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Description of the last instar larva of *Anacroneuria tucuman* Stark (Plecoptera: Perlidae) from northern Argentina

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Abstract. The last instar larva of *Anacroneuria tucuman* Stark is described based on material from the Yungas Forest in Jujuy Province, Argentina. This is the first record of the species for the Province.

Key words. Stoneflies, *Anacroneuria*, immature, Jujuy Province

Introduction

The perlid genus *Anacroneuria* Klapálek is distributed from northern Argentina to the southwestern United States (Stark 2007) with more than 300 known species (Froehlich 2010, Stark 2013, Righi-Cavallaro *et al.* 2013). *Anacroneuria* is the most diverse and taxonomically complex genus of Plecoptera in the Neotropical Region (Froehlich 2010). The genus is represented in Argentina by at least 24 species (Stark 2013) mainly known from the Yungas and the Parana forests of the Amazonian and Parana subregions (Morrone 2006). Most of these species were treated or described by Froehlich (2002). There are many records and description of new species in neighboring countries (e.g. Stark & Baumann 2011, Stark *et al.* 2012, Righi-Cavallaro *et al.* 2013, Bispo *et al.* 2014) that may be potential additions to the fauna of Argentina. The discovery of new species is also very likely due to the speciose nature of the genus with many areas not adequately sampled. Argentinean aquatic entomologists have devoted little attention to this interesting genus with the exception of Orce (2003).

The knowledge of immature stages of *Anacroneuria* is restricted to the descriptions of only 26 species (Ferreira Ribeiro & De Sousa Gorayeb 2014). From the Argentinean species, only the larva of *A. debilis* (Pictet) has been described (Avelino-Capistrano *et al.* 2011). This imposes limitations in identifying immatures for needed ecological studies.

Material and methods

Specimens of *Anacroneuria tucuman* used in this study were collected using a Surber sampler and standard D-frame nets from second order streams located in the Yungas Rainforest, Department of General Belgrano, Jujuy Province, Argentina. These streams drain the Reyes River Basin (24° 05' 21" and 24° 18' 02"S. , 65° 43' 22" and 65° 22' 47" W), covering an area of 450 km² with W-E orientation. The climate of this region is montane, with subtropical rainfall patterns. Rainfall occurs between October and March with an average of 850 mm. Monthly average temperatures in summer (January) are 21°C and in winter (July) 10.5°C.

All specimens were preserved in 70% ethanol. Identification was confirmed using Froehlich (2002) and Stark (2013) descriptions of species. Figures were drawn with the aid of a camera lucida coupled to a Leica MZ6 stereomicroscope.

To evaluate the relationship between physicochemical parameters (dissolved oxygen, temperature, pH, salinity, conductivity) and the change in relative abundance of species, Spearman correlation coefficient was measured to test statistical dependence using PAST (Hammer *et al.* 2001). Groups of aquatic insect species with similar requirements and significant physical-chemical values were identified.