

A NEW *MEROLEUCA* FROM EASTERN COLOMBIA (LEPIDOPTERA: SATURNIIDAE: HEMILEUCINAE)

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ABSTRACT.—*Meroleuca (Meroleucoides) amarillae* n. sp. is described from the Department of Santander in central Colombia. It is distinct from other *Meroleucoides* by a combination of superficial and genitalic characters which are described. Male and female are illustrated in color, their genitalia are figured and taxonomic relationships are discussed. *M. (M.) amarillae* is an Andean species associated with cloud forest of moderate altitude.

RESUME.—*Meroleuca (Meroleucoides) amarillae* n. sp. est décrit du département de Santander en Colombie centrale. Il diffère des autres *Meroleucoides* par plusieurs caractères de l'habitus et des genitalia qui seront précisés. Le mâle et la femelle et leurs armures génitales sont figurés et la position taxonomique de l'espèce indiquée. *M. (M.) amarillae* est une espèce andine vivant en forêt humide de moyenne altitude.

RESUMEN.—*Meroleuca (Meroleucoides) amarillae* n. sp. se describe del Departamento de Santander en Colombia central. Se distingue de otras *Meroleucoides* por una combinación de caracteres superficiales y de genitalia los cuales se describen. El macho y la hembra son ilustrados a color, se figuran su genitalia y se discute sus relaciones taxonómicas. *M. (M.) amarillae* es una especie andina asociada con bosque neblinoso de altitud moderada.

KEY WORDS: Andes, Colombia, *Dirphia*, *Dirphiella*, distribution, Fagaceae, hostplants, *Meroleuca (Meroleucoides) amarillae* n. sp., Neotropical, *Orniscodes*, *Paradirphia*, Peru, *Rhodirphia*, South America, Sterculiaceae, taxonomy.

Meroleucoides with type species *Dirphia flavodiscata* Dognin was described by Michener (1949) as a subgenus of *Orniscodes* Blanchard. *Orniscodes*, in Michener's (1952) major work on the Saturniidae of the Western Hemisphere, was divided into nine subgenera, most of which are now either reinstated (e. g., *Meroleuca* by Lemaire, 1982a, 1982b) or elevated (e. g., *Paradirphia* by Beutelspacher, 1984; *Dirphiella* by Beutelspacher and Balcázar, 1994; *Rhodirphia* by Lemaire and Venedictoff, 1989) to full generic status. Michener (1952) rightly stated that *Meroleucoides* is more closely related to *Meroleuca* than to any other subgenus of *Orniscodes*, and therefore *Meroleucoides* was maintained in its original status, but subordinate to *Meroleuca* instead of *Orniscodes*, when *Meroleuca* was reinstated to its full generic rank. This treatment is used in the present paper.

Meroleucoides is a subgenus of at least 15 relatively small to medium sized species which are characterized by the following combination of characters: antennae of male quadripectinate, basal rami with terminal bristles longer than setae; labial palpi extremely long; tibial epiphysis present in male; abdominal hairs always forming color dorsal bands; basal line of forewing replaced by a medial band. In the nominotypical subgenus *Meroleuca*, the epiphysis is lacking in both sexes and veins M2 and M1 of forewing are connate.

Meroleuca is an exclusively Andean genus, ranging at elevations from 2000m to over 4000m, from Colombia to eastern-

central Peru. The female of *M. (Meroleuca) nigra* is brachypterous (Dognin 1913); other known females of *Meroleuca* are fully winged.

Meroleuca (Meroleucoides) amarillae

Lemaire & Wolfe, new sp.

Diagnosis.—This new species is seemingly a close relative of *M. (M.) flavodiscata* (Dognin) from which it differs by its average smaller size, black instead of yellow antennal rami, much smaller discal spot of the forewing, and darker ground color of fore- and hindwings in males. Sexual dimorphism is more pronounced than usual in this subgenus (although females of *M. flavodiscata* are unknown). There are also significant differences in the male genitalia; in *M. (M.) amarillae*, the uncus is broader, the ventral plate of the transtilla more sclerotized and the inner process of valves smaller.

Description.—Wingspan: ♂ 60-63mm, ♀ 72-74mm. Forewing length: ♂ 30-32mm, ♀ 38-40mm.

MALE (Fig. 1): Antennae blackish. Frons black, labial palpi black, ventrally covered with pink scales; thorax dark brown, intermixed with yellowish gray hair-like scales on the tegulae, prothoracic collar yellow; legs black, scattered with pink hairs; tibial spurs number 0-2-3. Abdomen black, dorsally ringed with yellow; anal tuft pink. Forewing rounded; ground color dark brown, shaded with black; black medial band faint; postmedial line black, preapical, slightly waved between CuA1 and the inner margin, distally weakly underlined with dull yellowish gray; discal spot yellow, very small. Hindwing colored as on forewing; postmedial line convex. Underside uniformly dark brown with a smoky black postmedial line and a tiny discal streak on all four wings. Veins

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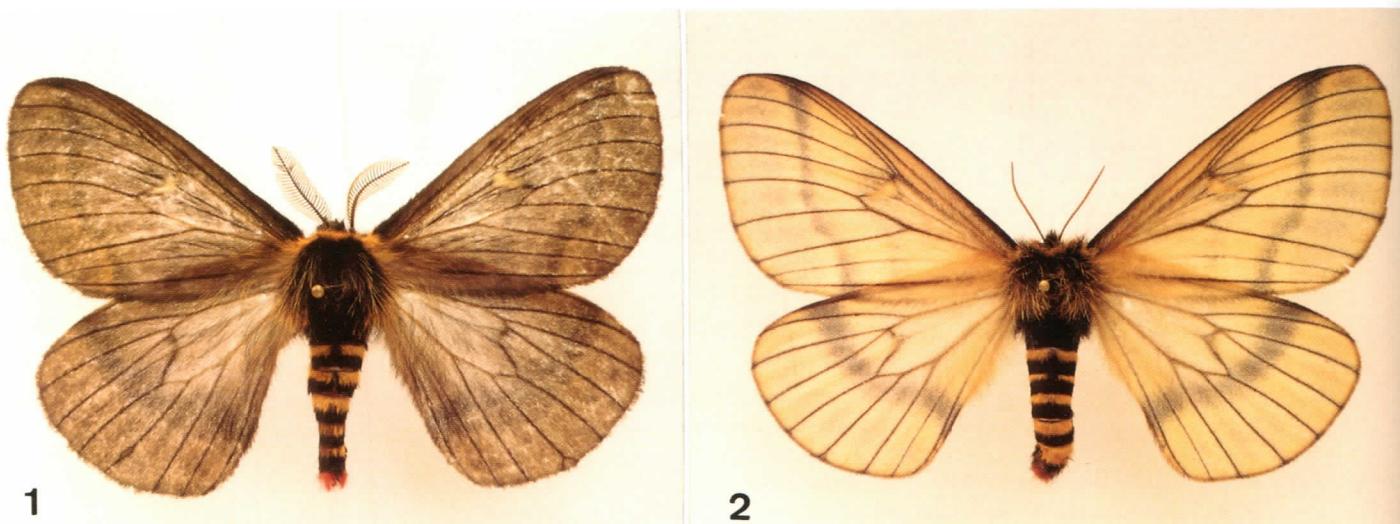


Fig. 1-2. *Meroleuca (Meroleucoides) amarillae* n. sp.: 1) Holotype ♂ (wingspan 63mm). 2). Allotype ♀ (wingspan 72mm).

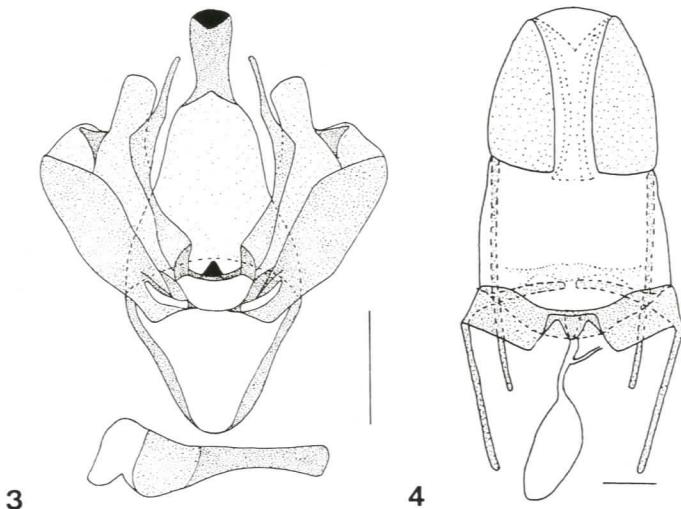


Fig. 3-4. *Meroleuca (Meroleucoides) amarillae* n. sp.: 3) ♂ genitalia. 4) ♀ genitalia. (scale lines = 1mm)

black, contrasting; fringes concolorous. *Male genitalia* (Fig. 3): Uncus simple, apically downcurved; ventral plate of transtilla a small triangular sclerotization, lateral arms slender; inner process of valves very short; juxta membranous.

FEMALE (Fig. 2): Antennae dark rusty yellow, shortly bidentate to the apex, teeth with long terminal bristles. Ground color conspicuously lighter than in male, either pure yellow or dull yellow with smoky and semi-translucent appearance. Same markings as in male but, unlike latter, very contrasting; valves strongly accented with black. *Female genitalia* (Fig. 4): Typical structure of female genitalia of *Meroleuca* with the sclerotization of the eighth tergum middorsally interrupted by a membranous area; lamellae ante- and postvaginales midventrally narrow, the former projecting above lip of ostium, laterally much broader and fused together and to the eighth tergum. Ductus bursae sclerotized along about half of length; corpus bursae membranous, basal portion narrow, anterior portion ovoid; ductus seminalis arising from right side of base of bursa. Papillae anales very broad.

Immature stages.—Egg 2.8mm long, white, roundly oval, very large compared to adult. Eggs were divided between Wolfe and A. Amarillo

for attempted rearing. First instar larva mostly white with shiny white head, dorsum slightly grayer with black dorsal and subdorsal lines thickening near head; thoracic scoli black, remaining scoli bright reddish brown. Larvae initially refused more than 30 potential foodplants offered, finally accepting *Brachychiton acerifolius* (Sterculiaceae) (Wolfe) and *Quercus* sp. (Fagaceae) (Amarillo) after four and six days respectively. Those on *Brachychiton* died in second instar and on *Quercus* in fourth instar. Natural hostplant unknown.

Types.—*Holotype* ♂ and *allotype* ♀: Colombia, Departamento de Santander, Municipio de Charalá, Corregimiento de Virolín, 2300m, 6/7 Apr 1995 (K. Wolfe, S. Smoot, A. Amarillo, C. Sarmiento). *Paratypes*: 12 ♂, 1 ♀, all same data as holotype. The holotype and allotype are in the ICN-MHN, Universidad Nacional, Bogotá. Paratypes will be deposited in the National Museum of Natural History, Washington, DC; the Muséum National d'Histoire Naturelle, Paris; the Natural History Museum of Los Angeles County, Los Angeles; and collections of the authors.

Etymology.—This species is named for Angela R. Amarillo S. for her valuable collaboration in the collecting and study of the Saturniidae of Colombia.

Distribution.—*M. (M.) amarillae* is known only from the above type locality.

Remarks.—Like all other members of the subgenus, it is an Andean species associated with cloud forest. The ecological data are comparable to those observed in Ecuador on both sides of the Andes for all species collected there. As far as is known, there is no record from the Pacific slope in Colombia. No more than five species were known at the time of the publication of Michener's (1952) work; the recent discovery of at least ten new species may be explained by greater efforts to overcome the often difficult access to their biotopes and by the usually very restricted distribution of these moths.

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