

New species of Politzariellinae from Cameroon with check list of the *Politzariella* Yakovlev, 2011 species (Lepidoptera: Cossidae)

R. V. Yakovlev & Gy. M. László

Abstract

The present paper contains the description of a new species, *Politzariella smithi* Yakovlev & László, sp. n. collected in northern Cameroon. Check list and distribution map of the species of the genus *Politzariella* Yakovlev, 2011 is provided, with 3 figures.

KEY WORDS: Lepidoptera, Cossiidae, Politzariellinae, taxonomy, Cameroon.

**Nueva especie de Politzariellinae de Camerún con lista de las especies de *Politzariella* Yakovlev, 2011
(Lepidoptera: Cossidae)**

Resumen

El presente trabajo contiene la descripción de una nueva especie *Politzariella smithi* Yakovlev & László, sp. n. recogida en el norte de Camerún. Se proporciona una lista y mapa de distribución de las especies del género *Politzariella* Yakovlev, 2011, con tres figuras.

PALABRAS CLAVE: Lepidoptera, Cossiidae, Politzariellinae, taxonomía, Camerún.

Introduction

Cossidae are a family of primitive Ditrysia Lepidoptera, including over 1200 valid species (SCHOORL, 1990; VAN NIEUKERKEN *et al.*, 2011). A special element of the African fauna is the endemic subfamily Politzariellinae Yakovlev, 2011, including three genera: *Politzariella* Yakovlev, 2011 (type species (by monotypy) - *Politzariella pantherina* Yakovlev, 2011), *Holcoceroides* Strand, 1913 (type species (by monotypy) - *Holcoceroides ferrugineotincta* Strand, 1913) (YAKOVLEV, 2011) and *Geraldocossus* Yakovlev & Sáfián, 2016 (type species (by monotypy) - *Geraldocossus durrelli* Yakovlev & Sáfián, 2016) (YAKOVLEV, 2011; YAKOVLEV & SÁFIÁN, 2016; YAKOVLEV & WITT, 2016; YAKOVLEV *et al.*, 2019).

The genus *Politzariella* Yakovlev, 2011 includes four species: *P. pantherina* Yakovlev, 2011 (type locality - Ober Volta [Burkina Faso], Bobo Dioulasso), *P. fontainei* Yakovlev & Witt, 2016 (type locality - [Congo] Uele, Paulis [Isiro], [2°46'00" N/ 27°37'00" E]), *P. edita* Yakovlev, Müller, Kravchenko & Petrányi, 2019 (type locality - Guinea Konakri, Macenta Prefecture, Ziama Forest, Mt. Nimba), and *P. frici* Yakovlev & Sáfián, 2019 (type locality - Zambia, Mwinilunga district, North-Western Province, Chiwoma riverine forest). All species of the genus are known only from their type localities (Fig. 1).

During the examination of the materials deposited in the museum of the African Natural History

Research Trust (Leominster, G.B.) a single male specimen of peculiar, dark habitus belonging to the genus *Politzariella* collected recently in Cameroon has been found. On the grounds of both external and genitalia morphology, the specimen displays notable differences compared with its congeners, representing a species new to science. The description of the new species is given in this paper.

Material and methods

The collected material is deposited in the collection of the African Natural History Research Trust, Leominster (ANHRT). The genitalia were dissected and stained with Eosin red and mounted in Euparal on microscope slides applying standard methods of preparation (LAFONTAINE & MIKKOLA, 1987). The adults were photographed using a Nikon D90 SLR camera equipped with Nikon AF Micro 60 mm lens. The genitalia preparations were photographed using a Canon EOS 700D SLR camera mounted on a Wild M7A Stereomicroscope.

Taxonomic part

DESCRIPTION OF THE NEW SPECIES

Politzariella smithi Yakovlev & László, sp. n. (Figs 2-3)

Material: Holotype ♂, CAMEROON, North Region, Wack (La Falaise), 07°40'16.5"N, 13°33'18.4"E, 900 m, 2-21-X-2018, General coll., Safian, Sz., Simonics, G. leg., ANHRT 2018.36. Specimen unique number: ANHRTUK 00057992. Genitalia slide number: LG 5194 (prepared by Gy. M. László) (coll. ANHRT).

Description: Length of forewing 11.5 mm. Antenna short, half as long as forewing, filiform with flattened segments. Forewing dark greyish brown, with a slightly paler postdiscal area, fringe uniform dark brown. Transverse lines deleted. Hindwing graphite grey without pattern, fringe dark grey.

Male genitalia: Uncus bifid, heavily sclerotized very broad at base, with two short, apically broadly rounded triangular arms; medial incision of uncus wide, semicircular. Gnathos reduced, its arms short and robust, strongly curved, with tapered sclerotized apices, rather hook-shaped, medially unfused; tegumen robust, trapezoidal; valva short, rectangular, apically truncate, costal margin with a small, but well expressed, triangular digitus erected medially projecting towards the medial plate of valva; sclerotized harpe on costal edge (in middle third), distal margin conspicuously straight, ventral margin slightly rounded, sacculus narrow, without processes; juxta heavily sclerotized, rather elongated, very characteristic in shape (see Fig. 3); saccus narrow, medium long, apically semicircular; phallus tubular, straight, narrow, its length as that of valva, vesica aperture in dorso-apical position, vesica without cornuti.

Female unknown.

Etymology: The new species is dedicated to Mr. Richard Smith, founder and director of the African Natural History Research Trust, whose efforts in maintaining a research institute and museum, as well as organizing extensive entomological surveys in numerous Sub-Saharan countries making an immense contribution to the knowledge of the taxonomy, biogeography and phylogeny of Afrotropical insects.

Diagnosis: The new species differs from the known representatives of the genus by the following characters: - from *P. pantherina* and *P. fontainei* it differs by the lack of mottled pattern of spots on the forewing; - from *P. frici* by the narrower forewing and the straight outer margin of the valva (in *P. frici*, the forewing is wider and shorter, the valva is narrower apically); - though being very closely related to *P. edita*, from which the new species differs by its blackish brown forewing (in *P. edita*, the forewing is ochreous with a brown field postdiscally), and by the even costal edge of the valva (in *P. edita*, the costal edge of the valva bears a semicircular process in its distal third).

Species content of the genus *Politzariella* Yakovlev, 2011

Politzariella Yakovlev, 2011

Neue Ent. Nachr., **66**: 47

Type species: *Politzariella pantherina* Yakovlev, 2011 (by monotypy).

Politzariella edita Yakovlev, Müller, Kravchenko & Petrányi, 2019

Politzariella edita Yakovlev, Müller, Kravchenko & Petrányi, 2019. In Yakovlev, Müller, Kravchenko, Petrányi & Sáfián.- *Russian Ent. J.*, **28**(3): 313

Type locality: GUINEA CONAKRY, Macenta Prefecture, Ziama Forest, Mt. Nimba

Type material (holotype, male) in coll. G. Müller, Freising / later Zoologische Staatssammlung, Munich.

Distribution: Guinea Conakry.

Politzariella fontainei Yakovlev & Witt, 2016

Politzariella fontainei Yakovlev & Witt, 2016. *Biol. Bull. Bogdan Chmel. Mel. State Ped. Univ.*, **6**(3): 156

Type locality: [CONGO] Uele, Paulis [Isiro], [2°46'00" N/27°37'00" E].

Type material (holotype, male) in Museum Royal of Central Africa, Tervuren.

Distribution: Northern-East Congo.

Politzariella frici Yakovlev & Sáfián, 2019

Politzariella frici Yakovlev & Sáfián, 2019. In Yakovlev, Müller, Kravchenko, Petrányi & Sáfián.- *Russian Ent. J.*, **28**(3): 315

Type locality: ZAMBIA, Mwinilunga district, North-Western Province, Chiwoma riverine forest.

Type material (holotype, male) in Zoologische Staatssammlung, Munich.

Distribution: Zambia, Mwinilunga district.

Politzariella pantherina Yakovlev, 2011

Politzariella pantherina Yakovlev, 2011. *Neue Ent. Nachr.*, **66**: 47

Type locality: [BURKINA FASO] Ober Volta, Bobo Dioulasso.

Type material (holotype, male) in Zoologische Staatssammlung, Munich.

Distribution: Burkina Faso.

***Politzariella smithi* Yakovlev & László, sp. n.**

Type locality: CAMEROON, North Region, Wack (La Falaise), 07°40'16.5"N, 13°13'18.4"E.

Type material (holotype, male) in African Natural History Research Trust, Leominster.

Distribution: Cameroon, North Region.

Discussion

The genus *Politzariella* Yakovlev, 2011 is currently consisting of five species distributed in the Afrotropical region (from Cameroon to Zambia) and together with the following Cossidae genera - *Holcocerooides* Strand, 1913 (type species *Holcocerooides ferrugineotincta* Strand, 1913) (YAKOVLEV, 2011), *Geraldocossus* Yakovlev & Sáfián, 2016 (type species *Geraldocossus durrelli* Yakovlev & Sáfián, 2016), *Gumilevia* Yakovlev, 2011 (type species *Gumilevia zhiraph* Yakovlev, 2011), *Assegaj* Yakovlev, 2006 (type species *Assegaj clenchi* Yakovlev, 2006), *Mirocossus* Schoorl, 1990 (type species *Brachyilia badiala* Fletcher, 1968), *Acosma* Yakovlev, 2011 (type species *Acosma gurkoi* Yakovlev, 2011) - forms the core of the Cossidae fauna in the tropical Africa.

Acknowledgements

The senior author is indebted to Mr. Richard Smith (ANHRT, Leominster) for the opportunity to study the Cossidae material of the collection of the African Natural History Research Trust; in addition to Mr. Thomas J. Witt (†) and G. C. Müller (Munich) for their kind assistance provided during

examining of the Cossidae material in the Museum Witt and Mr. Müller's private collection. Additionally, we are grateful to the collectors, Mr. Sz. Sáfián and Mr. G. Simonics for finding this peculiar species.

BIBLIOGRAPHY

- 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.
- NIEUKERKEN VAN, E. J., KAILA, L., KITCHING, I. J., KRISTENSEN, N. P., LEES, D. C., MINET, J., MITTER, C., MUTANEN, M., REGIER, J. C., SIMONSEN, T. J., WAHLBERG, N., YEN, S.-H., ZAHIRI, R., ADAMSKI, D., BAIXERAS, J., BARTSCH D., BENGTSSON, B. A., BROWN, J. W., BUCHELI, S. R., DAVIS, D. R., DE PRINS, J., DE PRINS, W., EPSTEIN, M. E., GENTILI-POOLE, P., GIELIS, C., HÄTTENSWILDER, P., HAUSMANN, A., HOLLOWAY, J. D., KALLIES, A., KARSHOLT, O., KAWAHARA, A., KOSTER, J. C., KOZLOV, M. V., LAFONTAINE, J. D., LAMAS, G., LANDRY, J.-F., LEE, S., NUSS, M., PARK, K.T., PENZ, C., ROTA, J., SCHMIDT, B. C., SCHINTLMEISTER, A., SOHN, J. C., SOLIS, M. A., TARMANN, G. M., WARREN, A. D., WELLER, S., YAKOVLEV, R. V., ZOLOTUHIN, V. V. & ZWICK, A. 2011.– Order Lepidoptera Linnaeus, 1758.– *Zootaxa*, **3148**: 212-221.
- SCHOORL, J. W., 1990.– A phylogenetic study on Cossidae (Lepidoptera: Ditrysia) based on external adult morphology.– *Zoologische Verhandelingen*, **263**: 1-295.
- YAKOVLEV, R. V., 2011.– Catalogue of the Family Cossidae of the Old World.– *Neue Entomologische Nachrichten*, **66**: 1-129.
- YAKOVLEV, R. V., MÜLLER, G. C., KRAVCHENKO, V. D., PETRÁNYI, G. & SÁFIÁN, SZ., 2019.– Three new species of subfamily Politzariellinae (Lepidoptera: Cossidae) from Guinea and Zambia.– *Russian Entomological Journal*, **28**(3): 312-316. doi: 10.15298/rusetj.28.3.10.
- YAKOVLEV, R. V. & SÁFIÁN, SZ., 2016.– *Geraldocossus* gen. nov. (Lepidoptera, Cossidae) from Mount Cameroon (West Africa).– *Zootaxa*, **4114**(5): 595-599. DOI: 10.11646/zootaxa.4114.5.8.
- YAKOVLEV, R. V. & WITT, T. J., 2016.– *Politzariella fontainei* - new Cossidae (Lepidoptera) species from Congo.– *Biological Bulletin of Bogdan Chmelniitskiy Melitopol State Pedagogical University*, **6**(3): 154-156.

*R. V. Y.
 Altai State University
 pr. Lenina, 61
 RUS-Barnaul 656049
 RUSSIA / RUSSIA
 E-mail: yakovlev_asu@mail.ru
 E-mail: yakovlevcossidae@gmail.com
<https://orcid.org/0000-0001-9512-8709>

G. L.
 African Natural History Research Trust
 Street Court
 Leominster, Kingsland
 GB-Herefordshire HR6 9QA
 REINO UNIDO / UNITED KINGDOM
 E-mail: gyula@anhrt.org.uk
<https://orcid.org/0000-0001-9862-8290>

y / and

PaleoData Lab
 Institute of Archaeology and Ethnography SB RAS
 17, Ac. Lavrentieva ave.
 RUS-630090 Novosibirsk
 RUSSIA / RUSSIA

*Autor para la correspondencia / *Corresponding author*

(Recibido para publicación / *Received for publication* 12-VII-2020)

(Revisado y aceptado / *Revised and accepted* 28-VII-2020)

(Publicado / *Published* 30-III-2021)

