



Ephemeroptera and Plecoptera biodiversity in central Patagonia, Chubut province, Argentina

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Abstract

Aquatic insects in Central Patagonia (Andean region), Argentina, have received poor and fragmentary attention. In this paper we present the first preliminary inventory of Plecoptera and Ephemeroptera taxa for the area and include seasonal records of adult stages. We incorporate a set of environmental features for the sampling sites and biotopes as well as the main characteristics of the phytogeographical and biogeographical areas in which the species were found. Twelve species and eight genera of mayflies and eleven species and five genera of stoneflies are recorded for the first time in Chubut province. The stoneflies *Neofulla biloba* (Aubert), *Alfonsoperla flinti* McLellan & Zwick, *Austronemoura eudoxiae* Froehlich, *Chilenoperla semitincta* Illies, *Neonemura illiesi* Zwick and *Potamoperla testacea* Vera, and the mayflies *Andesiops ardua* (Lugo-Ortiz & McCafferty), *Chaquihua bullocki* Navás. And the family Oniscigastridae are new records for Argentina. The genera *Americabaetis* Kluge, *Camelobaetidius* Demoulin and *Traverella* Edmunds are confirmed for first time in the Andean region (Central Patagonia province) and four Plecoptera and two Ephemeroptera species constitute new records for the Patagonian steppe. We also include two new records for Ephemeroptera and Plecoptera for the Santa Cruz province. We reinforce the idea that patagonian aquatic environments have a highly specialized and complex insect fauna which can be correlated with biogeographical aspects but also with a great environmental heterogeneity.

Key words: new records, inventory, Patagonia, Ephemeroptera, Plecoptera

Introduction

Knowledge of Ephemeroptera and Plecoptera fauna in Argentina is still poor and fragmentary (Domínguez 1998, Muzón & Bachmann 1998). This is certainly true for the Central and the Subandean Patagonia (Patagonian subregion) in Chubut province, these areas had received little sampling effort. As a result of different research projects of the Laboratorio de Investigación en Ecología y Sistemática Animal (LIESA) several lotic environments in the area have been the object of intense and systematic collections (Miserendino 1996, 2001, Miserendino & Pizzolón 2000, 2004, Hollmann & Miserendino 2006). Even so, wide areas in the southern region, the Valdivian forest, and most of the steppe remain almost unexplored.

At present, 25 mayfly species within 13 genera have been recorded for the Argentinean Subantarctic and Patagonian subregions (Andean region) (Domínguez *et al.* 1994, Muzón & Pessacq 2001, Nieto 2004). Sixteen of those species (in 8 genera) have been recorded in the Chubut province (Domínguez *et al.* 1994, Miserendino & Pizzolón 2000, Miserendino 2001, Nieto 2004).

Stoneflies are represented by 36 species within 27 genera (McLellan *et al.* 1990, 2006, Muzón & Bachmann 1998, Nelson 1973), of which 17 (within 15 genera) have been recorded in the Chubut province (Aubert 1960, Illies 1963, McLellan *et al.* 2006, Miserendino 1996, Miserendino & Pizzolón 2000).