
A NEW RECORD OF *CHOROTERPES PICTETI* (EATON, 1871) [EPHEMEROPTERA: LEPTOPHLEBIIDAE] IN SERBIA

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ABSTRACT

C. picteti is widely distributed species in the Europe, but, due to the stenovalent character of the species, as well as destruction of relevant aquatic habitats, it has been characterized as rare and endangered species. This finding indicates, once again, that Serbian mayfly (Ephemeroptera) fauna is still not completely known and detailed surveys are needed. Serbian streams are renowned for their diverse fauna, although specific knowledge about the taxa inhabiting them is scarce, that include mayfly fauna too. Insect fauna of small streams of mountainous region of Serbia (north from the Danube) are especially diverse and reports of new species for fauna of Serbia are expected. The first record of *Choroterpes picteti* (Eaton, 1871) for Serbia is reported in this research.

Introduction

Serbia represents the less researched area of the Europe in respect of the biodiversity (1), that include inland waters too. Further, a small amount of published information about mayflies (Ephemeroptera) in Serbia is available. Filipovic (2) discussed investigations on mayflies in Serbia up to the eighties, and emphasized that it is insufficiently studied group. Recently, data on Ephemeroptera in Serbia have been published within the frame of studies on the whole macrozoobenthos or within the works concerning environmental quality. Very few authors have examined mayflies as a separate component of aquatic ecosystem as for example Markovic and Tutundzic (3). Thus, serious investigation on mayflies, as well as other aquatic and semi-aquatic invertebrates, should be the priority for the development of theoretical and practical hydrobiological work in our country.

The aim of this paper is to present the

first record of *Choroterpes* (*Choroterpes*) *picteti* (Eaton, 1871) [Ephemeroptera: Leptophlebiidae] for Serbia and contribute to the knowledge on the distribution of this species and mayflies in Europe.

Materials and Methods

The specimen is collected from the River Tvrdanska, left tributary of the Ibar River (South-West, mountainous Part of Serbia).

Sampling site is located at 43°07'29''N and 20°48'45''E, at altitude of about 600 m.a.s.l.

The material is collected by Sürber net (size 0,1 m², mesh size 250 µm) in May 2005. A stretch of 50 m is observed. The stream is 2-2.5 m wide and mean depth of the cross sections is 0.2-0.7 m. The mean current velocity in the period of investigation was 0.9 ms⁻¹, while the pH was 6.6. The substrate of sampling site mainly contained gravel (2-16 mm) and pebbles (16-34 mm), but deposition of fine (grains perceptible by eye; 0.125-0.5 mm) and coarse

sand (0.5-2 mm) has been observed within limited sections of the site (about 25% of investigated sector).

Results and Discussion

One full-grown nymph is observed and stored in the biological material collection of the Institute of Biology and Ecology, Faculty of Science, University of Kragujevac, Serbia and Montenegro (identifier 2004-MB-IBTR). Observed specimen fully corresponds to the description of Grandi (4) and Belfiore (5). The body length of the nymph is 7 mm.

C. picteti is stenoeocious species (6) that lives in the streams with moderate current velocity (5). This mayfly is widely distributed in Europe (5). According to Puthz (7) the species is present in Mediterranean area, east and south-east part of Balkan Peninsula, Western and Central Highlands of Europe, the Carpathians, the lowland parts of Europe (lowland along middle Danube, Western, Central and Eastern Plains, Baltic Province) and North Africa. It is also presence in Caucasus area and Caspic depression, as well as within the region of the Small Asia.

C. picteti was recorded more frequently in the areas that were historically only slightly impaired by waste waters from industry or domestic sewage (6). In regard to adjacent areas, it should be mentioned that this mayfly has been reported from Hungary (8), but its occurrence is limited to the Tisza River only (9). *C. picteti* is not frequent and abundant species (5, 6, 8).

The finding of *C. picteti* is meaningful, not only as new species for fauna of Serbia, but as record of rare (6, 8) and endangered species for Europe (10). This finding indicates, once again, that it is necessary to update the knowledge of mayflies in the Serbia and Balkan Peninsula. Serbian Ephemeroptera fauna is still not completely known and additional researches are needed.

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