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New species of Alucitidae from Republic of South Africa (Lepidoptera: Alucitidae)

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Abstract

According to the materials examined in the collections of the Natural History Museum in Pretoria (Republic of South Africa) and collections of the authors, we describe two new species of Alucitidae from Republic of South Africa: *Alucita hendriki* Kovtunovich & Ustjuzhanin, sp. n. and *Alucita armstrongi* Kovtunovich & Ustjuzhanin, sp. n. The data on their distribution and phenology are provided.
KEY WORDS: Lepidoptera, Alucitidae, new species, Republic of South Africa.

Nuevas especies de Alucitidae de la República de Suráfrica (Lepidoptera: Alucitidae)

Resumen

Describimos dos nuevas especies de Alucitidae de acuerdo con el material examinado en las colecciones del Museo de Historia Natural en Pretoria (República de Suráfrica) y de las colecciones de los autores de la República de Suráfrica: *Alucita hendriki* Kovtunovich & Ustjuzhanin, sp. n. and *Alucita armstrongi* Kovtunovich & Ustjuzhanin, sp. n. Se proporcionan datos sobre su distribución y fenología.
PALABRAS CLAVE: Lepidoptera, Alucitidae, nuevas especies, República de Suráfrica.

Introduction

Many-plumed moths of Republic of South Africa include 29 species (USTJUZHANIN & KOVTUNOVICH, 2017; KOVTUNOVICH *et al*., 2019; USTJUZHANIN *et al*. [in press]). Examining the materials from the collections of our expeditions and the Transvaal Museum in Pretoria (TMSA), we have discovered two more species new to science. Thus, the fauna of Alucitidae in the Republic of South Africa, currently has 31 species. The holotypes are deposited in the Zoological museum of St. Petersburg (ZISP), the paratypes - in the Transvaal Museum (TMSA) and the Collection by P. Ustjuzhanin and V. Kovtunovich (CUK).

Abbreviations

CUK - Collection by P. Ustjuzhanin and V. Kovtunovich, Novosibirsk and Moscow, Russia
TMSA - Ditsong Museum of Natural History (formerly Transvaal Museum), Pretoria, South Africa
ZISP - Zoological Institute of Russian Academy of Science, St. Petersburg, Russia

***Alucita hendriki* Kovtunovich & Ustjuzhanin, sp. n.** (Figs 1-2)

Type material: Holotype male, (ZISP 1924), Republic South Africa, KwaZulu Natal, Vernon Crookes N. R., 30º16' S, 30º37' E, 340 m, 19-20-III-2010, V. Kovtunovich & A. Sochivko leg.

Paratype: 1 ♂, (CUK), South Africa, Mpumalanga, Lows Creek Lodge, 25º40' S, 31º16' E, 470 m, 12-14-II-2019, V. Kovtunovich & P. Udovichenko leg.

Description: Head with tousled tufts of light-yellow hairs. Thorax and tegulae white, interspersed with brown scales. Labial palpi 1,5 times longer than longitudinal eye diameter, bent up, third segment sharpened and darkened with black scales. Antennae yellowish-brown, slightly serrated. Wingspan 20 mm. Fore wings ochre yellow. Six rectangular light-brown portions of scales on first lobe. Light-brown band on fore wing medially. Fore wing lobes apically lightened, basally darkened with dense brownish scales. Hind wings noticeably lighter than fore wings, with alternating light-brown and whitish portions of scales throughout lobes. Legs pale yellow.

Male genitalia: Uncus straight, of uniform width, slightly widened and sharpened only distally. Gnathos narrow, long, equal to uncus in length, apically sharpened. Gnathos arms short, slightly arched. Valves short, wide, apically bluntly rounded. Anellus arms thin, long. Saccus short, with even outer edge. Aedeagus robust, with ribbon-like cornutus basally, clusters of small spiky cornuti distally.

Female: unknown.

Diagnosis: In the male genitalia, by the shape of the valves and aedeagus, the new species resembles to *Alucita crococyma* Meyrick,1937, but differs in the widened apex of the uncus in *A. crococyma* the apex is even, in the new species it is sharp. The gnathos shape also differs in *A. crococyma* it is wide, equal to the basal part of the uncus, while in *A. hendriki* the gnathos is twice narrower than the basal part of the uncus. The new species is also distinguished in its colour of the wings.

Distribution: Republic South Africa: KwaZulu Natal, Mpumalanga.

Flight period: March.

Etymology: The species is named after Dr. Hendrik Sithole, Invertebrate research manager, Scientific service SANP, Kimberley (Republic of South Africa).

***Alucita armstrongi* Kovtunovich & Ustjuzhanin, sp. n.** (Figs 3-5)

Type material: Holotype, ♂, (ZISP 1925), Republic South Africa, KwaZulu Natal, Vernon Crookes N. R., 30º16' S, 30º37' E, 340 m, 01-03-III-2010, V. Kovtunovich & A. Sochivko leg.

Paratypes: 1 ♂, (CUK 319), Republic South Africa, KwaZulu Natal, Vernon Crookes N. R., 30º16' S, 30º37' E, 340 m, 11-14-III-2010, V. Kovtunovich & A. Sochivko leg.; 1 ♂, (CUK 320), South Africa, KwaZulu Natal, Vernon Crookes N. R., 30º16' S, 30º37' E, 340 m, 19-20-III-2010, V. Kovtunovich & A. Sochivko leg.; 1 ♂, Republic South Africa, KwaZulu Natal, Fernklif, 27-XII-2007, V. Kovtunovich & P. Ustjuzhanin leg.; 1 ♀, (TMSA 15332), [RSA], Mariepskop, 15-24-III-1963, Potgieter & E. v. Son leg.; 1 ♂, (TMSA), [RSA], Entabeni Forest, 12-17-I-1971, R. Jones leg.

Description: Head, thorax and tegulae brown, interspersed with light scales. Labial palpi twice longer then longitudinal eye diameter, bent up, third segment sharpened and darkened with black scales. Antennae light brown. Wingspan 18-20 mm. Wings brown grey. On first lobe, rectangular light-brown portions of scales alternating with dark brown. Dark brown arched bands traced on wing basally and distally. Hind wings noticeably lighter than fore wings, with alternating short brown and long whitish portions of scales. Lobes of all wings apically ending with small dark spots of scales. Third tergite of abdomen brightly white. Legs light brown.

Male genitalia: Uncus straight, relatively short, of uniform width, distally with rounded apex. Gnathos robust, equal to uncus in length and width, apically rounded bluntly. Gnathos arms narrow, ribbon-like. Valves short, shaped as elongated triangle, apically sharp. Anellus arms wide, distally more widened and bent at right angle. Saccus with rounded outer edge. Aedeagus robust, longer than the entire genital structure, with ribbon-like cornuti distally, clusters of thin spiky cornuti apically.

Female genitalia: Papillae anales narrow. Posterior apophyses straight, narrow; anterior apophyses slightly curved. Antrum short, smoothly passing into tubulate ductus. Bursa copulatrix oval, with two large crest-shaped signa. Ductus seminalis short, passing from upper part of bursa copulatrix.

Diagnosis: In the male genitalia, by the shape of the uncus and valves, the new species resembles to *Alucita bakingili* Ustjuzhanin & Kovtunovich, 2020, from which it differs in the shape of the gnathos, anellus arms and aedeagus. In the wings colour, the new species is also similar to *A. bakingili,* but is much larger in size.

Distribution: Republic South Africa: KwaZulu Natal, Mpumalanga, Limpopo.

Flight period: December, January, March.

Etymology: The species is named after Adrian John Armstrong (Biodiversity Research & Assessment Division at Ezemvelo KZN Wildlife, Republic of South Africa).

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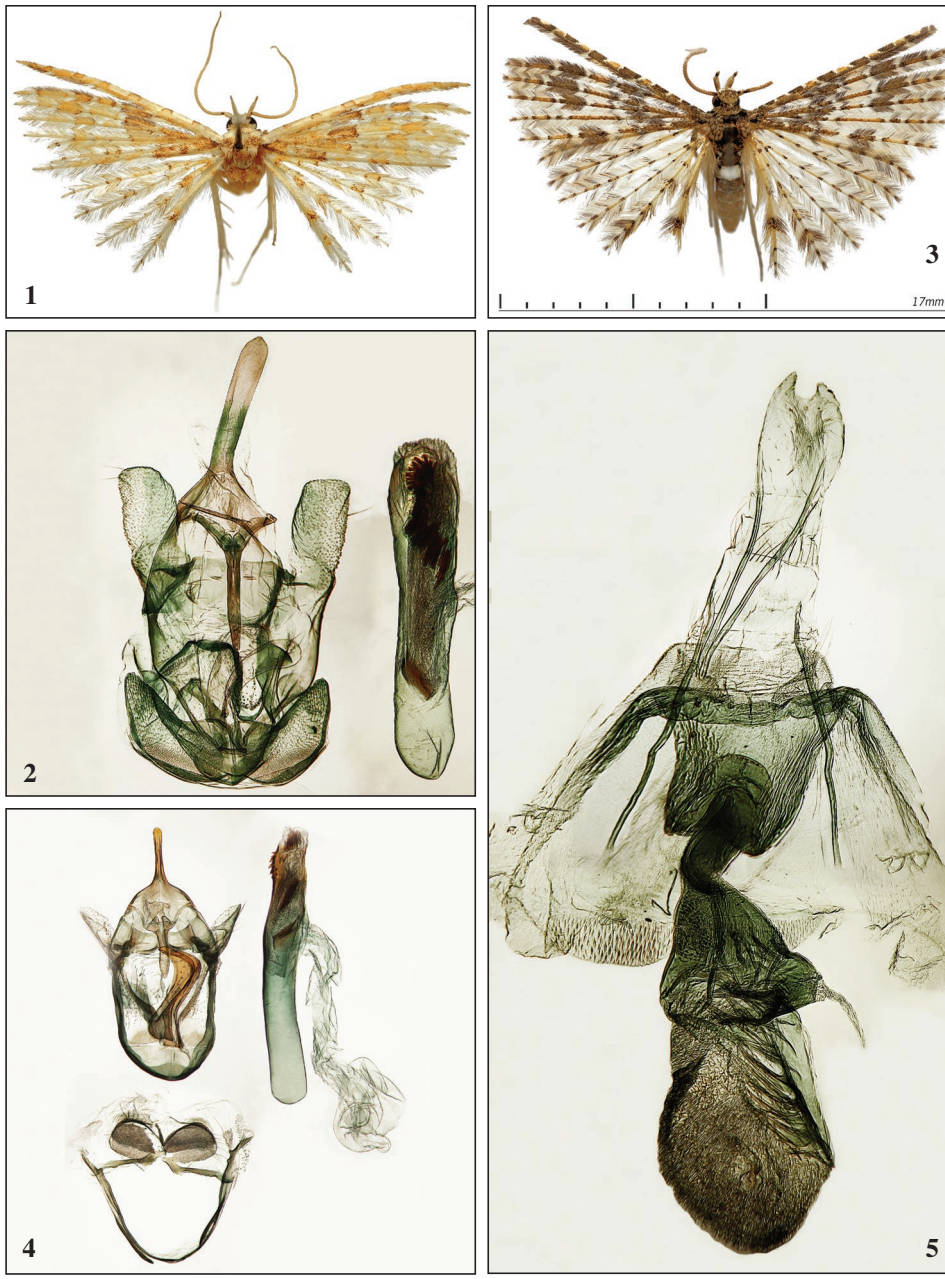

Figs 1-5.– 1-2. *Alucita hendriki* Kovtunovich & Ustjuzhanin, sp. n. **1.** Adult (Holotype, ZISP); **2.** Male genitalia (Holotype, ZISP, 1924). **3-5.** *Alucita armstrongi* Ustjuzhanin & Kovtunovich, sp. n. **3.** Adult (Holotype, ZISP); **4.** Male genitalia (Holotype, ZISP, 1925); **5.** Female genitalia (Paratype, TMSA, 15332).