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***Afrasura larseni*, a new species from South Africa (Lepidoptera: Erebiidae: Arctiinae: Lithosiini)**

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Abstract

A new species of the genus *Afrasura* Durante, 2009, *Afrasura larseni* sp. n. is described from KwaZulu-Natal Province of the Republic of South Africa. The diagnostic comparison is made with *Afrasura rivulosa* (Walker, 1854) and *Afrasura tanzaniae* Volynkin, 2019. Adults and male genitalia are illustrated.

Key words: Afrotropics, Nudariina.

Introduction

The genus *Afrasura* Durante, 2009 belongs to the subtribe Nudariina and is widespread in the Afrotropics comprising 30 valid species and four subspecies. The genus was earlier reviewed by Durante (2009) and subsequently, five additional species have been described (Durate 2012; Volynkin & László 2018; Volynkin 2019), two species have been transferred into this genus from *Asura* Walker (Volynkin *et al.* 2019) and one species has been excluded from *Afrasura* and transferred to *Siccia* Walker, 1854 (Volynkin 2019).

In the course of the examination of the Lithosiini collections of the World Insect Gallery (Joniškis, Lithuania) and the Natural History Museum (London, UK), two specimens of an unidentified species of *Afrasura* from South Africa were found. The comparison of the genitalia structures of this species with other similar taxa in the genus has confirmed its specific discreteness and is described below as a species new to science.

Material and Methods

Abbreviations of the depositories used: NHMUK = Natural History Museum, London, UK; WIGJ = World Insect Gallery, Joniškis, Lithuania; ZSM = the Bavarian State Collection of Zoology (Zoologische Staatssammlung München), Munich, Germany. Other abbreviations used: HT = holotype; PT = paratype.

The genitalia were dissected and mounted in Euparal on microscope slides. The photographs of adults were taken using a Nikon D3100/AF-S camera equipped with a Nikkor, 18–55 mm lens while the genitalia were imaged using the same camera attached to a microscope with an LM-scope adapter. All photographs were processed using the Adobe Photoshop CC 2018 software.

Description of the new species

Afrasura larseni sp. n.

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(Figs 1, 2, 7)

Type material. Holotype: male (Figs 1, 7), [Republic of South Africa] “RSA, South Africa, Kwazulu-Natal, Karkloof, Rockwood Forest Lodge, h-1290m, 26–29.ii.2020. Knud Larsen leg.” / “Slide AV6480♂ *A. Volynkin*” (WIGJ).

Paratype: male, [Republic of South Africa, KwaZulu-Natal Province] Hilton, Natal, 17.iii.1967, J.S. Taylor / Brit. Mus. 1967 370, unique number: NHMUK 010318318, gen. prep. No.: NHMUK010313970 (prepared by Volynkin) (NHMUK).

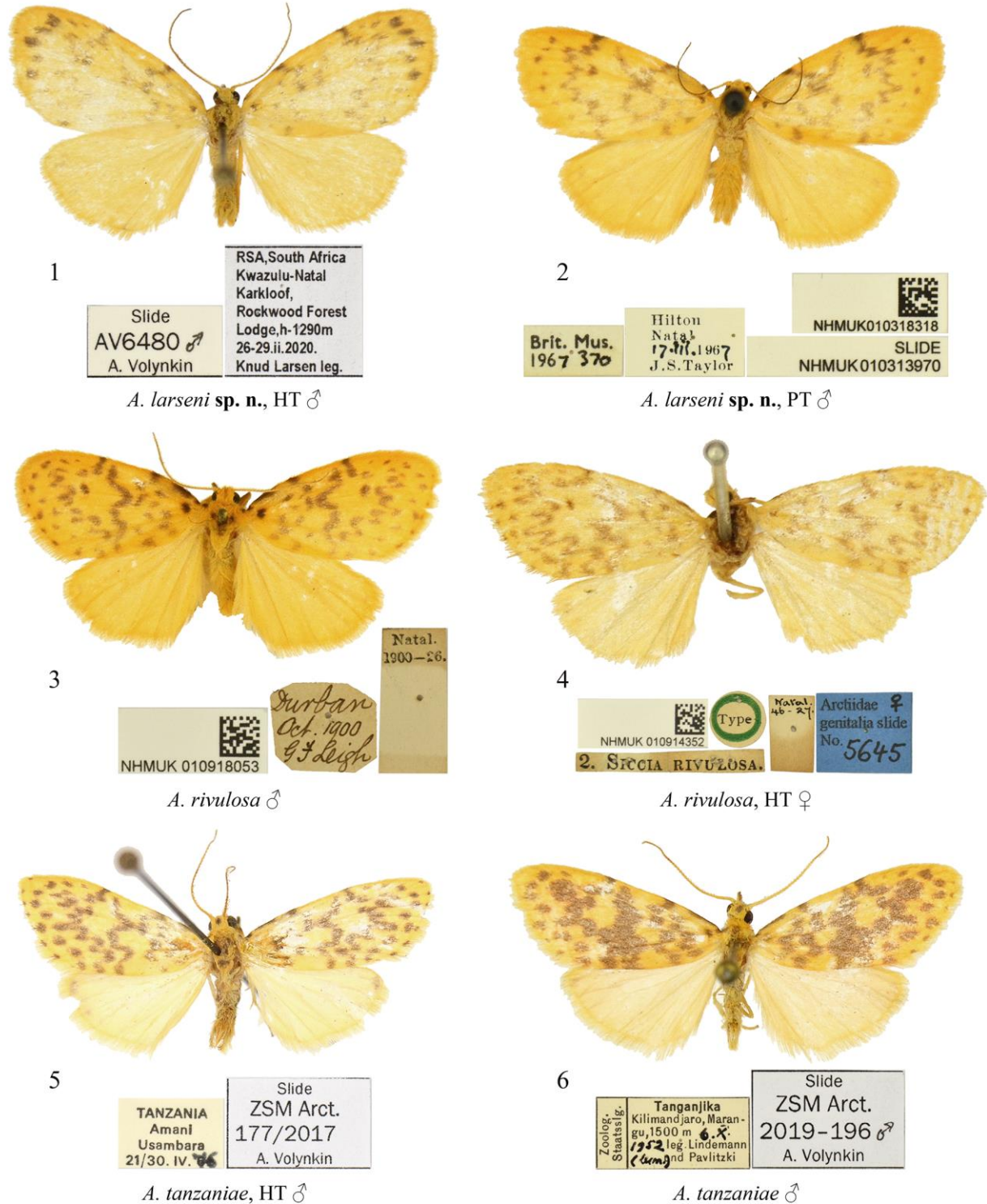
Diagnosis. *Afrasura larseni* sp. n. (Figs 1, 2) is externally reminiscent of nominotypical *A. rivulosa* (Walker, 1854) (Figs 3, 4) also distributed in KwaZulu-Natal Province but distinguished by the somewhat more diffuse forewing markings and the shorter dentation of the postmedial line. Additionally, the new species differs from most specimens of *A. rivulosa* in its somewhat larger size and wider forewing. The male genital capsule of *A. larseni* sp. n. (Fig. 7) differs from *A. rivulosa* (Fig. 8) in the longer and thinner uncus, the narrower and apically pointed saccus, the considerably longer valva with a dorsal margin having a submedial protrusion (the dorsal margin is almost straight in *A. rivulosa*) and an elongate and narrow distal saccular process which is short and wide in the congener. The male genital capsule of the new species is most similar to the externally rather dissimilar *A. tanzaniae* Volynkin, 2019 (Figs 5, 6, 9) but is distinguished by the V-shaped saccus (it is more or less U-shaped in *A. tanzaniae*), the presence of a submedial protrusion of the dorsal margin of the valva and the wider apical section of the valva. Additionally, the uncus of *A. larseni* sp. n. has a thinner apical section than in *A. tanzaniae*. The phallus of the new species is markedly narrower than in *A. rivulosa* and *A. tanzaniae*. The vesica of *A. larseni* sp. n. is considerably shorter and narrower than in *A. rivulosa*, bearing a shorter and thinner cornutus, smaller subbasal diverticula and lacks medial and distal diverticula. Compared to that of *A. tanzaniae*, the vesica of the new species is shorter and narrower, and lacks a large subbasal ventral diverticulum bearing a cluster of numerous spinules. Additionally, the cornutus is somewhat shorter and markedly thinner in the new species.

Description. External morphology of male adults (Figs 1, 2). Forewing length 9.5 mm. Antenna ciliate. Body deep yellow. Forewing wide, triangular with smoothly convex costal margin and rounded apex. Forewing ground colour deep yellow. Forewing markings brown. Subbasal spot small, more or less round. Subbasal line sinuous, indistinct, interrupted on veins. Antemedial line zigzagged between costa and cell and sinuous between cell and anal margin. Medial line irregularly zigzagged, diffuse, disappearing at costal margin. Distal spot semilunar, small, diffuse. Postmedial line irregularly dentate on veins, curved outwards between R and Cu2 veins. Postmedial line smoothly curved along outer wing margin, interrupted into elliptical spots of various sizes on veins, disappearing at costal margin. Cilia monotonous deep yellow. Hindwing monotonous deep yellow without markings. **Male genitalia** (Fig. 7). Uncus long and slender with curved distal half, distally tapered and apically pointed. Arms of tegumen fused in posterior half. Vinculum shorter than tegumen, with V-shaped saccus. Valva longer than tegumen, dilated medially, with dorsal margin having submedial protrusion, and wide and rounded apex. Saccus moderately broad, weakly setose. Basal section of distal saccular process triangular; distal section produced forming a finger-like process bearing tiny spine apically. Juxta short, trapezoid with rounded corners. Aedeagus tubular, dilated proximally and distally. Vesica curved and directed dorsally, with two short, membranous subbasal diverticula ventrally and laterally, broad cluster of granulation medio-dorsally, and robust thorn-like cornutus distally. Basal section of vesica ejaculatorius weakly setose.

Female unknown.

Distribution. The species is known only from KwaZulu Natal Province of the Republic of South Africa.

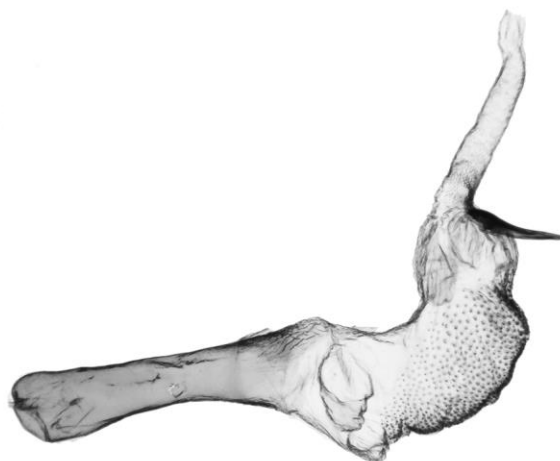
Etymology. The new species is dedicated to Dr Knud Larsen (Dyssegård, Denmark), expert in Tortricidae taxonomy and collector of the holotype.



Figures 1–6. *Afrasura* spp.: adults. Depositories of the specimens: 1 in WIGJ; 2–4 in NHMUK (©The Trustees of NHMUK); 5 and 6 in ZSM.



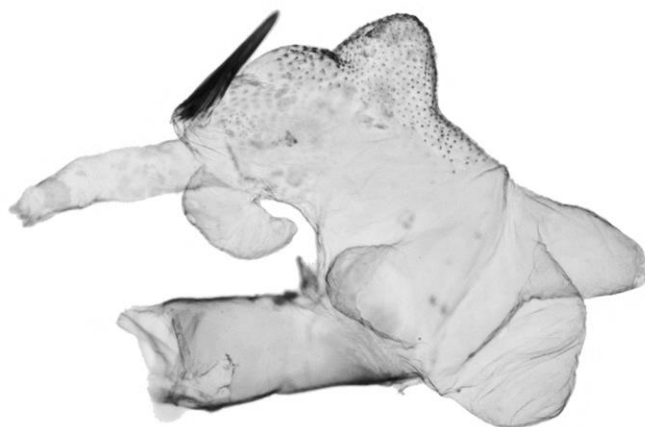
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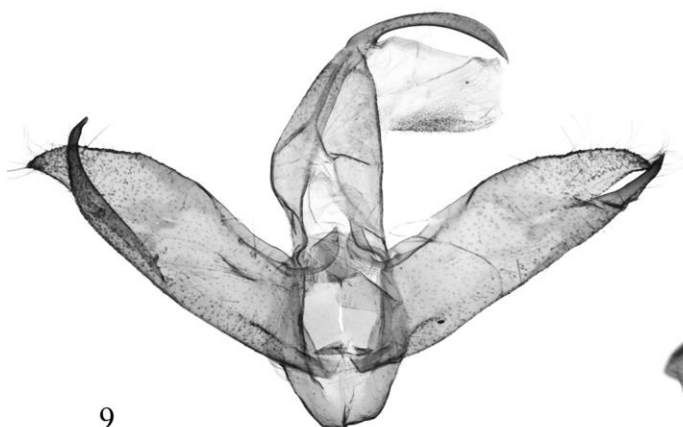
***Afrasura larseni* sp. n., HT**
South Africa, KwaZulu-Natal Province, slide AV6480



8



Afrasura rivulosa
South Africa, KwaZulu-Natal Province, slide NHMUK010315712 Volynkin



9



***Afrasura tanzaniae*, PT**
NE Tanzania, Usambara Mts., slide MWM 33732

Figures 7–9. *Afrasura* spp.: male genitalia. Depositories of the specimens dissected: 7 in WIGJ; 8 in NHMUK (©The Trustees of NHMUK); 9 in ZSM.

Acknowledgements

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