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A new species, *Procloeon monilistylus* sp. n. (Ephemeroptera, Baetidae), from the Russian Far East

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Abstract

A new, two-winged species *Procloeon monilistylus* **sp. n.** is described from the Russian Far East based on male and female imagoes reared from larvae. The larva differs from other species of *Procloeon* by having a deeply separated incisor and kinetodontium of the mandibles. The imago differs from all Baetidae (and mayflies in general) by the shape of the gonostyli. Formerly this species was known as "*Cloeon* (*Centroptilum*) sp. 1" sensu Kluge & Novikova 1992.

Key words: Russian Far East, mayflies, Ephemeroptera, Baetidae, systematics, new species

Introduction

In the paper by Kluge & Novikova (1992) taxa *Centroptilum* Eaton 1869, *Similicloeon* Kluge & Novikova 1992, *Intercloeon* Kluge & Novikova 1992, *Pseudocentroptilum* Bogoescu 1947, *Procloeon* Bengtsson 1915 and *Pseudocentroptiloides* Jacob 1987 are described as subgenera in the genus *Cloeon* Leach 1815 s.l. Among them, *Centroptilum* was accepted in a restricted sense, and in Palaearctic fauna included only three species—*C. luteolum* (Müller 1776), *C. kazlauskasi* Kluge 1983 and undescribed species indicated as "*Cloeon* (*Centroptilum*) sp. 1". The last one was known as a single larva, whose tergalii and distal parts of caudalii have been lost. This larva was collected by N. Kluge in river Sidime (Primorskiy Kray) in July 1980. In July 1990 N. Kluge visited Primorskiy Kray again and made a special attempt to collect this species at the same place, but unsuccessfully. After publication of this paper, in 1998, D. Apanaskevich collected 6 larvae in another region of Primorskiy Kray, and reared from them 3 imagoes. These larvae are in better condition than the first one collected by N. Kluge, so structure of larval cerci and tergalii becomes known. In 1996–2013, T. Tiunova have collected in Primorskiy Kray, Khabarovskiy Kray and Amurskaya Oblast adults and larvae belonging to the same species. The material collected after the first publication allows us to revise systematic position of this species. In distal part of larval cercus, each segment bears one long and heavy spine on lateral side of hind margin (Fig. 3); eyes of female imago are enlarged, elevated and brought together in such a way, that their inner margins are parallel one another (Figs 26, 27); penial gonovectes are fused with penial bridge (Figs 30, 31). These characters testify that this species belongs not to *Centroptilum*, but to *Procloeon*, according to the previously given diagnoses (Kluge & Novikova 1992; Kluge 2011). This fact was mentioned in the paper by Kluge (2011), in which *C. kazlauskasi* is moved to the genus *Anafroptilum* Kluge 2011 and, hence, the genus *Centroptilum* appears to be composed of a single species *C. luteolum*.

The holotype and part of paratypes of the new species will be permanently deposited in the Zoological Institute of the Russian Academy of Sciences (Saint Petersburg, Russia) (**ZIN**), but are temporarily located in the Department of Entomology of Saint Petersburg State University; part of paratypes is deposited in the Institute of

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