



## Description of the larva and redescription of the adult male of *Diamphipnoa helgae* Illies, 1960 (Plecoptera: Diamphipnoidae)

PABLO PESSACQ & GUILLERMO H. OMAD

Laboratorio de Investigaciones en Ecología y Sistemática Animal (LIESA), Universidad Nacional de la Patagonia San Juan Bosco, Sarmiento 849, 9200. Esquel, Chubut, Argentina. E-mail: pablopessacq@yahoo.com.ar

### Abstract

Based on specimens reared *in situ* in the National Park “Los Alerces,” Chubut Province, Argentinean Patagonia, we describe the larvae and redescribe the adult male of *Diamphipnoa helgae* Illies 1960.

**Key words:** Plecoptera, *Diamphipnoa*, Patagonia, Argentina.

### Introduction

Diamphipnoidae is a family endemic to the Subantarctic region of southern Argentina and Chile. It is currently represented by 2 genera and 6 species (Illies, 1960; Stark, 2008; Stark *et al.* 2009). Only the larvae of *Diamphipnoa annulata* (Brauer, 1869) and *Diamphipnopsis samali* Illies, 1960 were briefly described by Illies (1960).

These stoneflies are considered unusual in Argentina (Pessacq & Miserendino, 2008), and are mainly found in small pristine streams within the Valdivian forest, Patagonia. Many unidentified larva of *Diamphipnoa* Gerstaecker, 1873 were collected from a stream in the National Park “Los Alerces,” Chubut Province, Argentina; to identify these specimens several adults were successfully reared. Based on the original description of Illies (1960) the adults seemed to be *D. helgae* Illies, 1960, but differed in the possession of two small elongated processes between the terminal lobes of male tergum X, not described or illustrated in the original description. In order to clarify the identity of the specimens; photographs of the holotype of *D. helgae* were studied, in which the elongated processes were clearly visible. The objective of the present contribution is to describe the larva of *D. helgae* and redescribe the adult male of *D. helgae*.

### Material and methods

Figures were drawn with the aid of a camera lucida coupled to a Leica MZ6 stereomicroscope. Biogeographic areas follow Morrone (2006). Larvae and adults were associated by specimens reared *in situ*. About 20 larvae were placed in a 10 l perforated bucket in the stream from which they had been collected. They were inspected once a month during the winter and every one or two weeks in spring. Within the bucket, small tree branches were placed to assist adults during emergence. Larvae and larval exuviae were preserved in alcohol (70%), once emerged, adults were preserved in alcohol and some pinned.

### *Diamphipnoa helgae* Illies, 1960

(Figs. 1–2)

*Diamphipnoa helgae* Illies 1960: 685–687 (description of male and female, illustrations of male abdominal segments IX–X in dorsal, ventral and lateral view, detail of epiproct, female abdominal segments VII–X in ventral view). Vera 2006: 59 (list of Chilean Plecoptera). Vera 2006: 59 (list of Chilean Plecoptera).