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***Strigocossus ralfiebigi* sp. nov. (Lepidoptera: Cossidae: Zeuzerinae) from Democratic Republic of the Congo and Republic of Uganda**

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Received 28 July 2021 | Accepted by *V. Pešić*: 6 August 2021 | Published online 7 August 2021.

Abstract

The article describes a new species of Cossidae (Lepidoptera: Zeuzerinae) from Equatorial Africa (Democratic Republic of the Congo and Republic of Uganda) – *Strigocossus ralfiebigi* sp. nov.

Key words: biodiversity, Cossidae, Africa, Paleotropis, taxonomy, new species.

Introduction

Strigocossus Houlbert, 1916 (type species – *Strigocossus leucopteris* Houlbert, 1916) (Lepidoptera, Cossidae) is a genus of large Zeuzerinae moths. The genus includes 13 species, widely distributed in Africa (south from Sahara) and in Madagascar (Houlbert 1916; Gaede 1930; Pinhey 1979; Schoorl 1990; Mey 2016; Yakovlev, Sulak & Witt 2019; Yakovlev & László 2020).

In rich materials on Cossidae, collected in Africa in the recent years, we found a species new to science. Its description is given in the article.

Material and methods

The material for this study was Cossidae specimens from private and state collections:

RFC – Ralf Fiebig private collection (Rossleben, Germany),

RMCA – Royal Museum of Central Africa (Tervuren, Belgium),

ZSM – Zoologische Staatssammlung der Bayerischen Staaten (Munich, Germany).

The genital preparations were made according to the method of Lafontaine & Mikkola (1987).

The morphological terminology used in the description follows Kristensen (2003). The map was made using opensource software (<https://www.simplemappr.net/>).

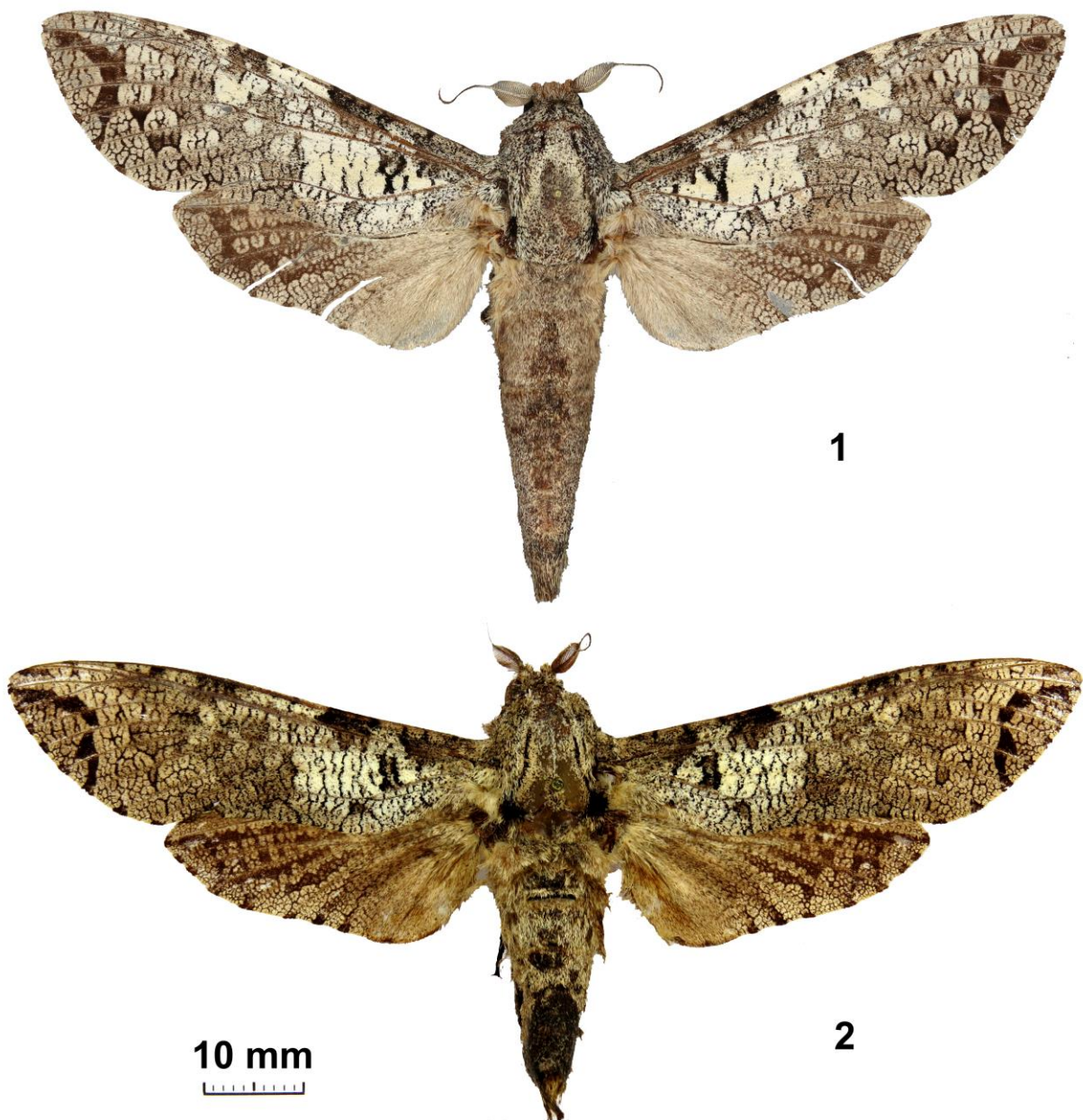
Taxonomical part

***Strigocossus ralffiebigi* Yakovlev sp. nov.**

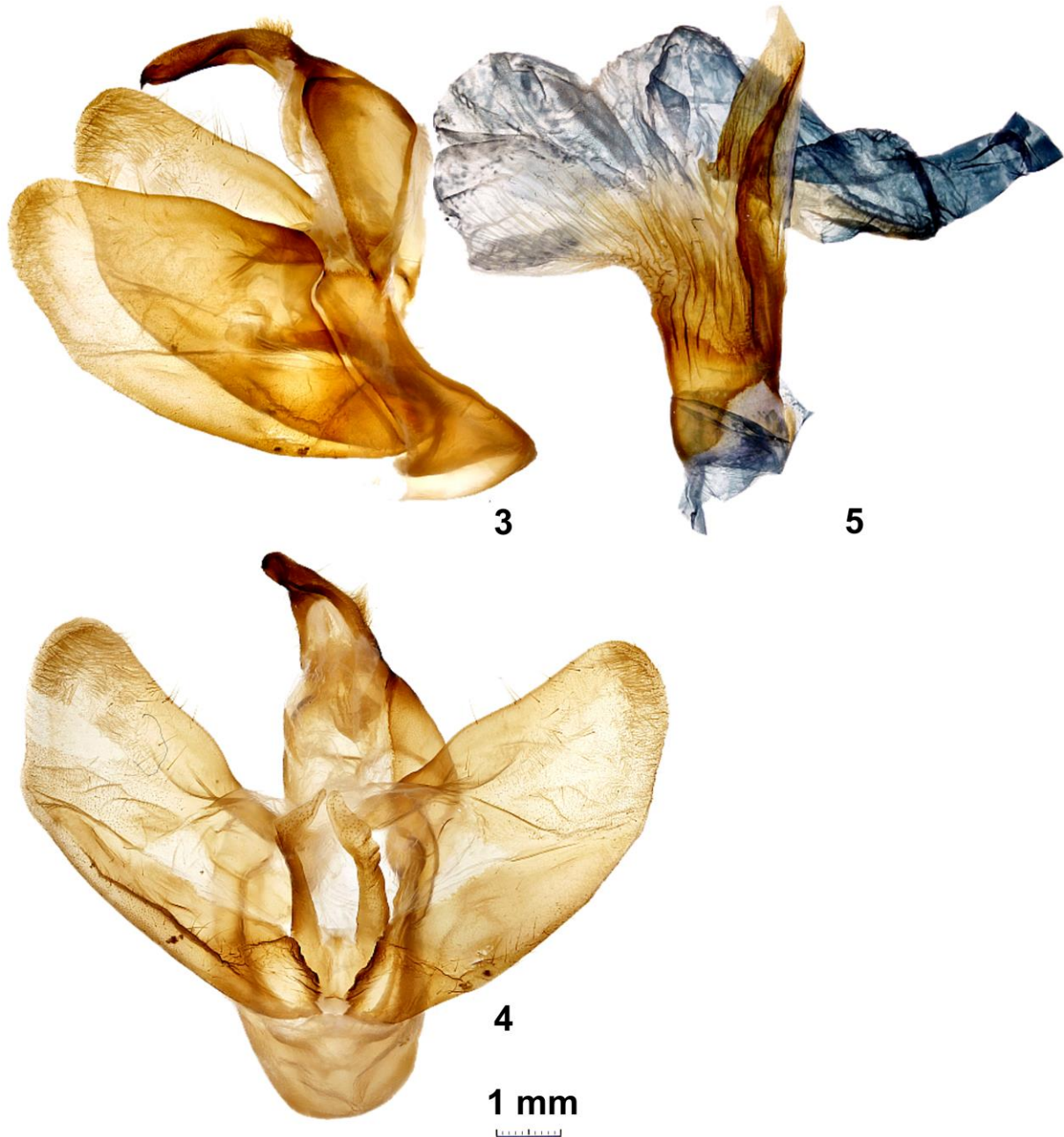
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Figs 1–7

Material. Holotype. Male, **Uganda** Western, Semliki NP, Border Semliki NP, 2 km E Semliki, Visitor Centre Old Road, N 00°55.33", E 30°10.157", 22.iii.2013, LF, 900 m, leg. R. & S. Fiebig & D. Stadie (RFC later ZSM, Genitalpräparat Ralf Fiebig RF-599.2020). Paratypes. 2 males, [**Democratic Republic of the Congo**], Sankuru [Province], Katoko-Kombe [3.35150 S, 24.41494 E], 27.xii.1951 and 15.i.1952, Dr. Fontaine, Genital slide Coss/MRAC 2015/22 (RMCA); 3 males, [Democratic Republic of the Congo], [Upper] Uele [Province], Paulis [Isiro, 3.29020 N, 27.55681 E], 29.ii.1956, 9.iii.1956, 12.iii.1956, Dr. M. Fontaine (RMCA).



Figures 1–2. *Strigocossus ralffiebigi* Yakovlev sp. nov., males: 1. Holotype (RFC); 2. Paratype, Congo, Sankuru, Katoko-Kombe, 27.12.1951, Dr. Fontaine (RMCA).



Figures 3–5. Male genitalia of *Strigocossus ralfiebigi* Yakovlev sp. nov. (Holotype): 3. Armature, lateral projection; 4. Armature, ventral projection; 5. Phallus, lateral projection.

Description. Length of fore wing 51 mm in holotype, 50–52 mm in paratypes. Antenna bipectinate in proximal half, simple (without setae) in distal half. Thorax and abdomen densely covered with grey scales. Fore wing grey with dense pattern of strokes throughout all wing, crescent black band in submarginal area, big brown spots with blurred margins in discal area, wide lightened portion discally. Fringe mottled, light between veins, dark at veins. Hind wing light-brown, with dense reticulated dark-brown pattern, wide longitudinal strokes between veins. Fringe mottled, light between veins, dark at veins.

Male genitalia (Figs 3–5). Uncus long, narrowing to apex, apically round; gnathos arms very short, thick, narrowing from base to apex, not fused; valve relatively short, costal and saccular edges poorly curved, apically rounded; juxta robust, basally semicircular, with two long robust lateral processes, directed dorsally; saccus large, semicircular; phallus very robust, with distinctly expressed longitudinal folding, almost straight, vesica with big finger-like spindle-curved cornutus in lateral surface.

Female unknown.

Diagnosis. Most close to *Strigocossus moderata* (Walker, 1856) (= *S. leucopterus* Houlbert, 1916, = *S. vosseleri* Gaede, 1930) (holotypes illustrated in Yakovlev & Murphy 2013), from which it differs in the much darker color, the poorly curved costal edge of the valve, very robust lateral processes of the juxta and the much more robust phallus.

Habitat (Fig. 6). Equatorial polydominant forest.



Figure 6. Type locality (photo by R. Fiebig).

Flight time. December – March.

Distribution. Known only from Democratic Republic of the Congo (Sankuru and Upper Uele Provinces) and Western Uganda (Fig. 7).

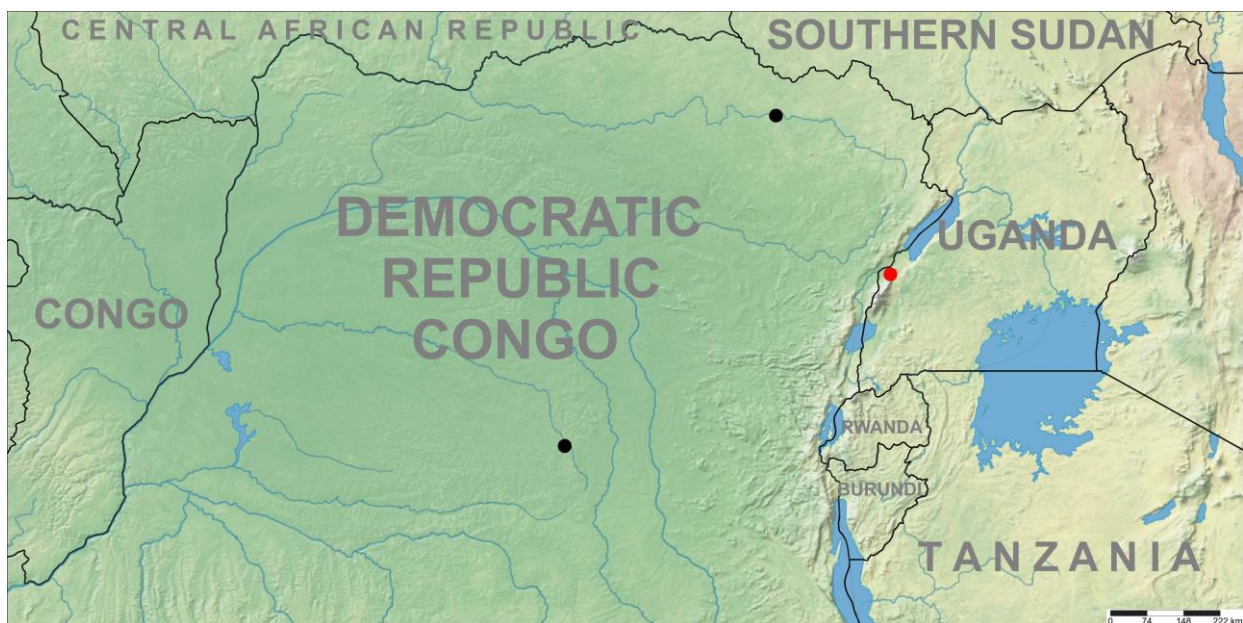


Figure 7. Distributional map of *Strigocossus ralffiebigi* Yakovlev sp. nov.

Etymology. The species is named after Ralf Fiebig, Germany, for his merits in the exploration of African moths.

Acknowledgment

The author is grateful to Ralf Fiebig (Rossleben, Germany) for interesting material from Uganda, Belgian colleagues Didier Van den Spiegel, Alice Buset, Jurate and Willy De Prins for providing the possibility of comfortable working in the Royal Museum of Central Africa, to Anna Ustjuzhanina (Tomsk, Russia) for the help in translation of the paper and to Harmuth Strutzberg (Weimar, Germany) for the excellent genital preparation.

References

- Gaede, M. (1930) Cossidae. In: Seitz, A. (Ed.), *Die Gross-Schmetterlinge der Erde. Die afrikanischen Spinner und Schwärmer*. Stuttgart, Bd. 14, 541–550.
- Houlbert, C. (1916) Sur la Distribution géographique des *Xyleutes* (Lép. Zeuseridae) et Description de sept Espèces nouvelles. *Études de Lepidopterologie Comparée*, 9 bis, 59–118.
- Kristensen, N.P. (2003) *Lepidoptera, Moths and Butterflies. Vol. 2. Morphology, Physiology, and Development. Handbuch der Zoologie de Gruyter 4. Arthropoda: Insecta. Part 36*. Walter de Gruyter, Berlin and New York, xii + 564 pp.
- Lafontaine, J.D. & Mikkola, K. (1987) Lock-and-key system in the inner genitalia of Noctuidae (Lepidoptera) as taxonomic character. *Entomologische Meddelelser*, 55, 161–167.
- Mey, W. (2016) A taxonomic and faunistic study of the Cossidae of southwestern Africa (Lepidoptera: Cossioidea). *Annals of the Ditsong National Museum of Natural History*, 6, 146–198.
- Pinhey, E.C.G. (1979) *Moths of Southern Africa. Description and colour illustrations of 1183 species*. Rotterdam, 273 pp.
- Schoorl, J.W. (1990) A phylogenetic study on Cossidae (Lepidoptera: Ditrysia) based on external adult morphology. *Zoologische Verhandelingen*, 63, 4–295.
- Yakovlev, R.V. & László, Gy.M. (2020) Two new species of *Strigocossus* Houlbert, 1916 (Lepidoptera, Cossidae, Zeuserinae) from Togo and Zambia. *Ecologica Montenegrina*, 34, 64–72. <http://dx.doi.org/10.37828/em.2020.34.7>
- Yakovlev, R.V. & Murphy, R.J. (2013) The Cossidae (Lepidoptera) of Malawi with descriptions of two new species. *Zootaxa*, 3709 (4), 371–393. <http://dx.doi.org/10.11646/zootaxa.3709.4.5>
- Yakovlev, R.V., Sulak, H. & Witt, T.J. (2019) Preliminary list of Cossidae sensu str. (Lepidoptera, Cossioidea: Cossidae: Cossinae & Zeuserinae) of the Republic of Angola with description of a new *Strigocossus* species. *Zootaxa*, 4586 (3), 445–460. <http://dx.doi.org/10.11646/zootaxa.4586.3.3>