

## *Trocospicus* gen.n., a new genus of Hypoptinae (Lepidoptera: Cossidae) from South America

## *Trocospicus* gen.n., новый род Нуроптинае (Lepidoptera: Cossidae) из Южной Америки

R.V. Yakovlev<sup>1,2,3</sup>, A.E. Naydenov<sup>1</sup>, F.C. Penco<sup>4</sup>  
Р.В. Яковлев<sup>1,2,3</sup>, А.Е. Найденов<sup>1</sup>, Ф.Ц. Пенко<sup>4</sup>

<sup>1</sup> Altai State University, Lenin pr. 61, Barnaul 656049 Russia.

<sup>2</sup> Tomsk State University, Lenin pr. 36, Tomsk 634050 Russia.

<sup>3</sup> Western Caspian University, 31 Istiglaliyyat Street, Baku, Azerbaijan.

<sup>4</sup> Fundación de Historia Natural “Félix de Azara”, Departamento de Ciencias Naturales y Antropología, Universidad Maimónides, Hidalgo 775 piso 7 (1405BDB) Ciudad Autónoma de Buenos Aires, Argentina.

<sup>1</sup> Алтайский государственный университет, пр. Ленина 61, Барнаул 656049, Россия.

<sup>2</sup> Томский государственный университет, пр. Ленина 36, Томск 634050 Россия.

<sup>3</sup> Западно-Каспийский университет, Баку, Азербайджан.

<sup>4</sup> Fundación de Historia Natural “Félix de Azara”, Departamento de Ciencias Naturales y Antropología, Universidad Maimónides, Hidalgo 775 piso 7 (1405BDB) Ciudad Autónoma de Buenos Aires, Argentina.

Roman Yakovlev yakovlev\_asu@mail.ru ORCID <https://orcid.org/0000-0001-9512-8709>

Artem Naydenov naydenov.24@mail.ru ORCID <https://orcid.org/0000-0001-9367-3578>

Fernando Penco fernando\_penco@hotmail.com ORCID <https://orcid.org/0000-0002-3463-2183>

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КЛЮЧЕВЫЕ СЛОВА: биоразнообразие, древооточцы, Колумбия, Эквадор, фауна, Неотропический регион, новый вид, таксономия.

ABSTRACT. The article describes a new monotypic genus of carpenter moths *Trocospicus* gen.n. with type species *T. haxairei* sp.n. from Colombia and Ecuador. A distinctive feature of the new genus is the relatively large size of the imago and the specific external characters: the presence of small bright orange spots on the wings on a dark background.

РЕЗЮМЕ. В статье описан новый монотипный род древооточцев *Trocospicus* gen.n. с типовым видом *T. haxairei* sp.n. из Колумбии и Эквадора. Отличительными признаками нового рода является относительно большой размер имаго и характерный внешний вид: наличие мелких ярко-оранжевых пятен на крыльях с темным фоном.

### Introduction

The subfamily Hypoptinae is a rich group of Cossidae (Lepidoptera), widely spread in the New World [Neumoegen, Dyar, 1894; Barnes, McDunnough, 1911; Turner, 1918; Dyar, 1940; Viette, 1951; Schoorl, 1990; Donahue, 1995]. Despite the active study of the subfamily representatives in the recent years, performed by our research team [Yakovlev *et al.*, 2019, 2020; Naydenov

*et al.*, 2020, 2022a, b, 2023; Penco *et al.*, 2020, 2022], most of the Hypoptinae genera are still not revised.

### Material and methods

The photographs of adult species (imago) were captured using the Canon EOS 70D and Canon EOS 600D cameras, both illuminated in Lightbox. The genitalia slides were inspected using a Zeiss Stemi 2000 C microscope, and the images were captured with the Canon EOS 70D. Subsequently, the photos were edited and organized into plates using Adobe Photoshop software. The morphological terminology used in the description follows Kristensen [2003].

Abbreviations used in the text: MWM — Museum of Thomas Witt, Munich, Germany; MNHN — Museum National d’Histoire Naturelle, Paris, France.

### Results

Family Cossidae Leach, [1815] 1830  
Subfamily Hypoptinae Neumoegen et Dyar, 1894  
Genus *Trocospicus* Yakovlev, Naydenov et Penco,  
**gen.n.**

Type species: *Trocospicus haxairei* Yakovlev, Naydenov et Penco, **sp.n.**



**Figs 1–2.** *Trocospicus haxairei* sp.n., adults: 1 — *T. haxairei*, holotype ♀, Colombia, Risaralda, Municipio de Santuario (MWM); 2 — *T. haxairei*, paratype ♀, Ecuador, Napo (MNHN).

**Рис. 1–2.** *Trocospicus haxairei* sp.n., имаго: 1 — *T. haxairei*, голотип ♀, Колумбия, Рисаральда, Муниципалитет Сантуарио (MWM); 2 — *T. haxairei*, паратип ♀, Эквадор, Напо (MNHN).



**Fig. 3.** *Trocospicus haxairei* sp.n., female genitalia, holotype ♀, Colombia, Risaralda, Municipio de Santuario, GenPr-Heterocera MWM 36.997 (MWM).  
**Рис. 3.** *Trocospicus haxairei* sp.n., гениталии самки, голотип ♀, Колумбия, Рисаральда, Муниципалитет Сантуарио, GenPr-Heterocera MWM 36.997 (MWM).

**DESCRIPTION.** Female. Size relatively big. Antenna 2.5 times shorter than fore wing in length, bipectinate, setae long; in medium third of antenna 3–4 times longer than antenna stem in diameter. Thorax and proximal portion of abdomen densely covered with coal-black scales, distal segments on upper side – with orange scales. Fore wing coal-black with bluish tint, bright orange dots evenly spread on all wing area. Hind wing coal-black with dim bluish tint, orange dots on all wing area, less dense basally. Fringe on all wings coal-black.

Female genitalia. Ovipositor short; papillae anales semicircular; posterior apophyses thin, slightly longer than of anterior apophyses; anterior apophyses basally forked; ostium oval, wide; antrum wide, cup-like; ductus seminalis wide, membranous, flows into ductus on border between basal and medium third of ductus; medium third of ductus slightly sclerotized; bursa bag-like, without signa.

Male unknown.

**DIAGNOSIS.** The differentiating character of the new genus is the relatively big size of the adult and the external characters: the tiny bright orange spots on the wings on the dark background. Currently, it's impossible to give a more detailed diagnosis, as only females of the new genus are known; but the special external characters allow us to decide on the allocation of a new genus.

**ETYMOLOGY.** “Trocoassicus” is an anagram of the genus name “Cossus” and the climatic region of the genus habitat “tropic”.

**DISTRIBUTION.** North-Western part of South America.

**COMPOSITION.** Monotypic genus.

*Trocoassicus haxairei* Yakovlev,  
Naydenov et Penco, **sp.n.**  
Figs 1–3.

**MATERIAL EXAMINED.** Type material. Holotype ♀: Colombia, Risaralda, Municipio de Santuario, Planes de San Rafael, Tatama NP, 5°07'40"N 76°00'08"W, 2090 m, 8–9.XI.2015, leg. Sinyaev and Machado, GenPr-Heterocera MWM 36.997 (MWM). Paratype ♀: Ecuador, Napo, Rte. Loreto-Coca Pk. 11, Alt. 500 m, 10–20.VIII.[19]88, J. Haxaire [&] Wident (MNHN).

**DESCRIPTION.** Length of fore wing 31–33 mm; wingspan 64–68 mm. The external characters and the genitalia of the female are presented in the genus description.

**ETYMOLOGY.** The species is named after well-known French entomologist Jean Haxaire, who collected one female of this species in Ecuador.

**DISTRIBUTION.** Colombia (Risaralda Department) and Ecuador (Napo Province).

**Competing interests.** The authors declare no competing interests.

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