



The Nymph and Additional Imaginal Description of *Epeorus melli* new combination from China (Ephemeroptera: Heptageniidae)

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Abstract

The nymph plus additional imaginal characters of *Epeorus melli* (Ulmer) **new combination** are described and figured in detail. The nymphs have 2 cerci, gills 1–7 which do not form a closed disk ventrally, and abdominal terga with a median row of setae dorsally but without median tubercle. Originally described in the genus *Thalerosphyrus*, it is actually a member of the genus *Epeorus*.

Key words: Ephemeroptera, Heptageniidae, *Thalerosphyrus*, *Epeorus*, nymph, China

Introduction

Thalerosphyrus melli was originally described by Ulmer (1925) from males and females found in southern China. Knowledge of the genera of Heptageniidae has expanded since Ulmer's publication (for example: Braasch and Soldán 1984; Kluge 1988, 2004; Wang and McCafferty 2004), and a reevaluation of older species is needed. In recent years, imaginal materials of "*T. melli*" have been collected frequently in this country. Based on the Ulmer's description and materials in our collection, imagoes are identified easily by the subequal length of the femur, tibia and tarsus of the hind leg (Fig. 28), reddish stripes and spots on body and wings (Fig. 27) and the shape of the genitalia (divided, divergent penes, each penis lobe with a small apical projection, Fig. 29).

In 2005, several adults of the *T. melli* were collected in Lei-Gong-Shan Natural Reserve, Guizhou province, southwestern China. Nymphs associated with the adults based on color patterns and developing male genitalia, belong to the genus *Epeorus*. A description of the nymphal and additional imaginal characters of *Epeorus melli* **new combination** are described and figured below

Epeorus melli (Ulmer, 1925) n. comb.

(Figs. 1–29)

Thalerosphyrus melli Ulmer, 1925: 101, figs. 89–93. Types: male, female, collected in Luofushan Mt. (Lofaushan), Maizi Mt. (Mahn tsi shan), Guangdong (Kuangtung) province, southern China.

Thalerosphyrus melli—Wu, 1935:252; Ulmer, 1935–1936:215; Gui, 1985:86; You et Gui, 1995:45, fig. 41 (male).

Material examined. CHINA: Guizhou province: Rong-Jiang Ct., Dan-Jiang village (10820'394"E, 2620'550"N, alt. 685 m), Lei-Gong-Shan reserve, 1 10 35 Larvae (L), 2005-IX-15-18; Leishan Ct., Fang-Xiang village (10816' 551"E, 2626'599"N, alt. 880 m), Lei-Gong-Shan reserve, 11 L, 2005-IX-13-15, col-