** is described from Valle del Cauca, Colombia, in the Lachesillidae, tribe Graphocaeciliini (Eolachesillinae). The genus is related to *Dagualachesilla* and *Dagualachesilloides* that occur in the same area, differing from them in the male clunial projection, phallosome, and female subgenital plate and gonapophyses.

Key words: Taxonomy, neotropics, Valle del Cauca

Introduction

The related graphocaeciliine genera *Dagualachesilla* and *Dagualachesilloides* (see García Aldrete *et al.,* 2013) are endemic to Valle del Cauca, Colombia. They have been found only in a small area in the Western Cordillera, relatively close to the Colombian Pacific (3°25'21.7"–3°33'56"N: 76°37'0.1"–76°52'22.6"W). Specimens of a new species representing another graphocaeciliine genus, related to the two above, were recently found in the same area. The purpose of this work is to describe and illustrate this genus and new species, and to establish the relationships of the three genera.

Material and methods

Six males and three females were available for study. Three males and two females were dissected in 80% ethanol, and their parts (head, right wings and legs, and genitals), were mounted on slides in Canada balsam. Color was recorded by placing whole specimens, before dissection, under a microscope illuminated with cold white light, at 50X. Parts on the slides were measured, following standard procedures, and the illustrations were made from digital photographs, taken with a Canon T3i camera and Helicon Focus program, processed in a vector graphics editor CorelDraw.

Abbreviations of parts measured are as follows: FW and HW: lengths of right fore- and hind- wings, F, T, t1 and t2: lengths of femur, tibia and tarsomeres 1 and 2 of right hind leg, respectively, ctt1: number of ctenidobothria on t1, Mx4: length of fourth palpomere of right maxillary palpus, f1…fn: lengths of flagellomeres 1..n of right antenna, IO, D and d: minimum distance between compound eyes, antero-posterior diameter and transverse diameter of right compound eye, respectively, on dorsal view of head, PO: d/D.

The specimens studied are deposited in the Entomological Museum, Universidad del Valle (MUSENUV), Santiago de Cali, Colombia.

To assess the relationship of the new genus with the two related genera, a phylogenetic analysis was conducted, utilizing TNT and Winclada. A matrix was built, utilizing 26 characters (Table 2). *Ectopsocus andinus*

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Most of the species of 'Psocoptera' found in the area have been collected by light traps placed in the forest canopy; we have found 16 species in three families (Lachesillidae, Epipsocidae and Ptiloneuridae), of which 14 are new to science. Little field work has been conducted in the Pacific area, and the psocids found are mostly endemics; it is likely that the real species richness is much higher than has been documented.

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