



### Description of the bromeliad-dwelling final instar larva of *Leptagrion andromache* Hagen in Selys (Zygoptera: Coenagrionidae)

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The Neotropical genus *Leptagrion* Selys is composed by 16 species, mainly distributed in northern and central South America (Costa & Garrison 2001; De Marmels & Garrison 2005; Lencioni 2006). Only phytotelmic habitats were recorded for its larvae, exclusively in bromeliads, e.g., *Vriesia*, *Neoregelia*, *Quesnelia*, *Portea*, *Bilbergia*, *Canistrum*, *Aechmea* (Santos 1966, 1968, 1978, 1979; Lounibos *et al.* 1987; Corbet 1999). However, no final stage larva of any species of *Leptagrion* has been described to date. De Marmels (1985) described that of *L. fernandezianum* Rácenis, but this species was transferred to the newly erected and related genus *Bromeliagrion* De Marmels in De Marmels & Garrison (De Marmels & Garrison 2005). In addition, Torreias *et al.* (2008) described the final instar larva of *B. rehni* Garrison from *Guzmania* bromeliads. *Leptagrion andromache* Hagen in Selys belongs to the *porrectum* species group and was previously recorded from Brazil (Espírito Santo) (Costa & Garrison 2001; Lencioni 2006). In this paper we describe the final instar larva of *L. andromache* based on reared specimens of both sexes collected in Misiones province, Argentina and we compare them with that of *B. fernandezianum* and *B. rehni*.

#### Methodology

**Study site.** The study site is located next to a waterfall in the Iguazú National Park, in Misiones province, northeast Argentina. Biogeographically, this area belongs to the Paranense province of the Neotropical region. Climate is subtropical with temperatures ranging from -4.9 to 40°C and an annual mean of 22°C ([www.meteofa.mil.ar](http://www.meteofa.mil.ar)). Mean annual rainfall is 1,500–2,000 mm, with dry winters and wet summers. Vegetation corresponds to subtropical forest characterized by three strata; the higher composed by trees of 30 m, the middle by minor trees, and the lower by shrubs, bamboos, ferns, herbs, and epiphytes (Cabrera & Willink 1973).

**Larvae collection.** Samples were taken from phytotelmata (*Aechmea distichanta* Lam., Bromeliaceae) with a pipette of 0.5 cm of diameter. Water extracted from the phytotelmata was transferred to a tray, and odonate larvae were isolated in individual containers to prevent predation. Larvae were individually reared and fed copepods, worms, and culicid larvae of equivalent size until emergence of adults. To facilitate emergence, each container was provided with a piece of *A. distichanta* leaf. Exuviae were fixed in 70% alcohol, and adults were kept alive during 2 or 4 days before fixation.

**Terminology.** Larval mandibular formula follows Watson (1956). S1–10: abdominal segments 1 to 10.

**Specimens examined.** (3 ♂♂, 2 ♀♀, reared final instar larvae) Argentina, Misiones province, Parque Nacional Iguazú, 25°39'S, 54°18'W, October to November 2005, leg., R. Campos and M. Mogi. All specimens deposited in the collection of the Departamento Entomología, Museo de La Plata.

#### *Leptagrion andromache* Hagen in Selys

##### Description of last instar larva

Figures 1–10

**Head.** Almost two times as wide as long, brown, frontoclypeal area and labrum darkish. Antennae 7-segmented, the third antennomere the longest. Left mandible (Fig. 2) with two molars, five incisors, and two additional teeth, one next to