

***Thraulodes basimaculatus* sp. n., a new species of mayfly from Bolivia: (Ephemeroptera: Leptophlebiidae: Atalophlebiinae)**

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Abstract

Thraulodes basimaculatus n. sp. is described from male imagos from Alto Beni, Bolivia. The males of this species present the unique characteristic of having most of the basal half of the fore wings and the entire membrane of the hind wings stained with brown. No other *Thraulodes* species has similar coloration.

Key words: Neotropical Region, taxonomy, male imago, Bolivia

Introduction

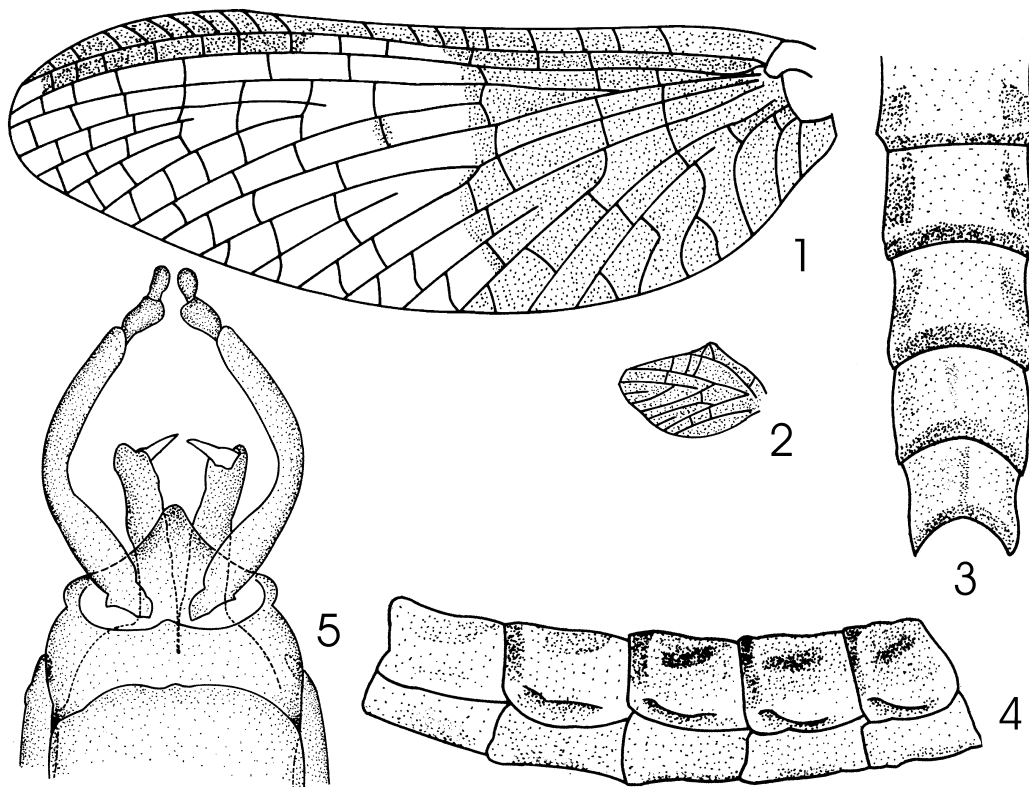
The mayfly fauna from Bolivia is poorly known. In an effort to improve our knowledge several new species have been recently described (Domínguez, 1986; 1987; Domínguez & Molineri, 1996; Molineri, 2001, 2002, 2003; Nieto, 2003, 2004). The genus *Thraulodes* is one of the most abundant with 27 described species, which are common throughout the neotropic lowlands. A key for the species was provided by Traver & Edmunds (1967). During one of our collecting trips we found male imagos of a species of *Thraulodes* with an unusual basal coloration in the fore wings. This material certainly represents an undescribed species, as there is no other species in this genus presenting such coloration. For this reason, we describe this new taxon despite the lack of the female and the immature stages. The description of the genitalia follows the terminology of Traver and Edmunds (1967).

Thraulodes basimaculatus n. sp.
(figs 1–5)

Material: Holotype male imago: BOLIVIA, Dept. La Paz, Reserva Carrasco, Road to Caranavi and Alto Beni, 940 m.a.s.l., S 15°43'09", W 67°31'06", Domínguez, Molineri, Nieto coll. Paratype: 5 male imagos, same data as holotype. Holotype and 2 paratypes deposited at Instituto de Ecología, Unidad de Limnología, Universidad Mayor de San Andrés, La Paz, Bolivia and 3 paratypes in Instituto-Fundacion Miguel Lillo, Tucumán, Argentina.

Holotype: male imago (in alcohol). Length: body, 8.2–8.4 mm; fore wings, 9.3–9.5 mm; hind wings, 1.7–1.8 mm. General coloration: yellowish brown, wings hyaline, except basal half and costal area of fore wings and hind wings brownish.

Head: grayish white, anterior margin yellowish tinged with black. Eyes: upper portion brownish yellow, meeting dorsally; ventral portion grayish black. Ocelli whitish, ringed with black basally; lateral ocelli 3 times the width of the median one. Antennae: scape dark brown, pedicel yellowish brown, flagellum paler.



FIGURES 1–5. *Thraulodes basimaculatus*: 1, fore wing; 2, hind wing; 3, abdominal terga II–VI; 4, abdominal segments II–VI, lateral view; 5, male genitalia, ventral view.

Thorax: pronotum dark brown, mesonotum yellowish, stained with brown, and with sutures darker, apex of mesoscutellum lighter, metanotum dark brown. Pleurae: propleura dark brown, remaining sclerites yellowish brown, membranous parts whitish. Sterna yellowish brown, darker on center. Foreleg: coxa, trochanter and femur dark brown, with a lighter spot covering the apical 1/3 of the femur; tibia blackish brown, tarsi whitish except tarsus V and claws blackish brown. Middle and hind legs: coxae and trochanters brownish yellow diffusely stained with black, femora and tibiae whitish except femur II with a dark brown apical spot and femur III with a diffuse spot covering the apical 1/3, tarsi yellowish white, except apex of tarsus V and claws dark brown. Wings: fore wing (fig. 1) hyaline with the basal 1/2 of wing and apex of costal area stained with brown; longitudinal and crossveins brown; 5 crossveins basal to bullae in costal area, 15–17 distal to bullae. Hind wing (fig. 2): membrane brownish, veins brown; 11 crossveins present.

Abdomen: terga yellowish brown, translucent, except posterior margin of each tergum dark brown (fig. 3), terga II–IV with a dark brown longitudinal spot laterally (fig. 3), spiracles darker and dark brown streaks parallel to lateral margins between spiracle and posterior margin on all segments (fig. 4); terga VI–VIII with a tenuous medial line, sterna light yellowish brown. Genitalia (fig. 5): styliger plate and forceps yellowish white, except segments II and III of forceps grayish, width of segment II of forceps almost twice the width of segment III. Penes yellowish white, apicolateral area not forming an "ear"; no lateral pouch present; recurved fold weak, subparallel to internal margin; spine short and robust. Cerci whitish with alternating wide and narrow blackish bands at annulations,

Female and nymph: unknown.

Variations: in some individuals, a longitudinal spot on abdominal tergum V is present; sometimes the tarsal articulations are darkened, and in some individuals there is a lighter band close to the apex of the basal brown area in the fore wings.

Etymology: from the Latin words, base and maculatus (spotted), due to the stained basal area of the fore wings.

Discussion

T. basimaculatus can be distinguished from other species of the genus, by the following combination of characters. 1) a brown area covering a little less than 1/2 of the base of the fore wings (fig. 1); 2) hind wings stained with brown (fig. 2); 3) abdominal color pattern as in figs. 3–4; 4) penes narrow with a short and robust spine, without lateral fold, apicolateral area not forming a "ear" and recurved fold weak (fig. 5).

Biology

The adults were collected at light trap between 4:00 and 6:00 AM. The light trap was

located close to a stream 4 to 6 m wide, about 50 cm deep, with a stony bottom and some algae and vegetal debris trapped between the stones. No nymphs with similar coloration were collected, despite extensive collecting in several microhabitats.

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