A new species of the Choroterpes Eaton, 1881 subgenus Monophyllus Kluge, 2012 and a new record of the subgenus Choroterpes, s.s. (Ephemeroptera: Leptophlebiidae) from southern Western Ghats, India

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Abstract

A new species of Choroterpes (Monophyllus) is described based on larvae collected from rivers of Karnataka part of the Western Ghats. Choroterpes (Monophyllus) nandini n. sp. can be distinguished from the only other species viz., C. (Monophyllus) monophyllus by the following combination of characters: (i) median emargination of labrum moderately deep, without denticles; (ii) gills 2–7 without tracheation and (iii) abdominal segment 6 and 7 without colour pattern. Choroterpes (Choroterpes) petersi Tong and Dudgeon 2003 is newly recorded based on larval collections from the eastern and western regions of southern Western Ghats.

Key words: mayfly, Choroterpes, Monophyllus, new species, new record, India

Introduction

The mayfly genus Choroterpes Eaton, 1881 belonging to the subfamily Atalophlebiinae of the family Leptophlebiidae is world-wide in distribution except the Australian Region. A detailed panbiogeographic analysis of the origin and present distribution of Choroterpes is made by Flowers (2009). The genus encompasses the subgenus Choroterpes, cosmopolitan in distribution, subgenus Euthraulus Barnard, 1932 restricted to the Old World, subgenus Neochoroterpes Allen, 1974 restricted to the New World and subgenus Cryptopenella Gillies, 1951 restricted to the Oriental region. Recently, Kluge (2012a) has established 2 subgenera viz., Monophyllus for Choroterpes (Monophyllus) monophyllus from China and Dilatognathus for Choroterpes (Dilatognathus) cataractae from Indonesia. The larvae of the subgenus, Choroterpes s.str. are distinguished by a broad, terminal lobe on the lamina of gills 2–6; in contrast, the subgenus Euthraulus has gills 2–6 bearing 3 narrow filaments on the apex of each lamina; while in the subgenus Cryptopenella originally described as a genus (Gillies 1951) but placed as a subgenus by Zhou (2006) is indistinguishable from Euthraulus in the larval stage. However, penes of Cryptopenella is very short and do not protrude beyond the styliger plate. Two species viz., Choroterpes (Euthraulus) alagarensis and Choroterpes (Euthraulus) nambiyarensis are described so far from south India by Dinakaran et al. (2009) and Selva-Kumar et al. (2013) respectively. A new species of Choroterpes belonging to a recently established subgenus Monophyllus viz., Choroterpes (Monophyllus) nandini n. sp. is described herein based on larval material. Choroterpes (Choroterpes) petersi Tong and Dudgeon 2003 is recorded for the first time thereby extending the distributional range of the subgenus Choroterpes down to South India.

Material and methods

Larval materials were collected from streams and rivers of the southern Western Ghats, India. The larvae were
above mentioned groups, they have established a group called *Choroterpes* group by uniting fauna from North America and Southeast Asia and Madagascar. The subgeneric relationships within the genus *Choroterpes* can be fine-tuned if future molecular phylogenetic studies encompass all the subgenera established so far from all over the world.

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References


