

MARGOLETHAEUS, A NEW LETHAEINI GENUS  
(HEMIPTERA: RHYPAROCHROMIDAE)  
FROM THE ORIENTAL REGION

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*Margolethaeus maculatus* gen. n., sp. n. (Hemiptera, Rhyparochromidae, Lethaeini) is described and discussed from NE India, Laos and Vietnam. The general habitus of the new genus is similar to *Neolethaeus*, but the wide pronotal and lateral margin, the absence of the distinct pronotal collar, the absence of the closed basal cell on the membrane and the small size make *Margolethaeus* different.

Key words: Lygaeoidea, *Margolethaeus maculatus*, new genus and species, India, Laos, Vietnam.

INTRODUCTION

Lethaeini was recognized as a new tribe by STÅL (1872) in the heteropteran family Lygaeidae. It currently belongs to the family Rhyparochromidae. SLATER (1964) and SLATER & O'DONNELL (1995) listed 36 genera and 156 valid species in this group. In the last years further new species were described, mostly from Mexico and the Neotropics (e.g. CERVANTES & BRAILOVSKY 2008 or O'DONNELL 2001) and also from the Afrotropical Region (e.g. SLATER & O'DONNELL 1999). Some new *Neolethaeus* Distant, 1909 species were also published from China (LI & BU 2006). The number of genera also increased with two monotypic genera (CERVANTES 2012, KONDOROSY 2006). In the meantime a few species were synonymized (as DELLAPÉ & COSCARÓN 2004). Thus, today there are 176 known species belonging to 38 genera within the tribe. These insects can be found mostly in the tropics, therefore they are underrepresented in the Holarctic Region.

In the last almost one hundred years, there were only a few works published on Lethaeini of the Oriental Region. The most recent work about these insects was the paper of LI *et al.* (2011) reviewing the Chinese genera and species. Regarding Lethaeini the situation is even worse than in other related families in the Oriental Region. While Lethaeini and most Lygaeoidea groups are poorly investigated, currently intensive research is being done in other Pentatomomorpha families, for example the Aradidae (e.g. HEISS 2010), Pyrrhocoroidea (e.g. STEHLÍK & JINDRA 2008), Coreidae (BRAILOVSKY & BARRERA 2007) or Scutelleridae (TSAI & RÉDEI 2009).

Our work focuses on the Oriental Region, and that is how we came across some specimens, which does not resemble any described genus.

## MATERIAL AND METHODS

Abbreviations for depositories: HNHM: Hungarian Natural History Museum, Budapest, Hungary; NHMV: Natural History Museum, Vienna, Austria. The label data of the material examined are cited verbatim, data on different rows are divided by a slash (/), data on different labels by double slash (//).

For studying, measuring and photographing the specimens we used an ALPHASTO-4-65 Zoom and an Olympus 2000 Stereo microscope with calibrated micrometer for measuring and DCM510 USB microscope camera for photographing. We studied the parameres by removing the pygophore of male specimens and after dissecting it we took photographs and made drawings. We used KOH to boil the pygophore and remove unwanted tissue.

### **Margoletheus gen. n.**

Description – Body short, subparallel; evenly punctate except anterior part of midline of pronotum, two elliptical parts of scutellum, a small part of corium and lateral margins of pronotum and exocorium.

Head triangular, eyes only slightly emergent. Apex of head covered by small hairs, evenly punctate. Small spot in front of antenniferous tubercle smooth on lateral side of head. Juga carinate. Head with trichobothrial hairs. Base of head behind ocelli with two half circle iridescent areas.



**Fig. 1.** *Margoletheus maculatus* sp. n., dorsal view.

Dorsal side of thorax evenly punctate and shiny. Anterior collar medially thick, clearly separated, densely punctate. Each anterolateral margin of pronotum with a fine short seta. Transverse furrow moderately deep; lateral margin wider. Anterior pronotal margin straight; lateral margins slightly diverging posteriad, straight, only near anterior margin narrowing strongly but rounded; humeral angles rounded; posterior margin on middle with rounded excavation near R-vein. Scutellum triangular, with impunctate median and two elliptical spots around middle. Clavus with four distinct rows of punctures; middle ones close to each other, basally united; basal and apical margin punctate. Corium along clavus beyond the usual two regular rows of punctures with a short additional row joining to inner one; other parts with variably dense punctures except on vein R+M. Costal margin slightly convex, in posterior part strongly rounded. Apical margin slightly sinuate, bordered with punctures at 1/3 and 2/3 part. Membrane without closed basal cells, veins clearly visible. Femora sparsely pilose, tibiae with longer and more dense hairs. Fore femora with five spines, four at the end of the femur and one near middle third. Tarsi with smaller spines. Evaporative area round. Orificium slightly curved back.

Abdomen shiny, with tiny hairs evenly distributed. Ventral hairs smaller than dorsal ones. Suture between sterna 4 and 5 curving cephalad, not reaching lateral margin; trichobothria and spiracles as usual in Lethaeini.

## DISCUSSION

Some of the morphological marks resemble other genera. The wide lateral margins are similar to *Hexatrichocoris* Kiritshenko, 1931 and some undescribed *Myocara* Bergroth, 1916 species, but the examined specimens have punctate anterior pronotal lobe, wider head and wider, more robust body. The general habitus is similar to some *Neolethaeus* species, e.g. the presence of the anterolateral pronotal setae (or pronotal trichobothria according SLATER & O'DONNELL 1999). However, the wide pronotal margin, the absence of distinct pronotal collar, the lack of closed cells on the membrane and the tiny size make this new genus distinct. The parameres (Fig. 2) have long blade, no flange at the attachment area. The inner projection is prominent, deflecting toward the base of the paramere. The blade is covered in tiny hairs. The shape and features of the paramere are similar to *Lethaeus* Dallas, 1852 species, especially the prominent inner projection (O'DONNELL 1991), but in our case the inner projection is shorter and the shape of the blade is wider and its base less elevated.

The typical structure for Lethaeini is the two iridescent basal areas on the head (ASHLOCK 1964), however, some New World genera have only one central iridescent spot (O'DONNELL 2001).

Etymology: The generic name of the genus is based on the broad lateral margin of pronotum ("margo" in Latin) and *Lethaeus*, the type genus of the tribe Lethaeini.

**Margolethaeus maculatus** sp. n.

(Figs 1–2)

Material examined: Holotype: NE India; Meghalaya; 1999 3km E Tura; 1150 m; 25°30'N 90°14'E; 4.v. Dembický & Pacholátko leg. (♂, NHMV). Nine paratypes (2 males 7 females): NE India; Meghalaya; 1999 / 3km E Tura; 1150 m; / 25°30'N 90°14'E; 4.v. / Dembický & Pacholátko leg. (♂, ♀ NHMV); NE-India: Meghalaya state / West Garo Hills reg., Tura / 5.–7.V.1996, 600–800 m / GPS N25°30.7' E90°13.9' (WGS84) / leg. E. Jendek & O. Sausa. (2 ♀♀ NHMV); INDIA, W. Bengal, / Darjeeling, below / North Point, 1000m / leg Gy. Topál // No. 335 / beaten material / 17. IV. 1967. (♂, 2 ♀♀, HNHM); LAOS, Champassak Prov. / Dong hua Xao NBCA. / 2 km S of Ban Nong Luang. / bank of Touay–Guai stream. // 15°4' N. 106°13' E / 800 m swept. No 23 / 1–5. IV. 1998 / leg O. Merkl & G. Csorba. (♀ HNHM); S Vietnam, 12.03N 108.27E / 12 km N of Dalat – Lang Bian, / 1580–1750m, 17.–21. IV. 1995 / Pacholátko & Dembický leg. (♀ NHMV).

Description – Colour: brown; head black; antennae brown, paler at each basal segment; labium stramineous; pronotum and scutellum bright yellow almost white with brown spots; corium white and brown with two dark brown spots on lateral margin; legs brown; tarsi stramineous; orificium red; membrane with dark brown spot next to end of corium.

Structure: Body shining except the pronotum and scutellum. Nearly glabrous, with very short, hardly visible hairs on head and venter of abdomen. Small hairs on base of labium. Labium reaching mid coxa. Paramere wide with small hairs, broadest at the base of the blade (Fig. 2).

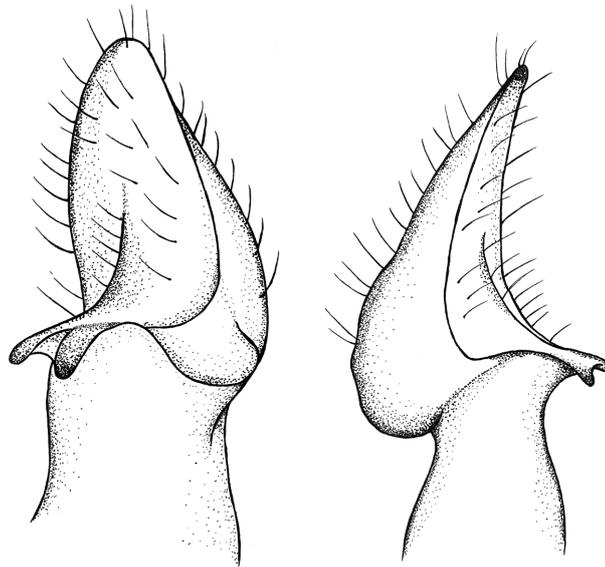


Fig. 2. *Margolethaeus maculatus* sp. n., paramere, dorsal and lateral view.

Measurements (10 specimens) (in mm): Body length 3.50–4.69, width 1.70–2.24. Head 0.51–0.76 long, 0.80–1.00 wide with eyes. Interocular space 0.50–0.64. Antennae 1.58–1.92, segment I 0.29–0.48, II 0.50–0.61, III 0.26–0.45 IV 0.40–0.54. Labium 1.10–1.54, segment I 0.33–0.46 II 0.3–0.47 III 0.22–0.39 IV 0.21–0.32. Pronotum 0.80–1.18, long 1.5–2.00 wide. Claval commissure 0.40–0.53. Scutellum 0.76–0.94 long, 0.84–1.08 wide.

Distribution: Northeastern India, Laos, South Vietnam.

Etymology: The species named after its strikingly patterned dorsal side.

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