New Oriental tribe Iscini, new non-dilatognathan species of *Notophlebia* Peters & Edmunds 1970 and independent origin of *Dilatognathus*-type mouth apparatus in Atalophlebiinae (Ephemeroptera: Leptophlebiidae)

NIKITA J. KLUGE
Department of Entomology, Saint Petersburg State University, Universitetskaya nab., 7/9, Saint Petersburg, 199034, Russia.
E-mail: n.kluge@spbu.ru. Website: http://www.insecta.bio.spbu.ru

Abstract

A new tribe, Iscini *tr. n.*, comprising the Oriental genera *Isca* Gillies 1951 and *Notophlebia* Peters & Edmunds 1970, is established. A new species, *Notophlebia ganeshi* sp. *n.*, is described based on male and female imagos reared from larvae. The new species markedly differs from *N. jobi* Sivaramakrishnan & Peters 1984 by its non-specialized larval mouth apparatus. The larva of *N. jobi* has a highly specialized mouth apparatus of the «*Dilatognathus*-type»; this type of mouth apparatus has evolved independently in several non-related leptophlebiid taxa.

Key words: Oriental Region, mayflies, Ephemeroptera, Leptophlebiidae, systematics, new tribe, new species

Introduction

Peters & Edmunds (1970) described the genus *Notophlebia* Peters & Edmunds 1970 based on a single male imago of *N. hyalina* Peters & Edmunds 1970 from the Western Ghats in India. They assumed that this genus had relationship with the genera *Nathanella* Peters & Edmunds 1970 and *Isca* Gillies 1951. However, the larva ascribed by Peters & Edmunds (1970) to *Nathanella*, was later recognized as belonging to *Notophlebia* (Sivaramakrishnan & Peters 1984). Sivaramakrishnan & Peters (1984) described a second species of *Notophlebia*—*N. jobi* Sivaramakrishnan & Peters 1984 as imagos and larvae (associated by rearing), and gave the first diagnosis of *Notophlebia* based on the larval stage. Later, Sivaramakrishnan et al. (1996) described true larva of *Nathanella*, which appeared to be quite different from the larva of *Notophlebia*.

My investigation of *Notophlebia* (two species described below) and *Nathanella* (male and female imagos reared from larvae of *N. saraswathiae* Sivaramakrishnan, Venkataraman & Balasubramanian 1996) has not revealed shared apomorphies of *Notophlebia* and *Nathanella* other than the loss of hind wings. Thus, the assumption about their relationship, which was expressed by Peters & Edmunds (1970), has not been supported yet (nor has it been disproven, because the relationships of *Nathanella* remain unknown). On the other hand, comparison of new material of *Notophlebia* with available material of *Isca* (male and female imagos reared from larvae of several species) allows discovery of their shared apomorphies and allows confirmation of the idea of their relationship. Based on this, a new tribe Iscini *tr. n.* is established. In the present paper, diagnoses of Iscini and *Notophlebia* are given, and a new species, *N. ganeshi*, is described.

Material and methods

All material, including the holotype and paratypes of the new species, will be permanently deposited in the Zoological Institute of the Russian Academy of Sciences (Saint Petersburg, Russia), but is temporarily located in the Department of Entomology of Saint Petersburg State University. In the list of material examined, the following
ISCINI, TR. N., AND NEW NOTOPHLEBIA

Zootaxa 3760 (4) © 2014 Magnolia Press · 537

References

http://dx.doi.org/10.11646/zootaxa.3718.1.1
