

New species of *Aethalopteryx* Schoorl, 1990 (Lepidoptera: Cossidae: Zeuzerinae) from Uganda

Новый вид *Aethalopteryx* Schoorl, 1990 (Lepidoptera: Cossidae: Zeuzerinae) из Уганды

R.V. Yakovlev
Р.В. Яковлев

Altai State University, pr. Lenina 61, Barnaul 656049, Russia. E-mail: yakovlev_asu@mail.ru

Tomsk State University, Lenina pr. 36, 634050 Tomsk, Russia.

Алтайский государственный университет, пр. Ленина 61, Барнаул 656049, Россия.

Томский государственный университет, пр. Ленина 33, Томск 634050, Россия.

KEY WORDS: entomology, biodiversity, Carpenter moths, taxonomy, fauna, Africa, Eastern Afromontane Biodiversity Hotspot.

КЛЮЧЕВЫЕ СЛОВА: энтомология, биоразнообразие, древоточцы, таксономия, фауна, Африка, Восточная Афромонтанная горячая точка биоразнообразия.

ABSTRACT. The article describes a new species, *Aethalopteryx burtoni* Yakovlev **sp.n.** (Lepidoptera: Cossidae: Zeuzerinae) from Uganda. The description is provided with a detailed diagnosis and illustrations.

РЕЗЮМЕ. Описан новый вид *Aethalopteryx burtoni* Yakovlev **sp.n.** (Lepidoptera: Cossidae: Zeuzerinae) из Уганды. Описание снабжено подробным диагнозом и проиллюстрировано.

Introduction

The genus *Aethalopteryx* Schoorl, 1990 (Lepidoptera: Cossidae: Zeuzerinae) (type species, by original designation — *Phragmatoecia atrireta* Hampson, 1910) currently includes 27 species [Schoorl, 1990; Yakovlev, 2011, 2020a, b] widely distributed in Africa. Additionally, the specimens of the genus were found in Socotra island and in the south of Arabian peninsula [Yakovlev, Dubatolov, 2013].

Examining the materials of the rich lepidopterological collection of M. Ströhle (Weiden, Germany) we discovered a new peculiar species of this genus from Uganda, its description is given below.

Material and methods

Male genitalia were mounted in euparal on slides following Lafontaine and Mikkola [1987]. The adult specimen was photographed using digital camera of iPhone 7. The genitalia preparations were photographed using an Olympus DP74 camera attached to an Olympus SZX16 stereomicroscope.

Taxonomical part

Aethalopteryx burtoni Yakovlev, **sp.n.**

Figs 1–2.

MATERIAL (all in the private collection of Manfred Ströhle, Weiden, Germany). Holotype, male, Uganda, [Northern Region, Karamoja, Moroto District], Moroto, Moroto Mt. [02°31' N / 34° 46' E], June 2013 (slide MSW 2015/34 Coss.). Paratypes: 4 males, same data and locality.

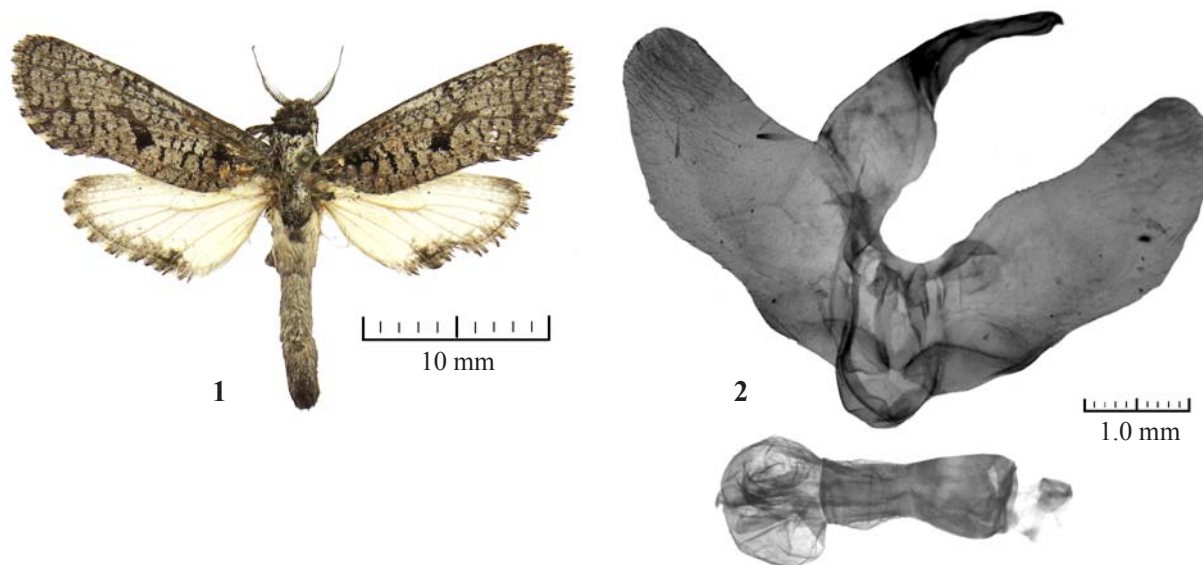
DESCRIPTION. Male. Length of fore wing 16–17 mm (in holotype — 16 mm). Head black from above, thorax silvery light-grey, abdomen light-grey. Antenna bipectinate in proximal 2/3 of length, distal third simple, not pectinate. Setae in proximal third twice longer than antenna rod diameter. Fore wing grey, with small transverse dark strokes across all wing area, pattern of strokes denser medially; short black transverse bands in cubital area (discally), black irregularly shaped spot postdiscally; submarginally and marginally dark-grey strokes partially fused and forming thin torn undulated bands; fringe on fore wing mottled (black at veins, light-grey between veins). Hind wing white with sputtering of black scales along edge of wing (most intense in anal angle area); fringe of hind wing mottled (black at veins, light-grey between veins).

Male genitalia. Uncus long, uncinete, apically acute; gnathos arms thin, ribbon-like, not fused; gnathos absent; valve long, costal edge poorly curved, saccular edge strongly undulating, outer edge semicircular; juxta saddle-like, with very long ribbon-like lateral processes; saccus compact, semicircular; phallus short (1/3 shorter than valve), thick, with robust lamellar cornutus in vesica.

Female unknown.

DIAGNOSIS. Externally, the new species clearly differs from the majority of species of the genus. It is most close to *A. nilotica* Yakovlev, 2011: 80, text fig. 99, pl. 8: 17 (type locality: Sudan, Blue Nile Prov., Wadi Medani) from which it differs in the following characters:

How to cite this article: Yakovlev R.V. 2022. New species of *Aethalopteryx* Schoorl, 1990 (Lepidoptera: Cossidae: Zeuzerinae) from Uganda // Russian Entomol. J. Vol.31. No.1. P.65–66. doi: 10.15298/rusentj.31.1.12



Figs 1–2. *Aethalopteryx burtoni* sp.n., holotype: 1 — adult specimen; 2 — male genitalia (slide MSW 2015/34 Coss.).

Рис. 1–2. *Aethalopteryx burtoni* sp.n., голотип: 1 — имаго; 2 — гениталии самца (постоянный препарат MSW 2015/34 Coss.).

– the irregularly shaped spot in the postdiscal area (in *A. nilotica*, the spot is absent);

– the irregular pattern of strokes on the fore wing (in *A. nilotica*, there is a uniform line pattern across the entire fore wing area);

– the white hind wing (in *A. nilotica*, the hind wing is grey);

– the strongly curved costal and saccular edge of the valve (in *A. nilotica*, the valve edges are almost smooth).

HABITAT. Mount Moroto is one of a chain of volcanoes along Uganda–Kenyan border. The region around Mount Moroto is a forest reserve protecting a range of habitats from arid thorn savanna to dry mountain forest.

ETYMOLOGY. The new species is named after Sir Richard Francis Burton (1821–1890), who was a British explorer, scholar and soldier. He is famous for his travels and explorations in Asia, Africa (including East Africa), and Americas.

DISCUSSION. The new species is probably a local endemic of Eastern Arc Mountains, which are a part of Eastern Afrotropical Biodiversity Hotspot [Myers, 1988; Myers et al., 2000]. Currently, in the Eastern Afrotropical Biodiversity Hotspot territory, one endemic genus and over 35 Cossidae species have been noted [Yakovlev, 2015, 2021].

References

Lafontaine J.D., Mikkola K. 1987. Lock-and-key system in the inner genitalia of Noctuidae (Lepidoptera) as taxonomic character // Entomologiske Meddelelser. Vol.55. P.161–167.

Myers N. 1988. Threatened biotas: “Hot spots” in tropical forests // Environmentalist. Vol.8. P.187–208. <https://doi.org/10.1007/BF02240252>.

Myers N., Mittermeier R.A., Mittermeier C.G., da Fonseca G.A.B., Kent J. 2000. Biodiversity hotspots for conservation priorities // Nature. Vol.403. No.6772. P.853–858. <https://doi.org/10.1038/35002501>.

Schoorl J.W. 1990. A phylogenetic study on Cossidae (Lepidoptera: Ditrysia) based on external adult morphology // Zoologische Verhandlungen. Vol.263. 295 pp.

Yakovlev R.V. 2011. Catalogue of the Family Cossidae of the Old World (Lepidoptera) // Neue Entomologische Nachrichten. Vol.66. P.1–130.

Yakovlev R.V. 2015. Patterns of Geographical Distribution of Carpenter Moths (Lepidoptera: Cossidae) in the Old World // Contemporary Problems of Ecology. Vol.8. No.1. P.36–50. <https://doi.org/10.1134/S1995425515010151>.

Yakovlev R.V. 2020a. Two new species of *Aethalopteryx* Schoorl, 1990 (Lepidoptera, Cossidae, Zeuzerinae) from Western Africa // Ecologica Montenegrina. Vol.31. P.23–27. <https://doi.org/10.37828/em.2020.31.5>.

Yakovlev R.V. 2020b. New species of *Aethalopteryx* Schoorl, 1990 (Lepidoptera, Cossidae, Zeuzerinae) from Federal Democratic Republic of Ethiopia // Ecologica Montenegrina. Vol.38. P.210–214. <http://dx.doi.org/10.37828/em.2020.38.29>.

Yakovlev R.V. 2021. *Strigocossus rallfiebigi* sp. nov. (Lepidoptera: Cossidae: Zeuzerinae) from Democratic Republic of the Congo and Republic of Uganda // Ecologica Montenegrina. Vol.45. P.1–5. <http://dx.doi.org/10.37828/em.2021.45.1>.

Yakovlev R.V., Dubatolov V.V. 2013. [Distribution of Carpenter-Moths (Lepidoptera, Cossidae) in Palaearctic Deserts] // Zoologicheskoy Zhurnal. Vol.92. No.6. P.682–694 [in Russian]. <https://doi.org/10.7868/S0044513413040193>.