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Article

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Revision of the family Metarbelidae (Lepidoptera) of the Oriental Region. VII. Genus *Aukorbela* Yakovlev & Zolotuhin, gen. nov. from Central Vietnam

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Abstract
In the fourth part of the revision on the Asian Metarbelidae we describe the new genus *Aukorbela* Yakovlev & Zolotuhin gen. nov. (type species, by original designation: *Aukorbela golovizini* Yakovlev & Zolotuhin spec. nov.). The new genus has several important diagnostic morphological characters: the uncus is short, blunt and wide, slightly extended apically, with a caudal triangular process; the gnathos arms are very thick, short, sclerotized, in the proximal third of the gnathos arms there are robust wide plates with ribbed surfaces.

Key words: biodiversity, Cossoidea, entomology, Asia, Paleotropics, Metarbelidae, taxonomy, new species.

Introduction

The Palaeotropical family Metarbelidae (Lepidoptera, Cossoidea) are widespread in Southeast Asia and Africa. The representatives of the Asian fauna are now being actively studied (Lehmann 2019; Yakovlev & Zolotuhin 2020). We have received from Vadim Golovizin (Krasnoyarsk, Russia) a small series (4 males) of one non-described species from Vietnam, which significantly differs externally from all the known species. The examination of the genital morphological structure also proved the difference of the new species from the previously known ones. In particular, the uncus structure radically differs from the other Metarbelidae.

Material and methods

The materials for the study were the adult Metarbelidae specimens deposited in various collections:

RYB – collection of Roman Yakovlev (Barnaul, Russia);
ZISP – Zoological Institute (St. Petersburg, Russia).

Male and female genitalia were mounted in euparal on slides following Lafontain and Mikkola (1987) and examined with an Olympus SZX16 microscope. The images were taken with the digital camera CMOS 20.7 megapixels and processed using Corel Photo-Paint 2017 software.

Taxonomical part

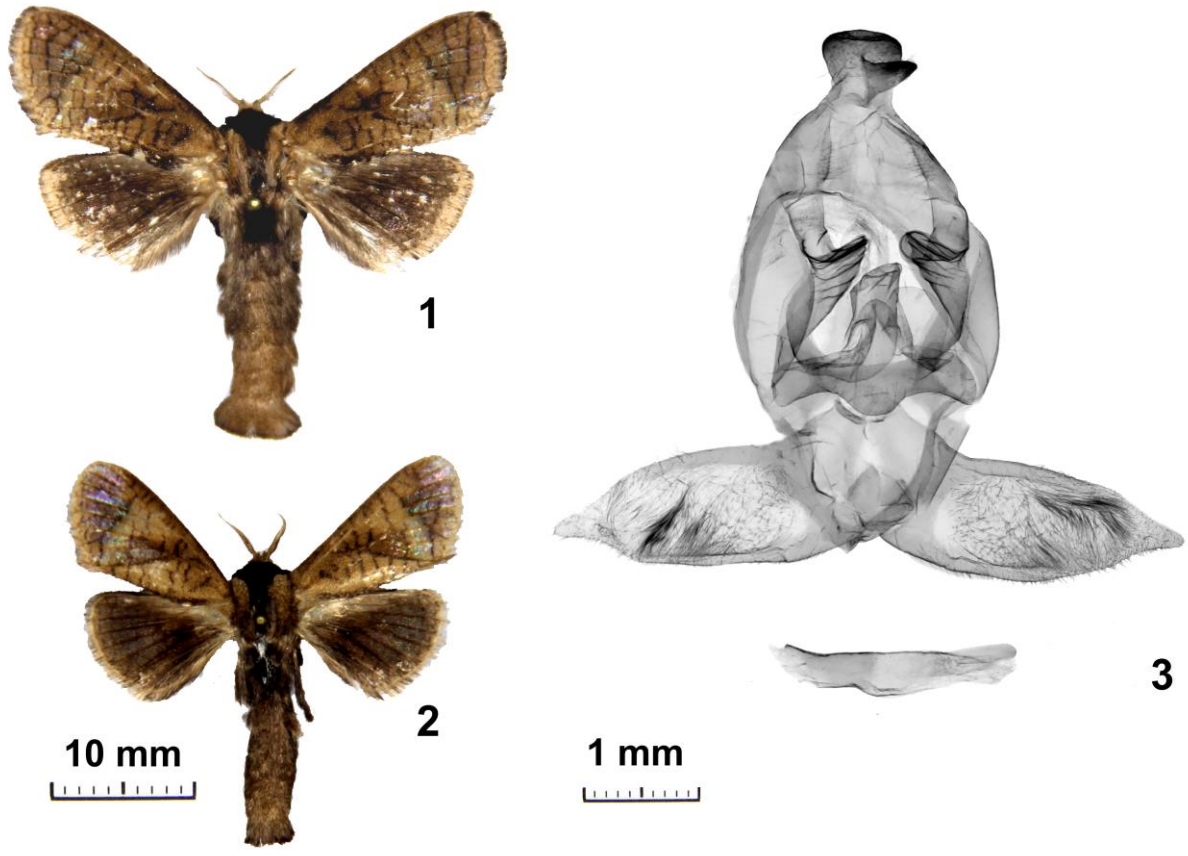
***Aukorbela* Yakovlev & Zolotuhin gen. nov.**
http://zoobank.org/urn:lsid:zoobank.org:act:791B4CF0-A3FE-430D-8A4F-A0696E1B0CED

Type species: *Aukorbela golovizini* Yakovlev & Zolotuhin spec. nov., designated here.

Description. Moths of medium size, antennae short (3 times shorter than fore wing ion length), bipectinate (setae twice longer than antenna rod diameter). Thorax and abdomen densely covered with long thick brown scales, tegulae and patagia brown, dark-brown spots on thorax from above and at base of abdomen. Fore wing short, wide, apically semicircular, brown, with poorly modified reticulated pattern. Fringe brown unicolorous. Hind wing dark-brown without pattern. Fringe light-brown unicolorous.

Male genitalia. Uncus short, blunt, wide, slightly extended apically, with caudal triangular process; gnathos arms very thick, short, sclerotized, with robust wide ribbed plates in proximal third of gnathos arms; gnathos large; juxta small, saddle-like, valve small, lanceolate, narrow, apical end elongated; phallus thick, slightly shorter than valve, poorly curved in medium third, vesical without cornuti.

Female unknown.



Figures 1–3. *Aukorbela golovizini* Yakovlev & Zolotuhin spec. nov.: 1. male, holotype (ZISP); 2. Male, paratype (RYB); 3. Male genitalia (holotype).

Diagnosis. *Aukorbela* Yakovlev & Zolotuhin gen. nov. clearly differs from all the known oriental genera of Metarbelidae in the male genital structure: the short wide blunt uncus, slightly extended apically, the caudal

triangular process on the uncus; the robust short sclerotized gnathos arms, the robust wide ribbed plates in the proximal third of the gnathos arms.

Composition. Monotypic genus.

Distribution. Central Vietnam.

Etymology. The new genus is named after Âu Cơ, who was, according to the creation myth of the Vietnamese people, an immortal mountain snow fairy who married Lạc Long Quân, and bore an egg sac that hatched a hundred children known collectively as Bách Việt, ancestors to the Vietnamese people. Âu Cơ is often honored as the mother of Vietnamese civilization.

***Aukorbela golovizini* Yakovlev & Zolotuhin spec. nov.**
http://zoobank.org/urn:lsid:zoobank.org:act:C4E3C3BD-DD3E-468B-AC39-3288D8C6BA80
Figs 1−3

Material. Holotype, male, Vietnam, Kon Tum Prov., Dakglei Dak Man, Thae Che, 15.223462º N 107.731104º E, 30.ix.2017, leg. V. Golovizin (ZISP, slide Naydenov # 420). Paratypes: same locality, 3 males, 19.iv.2018 (RYB).

Description. Length of fore wing 13−15 mm. Fore wing brown with thin undulated black lines across wing, pattern more dense in discal cell.

Male genitalia. See description of the genus.

Female unknown.

Distribution. Central Vietnam (Kon Tum Province) (Fig. 4).

Figure 4. Type locality (photo by Vadim Golovizin).

Etymology. The new species is named after the collector of the type series, Vadim Golovizin (Fig. 5) (Krasnoyarsk, Russia).

Figure 5. Vadim Golovizin.

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