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## New species of *Arctiocossus* Felder, 1874 (Lepidoptera, Cossidae: Cossinae) from Republic of South Africa

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Received 4 March 2021 | Accepted by *V. Pešić*: 26 March 2021 | Published online 28 March 2021.

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### Abstract

The article describes a new species, *Arctiocossus strohlei* Yakovlev, sp. n. (Lepidoptera, Cossidae: Cossinae) from Republic of South Africa (Free State Province). The catalog of the genus is provided, the general distributional map is given. The article has 6 illustrations.

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

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### Introduction

The South African region is distinguished by its richest biodiversity and includes “hotspots of biodiversity”: Cape Floristic Region, Succulent Karoo and Maputaland-Pondoland-Albany (Myers 1988; Myers et al. 2000). Numerous endemic genera and species of insects are found on the territory of South Africa, moreover, a significant number of new taxa are described annually. For several taxa groups of Lepidoptera, South Africa is a center of species diversity, in particular, for Hepialidae, Cossinae, Adelidae, *Agdistis* Hübner, 1825, etc. (Pterophoridae).

In the recent years, a significant progress in the study of Cossidae of Southern Africa has been made. Several works have been published on the fauna of South Africa, Zimbabwe, Eswatini, South Mozambique (Yakovlev 2008, 2014, 2020; Yakovlev & Lenz 2013; Mey 2015, 2016, 2017, 2019; Yakovlev & Witt 2016; Yakovlev et al. 2020). Original faunal data have been published, three new genera and 27 new species have been described.

The genus *Arctiocossus* Felder, 1874 (Figs 1–5) was established for *Arctiocossus antargyreus* Felder, 1874, by original designation (Felder 1874: Tf. 82, Fig. 10). The genus was thoroughly revised (Mey 2015). A detailed redescription of the genus has been given, three species new for science have been described. The species of the genus are compactly distributed in South Namibia and South Africa (Fig. 6).

**Material and methods**

Male genitalia were mounted in euparal on slides following Lafontaine and Mikkola (1987). The adults were photographed using digital camera of iPhone 7. The genitalia preparations were photographed using an Olympus DP74 camera attached to an Olympus SZX16 stereomicroscope.

*Museums acronyms*

MfN Museum für Naturkunde (Berlin, Germany)

MSW private collection of Manfred Ströhle (Weiden, Germany)

NHMUK Natural History Museum (formerly British Museum (Natural History)) (London, U.K.)

TMSA Ditsong National Museum of Natural History (formerly Transvaal Museum) (Pretoria, South Africa)



**Figures 1–4.** *Arctiocossus* (Holotypes and male genitalia of Holotypes): 1. *A. stroehlei* (MSW); 2. Male genitalia of *A. stroehlei* (slide: MSW 2015/25 Coss); 3. *A. antargyreus* (NHMUK); 4. Male genitalia of *A. antargyreus* (slide: Cossidae genitalia slide # 224).

## Taxonomical part

### Description of new species

#### *Arctiocossus stroehlei* Yakovlev sp. n.

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Figs 1–2, 5

**Material.** Holotype, male, South Africa, Free State Province, Clarens, Sunny Side lodge, 28°32'09.0" S / 028°31'07.9" E, 1813 m, 19–22.xi.2012, leg. Ströhle (MSW, slide MSW 2015/25 Coss).

**Description.** Length of fore wing 11.5 mm. Antenna bipectinate, crest processes long, 4 times longer than antenna rod diameter. Fore wing brown, with wide longitudinal light colored stroke basally (in basal third of costal edge, in discal cell and between veins  $M_2$  and  $CuA_1$ ); bright black strokes in medial area postdiscally and along vein  $CuP$  (in medium third), small black strokes on wing apically; fringe brown unicolorous. Hind wing brown, slightly lighter colored in anal area, with light-brown rim and unicolorous brown fringe.

Male genitalia. Uncus long, cylindrical, with parallel edges, apically rounded; gnathos arms thick, long; gnathos small; valve evenly narrowing from base to apex, costal edge almost smooth (very poorly developed bumps in medium third of costal edge), valve apically rounded; transtilla processes short, uncinately bent, basally very thick, apically sharp; juxta saddle-like with two lateral processes clavately widened apically and diverged at an angle of 90°; saccus tiny, semicircular; phallus shorter than valve, gradually narrowing from base to apex, strongly curved on border between medium and basal third; vesica aperture in dorso-apical position, takes about 1/3 of phallus in length, vesica without cornuti.

Female unknown.

**Diagnosis.** Externally, the new species is most close to *A. antargyreus* Felder, 1874 (Figs 3–4), from which it distinctively differs in a series of characters in the male genital structure:

- the expressed ledge on the costal edge of the valve (on border between medium and distal thirds;
- very thin transtilla processes.

**Etymology.** The new species is named after my colleague and friend, Manfred Ströhle (Weiden, Germany) an explorer of the African fauna of Lepidoptera.



**Figure 5.** Type locality of *A. stroehlei*.

**Catalogue of the Genus *Arctiocossus* Felder, 1874**

Genus *Arctiocossus* Felder, 1874

Type species: *Arctiocossus antargyreus* Felder, 1874, by original designation.

*Arctiocossus antargyreus* Felder, 1874

Figs 3–4

Type locality: [South Africa, Western Cape], Cape Town.

Type material: holotype (male) in NHMUK.

Distribution: South Africa (Western Cape).

Flight of imago: February–May, November.

*Arctiocossus farinalis* Mey, 2015

Type locality: Namibia, Gellap, Ost 3 [BIOTA Observatory Gellap Ost], Keetmanns hoop [Karas].

Type material: holotype (male) in MfN.

Distribution: Namibia (Karas), South Africa (Northern and Eastern Cape).

Flight of imago: April.

*Arctiocossus martinkruegeri* Mey, 2015

Type locality: RSA, Richtersveld, [BIOTA observatory] Koeroegapvlakte [28°14'S 17°01'].

Type material: holotype (male) in TMSA.

Distribution: South Africa (Northern Cape, Richtersveld).

Flight of imago: October.

*Arctiocossus namaquensis* Mey, 2015

Type locality: RSA, North[ern] Cape, Kamieskroon, Farm, Windhoek.

Type material: holotype (male) in TMSA.

Distribution: South Africa (Northern Cape).

Flight of imago: November.

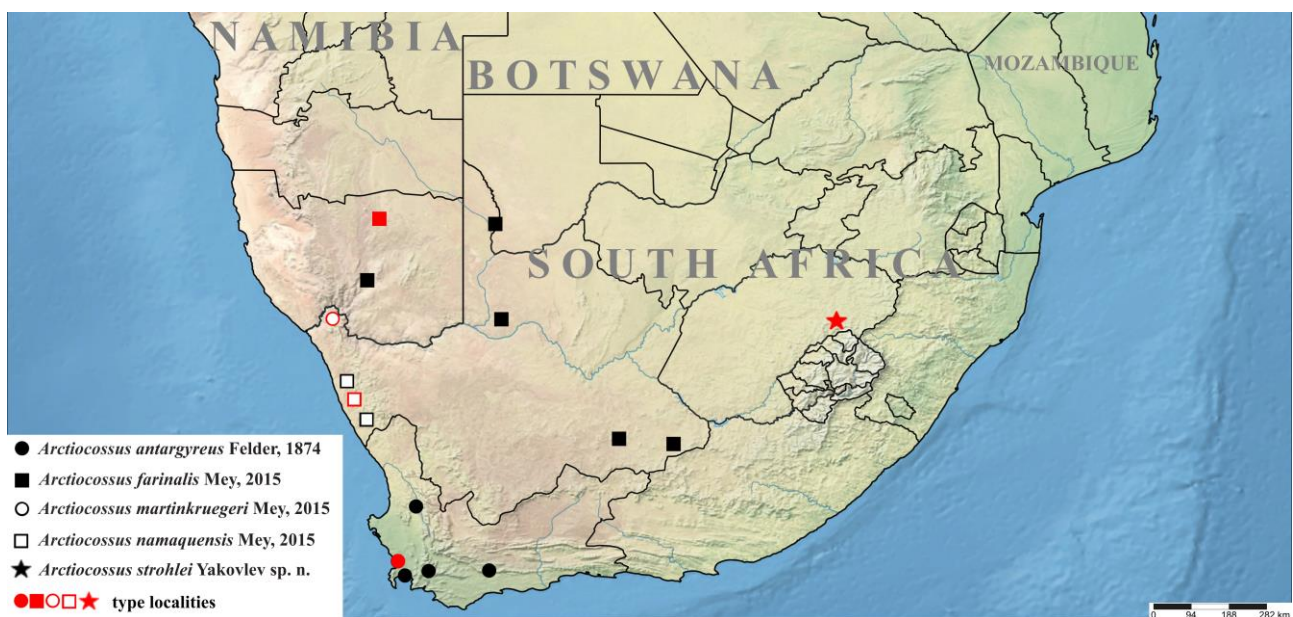
*Arctiocossus strohlei* Yakovlev **sp. n.**

Type locality: South Africa, Free State Province, Clarens, Sunny Side lodge, 28°32'09.0" S / 028°31'07.9" E.

Type material: holotype (male) in MSW.

Distribution: South Africa (Free State).

Flight of imago: November.



**Figure 6.** Distributional map of Genus *Arctiocossus*.

## Acknowledgments

I am grateful to Manfred and Lilya Ströhle (Weiden) for the wonderful welcome in their home and the interesting material. The author is also grateful to Anna Ustjuzhanina (Tomsk, Russia) for language improvements. The author is cordially thankful to all who helped him to prepare this work: †Th. Witt and H. Sulak (Munich), W. Mey (Berlin), †M. Krüger (Pretoria), G. Martin and A. Giusti (London). The author expresses his gratitude to the council of trustees of Natural History Museum (London) for the kind permission to publish the images of the type specimens.

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