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Contribution to the knowledge of *Tenuibaetis* Kang & Yang 1994, *Nigrobaetis* Novikova & Kluge 1987 and *Labiobaetis* Novikova & Kluge 1987 (Ephemeroptera: Baetidae) from the Western Ghats (India)

T. KUBENDRAN¹, C. BALASUBRAMANIAN¹, C. SELVAKUMAR^{2,5},
J. L. GATTOLLIAT³ & K. G. SIVARAMAKRISHNAN⁴

¹Department of Zoology, Thiagarajar College (Autonomous), Madurai-625 009, Tamil Nadu, India.

E-mail: tkbaetis@gmail.com; ulab62@yahoo.com

²Department of Zoology, University of Madras, Guindy Campus, Chennai-600 025, India. E-mail: selvaaa06@gmail.com

³Museum of Zoology, Place de la Riponne 6, Lausanne, Switzerland. E-mail: jean-luc.gattolliat@vd.ch

⁴Department of Zoology, Madras Christian College (Autonomous), Tambaram East, Chennai-600 059, India.

E-mail: kgskrishnan@gmail.com

⁵Corresponding author

Abstract

As part of ongoing exploration of the mayflies of hill streams of southern Western Ghats, we describe two new species: *Nigrobaetis paramakalyani* Kubendran & Balasubramanian n. sp. and *Labiobaetis jacobusi* Kubendran & Balasubramanian n. sp. The genus *Nigrobaetis* is reported for the first time from India. *Tenuibaetis frequentus* (Müller-Liebenau & Hubbard 1985) n. comb. was also collected in this area and we provide the first description of this species at the imaginal stage. Brief ecological notes of the three species are added.

Keywords: new species, new combination, Ephemeroptera, *Tenuibaetis frequentus*, *Nigrobaetis paramakalyani*, *Labiobaetis jacobusi*, Western Ghats, India

Introduction

Baetidae is a relatively homogenous family of Ephemeroptera, which now encompasses about 100 genera and 900 species, accounting for one-quarter of the world's mayfly diversity (Gattolliat & Nieto 2009). Oriental fauna especially the southern part of the Indian subcontinent is still poorly explored and hence is one of the most promising and challenging areas for exploration of Baetidae. Although some islands like Sri Lanka, Taiwan, and Hong Kong received some attention with regard to the taxonomy of Baetidae, majority of the Oriental realm has remained very poorly known till late seventies (Gattolliat & Nieto 2009). Waltz and McCafferty contributed to clarify the supra-specific classification by establishing new genera and complexes of genera (Waltz & McCafferty 1987a, b; Waltz *et al.* 1994). These developments resulted in a revised concept of the cosmopolitan genus *Baetis* with clear-cut division of the genus into *Baetis* s.str. versus *Baetis* s.l. (Jacob 2003).

Currently, there is resurgence of interest for taxonomic research of Baetidae in peninsular India. *Symbiocloeon madhyastai*, a commensal of a rare bivalve was described from the Thunga river of the Western Ghats (Subramanian & Sivaramakrishnan 2009). Recent explorations on the rivers of Kalakad-Mundanthuari Tiger Reserve located in southern Western Ghats resulted in the discovery of the following new species of Baetidae. Selva-Kumar *et al.* (2012) described a new species of *Indobaetis* viz., *I. michaelohubbardi* which was subsequently transferred to the genus *Baetis* s.str. by Kluge and Novikova (2014) based on the presence of hindwing pads, three maxillary dentisetae and other characteristics. Selva-Kumar *et al.* (2012) described a new species of *Platybaetis* viz., *P. arunachalae* which was then synonymised with *Acentrella (Liebebiella) vera* (Müller-Liebenau, 1982) by Kluge *et al.* (2014). Kluge and Novikova (2014) described a new species of *Indobaetis* viz., *I. microfolius* based on larvae, a male subimago reared from larva and a female subimago extracted from a mature larva from Karnataka.