



## A new species of *Campsurus* (Ephemeroptera: Polymitarciidae: Campsurinae) from Argentina and Uruguay and redescription of *C. evanidus* and *C. jorgenseni* with new synonymies

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### Abstract

The subfamily Campsurinae (Ephemeroptera: Polymitarciidae) includes one of the most speciose genera of Ephemeroptera, *Campsurus* (with 40 known species), with a Pan-American distribution and its greatest diversity in South America. The following new synonymies are proposed: *C. evanidus* Needham & Murphy, 1924 (= *C. juradinus* Navás, 1930) and *C. jorgenseni* Esben-Petersen, 1912 (= *C. scutellaris* Needham & Murphy, 1924). Redescriptions, drawings and photographs are provided for both species. *C. vulturorum* **sp. nov.** from Argentina and Uruguay is described and illustrated for all life stages. It is characterized, in the adult stage, by: very large size (male fore wings 15.9–20.5 mm, female fore wings 21.0–28.0 mm), posterior margin of male abdominal sternum IX convex and rounded, pedestals subrectangular with a short projection on outer-posterior margin; penes widely separated distally, each arm formed by two lobes; and in mature nymphs by: mandibular tusks robust with a large submedian tubercle and six subapical rounded and small tubercles, maxilla with a short flat and triangular membranous gill on cardo.

**Key words:** Ephemeroidea, burrowing mayflies, *Campsurus juradinus*, *Campsurus scutellaris*, Neotropical mayflies

### Resumen

La subfamilia Campsurinae (Ephemeroptera: Polymitarciidae) incluye uno de los géneros más diversos de Ephemeroptera: *Campsurus*, (con 40 especies descritas) con una distribución panamericana y con el mayor número de especies en América del Sur. Se proponen las siguientes nuevas sinonimias: *C. evanidus* Needham & Murphy, 1924 (= *C. juradinus* Navás, 1930) y *C. jorgenseni* Esben-Petersen, 1912 (= *C. scutellaris* Needham & Murphy, 1924). Se presentan redescrpciones, dibujos y fotografías para ambas especies. *Campsurus vulturorum* **sp. nov.** de Argentina y Uruguay es descrita a partir de todos sus estados, se caracteriza en el estado adulto por: tamaño muy grande (alas anteriores del macho 15.9-20.5 mm, alas anteriores de la hembra 21.0–28.0 mm), margen posterior del 9º esterno abdominal masculino convexo y redondeado, pedestales subrectangulares con una corta proyección en el margen posterior externo, penes muy separados distalmente, cada uno formado por dos lóbulos; y en las ninfas maduras: colmillos mandibulares robustos con un gran tubérculo submediano y 6 tubérculos pequeños y redondeados subapicales, maxila con una branquia membranosa corta, delgada y triangular en el cardo.

### Introduction

Polymitarciidae is a group of “burrowing mayflies” (Ephemeroidea), characterized by its nymphs adapted to live in tunnels they build in different substrates such as soft mud, hard clay, plant tissues (McCafferty 1975) and with very short-lived adults. The family is composed by three subfamilies: Polymitarciinae, Asthenopodinae and Campsurinae. The last one with three genera: *Campsurus* Eaton, *Tortopus* Needham & Murphy and the recently