Emtgolia interrupta, a new Mongolian genus and species of tribe Perilissini (Hymenoptera: Ichneumonidae)

Emtgolia interrupta, новый род и вид трибы Perilissini (Hymenoptera: Ichneumonidae) из Монголии

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A new ichneumonid genus and species *Emtgolia interrupta* **gen. nov.** et **sp. nov.** are described from Mongolia. The new genus belongs to the subfamily Ctenopelmatinae and may be easily distinguished from other ichneumonid genera by having an interrupted radial vein at stigma and a deep longitudinal impression in lower part of mesopleuron. A short discussion of the problems of taxonomy of the tribe Perilissini is given.

Новый род и вид *Emtgolia interrupta* **gen. nov.** et **sp. nov.** описаны из Монголии. Новый род относится к подсемейству Ctenopelmatinae и отличается от остальных представителей семейства разорванной радиальной жилкой и глубоким продольным вдавлением на мезоплеврах. Обсуждаются вопросы систематики трибы Perilissini.

Key words: Mongolia, radial vein, Hymenoptera, Ichneumonidae, Ctenopelmatinae, Perilissini, *Emtgolia*, new genus, new species

Ключевые слова: Монголия, радиальная жилка, Hymenoptera, Ichneumonidae, Ctenopelmatinae, Perilissini, *Emtgolia,* новый род, новый вид

INTRODUCTION

The tribe Perilissini includes 24 genera (Yu et al. 2005), belongs to the subfamily Ctenopelmatinae (Hymenoptera: Ichneumonidae) and can be recognised by upper end of the prepectal carina always distant from the anterior margin of the mesopleuron, in combination with median part of base of propodeum turned downward at an angle and forming a v-shaped notch with hind side of postscutellum. The name of the tribe was put into use by Carl Thomson (1883) as subtribe Perilissina, and taxonomy of this tribe was worked out by Henry Townes (Townes et al. 1965; Townes & Townes, 1966; Townes, 1969, 1970).

The relationships of the genera in the Perilissini are not clear. One of the important taxonomic problems is the relationships of the genera *Lathrolestes* Förster, 1869 and *Priopoda* Holmgren, 1856. These two groups are shared character state, the occipital carina not reach the hipostomal carina. Townes (1969) used length of first metasomal tergite to divide *Lathrolestes* and *Priopoda* females. The members of the genus *Priopoda* sensu Townes have first metasomal tergite 2.0 times as long as wide. In members of the genus *Lathrolestes* the first metasomal tergite is only 1.65 times as long as wide. Only this single female character state is not enough to determined all the members of these two genera since several members of the genus *Lathrolestes* have a longer first metasomal tergite, e.g. *L. buccinators* (Holmgren, 1857) and *L. erythrocephalus* (Gravenhorst, 1829) have no clear generic status under the existing genera diagnoses

sensu Townes (Aubert, 2000; Horstmann, 2001, 2004). Subgenetal plate of *Priopoda* males notched at its margin, but not all the species with long first metasomal tergite has this character states, on the other hand *L. fissus* Reshchikov, 2010 has notched subgenetal plate (Reshchikov et al., 2010).

Lathrolestes protenus Barron, 1994, a species with occipital carina intercepting the hypostomal carina above the base of mandible, a character state shared by members of the genus *Perilissus*, was included within the genus *Lathrolestes* (Barron, 1994). However, Barron (1992) states that *L. protenus* has very short and broad parameres, a character that *Perilissus* does not share (Barron, 1992). *Perilissus nudus* Barron, 1994 has occipital carina does not intercept the hypostomal carina before the base of mandible (Barron, 1994). The taxonomy of genus *Labrossyta* Förster, 1869 transferred in Perilissini (Gupta, 1987) also is not clear. In all probability that the tribe is paraphyletic (Gauld & Wahl, 2006; Quicke et al., 2009; Broad & Wharton, 2010) and further research is recured. From our works it has become apparent that a large number of undescribed perilissini occur in the area and the description and taxonomic classification of these taxa is the long term goal of our studies. In this paper, I describe a new genus of the tribe Perilissini from Mongolia.

MATERIAL AND METHODS

The specimen was collected in Mongolia near Emt Gol in 2005 during an expedition of the Academy of Natural Sciences of Philadelphia, which begun to collect invertebrates of Mongolia in 1995. Terminology for sculpture follows Eady (1968), morphological terminology used in the study largely follows that of Townes (1969). The specimen is deposited in the Mongolian Academy of Sciences, Entomology Collection, Ulaanbaatar, Mongolia (MAS). The descriptions are illustrated with figures (Figs 1–4). Illustrations were made using a stereomicroscope Leica MZ6.

TAXONOMY

Order **HYMENOPTERA**
Family **ICHNEUMONIDAE**
Subfamily CTENOPELMATINAE
Tribe PERILISSINI

Emtgolia gen. nov.

(Figs 1–4)

Type species: *Emtgolia interrupta* **sp. nov.**

Diagnosis. The new monotypic genus described here belongs to the subfamily Ctenopelmatinae having fore tibia with apical tooth, and the tribe Perilissini having upper end of the prepectal carina distant from the anterior margin of the mesopleuron. This genus can be easily distinguished from other members of the subfamily by very pronounced character states: radial vein interrupted at stigma, deep longitudinal impression in lower part of mesopleuron, second metasomal tergite with round fovea at the middle, and parameres very narrow, longer than aedeagus, slightly wider in apical part than at middle. By the character states (i) occipital carina intercepting hypostomal carina above base of mandible, (ii) nervellus intercepted below the middle, and (iii) possession of a deep glymma, this genus is closed related with *Nanium* Townes, 1967 and *Trematopygodes* Aubert, 1968. It also characterised by small clypeus not projecting anteriorly, reduced distal abscissas of mediella, and cubitella and distal part of anal vein of hind wing. These unique character states allow to establish this new genus.

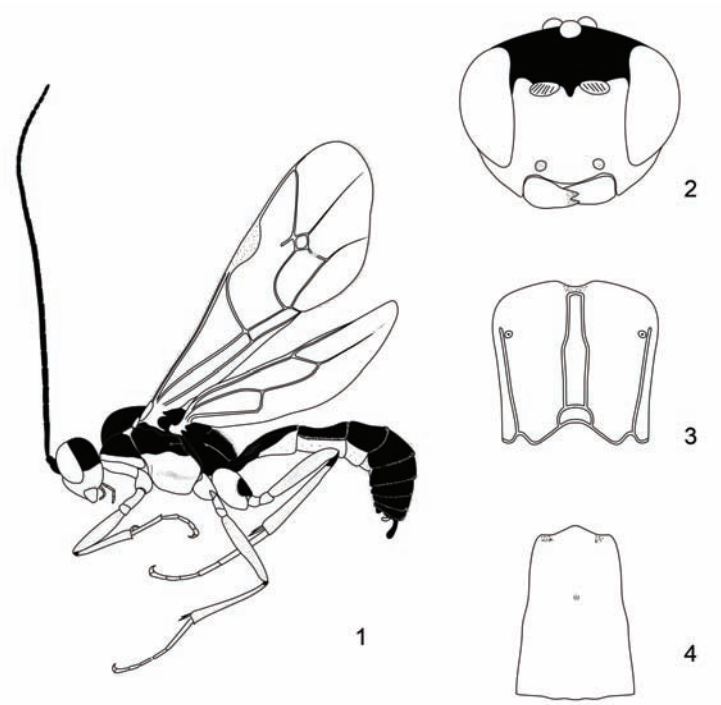
Description. See species description.

Etymology. The name *Emtgolia* refers to the location where the type specimen was collected, i.e. Emt Gol. The gender is feminine.

Emtgolia interrupta sp. nov.

(Figs 1, 2)

Material examined. *Holotype*. Male; **Mongolia**, *Hovsgol Aimag*, Erdenebulgan Soum, Emt Gol, 33.2 km NW of Tarlalyn, N49°87742; E101°82073, 1496 m.; 13–14 July 2005; coll. J. Gelhaus; MAS.



Figs 1–4. *Emtgolia interrupta* **gen.** et **sp. nov.**, holotype. **1**, habitus; **2**, head, frontal view; **3**, propodeum; **4**, second tergite of metasoma.

Description. Holotype, male. Body size 6 mm. Antennal with 29 flagellomeres. Width to length ratio of scape 0.52. First flagellomere 2.25 times as long as second flagellomere. Head narrowed behind the eyes; matt; temples rounded. Maximal length of temple to transverse eye diameter ratio 0.87; minimal length of temple to transverse eye diameter ratio 0.59. Face as wide as longitudinal eye diameter; convex, without bulge. Clypeus small, separated by scarcely defined impression; not projecting anteriorly; apical margin of clypeus obtuse. Tentorial fovae round, relatively large. Malar space as wide as 0.5 of basal mandible width. Mandibles swollen. Mandible teeth of equal length. Occipital carina medially complete, joining hypostomal carina above base of mandible.

Notaulus shallowly impressed. Mesopleuron shiny, smooth, not punctate, sparsely pubescent, with a deep longitudinal impression in lower part. Upper part of prepectal carina distant from front edge of mesopleuron. Tarsal claws pectinate at base by hair-like teeth. Middle tibia with apical tooth. Forewing with areolet not petiolate. Radius interrupted at stigma. Stigma not elongate. Second recurrent vein with a single bulla. Nervulus interstitial. Hind wing with nervellus intercepted below middle. Distal abscissas of cubitella, and mediella, and distal part of annal veins of hind wing reduced. Median part of base of propodeum turned downward at an angle and forming a v-shaped notch with hind side of postscutellum. Propodeum with costula absent, area petiolaris small, area superomedia elongate, narrow and separated from area basalis.

Metasoma shiny, sparsely pubescent, without any impressed sculpture. First metasomal tergite with width to length ratio 0.64; with distinctly defined shallow median longitudinal impression; bordered by lateral longitudinal carinae; dorsal longitudinal carinae absent. Glymma deep. Second metasomal tergite elongate, with thyridia and a round fovea at the middle. Parameres very narrow, longer than aedeagus, slightly wider in apical part than at middle.

Coloration. Face, malar space and temple till the middle of eye, mandible, propleuron, lower and anterior part of pronotum, edge of mesopleuron at tegula, tegula, lower part of mesopleuron, fore and middle coxae, trochanters, and trochantelli, hind margins of metasomal tergites narrowly, lower part of epipleura and aedeagus white; legs reddish-yellow; scape, antennal flagellum, head in upper part, mesonotum, upper part of

mesopleuron, metanotum, propodeum, hind coxa and hind tibia partly, and metasoma black. Hind tibia pale at base.

Etymology. The species epithet 'interrupta' refers to character state of venation – radius interrupted near stigma.

Distribution. Mongolia.

DISCUSSION

This description is the result of identification of ichneumonids collection of Mongolian Aquatic Insect Survey Project. The knowledge about Mongolian fauna of the subfamily Ctenopelmatinae (Hymenoptera: Ichneumonidae) is not sufficient. Only ten species were recorded in the past (Šedivý, 1971). Biodiversity of the tribe Perilissini in the Palearctic Region is estimated at hundred species (Yu & al., 2005). I hope to enrich our knowledge about Mongolian ichneumonid fauna in further studies.

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REFERENCES

Barron, J.R. 1992. The Nearctic species of *Perilissus* (Hymenoptera, Ichneumonidae, Ctenopelmatinae). *Canadian Entomologist*, **124**: 211–272.

Barron, J.R. 1994. The Nearctic species of *Lathrolestes* (Hymenoptera, Ichneumonidae, Ctenopelmatinae). *Contributions of the American Entomological Institute*, **28**(3). 135 p.

Broad, G.R. & Wharton, R.A. 2010. Phylogeny and re-classification of the genera of the ctenopelmatine tribe, Perilissini (Hymenoptera: Ichneumonidae). *7th International Congress of Hymenopterists. 20–26 June 2010*: 22. Köszeg, Hungary.

Eady, R. 1968. Some illustrations of microsculpture in the Hymenoptera. *Commonwealth institute of Entomology*. London. 71 p.

Gauld, I.D & Wahl, D.B. 2006. The relationship and taxonomic position of the genera *Apolophus* and *Scolomus* (Hymenoptera: Ichneumonidae). *Zootaxa*, **1130**: 35–41.

Gupta, V.K. 1987. The Ichneumonidae of the Indo-Australian area (Hymenoptera). *Memoirs of the American Entomological Institute*, **41**(1): 1–597.

Quicke, D.L.J., Laurenne, N.M., Fitton, M.G. & Broad, G.R. 2009. A thousand and one wasps: a 28S rDNA and morphological phylogeny of the Ichneumonidae (Insecta: Hymenoptera) with an investigation into alignment parameter space and elision. *Journal of Natural History*, **43**(23–24): 1305–1421.

Reshchikov, A.V., Soper, A. & Van Driesche, R.G. 2010. Review and key to Nearctic Lathrolestes Förster (Hymenoptera: Ichneumonidae), with special reference to species attacking leaf mining tenthredinid sawflies in Betula Linnaeus (Betulaceae). *Zootaxa*, **2614**: 1–17.

Townes, H.K. 1969. The genera of Ichneumonidae, Part 1. *Memoirs of the American Entomological Institute*, **11**. 300 p.

Townes, H.K. 1970. The genera of Ichneumonidae, Part 3. *Memoirs of the American Entomological Institute*, **13**. 307 p.

Townes, H.K., Momoi, S. & Townes, M. 1965. A catalogue and reclassification of the eastern Palearctic Ichneumonidae. *Memoirs of the American Entomological Institute*, **5**. 661 p.

Townes, H.K. & Townes, M. 1966. A catalogue and reclassification of the Neotropic Ichneumonidae. *Memoirs of the American Entomological Institute*, **8**. 367 p.

Šedivý, J. 1971. Ergebnisse der mongolisch-tschechoslowakischen entomologisch-botanischen Expeditionen in der Mongolei: 24. Hymenoptera, Ichneumonidae. *Acta Faunistica Entomologica Musei Nationalis Pragae*, **14**: 73–91.

Yu, D.S., van Achterberg, K. & Horstmann, K. 2005. World Ichneumonoidea 2004. *Taxonomy, Biology, Morphology and Distribution* (CD/DVD). Taxapad, Vancouver, Canada. [cited 18 August 2010]. Available from: <http://www.taxapad.com/>

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