

***Eoneureclipsis hainanensis* spec. nov. from China and its systematic position (Insecta, Trichoptera, Psychomyiidae) (pl. 14)**

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Abstract

Eoneureclipsis hainanensis spec. nov. is described from the Island of Hainan. It is the first record of the genus from China. The male genitalia, wing venation and the adult male are illustrated. It is the fifteenth species of the genus. A list of all described species is provided including their country records. The new species is of unusual large size and exhibits some ancestral characters which reveal the peculiar nature and position of the genus within Psychomyiidae. The subfamily Eoneureclipsinae subfam. nov. is established here to accommodate *Eoneureclipsis*.

Key words: Trichoptera, Psychomyiidae, *Eoneureclipsis hainanensis* spec. nov., Eoneureclipsinae subfam. nov., China, Hainan Island.

Introduction

Since a couple of years I have on my desk an undescribed species of *Eoneureclipsis* KIMMINS, 1955, collected on the Island of Hainan. Wing venation, spur formula and genitalia are typical for the genus. Unfortunately only one male specimen was available, and thus, I then decided to postpone a taxonomic treatment unless further individuals of this species would have been collected. It took me, however, some time to examine the Hainan material because it was deposited dry on cotton layers. Although I received some new material from Hainan Island in the course of the last 10 years, no additional specimens came to light. The species appears to be a rare caddisfly. This is enough reason to wait no longer and to publish the description of the species right now. I hope the description will encourage a purposeful search for it as long as the natural habitats of the species are still present and intact on this interesting island.

With the new species the genus now contains a total of 15 species which are distributed in South East Asia and Japan (MORSE 2013). The species are listed in the following table:

species	distribution
<i>Eoneureclipsis akrichalakchmi</i> SCHMID, 1972	India: Manipur
<i>Eoneureclipsis alekto</i> MALICKY & CHANTARAMONGKOL, 1997	Thailand
<i>Eoneureclipsis hainanensis</i> spec. nov.	China: Hainan
<i>Eoneureclipsis limax</i> KIMMINS, 1955	Malaysia: Sarawak
<i>Eoneureclipsis montanus</i> TORII & NISHIMOTO, 2011	Japan: Honshu
<i>Eoneureclipsis nykteus</i> MALICKY & NAWVONG, 2004	Thailand
<i>Eoneureclipsis okinawaensis</i> TORII & NISHIMOTO, 2011	Japan: Okinawa
<i>Eoneureclipsis pravrisija</i> SCHMID, 1972	Myanmar
<i>Eoneureclipsis quangi</i> MALICKY, 1995	Vietnam
<i>Eoneureclipsis querquobad</i> MALICKY & CHANTARAMONGKOL, 1989	Thailand
<i>Eoneureclipsis sebulon</i> MALICKY, 2009	Laos
<i>Eoneureclipsis shikokuensis</i> TORII & NISHIMOTO, 2011	Japan: Shioku
<i>Eoneureclipsis tieni</i> MALICKY, 1995	Vietnam
<i>Eoneureclipsis yaeyamaensis</i> TORII & NISHIMOTO, 2011	Japan: Yaeyama, Irimoto
<i>Eoneureclipsis varsikiya</i> SCHMID, 1972	India: Assam

Eoneureclipsis was established in the family Polycentropodidae. The genus was transferred to Psychomyiidae by SCHMID (1972), who regarded the group as a primitive lineage. All subsequent authors followed SCHMID'S opinion, although the adults of the genus does not exhibit the apomorphic characters the family like spur formula

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2.4.4., lacking fork 1 in fore and hind wings, small thyridium cell in forewing, slender and lanceolate hind wing with reduced venation (cf. FRANIA & WIGGINS 1997, MALICKY 2010, SCHMID 1998). Species of Psychomyidae are always small insects usually having a wing length below 5 mm. The new species with its wing length of 14 mm and wing span of 30 mm is strikingly different from all the other, congeneric species and from ordinary members of Psychomyidae. Its external appearance reminds rather to species of Arctopsychidae and Polycentropodidae. The male genitalia and more pronounced the female genitalia are, however, of the psychomyid type which justifies the inclusion of the genus in Psychomyidae or Psychomyioidea. But the aberrant features of *Eoneureclipsis* are significant enough to separate the genus from the remaining genera of Psychomyidae. Therefore, the new subfamily Eoneureclipsinae is established here to accommodate *Eoneureclipsis* in recognition of its taxonomic difference and distinctiveness within the family.

Eoneureclipsinae subfam. nov.

Type genus: *Eoneureclipsis* KIMMINS, 1955

Diagnosis: Wings broad, apically rounded and with similar venation in fore and hindwings; wing length more than 6 mm, antennae broad at base, without annulations; five segmented maxillary palps with terminal segment slightly longer than third segment, broad with dense pilosity; spur formula: 3.4.4.

Forewing with terminal forks 1-5 present, fork 4 in hindwing absent; thyridial cell in forewing reaching median cell, hindwing with straight costal margin and broad anal field with three long anal veins.

Male genitalia with two segmented, inferior appendages, long intermediate appendages and broad preanal appendages; phallic apparatus without paramers; female genitalia with ovipositor.

***Eoneureclipsis hainanensis* spec. nov.**

(Pl. 14, fig.12)

Holotype ♂: China, Hainan Island, Wuzhi Shan, 1500 m, 20.ii.-10.iv.2001, ex. coll. V. SINIAEV, leg. local collector (deposited in MFN Berlin)

Derivatio nominis: The species name is derived from Hainan Island.

Forewing length 15 mm; head brown, setal warts somewhat darker; eyes smooth; antennae pale yellow, pubescent, without annulations or markings on flagellomeres; 5-segmented maxillary palpi thick, dark brown, terminal segment barely longer than third segment; labial palps more slender, dark brown. Thorax brown, mesoscutum with a pair of rounded setal warts in the middle; legs brown, spurs 3.4.4.

Forewing brown, without maculation, veins darker, apex rounded, venation (Fig. 2) with fork 1 to 5 present, discoidal (DC), thyridial - and medial cell (MC) present, closed, jugum short and somewhat sclerotised; hindwing membranous, fork 1 and 3 stalked, fork 4 absent, discoidal cell (DC) closed, short, median cell open, r-rs and rs-m present.

Male genitalia (figs. 3-5): pregenital segments brown; basis of segment IX retracted into segment VIII, modified, divided into a dorsal (tergum IX) and ventral part (sternum IX), proximal dorsal base of sternum IX with a pair of long, undulating, intermediate appendages, curved ventrad and with an pointed and sclerotised apex; tergum IX triangular and with bifid apex in dorsal view, very shallow and distally acute in lateral view; membranous segment X below tergum IX; preanal appendages present, club-like, slightly bent downwards, inferior appendages two-segmented, coxopodit broad triangular in ventral view, with short, rounded extension on mesal apex, carrying 5-6 short, black spines, basal apodemes as long, thin rods, forming a triangular structure in the membranous, dorsal side of the protruded sternum IX; harpago longer than coxopodit, inwardly bent and equipped with numerous, black spines on the median side; phallic apparatus a long, ventrally curved tube, proximal base connected via lateral straps to the dorsal margin of sternum IX, distal end of phallic apparatus on dorsal side with a subapical process, slender and straight, and a vertically flattened, quadratic apex with sharp dorsal and ventral blades.

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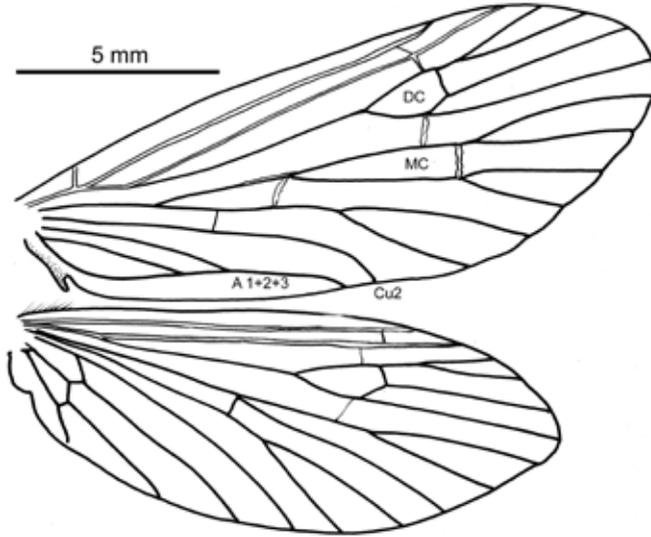
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Fig. 2: *Eoneureclipsis hainanensis* spec. nov., wing venation of the male holotype

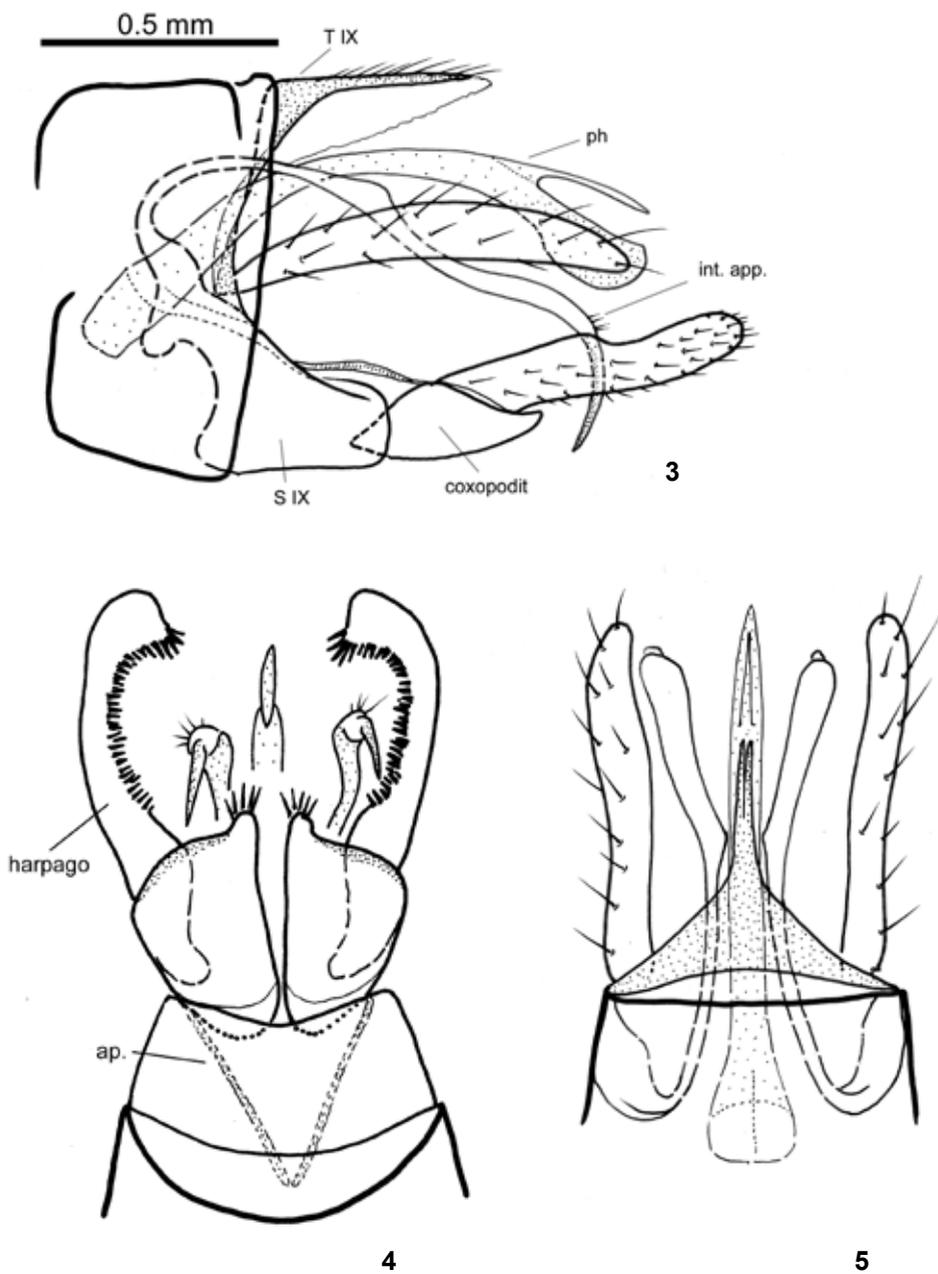


Fig. 3-5: *Eoneureclipsis hainanensis* spec. nov., male genitalia, 3 – lateral side, 4 – ventral side, 5 – dorsal side.