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Redescription of the genus *Miacora* Dyar, 1905 from South America (Lepidoptera: Cossidae)

R. V. Yakovlev

Abstract

A redescription of the type species South of American genus *Miacora* Dyar, 1905, *M. tropicalis* (Schaus, 1904), is given. A description of the male genitalia is given for the first time and the systematic position of the genus is discussed.

KEY WORDS: Lepidoptera, Cossidae, *Miacora*, male genitalia, South of America.

Redescripción del género *Miacora* Dyar, 1905 de Sudamérica (Lepidoptera: Cossidae)

Resumen

Se da una redescrición de la especie tipo del género sudamericano *Miacora* Dyar, 1905, *M. tropicalis* (Schaus, 1904). Se da por primera vez, una descripción de la genitalia del macho y se discute la posición sistemática del género.

PALABRAS CLAVE: Lepidoptera, Cossidae, *Miacora*, genitalia del macho, Sudamérica.

Introduction

Carpenter moths (Cossidae) form a relatively small family of Dytrisian Lepidoptera which includes about 1000 species (VAN NIEUKERKEN *et al.*, 2011).

Recently, a revision of the Cossidae of the Old World (YAKOVLEV, 2011) that summarized the status and diversity of all genera of this region was published. The situation of the Cossidae of the New World is a different one at present. Only one detailed systematic paper was published recently, which was focused on the taxonomic review of the subfamily Cossulinae of Costa Rica (DAVIS *et al.*, 2008). Genitalia of many American genera of Cossidae still remain unexplored. Necessity of redescrptions of the New World genera of Cossidae is explained by perfunctory diagnoses which were given by authors of original descriptions without usage of morphological data.

The genus *Miacora* Dyar, 1905 was established by DYAR (1905) for *Cossus tropicalis* Schaus, 1904 which was described earlier (SCHAUS, 1904) from British Guiana (now - Guyana). Later, *M. diffidens* Dyar, 1910, *M. adolescens* (Dyar, 1914), *M. subtropicalis* Dyar, 1940, *M. perplexa* (Neumoeogen & Dyar, 1893), *M. leucegchytes* (Dyar, 1912) and *M. luzena* (Barnes, 1905) were included into the genus (DYAR, 1940). After the revision of the Cossidae genera (SCHOORL, 1990) only three species remained in this genus: *M. tropicalis* (Schaus, 1904), *M. diffidens* Dyar, 1910 and *M. adolescens* (Dyar, 1914), that was based on morphological characteristics, in particular the structure of the antenna.

In January 2013, V. Doroshkin (Russia) collected one male of Cossinae and presented it to me. The specimen has the following label data: “Central Peru, Villa Rica-Pto Bermudez, 1042 m, 10° 37' N; 75° 09' E, 12-III-2013, V. V. Doroshkin leg.” and it is stored in my collection. This specimen was determined by me as *M. tropicalis* - characters mentioned in original description of the species and the genus (SCHAUS, 1904; DYAR, 1905) which are as follows: “underneath: much suffused with black”, “indistinct buff spot at end to cell” and “antennae simple” - corresponded to my specimen. Moreover, male of *M. tropicalis* was pictured on a colour plate by DYAR (1940). The picture corresponds to my specimen, too. The manuscript has being prepared to a print by the author of the first description, this fact is directly pointed in the publication “Revidiert von Dr. W. Schaus”. After acquisition of this specimen it became possible to study genitalia and to specify the systematic position of the genus.

Material and methods

Moths were collected at night using ultraviolet lights. Male genitalia were mounted in euparal on a slides.

Results

Redescription of the genus *Miacora* Dyar, 1905 (Figs. 1-2)

Medium-sized: Forewing length 31 mm, wingspan 65 mm. Antennae simple, without pecten. Segments of antenna strongly flattened in dorso-apical view. Head with fascicle of yellowish-brown hairs on frons. Thorax covered by brownish-yellow hairs on top. Abdomen covered by black and grey hairs on top. Forewing with rounded apex, basal area dirty-white; discal area grayish-brown with striated pattern which consisted of thick transversal wavy strips; small ochreous spot situated near top of discal cell; submarginal and marginal area light-grey with thick dashed pattern. Forewing grey below, with black field near top of central cell. Hindwing greyish-brown with coal-black anal area and tornal angle. Fringe motley-light between veins and dark near veins.

Male genitalia: Uncus triangular with sclerotized bill-shaped apex. Tegumen medium-sized, branches of gnathos medium, thick, which grow together and form massive sclerotized stout gnathos, covered by small spicules. Valvae with sclerotized costal edge and developed teeth in middle third of costal edge of valva. Apex of valva membranous, lanceolate. Membranous part of valva very short, significantly narrower than sclerotized part, about 0.1 of valva's length. Zone of change of sclerotized part into membranous part has shape of small crest situated on inner surface of valva. Processes of transtilla long, somewhat curved, as long as 3/5 of valva's length. Juxta strongly sclerotized, with diverged at 180 triangle lateral processes. Saccus small, semicircle, thrust back. Aedeagus thick, straight, its length equal to valva's length. Apical half of phallus more slender than basal. Apex concave. Aperture of vesica placed in dorso-apical part, comprises 1/2 of phallus' length.

Distribution: Members of the genus *Miacora* Dyar, 1905 are distributed from Mexico in the north to central regions of Brazil and Peru in the south (SCHOORL, 1990).

Systematic notes

The genus *Miacora* belongs to the nominate subfamily Cossinae. Based on the structure of antennae and male genitalia I conclude that it is closely related to the South-Asian genus *Groenendaelia* Yakovlev, 2004 (type species - *Cossus kinabaluensis* Gaede, 1933) (YAKOVLEV, 2004) from Thailand, Myanmar, Borneo, Sumatra and Java. Both genera are characterized by the common traits: prismatic antenna, stepped costal crest, reduced membranous part of valva. Probably similarity of this characters are explained by convergence.

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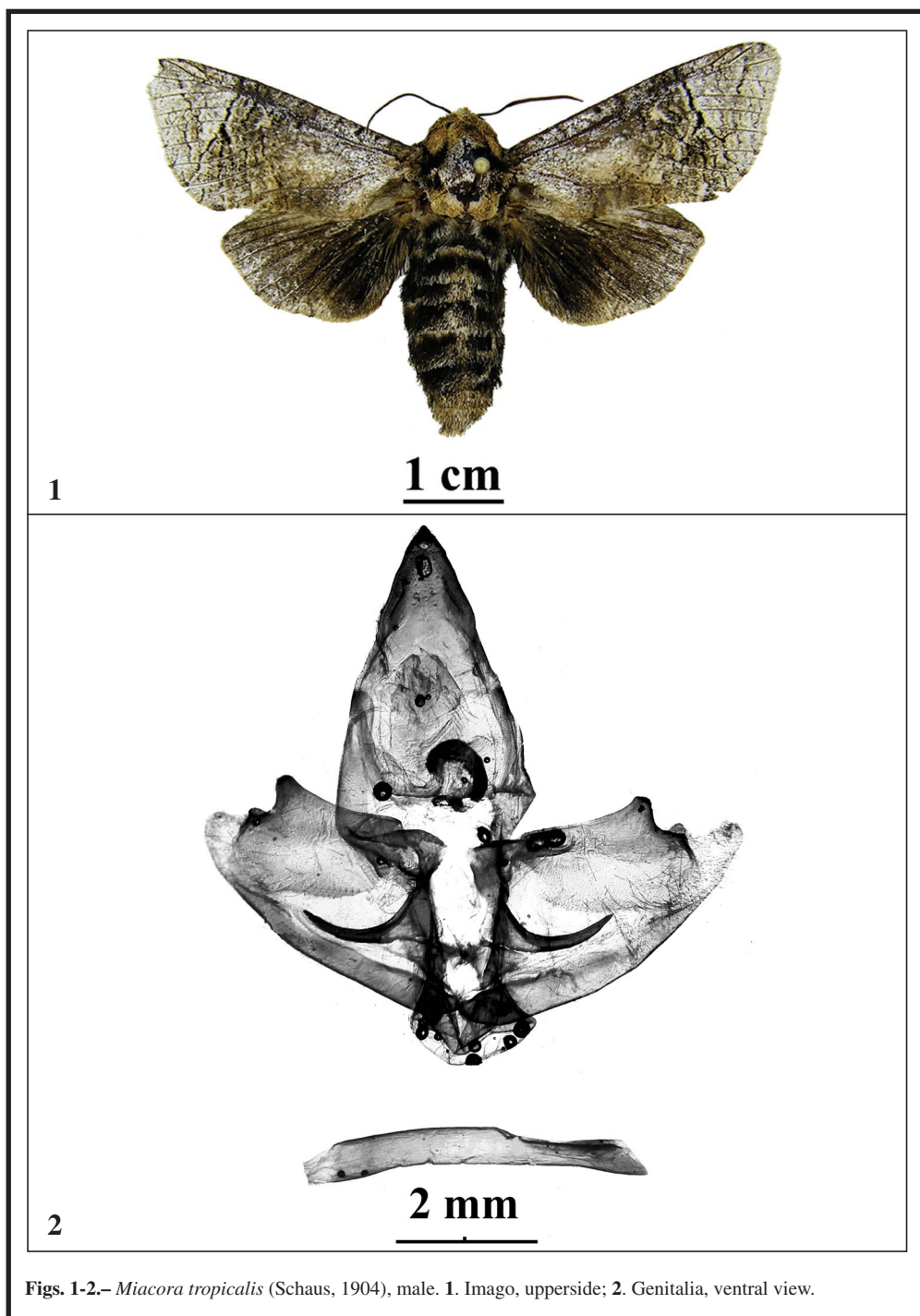
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Figs. 1-2.— *Miacora tropicalis* (Schaus, 1904), male. **1.** Imago, upperside; **2.** Genitalia, ventral view.