THE FIRST RECORD OF THE GENUS BRACHYCERCUS IN CHINA WITH DESCRIPTION OF A NEW SPECIES (EPHEMEROPTERA: CAENIDAE)

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Abstract A new record genus from China, Brachycercus Crutis (1834), is reported and the male adult of a new species Brachycercus parviforcipis sp. nov. is described in detail. The characters of this species distinguished from the other species in the same genus are discussed.

Key words new species, Brachycercus parviforcipis, Caenidae, Ephemeroptera

1 INTRODUCTION

There are 19 named species in genus Brachycercus Crutis (1834) of the world. Most of them distribute in North America and Europe (Needham et al. 1935; Edmunds et al. 1976; McCafferty 1997; Soldan 1986), 3 species in Russia (Tshernova et al. 1986) and 1 in Japan (Gose 1980). Bae et al. (1994) reported a species in Korea but did not name it. In June 1996, a new species was collected in Yunnan Province of China. It is the first record of the genus Brachycercus in China. The type specimens are deposited in the Department of Biology, Nanjing Normal University.

2 DESCRIPTION

Brachycercus parviforcipis sp. nov. (Figs. 1—3)

Male adult (in alc.): Length: body 7.0 mm, caudal filaments 14.0 mm, foreleg 2.5 mm, forewing 5.0 mm. Head pale to yellowish, compound eyes black, ocelli with conspicuous black basal ring. Antennae pale, scape and pedicel unicolorous, flagellum whitish; the pedicel 3.0 times longer than scape, the lateral margins of antenna pedicel convex (Fig. 1). Notum black brown. The base of fore femur black, the other parts of fore legs whitish yellow, ratio of femur: tibia: tarsus of fore leg = 0.8: 1.0: 0.8, the formula of fore tarsus: 2, 3 = 4, 5, 1, tarsus with two similar blunt claws; ratio of femur: tibia: tarsus of middle leg = 0.6: 0.4: 0.3, the formula of tarsus: 4, 3, 2, 1; ratio of femur: tibia: tarsus of hind leg = 0.8: 1.0: 0.8, tarsal joints in proportion rank 4, 3 = 2, 1. The middle and hind legs yellowish, unicolorous, with two different claws, one blunt, one sharp; wings whitish and hyaline (Fig. 2). Abdomen yellowish brown, the first two and the last two abdominal segments and posterior margin of each terga dark gray; forceps yellowish, shorter by 1/4 than the penis, penis fused on midline, unicolorous, the posterior surface flat, lateral margins concave (Fig. 3). Three caudal filaments whitish.

Female adult and nymph unknown.

Material: Holotype: ♂ adult; paratypes: 3 ♂♂ adults, collected at Song-Hua-Ba

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Reservoir, Kunming, Yunnan Province, China; VI–2–1996, by Zhou Changfa and Wang Beixing.

3 ETYMOLOGY

The term parviforci pis was composit ed by the Latin words parvi (means small) and forci pis (means forceps). It refers to the small forceps of this species.

4 DIFFERENTIAL DIAGNOSIS AND DISCUSSION

Brachycercus parviforci pis sp. nov. can be distinguished from other species of the genus Brachycercus by the following combination of characters: (1) antennae unicolorous, pedicel three times longer than scape; (2) notum black brown, the base of fore femur black and abdomen yellowish brown, the first two and the last two abdominal segments and posterior margin of each terga dark gray; (3) the forceps of all known species in the genus Brachycercus are longer than the penis, but those of B. parviforci pis sp. nov. are shorter than its penis.

Figs. 1—3: Brachycercus parviforci pis sp. nov. Male adult.
1. Antennae; 2. fore wing; 3. genitalia.

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References


Brachycercus (Brachycercus) sp. nov. 

Brachycercus parviforci sp. nov. VI 2-1996, 1♂, 3♂, 3♀, 210097

Brachycercus parviforci sp. nov. Brachycercus parviforci sp. nov. 1996: 1) 2♂, 3♂, 3♀; 2) 2♂, 3♂, 3♀; 3) 2♂, 3♂, 3♀

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