

Contribution to the taxonomy of Eastern North American *Epeorus* Eaton (Ephemeroptera: Heptageniidae)

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Abstract

The larva of *Epeorus punctatus* (McDunnough) is described for the first time based on reared specimens from West Virginia. Larvae are differentiated from those of other *E. vitreus* species group species by the bluntly pointed femoral projections, subrectangular head capsule, and short posterolateral abdominal projections. *Epeorus rubidus* (Traver) is considered to be a junior subjective synonym of *E. vitreus* (Walker). A key for the known larvae of the eastern North American species of the *E. vitreus* species group [*E. dispar* (Traver), *E. punctatus*, *E. subpallidus* (Traver), *E. vitreus*] is provided.

Key words: Ephemeroptera, taxonomy, *Epeorus*, Heptageniidae, new synonym, stage description

Introduction

In eastern North America, the species of *Epeorus* Eaton can be divided into two species groups. The *pleuralis* species group includes *E. fragilis* (Morgan), *E. frisoni* (Burks), *E. namatus* (Burks), and *E. pleuralis* (Banks). The *vitreus* species group (equivalent to the subgenus *Proepeorus* Kluge) includes *E. dispar* (Traver), *E. punctatus* (McDunnough), *E. rubidus* (Traver), *E. suffusus* (McDunnough), *E. subpallidus* (Traver), and *E. vitreus* (Walker). Adult males of the two species groups differ in the shape of the penes [see, for example, Traver (1935: Fig. 105)]. Larvae of the *pleuralis* species group are generally characterized by having the lamellae of gills 1 greatly enlarged anteriorly, whereas gills 1 of the *vitreus* species group are not enlarged as such. Additional characteristics associated with each of the species groups are provided in the key below.