



## A new species of the family Sturmiidae (Collembola: Symphypleona) from Panama

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### Abstract

*Sturmius panamaensis* sp. nov. from the canopies of the San Lorenzo Forest in Panama is described and illustrated. The new species lacks a pseudonychium on the ungues, has a smaller mucro than the other species in the genus, and females have long anal appendices. A key to identify the three species known in the family is provided.

**Key words:** canopy debris, *Sturmius panamaensis*, taxonomy, key

### Introduction

The genus *Sturmius* and the family Sturmiidae with type species, *S. epiphytus* from Colombia were originally described by Bretfeld (1994). The type species was found in epiphytic moss and ferns of the mountain forest remnants at 3,000–3,700 m altitude in the Páramo region. Later, Bretfeld and Gauer (1999) described *Sturmius truncivivus*, the only other species in the genus, from the surface of trunks of living trees in blackwater inundation forest near Manaus, Brazil, at 85 m altitude.

The Collembola of Panama are poorly known (Palacios-Vargas 1992). To date, only 19 species have been recorded (Castaño-Meneses & Palacios-Vargas 2007; Palacios-Vargas 1992, 2007). Recent collections of Collembola from the forest canopies included a new species of *Sturmius* here described. It was found in suspended debris (*sols suspendues*) accumulated in canopies of San Lorenzo Forest, on the Atlantic coast of Panama at 130 m altitude. The collections were made by N. Winchester (University of Victoria, Canada) and K. Jordan using single rope technique and were part of the IBISCA-Panama project ([http://www.naturalsciences.be/cb/ants/projects/ibisca\\_main.htm](http://www.naturalsciences.be/cb/ants/projects/ibisca_main.htm)). Site characteristics and collecting methods are described in detail in Basset *et al.* (2007).

Types are deposited at Ecología y Sistemática de Microartrópodos Collection (LESM) at Sciences Faculty, Universidad Nacional Autónoma de México, at Senckenberg Museum für Naturkunde, Görlitz, Germany (SMNG) and at the Museo de Invertebrados G.B. Fairchild, Universidad de Panamá (MIUP).

### Methods

Specimens were mounted in Hoyer's solution and observed with a phase contrast light microscope. For scanning electron microscopy (SEM) they were dehydrated in gradual alcohols, dried in a Baltec CPD030 critical-point dryer, and coated with gold in Denton Vacuum Desk II sputtering device. They were photographed in a JEOL JSM 5310LV model.

The abbreviations used in the description are following: Ant.: Antennal segment; Abd.: Abdominal segment; Append. Anales = Anal appendices

Nomenclature of morphology and chaetotaxy follows Bretfeld (1994).