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Holcoceroides landeri – a new species of Carpenter-Moths (Lepidoptera, Cossidae: Politzariellinae) from the Republic of Guinea

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Abstract
The present paper contains the description of a new Cossidae species, *Holcoceroides landeri* **sp. n.** from the Republic of Guinea. The new species notably differs from the two known species of the genus in external characters and details of male genital structures. With 3 colour and 3 black and white figures.

Key words: Cossidae, new species, taxonomy, faunistics, Afrotropics, Guinea.

Introduction

The Carpenter moth fauna of Africa has recently been rather actively studied. The fauna of Southern Africa (South Africa, Swaziland, Namibia and Zimbabwe) has been processed relatively well, resulting in a series of publications of new taxa, species lists and original distributional data (Yakovlev 2011; Yakovlev & Lenz 2013; Yakovlev & Witt 2016; Mey 2007, 2015, 2016, 2017, 2019). Numerous papers devoted to the Cossidae fauna and taxonomy of Central and Western Africa have also been published during the last decade, dealing with the various aspects of the family of Malawi, Zambia, the Central African Republic, Gabon, Sierra Leone, Angola, Burundi and Rwanda (Yakovlev & Murphy 2013; Yakovlev 2014; Yakovlev, László & Witt 2018, 2019a, b; Yakovlev, Sulak & Witt 2019; Yakovlev & Witt 2019 a, b). Despite all these efforts, numerous species of Afrotropics has still remained unknown, and the picture on the distribution of the already known taxa is far from complete. One of the poorly studied groups of Afrotropical Cossidae is the subfamily Politzariellinae Yakovlev, 2011 (type genus, by original designation − *Politzariella* Yakovlev, 2011). The subfamily includes two even more poorly studied genera – the endemic to Cameroon *Geraldocossus* Yakovlev & Sáfián, 2016 (type species, by monotypy − *Geraldocossus durrelli* Yakovlev & Sáfián, 2016) and *Holcoceroides* Strand, [1913] (type species, by monotypy − *Holcoceroides ferrugineotincta* Strand, [1913]) (Yakovlev 2011; Yakovlev & Sáfián, 2016). The genus *Holcoceroides* currently includes two species: *H. ferrugineotincta*, relatively widely distributed in West Africa (Equatorial

Guinea, Nigeria, Côte d'Ivoire, SW Sudan, Burundi) (Yakovlev 2011; Yakovlev, László & Witt 2019b; Yakovlev & Witt 2019a) and *Holcoceroides cheick* Yakovlev, Müller, Kravchenko & Petrányi, 2019 from Guinea (Yakovlev *et al.* 2019).

In the course of examination of the Cossidae specimens collected in the Republic of Guinea, deposited in the collection of the African Natural History Research Trust, Leominster, UK (ANHRT) we have discovered a hitherto undescribed species of the genus *Holcoceroides*, the description of which is provided in this paper.

Materials and methods

The examined 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 Nikkor AF Micro 60 mm lens. The genitalia preparations were photographed using a Canon EOS 700D SLR camera mounted on a Wild M7A stereo-microscope.

Abbreviations
ANHRT – African Natural History Research Trust
LG – genitalia slide prepared by Gyula M. László

Taxonomic part

Description of the new species

***Holcoceroides landeri* Yakovlev & László, sp. n.**
Figs 1−2, 7, 11
https://zoobank.org/urn:lsid:zoobank.org:act:A632E178-4724-48E8-B094-F988979B1240

Holotype, male, "Guinea, Geipa Camp, Forêt de Diecké, 7º26′7.06″N, 8º50′47.87″W, 435 m, 5–14.iv.2019, Cold Cathode UV Light Trap (8 W), Safian, Sz., Koivogui, S. leg., ANHRT: 2019.7", unique number: ANHRTUK 00107396, genitalia slide number: LG 5196 (ANHRT).

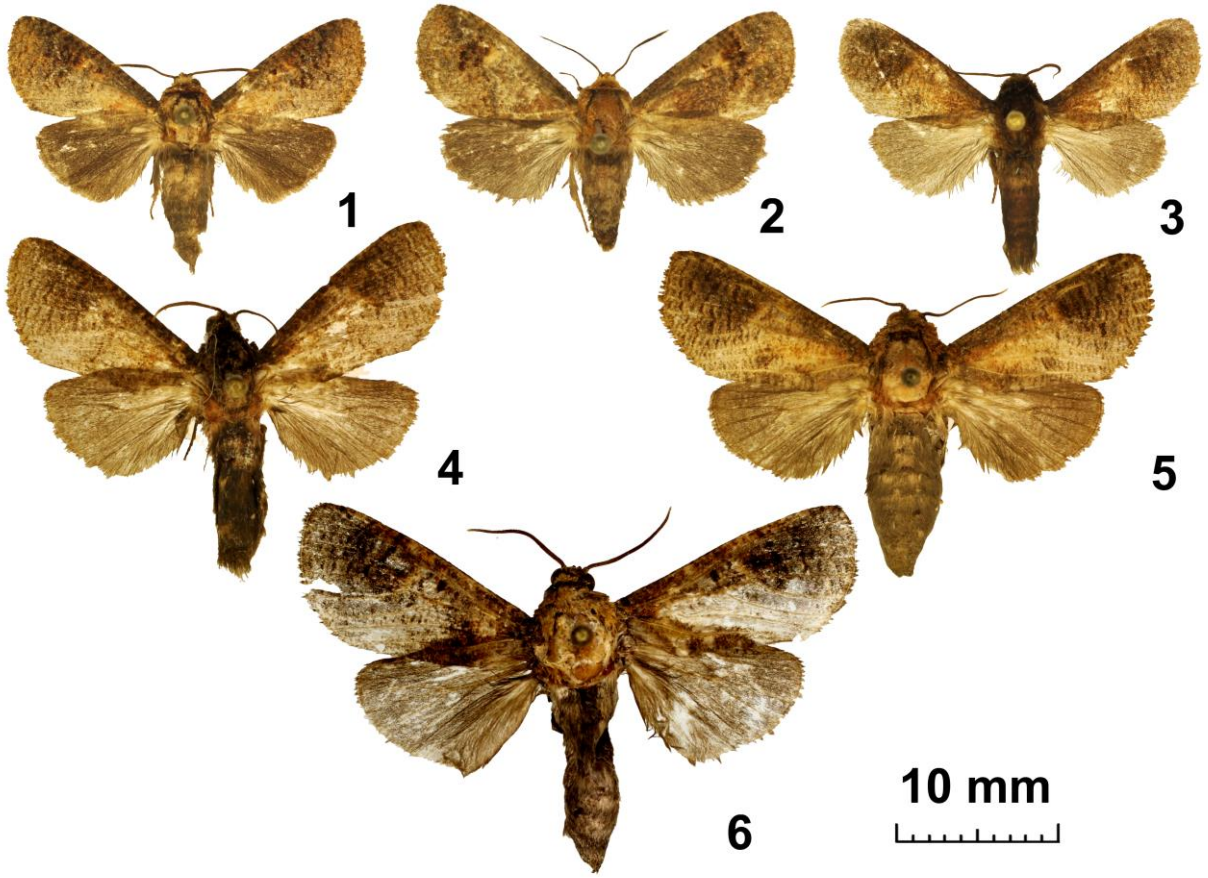
Paratype: 1 female, with the same data as the holotype, unique number: ANHRTUK 00107399, genitalia slide number: LG 5290 (ANHRT).

Description

Male (Fig. 1). Forewing length 10 mm. Antenna short, half as long as length of forewing, filiform with flattened segments in both sexes, its proximal 5/6 dark brown, distal 1/6 paler brown. Forewing relatively short, broad, dark-brown, densely scattered with pale brown scales basally, discally (at cubital veins) and postdiscally, with a blurred black streak postdiscally (at medial veins). Hindwing uniformly dark brownish grey without pattern.

Male genitalia (Fig. 7). Uncus conspicuously broad at base, bifurcate, consisting of two short, broadly rounded more or less semicircular arms; tegumen robust, trapezoidal; gnathos arms thick, short, medial plate of gnathos small, heavily sclerotized, with a short, finely serrated process projecting posteriorly; valva broad at base, apically gradually tapered, rather triangular, apex lanceolate, costal margin with a large, acute triangular medial process projecting caudad; juxta large, robust, medially ring-like, with a long cylindrical anterior process and a pair of robust, acute trigonal posterior lobes; saccus large, apically rounded, U-shaped; phallus rather narrow, more or less as long as valva, slightly curved in proximal third, ventral surface finely serrated in its distal 1/5, vesica aperture oblique, positioned dorso-apically, equal to 2/5 of phallus in length, vesica without cornuti.

Female (Fig. 2). Forewing length 10.5 mm. Sexual dimorphism limited, expressed only by the slightly wider forewing of female compared to that of male; male and female wing pattern and coloration nearly identical.



Figures 1−6. Adult specimens of *Holcoceroides*: 1. *H. landeri* sp. n., holotype, male (ANHRT); 2. *H. landeri* sp. n., paratype, female (ANHRT); 3. *H. ferrugineotincta*, male, Guinea, Centre Forestiére de Sérédou, 8º22′38.05″N, 9º18′17.19″W, 559 m, 29–31.iii.2019, Light trap Blended Bulb (250 W), Sáfián, Sz., Koivogui, S. leg., ANHRT 2019.7 (ANHRT); 4. *H. ferrugineotincta*, male, Ivory Coast, Tai NP, Tai Research Station (SRET), N05°50′00″, W07°20′32″, 174 m, 25.iii.−17.iv.2017, Aristophanous, A., Aristophanous, M., Geiser, M., Moretto, P., Ruzzier, E. leg., ANHRT 2017.25 (ANHRT); 5. *H. ferrugineotincta*, male, Ivory Coast, Tai NP, Tai Research Station (SRET), N05°50′00″, W07°20′32″, 174 m, 25.iii.−17.iv.2017, Aristophanous, A., Aristophanous, M., Geiser, M., Moretto, P., Ruzzier, E. leg. ANHRT 2017.25 (ANHRT); 6. *H. cheick* Yakovlev, Müller, Kravchenko et Petrányi, 2019, holotype, male, Guinea Konakri, Macenta Prefecture, Ziama Forest, 550 m, Mt. Nimba, March 2017, leg. G. Petrányi, V.D. Kravchenko et G.C. Müller (coll. G. Müller, Freising / later Zoologische Staatssammlung, Munich, Germany).

Female genitalia (Fig. 11). Ovipositor conspicuously long; papillae anales narrow, apically rounded; apophyses posteriores three times as long as apophyses anteriores; ostium bursae cup-shaped, deeply incised; ductus bursae long and thin, slightly sclerotized posteriorly, membranous anteriorly; cervix bursae membranous, slightly rugose, ductus seminalis narrow; posterior third of corpus bursae tubular, slightly broader than ductus bursae, anterior two-thirds of corpus bursae ovoid, signum bursae absent.

Diagnosis

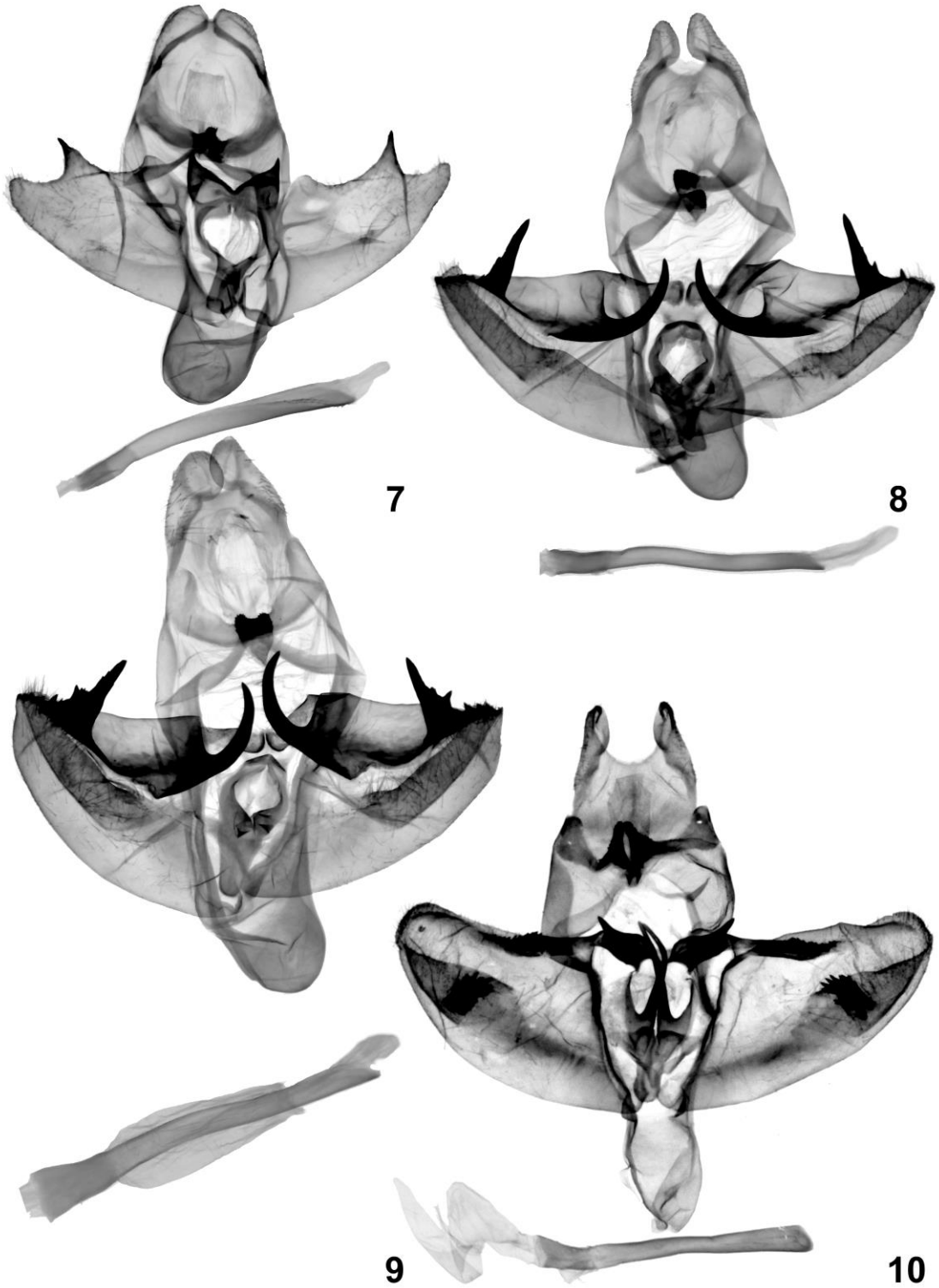
The new species is distinguished from the other species of the genus in the following characters:

- from *H. ferrugineotincta* (Figs 3−5, 8−9) – by the shorter uncus, absence of the robust hooked harpe, specific shape of the juxta, and the shorter, less acute triangular process of the costal margin of the valva.

The differences in the female genitalia are as follows: in *H. ferrugineotincta*, the posterior apophyses are about two times longer than the anterior ones (in *H. landeri*, they are three times longer); ductus seminalis adjoins with the corpus bursae in its proximal third (whereas in *H. landeri*, in its medium third);

- from *H. cheick* (Figs 6, 10) – by the significantly smaller size (the forewing length of *H. cheick* is 15 mm), the presence of the long triangular process of the costal margin of valva, the absence of the serrated

harpe on the ventral margin of valva, the less heavily sclerotized transtilla process and the markedly different configuration of juxta.



Figures 7−10. Male genitalia of *Holcoceroides*: 7. *H. landeri* sp. n., holotype (Slide number LG 5196); 8. *H. ferrugineotincta*, Guinea, Centre Forestiére de Sérédou, 8º22′38.05″N, 9º18′17.19″W, 559 m, 29–31.iii.2019, Light trap Blended Bulb (250 W), Sáfián, Sz., Koivogui, S. leg. ANHRT 2019.7 (slide number ANHRT LG 5195); 9. *H. ferrugineotincta*, Ivory Coast, Tai NP, Tai Research Station (SRET), N05°50′00″, W07°20′32″, 174 m, 25.iii.−17.iv.2017, Aristophanous, A., Aristophanous, M., Geiser, M., Moretto, P., Ruzzier, E. leg. ANHRT 2017.25 (slide number LG 5197); 10. *H. cheick* Yakovlev, Müller, Kravchenko et Petrányi, 2019, holotype, Guinea Konakri, Macenta Prefecture, Ziama Forest, 550 m, Mt. Nimba, March 2017, leg. G. Petrányi, V.D. Kravchenko et G.C. Müller (coll. G. Müller, Freising / later Zoologische Staatssammlung, Munich, Germany; slide Müller Cossidae 2019/01-#4)

Figure 11. Female genitalia of *Holcoceroides landeri* sp. n., paratype (Slide number LG 5290).

Etymology. The new species is named after the famous explorer of West Africa, Richard Lemon Lander (1804—1834), Winner of the Gold Medal of the Geographical Royal Society, who died in Nigeria at the age of 29 at the hands of bandits.

Discussion

The genus *Holcoceroides* Strand, [1913]) currently includes three species, distributed in Equatorial Africa. Most likely, in the coming years the number of species of the genus will increase, as the seemingly rare, rather inconspicuous, small and similar species of the genus can easily be overlooked in the collections. Nevertheless, as our studies have shown, they differ well in the configuration of genitalia, consequently the reliable identification requires dissection of the copulatory organs.

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