



Contribution to the knowledge of the subgenus *Rhodobaetis* Jacob, 2003 (Ephemeroptera: Baetidae: *Baetis*) from Central Asia. Part 1

PAVEL SROKA¹, ROMAN J. GODUNKO^{1,2,5}, EUGENIA A. NOVIKOVA³ & NIKITA J. KLUGE⁴

¹Biology Centre of the Academy of Sciences of the Czech Republic, Institute of Entomology, Branišovská 31, 37005 České Budějovice, Czech Republic. E-mail: pavel.sroka@centrum.cz

²State Museum of Natural History, National Academy of Sciences of Ukraine, Teatralna 18, 79008 Lviv, Ukraine.
E-mail: godunko@museum.lviv.net; godunko@seznam.cz

³Department of Ichthyology and Hydrobiology, Biological Faculty, Saint-Petersburg State University, Vasilievskiy Ostrov, 16th line, 29, 199034 Saint-Petersburg, Russian Federation

⁴Department of Entomology, Biological Faculty, Saint-Petersburg State University, University Embankment 7, 199034 Saint-Petersburg, Russian Federation. E-mail: kluge@FK13889.spb.edu

⁵Corresponding author

Abstract

A new species, *Baetis* (*Rhodobaetis*) *taldybulaki* sp. nov., is described on the basis of larvae and reared adults from Kyrgyzstan. The differential diagnosis of this species is provided with regard to other representatives of the subgenus *Rhodobaetis* Jacob, 2003. The lectotype of *Baetis* (*Rhodobaetis*) *issyksuensis* Brodsky, 1930 (male imago) is designated, described and illustrated in order to fix the status of this species and clearly differentiate it from *B. taldybulaki* sp. nov. The holotype of *Baetis* (*Rhodobaetis*) *heptapotamicus* Brodsky, 1930 is redescribed and a new synonymy is established: *B. heptapotamicus* = *B. mycetopis* Brodsky, 1930, **syn. n.**

Key words: lectotype, holotype, syntype series, synonymy, new species, differential diagnosis, biology, distribution

Introduction

The mayflies described here belong to the genus *Baetis* Leach, 1815 in one of its most restricted senses; in rank-free phylogenetic classification this taxon bears the circumscriptional name *Baetosternata* Kluge & Novikova, 2011, and the hierarchical name *Baetis*/fg9 sensu Kluge & Novikova, 2011. This taxon includes the subordinated taxa (ranked either as subgenera, or genera) *Rhodobaetis* Jacob, 2003, *Glossidion* Lugo-Ortiz & McCafferty, 1998, *Tenuibaetis* Kang & Yang, 1994, *Baetiella* Ueno, 1931 and some others, the revision of which is in progress.

The subgeneric name *Rhodobaetis* was proposed for the first time by Kazlauskas (1972) for the *Baetis rhodani* species-group as defined by Müller-Liebenau (1969); this name remained unavailable, as the type species had not been formally designated by Kazlauskas (1972). Formal authorship of the name *Rhodobaetis* belongs to Jacob (2003), who redescribed the subgenus *Rhodobaetis* and designated *Baetis rhodani* (Pictet, 1843) as the type species. Besides the species being formerly placed in the *rhodani* species-group, Jacob (2003) also included the Asian species *B. pseudothermicus* Kluge, 1983, *B. transiliensis* Brodsky, 1930 and *B. ursinus* Kazlauskas, 1963 in the subgenus *Rhodobaetis*. Novikova (1987a) placed *B. transiliensis* in a separate *transiliensis* species-group closely related to the *vernus* species-group and the *fuscatus* species-group (which includes the type species of *Baetis*). Godunko *et al.* (2004b) have redefined the diagnosis and circumscription of the subgenus *Rhodobaetis* so that it includes *B. pseudothermicus*, but not *B. transiliensis* and *B. ursinus*. Here we provisionally place the Central Asian species *B. transiliensis* in the subgenus *Baetis* in the narrowest sense and the Siberian species *B. ursinus* in the subgenus *Tenuibaetis* Kang & Yang (see Kang *et al.* 1994). So their full names are *Baetis* (*Baetis*) *transiliensis* Brodsky, 1930 and *Baetis* (*Tenuibaetis*) *ursinus* Kazlauskas, 1963.

During the past decade significant progress in the study of *Rhodobaetis* has been achieved. As a result of this