

***Meroleuca (Meroleucoides) diazmaurini*,
a new Saturniidae from Central Colombia:
(Lepidoptera: Saturniidae, Hemileucinae)**

Thibaud DECAËNS, Diego BONILLA, & Luz Dary RAMIREZ

Abstract: A new species of *Meroleuca* is described from the Central Cordillera of Colombia. *M. (Meroleucoides) diazmaurini* new species is related to *M. (Meroleucoides) bravera*, from which it is clearly distinguishable by both the antennae and forewing colour, and by the genitalia characteristics. It was collected in a cloud forest of near the town of Manizales (Caldas department) at 2,700m of elevation. The holotype ♂ is deposited in the Institute of Natural Sciences (ICN-MHN) of the Colombian National University, Santafé de Bogota, Colombia.

Résumé: Une nouvelle espèce de *Meroleuca* est décrite de la Cordillère Centrale de Colombie. *M. (Meroleucoides) diazmaurini* nov. species est proche de *M. (Meroleucoides) bravera* dont il se différencie clairement par la coloration des antennes et des ailes antérieures, ainsi que par les caractéristiques des genitalia. Cette nouvelle espèce à été récoltée dans une forêt andine des environs de Manizales (département du Caldas) à une altitude de 2700m. L'holotype ♂ est déposé à l'Institut des Sciences Naturelles (ICN-MHN) de l'Université Nationale de Colombie, Santafé de Bogota, Colombie.

Resumen: Se describe una nueva especie de *Meroleuca* de la Cordillera Central de Colombia. *M. (Meroleucoides) diazmaurini* nov. species es cercano a *M. (Meroleucoides) bravera* del cual se diferencia facilmente por la coloración de las antenas y las alas anteriores, así como por las características de las genitalia.. Se recolectó en un bosque de niebla de las afueras de Manizales en el departamento de Caldas a una altura de 2700m. El holotipo ♂ está depositado en el Instituto de Ciencias Naturales de la Universidad Nacional de Colombia, Santafé de Bogota, Colombia.

Key Words: Andes, Colombia, *Meroleuca (Meroleucoides) diazmaurini*, new species, taxonomy, Neotropical entomofauna.

Introduction

The genus *Meroleuca* PACKARD, 1904 actually comprises 3 sub-genera and 28 described species (LEMAIRE 2002). Within the three recognized subgenera of *Meroleuca*, *Meroleucoides* MICHENER, 1949 includes 21 described species of moderated size that may be recognized by both wing ornamentation and genitalia characteristics. The most typical morphological traits are the quadripectinate antennae of the males, the extremely long labial palpi, the presence of light rings on the abdomen, the replacement of the forewing basal line by a medial band (LEMAIRE 2002).

All the species of the genus are distributed in the Andean region from Peru to Venezuela, with 10 species belonging to the Colombian fauna (AMARILLO-SUÁREZ 2000). They are generally found in cloud forests at elevation ranging from 2,000 to 4,000m and present an outstanding level of local endemism (LEMAIRE & WOLFE 1995, Lemaire personal communication). Due to this proclivity to endemism, the increasing collecting efforts recently performed by entomologists in the North Andean regions have logically led to the discovery of numerous new species. In fact, since the late seventies, 16 species were described by C. LEMAIRE (see the lists in LEMAIRE 1996 and LEMAIRE 2002), and this number is expected to increase significantly in the nearby future.

***Meroleuca (Meroleucoides) diazmaurini* DECAËNS, BONILLA, & RAMIREZ new species**

Holotype: male (only known specimen), Colombia, Caldas department, road Manizales – Alto de Letras, Km 9, “La Selva” restaurant, 2700m, vii 2002 at 6H30 pm, at the light of the restaurant, leg. T. Decaëns, D. Bonilla & R. Diaz Maurin in coll. T. Decaëns (genitalia prep. T. Decaëns # 82).

Type deposition: The holotype is deposited in the Institute of Natural Sciences (ICN-MHN) of the Colombian National University, Santafé de Bogota, Colombia (registration # ICN-L 17505).

Etymology: This species is dedicated to our good friend Rafael Diaz Maurin in recognition for the good time he spent with us during the

collecting trip in which this new species was collected. We all know his late lamented father would have enjoyed to see his name used in this way, so this species is also dedicated to his memory.

Description: Wingspan male 60mm.

♂ (fig. 1): Head: Dark brown, labial palpi red brown, antennae yellow. Body: Thorax dark brown covered dorsally by long yellow brown hair-like scales; prothoracic collar yellow brown; femurs black, tibiae and tarsus red brown. Abdomen black, dorsally and laterally ringed with yellow. Forewings: length 29mm; rounded; convex edge; above background colour dull yellow, suffused by black scales in the postmedian and marginal zones; venation thinly accentuated with black scales, fringes dull orange yellow, dotted with black at the end of the veins; postmedial line black, wide and wavy; discal spot yellow, quiet and ovoid. Underside (fig. 2) yellow brown, extensively shaded with black scales; venation prominently accentuated with black; fringes, postmedial and discal point as on upperside. Hindwings: Almost completely covered with black scales; venation and fringes as in forewings; postmedial line black and wide, inwardly bent between M3 and the inner margin; discal spot yellow and ovoid. Underside coloured as in forewings; fringes, discal spot and postmedial line coloured and shaped as on upperside.

♀ Unknown.

♂ **genitalia** (fig. 4). Uncus simple, wide in its basis, apically differentiated in a sclerotized and downcurved spine; ventral plate of the transtilla narrow and unsclerotized; lateral arms slender; inner process of the valves wide and apically extended, as long as the sclerotized uncus apex; juxta membranous; aedeagus straight, ventrally bent with the vesica arising dorsally.

Immature stages: Unknown.

Distribution: This species is only known from the type locality, where it was collected in a patchwork of natural and planted forest at 2,700m of altitude (fig. 3). It is probable that this species is restricted to a relatively small area as the subgenus *Meroleucoides* is straightforward by a particularly high rate of local endemism.

Diagnosis: *M. (Meroleucooides) diazmaurini* is closely related to *M. (Meroleucooides) amarillae* LEMAIRE & WOLFE, 1995, *M. (Meroleucooides) bravera* LEMAIRE, 2002 and *M. (Meroleucooides) penai* LEMAIRE, 1982, from which it is differentiated by morphological and/or genitalia characteristics. Although these four species present similar wing ornamentation, *M. (Meroleucooides) amarillae* may be easily recognized due to its darker background colouration (LEMAIRE & WOLFE 1995, LEMAIRE 2002). When considering the whole ornamental and colour patterns, *M. (Meroleucooides) diazmaurini* is closer to *M. (Meroleucooides) bravera* than to any other species. Both species are distinguished from *M. (M.) penai* by the only feebly sinuated postmedial line of the forewings, lacking the large sinus between M3 and CuA2 (LEMAIRE 2002). The main differences between *M. (Meroleucooides) diazmaurini* and *M. (Meroleucooides) bravera* consist in: (1) The lighter antennae colour; (2) The relatively homogeneous colour of the hindwings when compared with the sharp contrast that exists between the pale postmedian and the darker basomedian areas of *M. (Meroleucooides) bravera*.

These external differences are corroborated by clear genitalia characters. Although the general aspect of *M. (Meroleucooides) diazmaurini* genitalia is closer to that of *M. (Meroleucooides) bravera*, it is characterized by the wider and more posteriorly developed inner processes of the valve and the longer lateral arms (LEMAIRE & WOLFE 1995, LEMAIRE 2002). The median plate of the transtilla is also narrower, and lack the sclerotized structures that are present in the three other species.

Colour figs. 1–3):

Fig. 1: *Meroleuca (Meroleucooides) diazmaurini* new species holotype ♂ (dorsal, wingspan 60 mm).

Fig. 2: Same specimen (ventral).

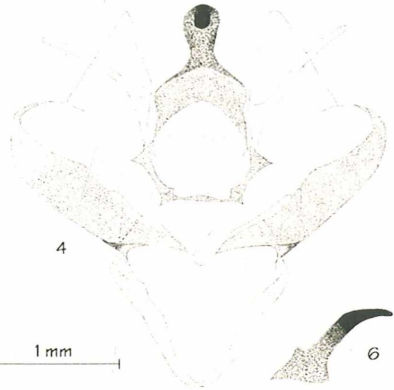
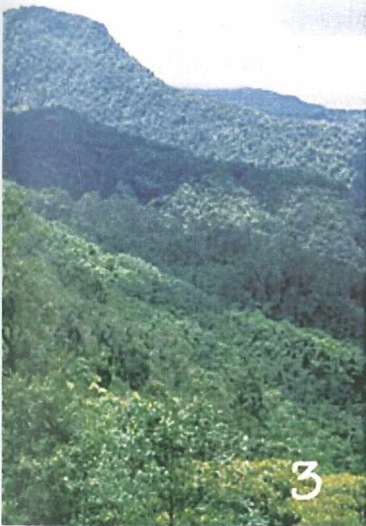
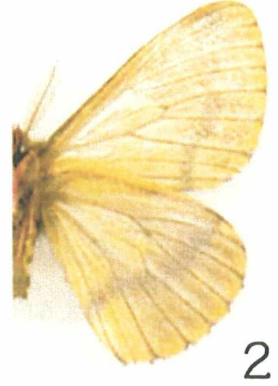
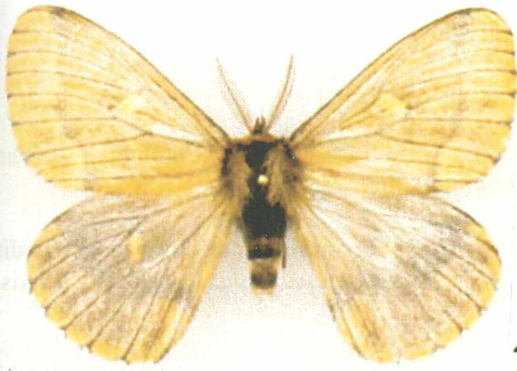
Fig. 3: Cloud forest habitat in the Colombian Central Cordillera (Caldas department, road Manizales – Alto de Letras, Km 9).

Genitalia drawings (figs. 4–6):

Fig. 4: *Meroleuca (Meroleucooides) diazmaurini* new species, holotype ♂ genitalia, ventral view, aedeagus removed (genitalia prep. T. Decaëns # 82).

Fig. 5: Lateral view of aedeagus.

Fig. 6: Lateral view of the uncus.



Decaens-M diazmaurini

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