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Article

https://zoobank.org/urn:lsid:zoobank.org:pub:053F7D89-65DD-43FF-8F8A-75686B9A5A97

Trismelasmos neirai sp. n. (Lepidoptera, Cossidae, Zeuzerinae) from Solomon Islands

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Abstract
The article describes *Trismelasmos neirai* Yakovlev & Hulsbosch sp. nov. distributed in Solomon Islands (Guadalcanal Island). The article has two illustrations. The new species is most close to *T. vavilovi* Yakovlev, 2022, from which is differs in a series of characters: the uniform coating of gray and light grey scales on the upper surface of the fore wing (in *T. vavilovi,* there is a light portion in the middle of the fore wing and a small light-brown portion on the fore wing basally); the smooth abdominal margin of the valve (in *T. vavilovi,* the abdominal margin of the valve has a deep notch on the border between the basal and medium thirds); the phallus, strongly curved along all its length (in *T. vavilovi,* the phallus is almost straight).

Key words: biodiversity, species richness, Cossoidea, Guadalcanal, Paleotropics, taxonomy.

Introduction

The genus *Trismelasmos* was established by Schoorl (1990) for *Cossus maculatus* Snellen, 1879 (by original designation). Currently, there are 38 known species of this genus, widely distributed from the Philippines to New Guinea and the Solomon Islands (Roepke, 1955, 1957; Holloway, 1986; Schoorl, 1990, 2001; Yakovlev, 2011a, b, 2015, 2022). During the examination of materials on Cossoidea, obtained from the Solomon islands, a species new to science has been found. Its description and diagnosis is provided below.

Material and methods

The male genitalia were mounted in euparal on slides following Lafontaine and Mikkola (1987). The slides were photographed using an Olympus DP74 camera attached to an Olympus SZX16 stereomicroscope. The type material is deposited in the MWM. The images were processed using Corel Photo-Paint 2017 software. Male genitalia was mounted in euparal on slides following Lafontaine and Mikkola (1987) and examined

with an Olympus SZX16 microscope. The images were taken with the digital camera CMOS 20.7 megapixels and processed using Corel Photo-Paint 2017 software. The morphological terminology follows Kristensen (2003).

Description of new species

Trismelasmos neirai Yakovlev & Hulsbosch, sp. n.
https://zoobank.org/urn:lsid:zoobank.org:act:369630E0-47B3-4E93-B436-EA080091FEBA
Figs 1−2

Material. Holotype (male), Solomon, Island Guadalcanal, Niu Peles / Paripao, Ward Norths East, leg. local collector, 12.2022 (private collection of Ramon Hulsbosch, Echt, The Netherlands).

Description. Male (Fig. 1). Length of fore wing 23 mm. Antenna bipectinate in basal half, serrated in distal half, setae twice longer than antenna stem in diameter. Thorax covered with light-grey scales, wide longitudinal brown strokes in medium part of thorax and along its sides at base of wings, abdomen densely covered with light-brown scales. Fore wing light-brown, pattern completely reduced, peculiar silver-grey sputtering along all wing area, fringe light-brown. Hind wing light-brown with poorly expressed sputtering of silver-grey and light-grey scales, fringe light-brown.

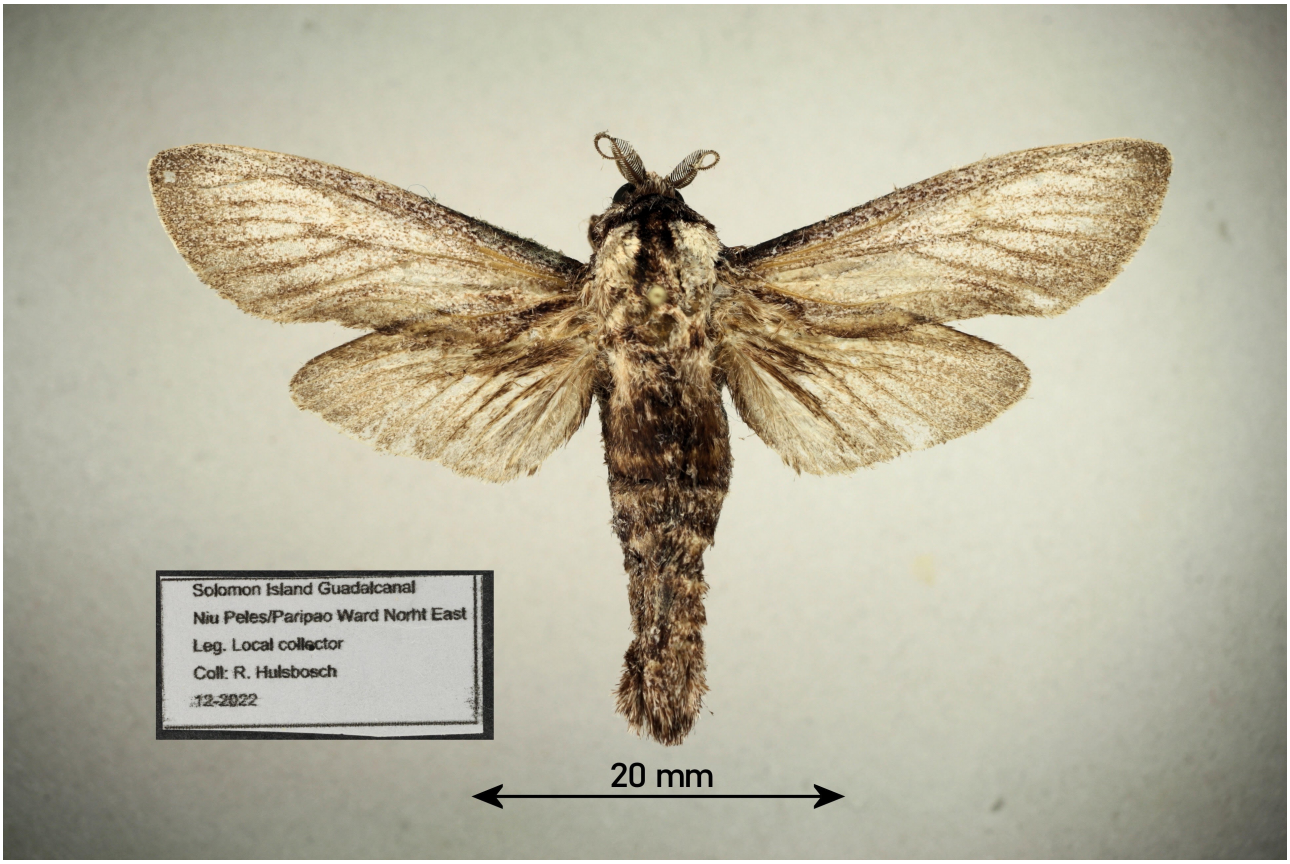

Figure 1. *Trismelasmos neirai* Yakovlev & Hulsbosch, sp. n., holotype (MWM).

Male genitalia (Fig. 2). Uncus long, thin, slightly narrowing apically, apex semicircular; gnathos arms thin, long, ribbon-like; gnathos reduced; valve simple, costal and abdominal margins almost smooth, outer margin semicircular, apex semicircular; juxta with long ribbon-like lateral processes; saccus of medium size, semicircular; phallus equal to valve in length, strongly curved along all length, deep folds on lateral surfaces, long robust spindle-like cornutus in lateral surface of vesica.

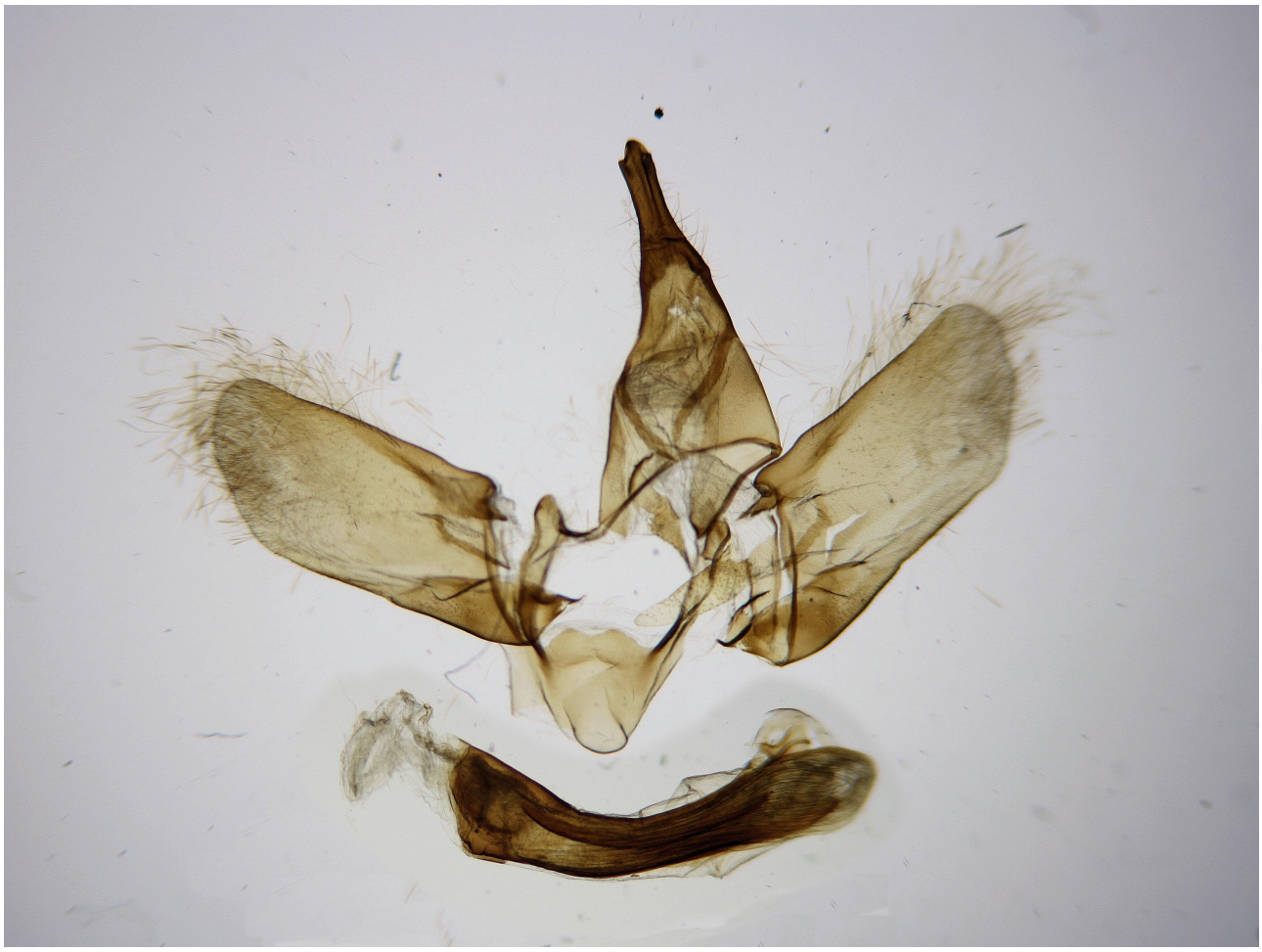

Figure 2. Male genitalia of *Trismelasmos neirai* Yakovlev & Hulsbosch, sp. n., holotype (MWM; Genitalpräparat Heterocera Nr. 27.404**).**

Female unknown.

Diagnosis. The new species clearly differs from all the known species in the poorly modified pattern on the fore wing (in particular, the completely reduced dark spots on the costal margin of the fore wing) and in the special silver-grey sputtering on all wings. Externally, the species is most close to the recently described species with a reduced pattern, *T. vavilovi* Yakovlev, 2022 (distributed in Lesser Sunda Islands: Pantar, Lomblen and Alor), from which it differs in the following characters:
- the uniform coating of gray and light grey scales on the upper surface of the fore wing (in *T. vavilovi,* there is a light portion in the middle of the fore wing and a small light-brown portion on the fore wing basally);
- the smooth abdominal margin of the valve (in *T. vavilovi,* the abdominal margin of the valve has a deep notch on the border between the basal and medium thirds);
- the phallus, strongly curved along all its length (in *T. vavilovi,* the phallus is almost straight).

Etymology. New species named after Álvaro de Mendaña y Neira (1542–1595) – Spanish navigator and explorer, best known for two of the earliest recorded expeditions across the Pacific in 1567 and 1595. His voyages led to the discovery of the Marquesas, Cook Islands and Solomons among the other archipelagos.

Distribution. Solomon Islands (Guadalcanal Island).

Flight period. December.

Acknowledgments

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