

Leptagrion afonsoi sp.n. from the state of Minas Gerais, Brazil (Odonata: Coenagrionidae)

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Abstract

Leptagrion afonsoi sp.n. is described and illustrated from a single male (holotype; Caraça, Belo Horizonte, Santa Bárbara). It is close to *L. dispar* Selys, 1876 and *L. elongatum* Selys but differ from them by having bifid cercus.

Keywords: Odonata, Coenagrionidae, *Leptagrion*.

Introduction

Leptagrion Selys, 1876 contains Neotropical damselflies distributed exclusively in South America (Tsuda, 2000). This author listed 22 species, most of them from Brazil. Costa & Garrison (2001) discussed the taxonomic status of five poorly known species of *Leptagrion* and suggested that one of them (*L. auriceps* St. Quentin, 1960) was probably a synonym and the other four most probably belonged in other genera. However, they did not formally change the taxonomic status of these species pending on the examinations of their types. This was done recently by De Marmels & Garrison (2005) who transferred *Leptagrion beebeanum* Calvert, 1948 and *L. fernandezianum* Racenis, 1958 to the new genus *Bromeliagrion* De Marmels, 2005 and regarded *Leptagrion autazense* Sjöstedt, 1918, *L. auriceps* and *L. rufum* Selys, 1876 as junior synonyms respectively of *Aeolagrion flameum* Selys, 1876, *L. macrurum* (Burmeister, 1839) and *Anisagrion inornatum* Selys, 1876. Thus, the genus contains now 17 species, 15 of which from Brazil (Lencioni, 2006). Here, we describe, *Leptagrion afonsoi* sp. n., the first species of this genus described from the state of Minas Gerais.

Leptagrion afonsoi sp.n (Figs.1-5)

Male: (holotype) Head lacking. Prothorax yellowish brown with a metallic green transversal spot at the base of the midpart of the posterior lobe and a longitudinal one at the anterior lobe.

Posterior lobe smoothly rounded (Fig. 1). Pterothorax largely brownish yellow, on metepimeron yellowish brown with a slight pruinescence ventrally. Mesepisternum with a large band occupying its medial 2/3, metallic green at middorsal carina, adjacent areas turning into metallic copper laterally. Legs: femurae dorsally black, ventrally yellow, tibiae yellow except for ventral surfaces of fore tibiae which are dark brown. Tarsi black. Tarsal claws with well developed supplementary tooth. Wings hyaline. Venation black. Pterostigma black, rhomboid in fore (Fig.2) and hindwings (Fig.3). Postnodal crossveins 12 and 13 on right and left forewings, respectively, 11 on each hindwing. Vein R3 originating near seventh and sixth crossveins in fore and hindwings, respectively. IR2 originating at tenth crossvein in both wings.

Abdomen. - Segment 1 brown with a whitish yellow lateral marking. Segments 2-6 dorsally light brown, ventrally yellowish with a proximal pale ring and a larger distal black ring. Segments 7-10 dorsally dark brown, ventrally yellowish. Cercus black, in lateral view (Fig. 4), bifurcating at 2/3 of its length into a large dorsal branch and a thinner tapering ventral one. In dorsal view (Fig. 5) the dorsal branch appears as a large sub conical tubercle covered with a tuft of yellowish hairs directed distally. From the medial border of the ventral branch stems a stout subterminal tooth directed medially (Fig. 5).

Measurements (mm). - abdomen 38.2; hind wing 23.2

Material. - **HOLOTYPE:** Male, BRAZIL, Minas Gerais, Santa Bárbara, Caraça, XI-1988, A. Pelli leg. Collected when perched on a bromeliad leaf at Pico do Sol, (2,170 m). Deposited in the A. B. M. Machado collection Belo Horizonte, MG, Brazil.

Etymology. - This species is dedicated to my former entomology student, the biologist Afonso Pelli who collected the type specimen in the Serra do Caraça reserve.

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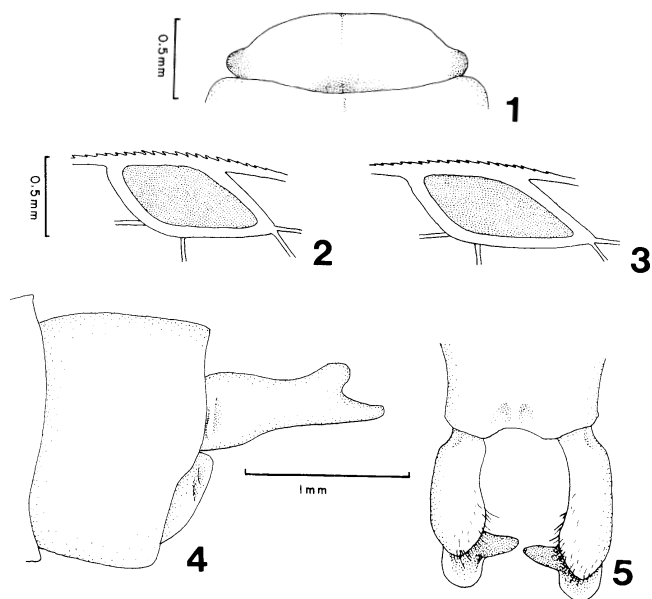


Figure 1-5 - *Leptagrion afonsoi*, holotype. 1. Posterior prothoracic lobe in dorsal view; 2. Pterostigma of forewing; 3. Pterostigma of hindwing; 4. Cerci in lateral view; 5. Cerci in dorsal view.

Discussion

Leptagrion afonsoi belongs in the group of species having the cerci armed with one or more teeth and keys out to couplet 8, *L. elongatum* and *L. dispar*; in Costa & Garrison (2001). It can be readily separated from these species by having a bifid cercus. In lateral view, the cercus of *Leptagrion afonsoi* looks like the one in *L. vriesianum* Santos, 1978. However, the shape and direction of the subterminal tooth in this species are very different from the one in *L. Afonsoi*.

Leptagrion afonsoi was collected at "Pico do Sol", a 2,170 m high peak, perched on a leaf of a ground bromeliad. This is coherent with the fact, first demonstrated by Santos (1966), that in *Leptagrion* the nymph breeds in the water accumulated in the leaves of tank bromeliads. *Leptagrion afonsoi* is the fourth species of *Leptagrion* registered in the literature for the state of Minas Gerais, the other three being *L. macrurum* (Burmeister, 1839) collected by Lund in Lagoa Santa (Calvert, 1909), *L. andromadra* Hagen in Selys, 1876, recorded for the Reserve of Peti (CEMIG) at Santa Bárbara (Machado et al., 1988) and *L. perlongum* Calvert, 1909 recorded from Matipó (Santos, 1962). In the ABM Machado collection there are also specimens of *L. bocainense* Santos, 1979 obtained from nymphs collected in bromeliads at the Ibitipoca State Park (municipality

of Lima Duarte, southeastern Minas Gerais state). From the conservation stand point, until more information is provided about the distribution of *L. afonsoi*, it should be categorized as Data Deficient (IUCN 2001). The dependence of tank bromeliads for breeding makes the species of *Leptagrion* more vulnerable as a great number of those plants are threatened with extinction in Brazil. For the moment, only *Leptagrion acuntum* is red listed (Machado et al., 2005).

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