

First generic record and description of a new species of *Ulmeritoides* (Ephemeroptera: Leptophlebiidae) from Colombia

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Abstract

A new species of *Ulmeritoides*, *U. huitoto*, is described from male imagos collected near the Rio Solimoes in the Amazon region of Colombia. This is the first record of the genus from Colombia. Additional Neotropical records of undescribed species of nymphs of *Ulmeritoides* include Paraguay, Guyana, French Guiana, Venezuela and Guatemala.

Keywords: systematics, mayfly, South America, Atalophlebiinae, biodiversity.

Introduction

Colombia is undoubtedly one of the South American countries with the highest biodiversity, especially with reference to insects. Nevertheless, very few mayfly species have been described or even recorded for this country. In what could be considered the first major work on the Colombian macroinvertebrates, Roldán (1988) published a chapter on Ephemeroptera, including a family key, as well as a table of the recorded genera and known ecological requirements. This book became essential for any ecological study in the country. From this starting point, some specific papers started to appear, providing new data on the Colombian mayfly fauna (Rojas *et al.*, 1993; Zúñiga de Cardoso and Rojas de Hernández, 1995; Zúñiga de Cardoso *et al.*, 1997; Muñoz and Ospina, 1999; Alba-Tercedor and Mosquera, 1999; Mosquera *et al.*, 2001; Molineri *et al.*, *in press*; Molineri, *in press*). Despite its richness, very few mayfly species were collected from the Amazon Basin in Colombia. Based on freshly collected material, continuing with the effort to describe and register the fauna of Colombia, we are recording here the genus *Ulmeritoides* Traver for the first time for Colombia, and describing a new species, based on male imagos collected from the Rio Solimoes, in the Colombian Amazonian region.

Ulmeritoides was first established as a subgenus of *Ulmeritus* TRAVER, 1959, although known only from adults. Domínguez (1991), based on reared material, raised this subgenus to generic status, and in 1995 the same author analyzed cladistically the *Ulmeritus-Ulmeritoides* group, reconfirming the monophyletic nature of both genera. At that time, *Ulmeritoides* was composed of 9 species recorded from Argentina, Uruguay, Surinam, Brazil and Costa Rica. Additional records of nymphs of undescribed species include: Paraguay, Guyana, French Guiana, Venezuela and Guatemala.

Ulmeritoides huitoto sp. n.

Holotype male imago (in alcohol, one pair of wings on slide). Length: body, 6.8-7.0 mm; forewings, 7.3 mm; hind wings, 1.1 mm. General coloration yellowish-brown, abdomen lighter. Head yellowish, diffusely washed with black. Upper portion of eyes orange-brown, lower portion blackish. Ocelli white, ringed with black at base. Antennae yellowish, flagellum lighter.

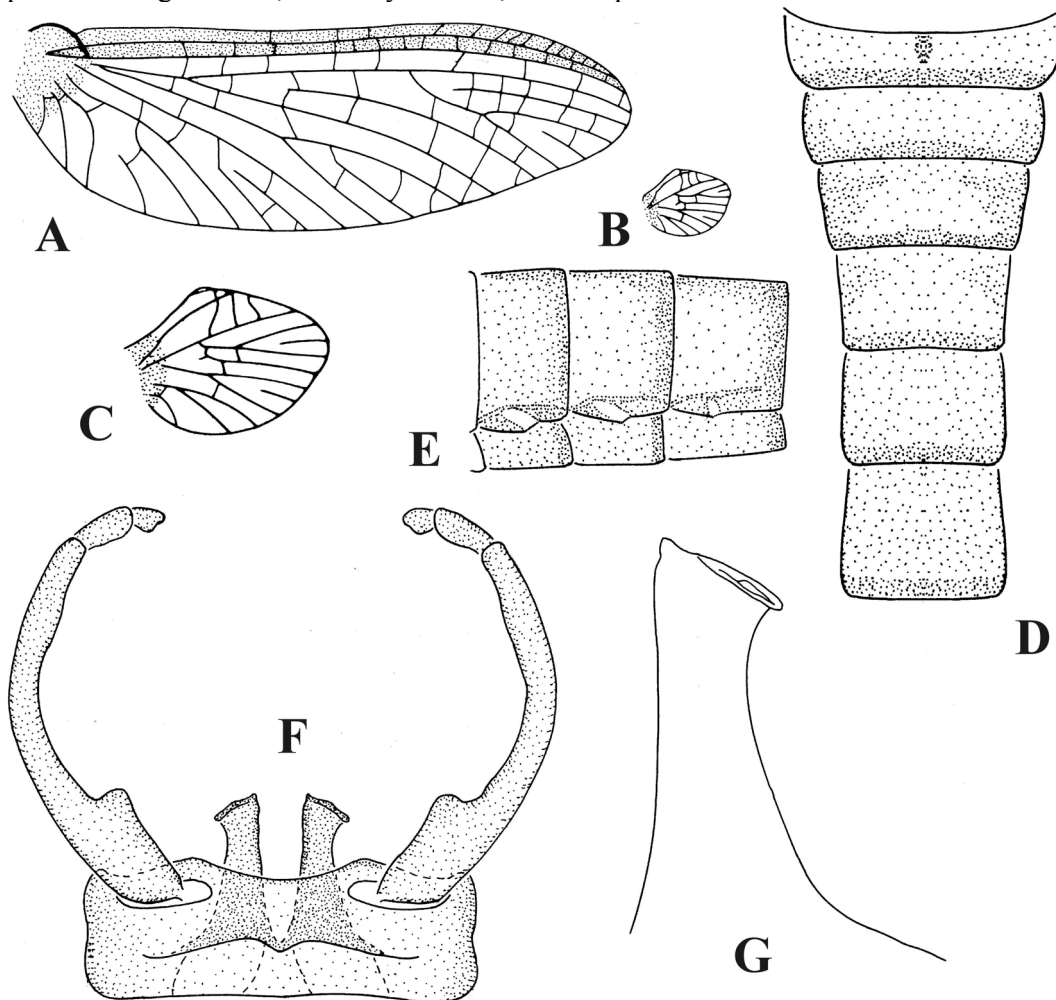
Thorax: Pronotum yellowish-brown, with lateral and posterior margins grayish-black; mesonotum bright orange-brown, carinae darker; metanotum yellowish-brown; pleura orange-brown with sclerite margins blackish; sterna yellowish-brown washed with black in the median area. **Wings** (Figs. A-C): membrane of forewing hyaline, except costal and subcostal areas and wing base brown. Veins C, Sc and R_1 and cross veins between them brownish, remaining longitudinal veins yellowish-brown, cross veins yellowish, lighter posteriorly; one cross vein basal to bulla, 11-12 distal to it. Membrane of hind wing hyaline, except brown at base; C and Sc light brown, remaining veins light yellow. **Legs.** Coxae and trochanters yellow-orange; femora light brown, femur I with anterior margin and apex blackish; tibia and tarsus of leg I brownish; tibiae and tarsi of legs II and III yellowish, lighter apically; claws grayish, darker on leg I. **Abdomen** (Figs. D, E): terga yellowish-brown, with posterior margins darker, posterior terga darker; sterna yellowish,

with posterior margins and ganglia darker. **Genitalia** (Figs. F, G): subgenital plate and base of forceps light brown, remainder of forceps gray-brown; penes yellowish. Penes as in Fig. G. Caudal filaments light yellowish-brown, lighter posteriorly, intersegmental joints darker.

Female and nymph: unknown.

Material. Holotype male imago: COLOMBIA, Dept. Amazonas, Leticia, 93 m.a.s.l., S 4°07'30'', W69°57'25''. Caño Km 11 road to Tarapacá. Zúñiga, Domínguez, Molineri coll. Paratype: 1 male imago, with wings in subimaginal skin, same data as holotype. Holotype deposited in Museo de Entomología de la Universidad del Valle, Cali, Colombia; paratype in Instituto-Fundación Miguel Lillo, Tucumán, Argentina.

Etymology. The species is named after the Huitoto ethnic group that inhabits the area where the specimens were collected.



Figs. A-G. *Ulmeritoides huitoto* sp. nov. A, Forewings; B, hind wings; C, hind wings, detail; D, abdominal terga II-VII; E, abdominal segments V-VII, l.v.; F, male genitalia, v.v.; G, penes, detail.

Discussion

This species can be separated from the other known species of the genus by the following combination of characters: 1) forewings hyaline, with costal and subcostal areas brown (Fig. A); 2) abdominal terga yellowish-brown, with pattern as in Fig. D; 3) one cross vein basal to bulla in forewings; 4) penes and forceps as in Figs. F, G; with basally broad region of forceps almost $\frac{1}{4}$ length of segment 1. The costal and subcostal areas of the wings of *U. huitoto* sp. n. are tinged with brown as in *U. misionensis* DOMÍNGUEZ, 1995, *U. tifferae* DOMÍNGUEZ, 1995 and *U. fidalgoi* DOMÍNGUEZ, 1995. In the key to male imagos of described species by Domínguez (1995), *U. huitoto* sp. n. will key to couplet 3 (*U. tifferae* and *U. fidalgoi*) but it can be easily distinguished from either of these species by characters 2-4 given above.

Biology. The adults of this species were captured with a light trap, in the Amazonian rainy season, near a black-water stream. For this reason, the stream was very high and no nymphs were collected. The bottom of the stream was composed of clay, with leaf packs. The stream was shaded most of the day by big trees on the banks. No nuptial flight was observed.

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