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Article

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Three new species of *Camellocossus* Yakovlev, 2011 (Lepidoptera: Cossidae, Cossinae) collected by Dr. Heinz Politzar in the Western Africa

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Abstract
The article describes a three new species *Camellocossus politzari* Yakovlev **sp. n.** (type locality − Obervolta, Folonzo am Fluss, Comoe), *Camellocossus manat* Yakovlev **sp. n.** (type locality − Mauretanien, Boghe) and *Camellocossus sokoto* Yakovlev **sp. n.** (type locality − N. Nigeria, Kogin Kano) (*Lepidoptera, Cossidae: Cossinae*) from Nigeria, Burkina Faso and Mauretania. The catalogue of the genus is provided. The article has 6 illustrations.

Key words: Biodiversity, Africa, taxonomy, entomology, fauna, Carpenter-Moths.

Introduction

The genus *Camellocossus* Yakovlev, 2011 (Lepidoptera: Cossidae, Cossinae) was established for *Cossus abyssinica* Hampson, 1910. The apomorphic characters of the genus are: the wide swollen valves with a crest of a complicated shape of the costal edge, very long and thin transtilla processes. The representatives of the genus are widely spread in North and East Africa and in the South of the Arabian peninsula (Yakovlev 2011, Yakovlev et al. 2015; Yakovlev & Witt 2017). *Camellocossus austrorum* Mey, 2017, was described from Namibia *(*Etosha National Park, Camp Halali*)*. Later, it was recombined into the genus *Afrikanetz* Yakovlev, 2009 (Mey 2017; Yakovlev & Witt 2019). Examining the specimens from the collection of Museum Witt (Munich, Germany) we found new species of the genus *Camellocossus* from West Africa (Burkina Faso, Mauritania and Nigeria), collected by Dr. Kalheinz Politzar. Their descriptions are provided in this article. Dr. Karlheinz Politzar (1938−2007), a famous veterinarian and collector of African Lepidoptera, collected huge material in various parts of the continent (Hacker & Hausmann 2010a, b).

Material and methods

Examining the materials deposited in the collections of Museum Witt (Munich, Germany). The male genitalia slides (Lafontaine & Mikkola 1987) were examined with an Olympus SZX16 microscope. The

images were taken with the Olympus SZX16 camera. The genitalia and imago images were processed using Corel Draw software.

The materials for this study were examined in the following depositories: Natural History Museum (NHMUK, London); Museum Witt (MWM, Munich, later in Zoologische Sammlung der Bayerischen Staates (ZSM), Museum National d'Histoire Naturelle, Paris, France (MNHN), and private collection of Manfred Ströhle (MSW, Weiden).

Taxonomical part

Descriptions of new species

Camellocossus politzari Yakovlev **sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:2AEF52BB-ED6E-4976-8740-FB292FA6450C
Figs 1−3

Material. Holotype (male), Obervolta, Folonzo am Fluss, Comoe, 21.xii.1984, leg. Dr. Politzar (Genitalpräparat Heterocera # 32895, MWM); paratypes: 7 males, same locality, 12.i.1985; 20.x.1985; 15.ii.1985 (3 males); 20.xii.1984; 17.01.1986; 2 males, 3 females (Genitalpräparat Heterocera # 33158, MWM), Bobo Douglasso, 18.i.1980 & 14.xii.1974, leg. Dr. Politzar (MWM).

Description. Length of fore wing in holotype 14 mm (in paratypes 14−15 mm). Antenna bipectinate (seta 2.5 longer than antenna rod diameter), antenna equal to 1/3 of fore wing in length. Fore wing light-brown, gradually lightening from base to outer edge, with very thin poorly developed brown reticulated pattern, thin transverse undulated black lines on fore wing discally, postdiscally and submarginally; ocher-brown portion with black strokes on it postdiscally at base of cubital veins; fringe light-brown unicolorous. Hind wing light-grey with very thin poorly developed reticulated pattern, fringe light-brown unicolorous.

Male genitalia. Uncus conical, relatively short, apically semicircular; gnathos arms thick, short; gnathos large, densely covered with spikes throughout surface; valve very wide, with robust crest on costal edge along all length of valve, this crest has clearly expressed folds on inner surface closer to distal edge; transtilla processes very long (about 2/3 of valve in length), basally thick, apically acute, uncinately bent; juxta large with long clavate lateral processes; saccus very wide; phallus slightly curved in basal third, equal to valve in length, almost of even thickness throughout its length, apex obliquely cut, vesica aperture in dorso-apical position, about ¼ of phallus in length, vesica without cornuti.

Female. Length of fore wing 19 mm, antenna not pectinate, fore wing wider than that of male, pattern less expressed.

Diagnosis. In the male genital structure, the new species is most close to *Camellocossus ngai* Yakovlev & Witt, 2017 from Kenya, from which it differs in the robust juxta with long clavate lateral processes.

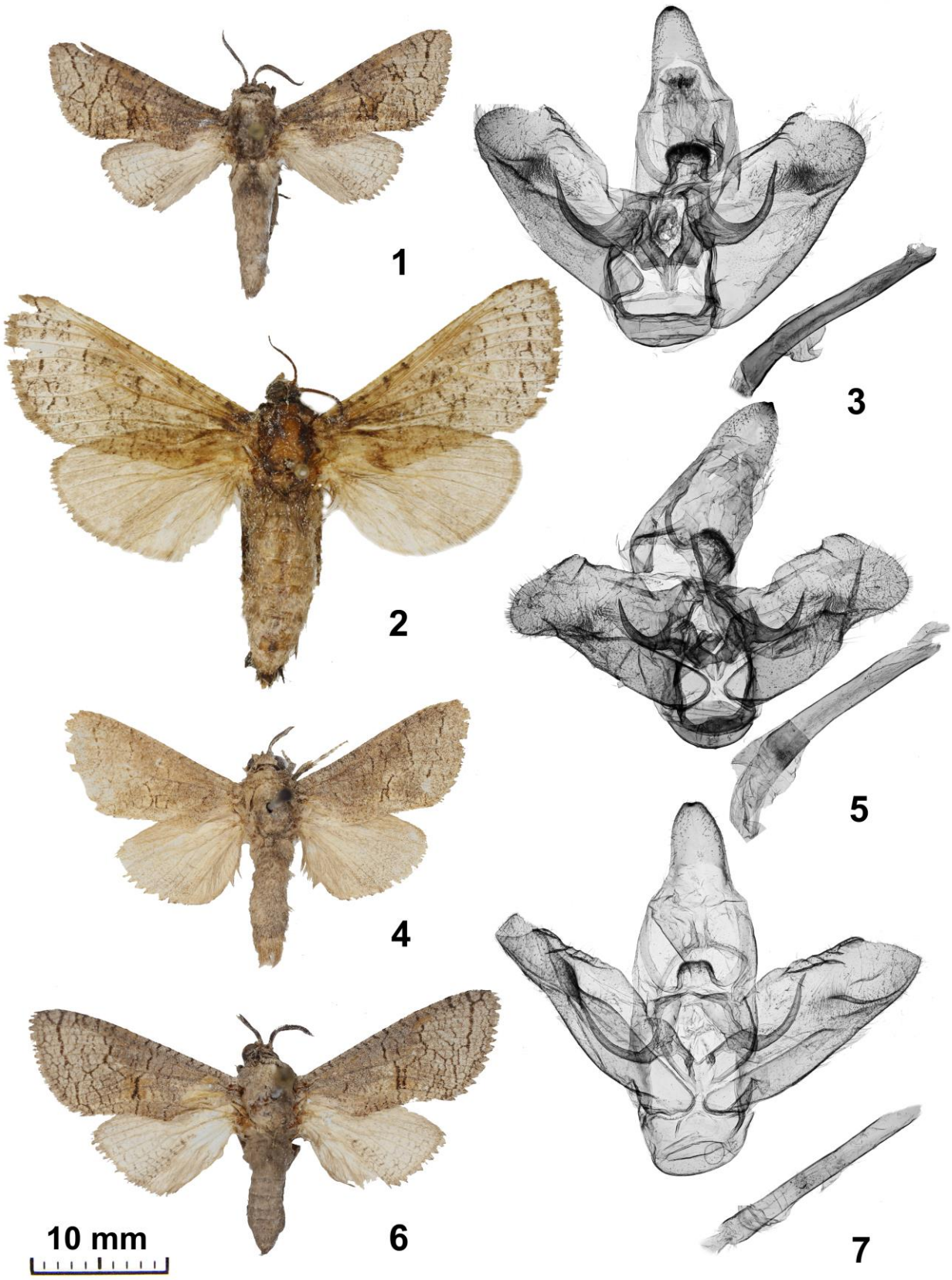
Etymology. The new species is named after the type series collector, Dr. Karlheinz Politzar (1938−2007).

Distribution. Burkina Faso.

Camellocossus manat Yakovlev **sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:CD27A339-A26F-4775-82F2-DDBAF72F6269
Figs 4−5

Material. Holotype (male), Mauretanien, Boghe, 15.ii.1967, leg. Dr. Politzar (Genitalpräparat Heterocera # 32896, MWM); paratypes, 3 males, same locality, 4.i.1967; 24.ix.1967; 2.vi.1967 (MWM).

Description. Length of fore wing in holotype 13.5 mm (in paratypes 13−14 mm). Antenna bipectinate (seta 2.5 times longer than antenna rod diameter), antenna about 1/3 of fore wing in length. Fore wing light-brown, two thin transverse brown strokes in discal cell, thin broken brown line postdiscally, thin torn brown line submarginally (from costal edge to cubital area), fringe light-brown unicolorous. Hind wing ocher with sputtering of brown scales, fringe light-brown unicolorous.



Figures 1−7. *Camellocossus*, holotypes, paratype and male genitalia (MWM): 1. *C. politzari* Yakovlev **sp. n.**, male, holotype; 2. *C. politzari* Yakovlev **sp. n.**, female, paratype; 3. *C. politzari* Yakovlev **sp. n.**, male genitalia (holotype, slide: Genitalpräparat Heterocera # 32895); 4. *C. manat* Yakovlev **sp. n.**, male, holotype; 5. *C. manat* Yakovlev **sp. n.**, male genitalia (holotype, slide: Genitalpräparat Heterocera # 32896); 6. *C. sokoto* Yakovlev **sp. n.**, male, holotype; 7. *C. sokoto* Yakovlev **sp. n.** male genitalia (holotype, slide: Genitalpräparat Heterocera # 32898).

Male genitalia. Uncus conical, relatively short, apically semicircular; gnathos arms thick, relatively short; gnathos robust, densely covered with spikes throughout surface; valve very wide, with robust crest on costal edge throughout entire length of valve, this crest closer to distal edge significantly larger, with clearly expressed folds of inner surface; deep semicircular notch on abdominal edge of valve (on border between medium and distal third); transtilla processes very long (about 1/2 of valve in length), basally thick, apically acute, uncinately curved; juxta robust with relatively short very robust lateral processes; saccus very wide; phallus practically straight, equal to valve in length, of almost even thickness throughout its length, apex obliquely cut, vesica aperture in dorso-apical position, constitutes about 1/3 of phallus in length, vesica without cornuti.

Female unknown.

Diagnosis. The new species clearly differs from the known species of the genus in the strongly reduced pattern on the fore wing and in the expressed notch on the abdominal edge of the valve.

Etymology. Manāt was a Semitic goddess worshiped in the Arabian Peninsula before the rise of Islam and the Islamic.

Distribution. Southern Mauretania.

Camellocossus sokoto Yakovlev **sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:8D0DA3FF-3357-40E6-80C1-04DDA9B6CCD2
Figs 6−7

Material. Holotype (male), N. Nigeria, Kogin Kano, 7.vi.1974, leg. Dr. Politzar (Genitalpräparat Heterocera # 32898, MWM); paratypes, 1 male, same locality, 12.ii.1974, leg. Dr. Politzar (MWM).

Description. Length of fore wing in holotype 17 mm (in paratype – 16.5 mm). Antenna bipectinate (seta 2.5 times longer than antenna rod diameter), antenna about 1/3 of fore wing in length. Fore wing light-brown with dense sputtering of grey scales basally and postdiscally, thin dark-brown transverse wavy lines discally, postdiscally and submarginally, very thin poorly developed brown reticulated pattern; fringe light-brown unicolorous. Hind wing laght-grey with very thin poorly developed brown reticulated pattern, fringe light-brown unicolorous.

Male genitalia. Uncus conical, relatively short, apically semicircular; gnathos arms thick, relatively short; gnathos robust, densely covered with spikes throughout surface; valve very wide, with robust crest on costal edge throughout entire length of valve, with transverse folding developed along all the crest, transtilla processes very long, acute, uncinately curve; juxta robust with lateral processes strongly extended on ends; saccus large, semicircular; phallus straight, equal to valve in length, of equal thickness throughout length, apex obliquely cut, vesica aperture in dorso-apical position, constitutes about 1/3 of phallus in length, vesica without cornuti.

Female unknown.

Diagnosis. The new species clearly differs from all the known species of the genus in the robust crest on the costal edge of the valve along all the valve length, with the developed transverse folding along all the surface of the crest, and in the lateral processes of the juxta which are strongly extended on ends.

Etymology. The Sokoto Caliphate was a sovereign Sunni Muslim caliphate in West Africa that was founded during the jihad of the Fulani War in 1804.

Distribution. Northern Nigeria.

Catalogue of the Genus *Camellocossus* Yakovlev, 2011

Genus *Camellocossus* Yakovlev, 2011
Type species (by original designation): *Cossus abyssinica* Hampson, 1910.

***Camellocossus abyssinica* (Hampson, 1910)**
Cossus abyssinica Hampson, 1910: 132.
Type locality: Abyssinia [Ethiopia].
Type material. Holotype, male in NHMUK, examined.
Distribution: Ethiopia.

***Camellocossus aladdin* Yakovlev & Witt, 2017**
Yakovlev & Witt, 2017: 151−152.
Type locality: Morocco, W. Goulmin.
Type material. Holotype, male in MWM/ZSM, examined.
Distribution. Morocco.

***Camellocossus henleyi* (Warren & Rothschild, 1905)**
Cossus henleyi Warren & Rothschild, 1905: 28.
Type locality: Nakheila, R. Atbara [Sudan].
Type material. Syntypes in NHMUK, examined.
= *Cossus niloticus* De Joannis, 1909: 166−170. Type locality: envirnos du Caire [Egypt, near Cairo]. Type material. Syntypes in MNHN, examined.
Distribution: Sudan, Egypt.

***Camellocossus ifrit* Yakovlev & Witt, 2017**
Yakovlev & Witt, 2017: 154.
Type locality: Sudan, env. SE Bahr al Azraq, Wad Madini.
Type material. Holotype, male in MWM/ZSM, examined.
Distribution. Sudan.

***Camellocossus jinn* Yakovlev & Witt, 2017**
Yakovlev & Witt, 2017: 154.
Type locality: Sudan, Provinz Nahr an Nil.
Type material. Holotype, male in MWM/ZSM, examined.
Distribution. Sudan.

***Camellocossus lalibela* Yakovlev & Witt, 2017**
Yakovlev & Witt, 2017: 156.
Type locality: Ethiopia, Arba Minch.
Type material. Holotype, male in MSW, examined.
Distribution. Ethiopia.

***Camellocossus manat* Yakovlev sp. n.**
Type locality: Mauretanien, Boghe.
Type material. Holotype, male in MWM/ZSM, examined.
Distribution. Mauretania.

***Camellocossus ngai* Yakovlev & Witt, 2017**
Yakovlev & Witt, 2017: 156−157.
Type locality: Kenya CEE, E of Garsen, W of Witu.
Type material. Holotype, male in MWM/ZSM, examined.
Distribution. Kenya.

***Camellocossus osmanya* Yakovlev, 2011**
Yakovlev, 2011: 11.
Type locality: Somalia m., Caanole Fluss.
Type material. Holotype (male) in ZSM, examined.

***Camellocossus politzari* Yakovlev sp. n.**
Type locality: Obervolta, Folonzo am Fluss, Comoe.
Type material. Holotype, male in MWM/ZSM, examined.
Distribution. Burkina Faso.

***Camellocossus roc* Yakovlev & Witt, 2017**
Yakovlev & Witt, 2017: 154.
Type locality: Algeria, 50 km NÖ Tamanrasset.
Type material. Holotype, male in MSW, examined.
Distribution. Algeria.

***Camellocossus sindbad* Yakovlev & Saldaitis, 2015**
Yakovlev & Saldaitis, 2015 in Yakovlev et al. 2015: 147.
Type locality: S. Oman, W. from Salalah, 20 km W. from Al Mughsayl, slopes to Arabian Sea (Camels).
Type material. Holotype, male in MWM/ZSM, examined.
Distribution. Southern Oman.

***Camellocossus snizeki* Yakovlev & Witt, 2017**
Yakovlev & Witt, 2017: 156.
Type locality: Kenya E, 202 km E Thika, Sosoma.
Type material. Holotype, male in MWM/ZSM, examined.
Distribution. Kenya.

***Camellocossus sokoto* Yakovlev sp. n.**
Type locality: N. Nigeria, Kogin Kano.
Type material. Holotype, male in MWM/ZSM, examined.
Distribution. Northern Nigeria.

***Camellocossus strohlei* Yakovlev & Witt, 2017**
Yakovlev & Witt, 2017: 154.
Type locality: Ethiopia, Arba Minch.
Type material. Holotype, male in MSW, examined.
Distribution. Ethiopia.

Discussion

Currently, the genus includes 15 species distributed throughout Africa (north of Tanzania) and in South Arabia. The genus *Camellocossus* belongs to Cossidae genera widely spread in Africa but having isolated representatives in Arabia (Yakovlev 2011, 2019): *Brachylia* Fletcher, 1874, *Mirocossus* Schoorl, 1990, *Afrikanetz* Yakovlev, 2009, which once again confirms the attribution of the south of Arabian Peninsula to the Afrotropical zoogeographical khoron.

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