



Description of the female and nymph of *Philogenia mangosisa* from southern Ecuador (Odonata: Megapodagrionidae)

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Abstract

The previously unknown female and nymph of *Philogenia mangosisa* are described, illustrated, and compared with similar species.

Key words: Zygoptera, naiad, larva, damselfly, stream, South America

Introduction

Philogenia Selys, 1862 contains 35 species of forest-dwelling damselflies ranging from Honduras in Middle America to the foothills of the Andes and upper reaches of the Amazon Basin in South America. There are two centers of radiation, Costa Rica in Middle America (6 species) and Ecuador/Peru in South America (15 species). Because these damselflies are cryptic, small stream dwellers, and the majority of species are not far-ranging, the likelihood of discovery of new species is high. They are amazingly similar, mostly dark and drab with clear wings and a pale spot at the tip of the abdomen. Species distinctions are based almost exclusively on male apical abdominal appendages. Calvert (1924) revised the genus and later Bick & Bick (1988) described five new species and provided a key to males of all species. Since then, five additional new species have been described (Brooks 1989; Cook 1989; Donnelly 1989; Dunkle 1990). Females of few *Philogenia* species have been adequately diagnosed (Bick & Bick 1988; Cook 1989). Nymphs are known for only four species, three in Central America (Ramírez-Ulate & Novelo-Gutiérrez 1994) and one in South America (De Marmels 1982). In this paper, we describe the female and nymph of *Philogenia mangosisa* Bick & Bick, 1988 from southern Ecuador.

Material and methods

A single female was reared in the lab (resulting in a final stadium exuvia) and compared with an adult female collected from the same stream where only males of *P. mangosisa* were found. The two females are identical and we determined them to be *P. mangosisa*, resulting in an identified final stadium exuvia. Four other final stadium nymphs, males and females, were collected from the same stream where the reared female was collected. Although we were unable to rear these nymphs, they appear identical to the reared female and were thus identified as *P. mangosisa*; we used them to complete the nymphal description and measurements. These