



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 *Euthraulius* 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 *Euthraulius* 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 *Euthraulius* in the larval stage. However, penes of *Cryptopenella* is very short and do not protrude beyond the styliger plate. Two species viz., *Choroterpes* (*Euthraulius*) *alagarensis* and *Choroterpes* (*Euthraulius*) *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 *Choroerpes* group by uniting fauna from North America and Southeast Asia and Madagascar. The subgeneric relationships within the genus *Choroerpes* can be fine-tuned if future molecular phylogenetic studies encompass all the subgenera established so far from all over the world.

Acknowledgements

C. Selvakumar thanks the University Grants Commission (UGC), New Delhi, India for award of Dr. D. S. Kothari Post Doctoral Fellowship [No.F.4-2/2006 (BSR) /13-670/2012 (BSR)]. The authors gratefully acknowledge the Department of Zoology, University of Madras, for providing assistance through the UGC-SAP.

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