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## The larvae of West Palaearctic *Eurylophella* Tiensuu, 1935 (Ephemeroptera: Ephemerellidae), with description of a new species from Georgia

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### Abstract

*Eurylophella korneyevi* sp. nov. (larva) is described from the Kintrishi River within the Caucasus region of Georgia, Autonomous Republic of Adzharia. In addition to morphological data, biological and distribution data are also presented. The new species can be differentiated from other *Eurylophella* species by the shape of submedian tubercles on abdominal tergites, the structure of the dorsal subdivisions of the lower lamella of gills IV, and the shape and relative development of occipital tubercles. Distinguishing features of *E. korneyevi* sp. nov., *Eurylophella karelica* Tiensuu, 1935 and *Eurylophella iberica* Keffermüller & Da Terra, 1978 are given. The possibility of using chaetotaxy in the taxonomy of the genus is analyzed in detail for the West Palaearctic species of *Eurylophella*.

**Key words:** mayflies, Pannota, diagnosis, Europe, Caucasus, chaetotaxy

### Introduction

*Eurylophella* Tiensuu, 1935 belongs to the subfamily Timpanoginae (Ephemerellidae). Together with its closest relative *Dentatella* Allen, 1980 they constitute the tribe Eurylophellini (Jacobus & McCafferty 2006, Ogden *et al.* 2009).

Larvae of *Eurylophella* can be easily distinguished from those of all other genera of Ephemerellidae. The main combination of larval characters according to Funk & Sweeney (1994) is: (1) tracheal gills on abdominal segments IV–VII lamellate, with the gill on segment IV semi-operculate, covering most of gills V–VII; (2) gills on segment I consist of a single filament, gills on segments II and III are absent; (3) abdominal segment IX elongate (at least 20% longer than segment VIII at midline); (4) tarsal claws with denticles; (5) maxillary palpi absent; (6) submedian tubercles on segments I–X paired.

*Eurylophella* is an holarctic genus which encompasses 18 valid species (Mayo 1952; Allen & Edmunds 1963; Funk *et al.* 1988, 2008; Funk & Sweeney 1994; Bauernfeind & Soldán 2012). Most of them are distributed in the New World. The genus is only known by three valid species in western part of the Palaearctic region (one of them is described for the first time in this paper): *Eurylophella karelica* Tiensuu, 1935, *Eurylophella iberica* Keffermüller & Da Terra, 1978 and *Eurylophella korneyevi* sp. nov.

*Melanameletus brunnescens* Tiensuu, 1935 and *Eurylophella lithuanica* Kazlauakas, 1959, were described from different parts of Europe and are now considered as junior synonyms of *Eurylophella karelica* (Tiensuu 1935; Kazlauskas 1959; Puthz 1978; Kluge 1997; Jacobus & McCafferty 2008; Bauernfeind & Soldán 2012). However, some researchers have doubts about the synonymy of *M. brunnescens* and *E. karelica*. We will not discuss this problem, because it is beyond the scope of the current work.

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