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New species of *Gumilevia* Yakovlev, 2011 (Lepidoptera, Cossidae: Cossinae) from Nigeria with Catalogue of the Genus

ROMAN V. YAKOVLEV^{1,2}

¹Altai State University, Lenina pr. 61, Barnaul, 656049, Russia.

 <https://orcid.org/0000-0001-9512-8709>; E-mail: yakovlev_asu@mail.ru

²Tomsk State University, Lenina pr. 36, 634050, Tomsk, Russia

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Abstract

The article describes *Gumilevia mungoparki* sp. n. from the Nigeria. The detailed diagnosis is given. The catalogue of the Genus *Gumilevia* Yakovlev, 2011 is provided. The article is illustrated with six figures.

Key words: biodiversity, Cossidae, Africa, Palearctica, taxonomy, fauna.

Introduction

Yakovlev (2011) described the genus *Gumilevia* Yakovlev, 2011 (type species: *Gumilevia zhiraph* Yakovlev, 2011, by original designation). Four species (distributed in the equatorial and subequatorial zone of Africa) were included into the genus *Gumilevia* (Yakovlev 2011). Examining the rich private collection of Manfred Ströhle (Weiden, Germany) I found a new species from Nigeria. Its description is given in this article.

Material and methods

The images of adults were taken by the camera of Canon EOS 70D and illuminated in lightbox. The male genitalia slides were examined with a Zeiss Stemi 2000 C microscope and Olympus SZX16 microscope. The images were taken with the Olympus SZX16 camera. The photos were enhanced and arranged to plates with CorelDraw software. The genital preparations were made according to the method of Lafontaine & Mikkola (1987) and Lafontaine (2004). The morphological terminology used in the description follows Kristensen (2003).

The material is deposited in:

MSW private collection of Manfred Ströhle (Weiden, Germany);

MWM Museum Witt (Munich, Germany);

RMCA Royal Museum for Central Africa (Tervuren, Belgium).

Taxonomical part

Description of new species

Gumilevia mungoparki Yakovlev sp. n.

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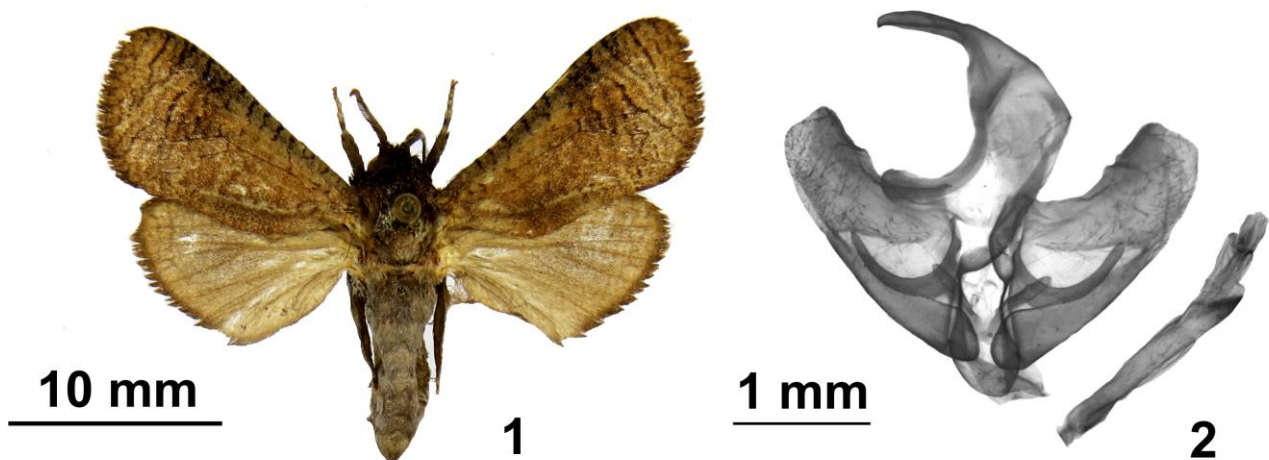
Figs 1–2

Material. Holotype, male, Nigeria, Kajela, 7.vi.1974, leg. Dr. Politzar (MSW, slide: MSW 2015/24 Coss).

Description. Male. Antenna short (3 times shorter than fore wing), bipectinate, setae 2 times longer than antenna rod diameter. Length of fore wing 14 mm. Fore wing relatively short, with bluntly rounded apex, brown, with black thin wavy lines from postdiscal area to outer margin of wing, dense black transverse strokes from wing base to postdiscal area and from costal margin to medial trunk. Hind wing light-brown without pattern. Fringe brown, unicolorous.

Male genitalia. Uncus long, apically beak-like; gnathos arms long, thick; gnathos compact; valve of medium length, apically blunt, poorly developed strongly sclerotized crest on costal margin closer to apex; transtilla process very long, uncinately bent, apically acute; juxta strongly sclerotized, with very long lateral processes diverged at right angle; saccus semicircular, small. Phallus slightly shorter than valve, straight, with poorly extended distal end, apex obliquely cut, vesica aperture in dorso-apical position, about 1/4 of phallus, vesica without cornuti.

Female unknown.



Figures 1–2. *Gumilevia mungoparki* Yakovlev sp. n.: 1. Adult specimens, holotype; 2. Male genitalia (slide: MSW 2015/24 Coss).

Diagnosis. The new species differs from *G. minettii*, *G. timora* and *G. zhiraph* in the poorly developed pattern on the fore wing (in the species listed above, there are bright developed brown portions on the fore wing postdiscally and submarginally, and the pattern of thin black lines is more developed). Externally, the new species is closer to *G. konkistador* from Southern Sudan, which also has poorly modified pattern on the fore wing, but has a significant difference from it in the male genital structure: the crest on the costal edge of the valve is poorly developed (in *G. konkistador* the crest is robust), the valve is apically blunt (in *G. konkistador* the apex of the valve is narrowing and semicircular), the lateral processes of the juxta are diverged at a right angle (in *G. konkistador* the lateral processes of the juxta are diverged at an acute angle).

Etymology. Mungo Park (1771–1806) was a Scottish explorer of West Africa. After the exploration of the upper Niger River around 1796, he wrote a popular and influential travel book titled *Travels in the Interior Districts of Africa* in which he theorized the Niger and Congo merged to become the same river. He was killed in the modern territory of Nigeria during the second expedition, having successfully traveled about two-thirds of the way down the Niger.

Catalogue of Genus

Gumilevia Yakovlev, 2011

Yakovlev, 2011: 12

Type species by original designation: *Gumilevia zhiraph* Yakovlev, 2011.

Gumilevia konkistador Yakovlev, 2011

Fig. 3

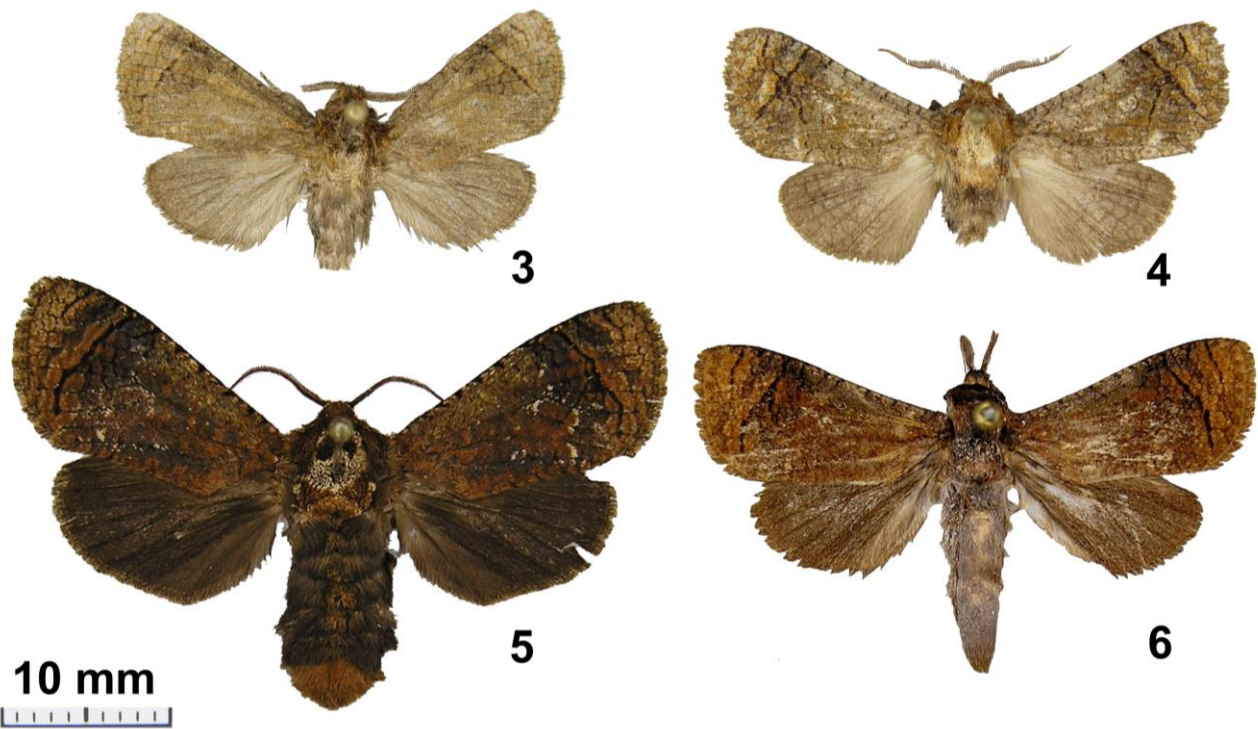
Yakovlev, 2011: 12.

Type locality: South Sudan, East Equatorial State, Akotos province, Lolibai Mts.

Type material (holotype) in MWM.

Distribution. Southern Sudan (Yakovlev 2011; De Prins & De Prins 2022).

Flight period: August–September.



Figures 3–6. *Gumilevia*, adult specimens (all holotypes): 3. *G. konkistador*; 4. *G. minettii*; 5. *G. timora*; 6. *G. zhiraph*.

Gumilevia minettii Yakovlev, 2011

Fig. 4

Yakovlev, 2011: 12.

Type locality: Zambia, Western Prov., W. Kaoma.

Type material (holotype) in MWM.

Distribution. Zambia, Western Province (Yakovlev 2011; De Prins & De Prins 2022).

Flight period: December.

***Gumilevia mungoparki* Yakovlev sp. n.**

Type locality: Nigeria, Kajela.

Type material (holotype) in MSW.

Distribution: Nigeria.

Flight period: June.

***Gumilevia timora* Yakovlev, 2011**

Fig. 5

Yakovlev, 2011: 12.

Type locality: Guinea Equatorial, Isla de Bioco.

Type material (holotype) in MSW.

Distribution. Guinea Equatorial, Bioko Island (Yakovlev 2011; De Prins & De Prins 2022)

Flight period: January.

***Gumilevia zhiraph* Yakovlev, 2011**

Fig. 6

Yakovlev, 2011: 12.

Type locality: [Congo], Uele, Paulis [Isiro].

Type material (holotype) in RMCA.

Distribution. Central African Republic, Congo, Uganda (Yakovlev 2011; Yakovlev et al. 2018; De Prins & De Prins 2022)

Flight period: November–December.

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