

Genus	Vol. 19(3): 577-584	Wrocław, 30 X 2008
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New *Ithomiinae* from Colombia (Lepidoptera: *Nymphalidae*)

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ABSTRACT. Two new *Ithomiinae* (Lepidoptera, *Nymphalidae*) subspecies are described from Colombia: *Aeria elara nigra* n.ssp. (Antioquia) and *Hypoleria ocalea nigromarginata* n.ssp. (Antioquia).

RESUMEN. Los autores describen dos nuevas subespecies de *Ithomiidae* (Lepidoptera, *Nymphalidae*) de Colombia: *Aeria elara nigra* n.ssp. (Antioquia) e *Hypoleria ocalea nigromarginata* n.ssp. (Antioquia)

Keywords: entomology, taxonomy, new subspecies, Lepidoptera, *Nymphalidae*, *Ithomiinae*, Colombia.

The genus *Aeria* HÜBNER, 1816 is uniformly distributed throughout the neotropical region, from Andean premontane rain forest to the Amazonian lowlands. To this genus belong three species: *Aeria eurimedia* (CRAMER, 1777), *Aeria elara* (HEWITSON, 1855) and *Aeria olena* WEYMER, 1875.

Aeria eurimedia contains six subspecies: *Aeria eurimedia eurimedia* (CRAMER, 1777), *A. e. agna* GODMAN et SALVIN, 1879, *A. e. latistriga* HERING, 1925, *A. e. negricola* (C. et R. FELDER, 1862), *A. e. pacifica* GODMAN et SALVIN, 1879 and *A. e. sisenna* WEYMER, 1899, ranging from Mexico to Bolivia. *Aeria olena* is monotypic, occurring in Brazil (Mato Grosso, Paraná). To *Aeria elara* belong two described subspecies: *A. elara elara* from Venezuela and *A. elara elarina* (OBERTHÜR, 1878), from Pará in Brazil. *Aeria olena* is monotypic, occurring in Brazil (Mato Grosso, Paraná).

LAMAS (2004) indicated the existence of numerous undescribed *ithomiine* taxa, some of which belong also to the genera that are the subject of this paper.

Specimens from a population of *Aeria elara* along the Río Cauca valley and Río Porce, about 20 km south of Amalfi (Colombia, Antioquia), show characters different from those of all described subspecies. We thus name this population as:

***Aeria elara nigra* n. ssp.**

(Tab. 1)

ETYMOLOGY

The name refers to the broad black wing margins.

TYPE MATERIAL

Holotype: ♂, Río Porce (Colombia, Antioquia), 600m., 1/11/2004, leg. G. Rodríguez (FVLI).

Allotype: ♀, Río Porce (Colombia, Antioquia), 1000m., 5/7/2004, leg. G. Rodríguez (FVLI).

Paratypes: (4♂♂ and 9♀♀) 1♂ Yolombo (Colombia, Antioquia), 300m., 3/5/1992, leg. G. Rodríguez (FVLI); 5♀♀ same allotype (FVLI); 1♂ Río Porce (Colombia, Antioquia), 600m., 07/08/2004, leg. G. Rodríguez (GR); 1♂ Río Porce (Colombia, Antioquia), 600m., 03/07/1999, leg. G. Rodríguez (GR); 1♀ and 1♂ Río Porce (Colombia, Antioquia), 600m., 11/1996, leg. G. Rodríguez (GR); 1♀ Río Porce (Colombia, Antioquia), 1000m., 5/7/2004, leg. G. Rodríguez (GR); 1♀ Río Porce (Colombia, Antioquia), 700m, 10/1994, leg. G. Rodríguez (GR); 1♀ Puerto Araujo, (Colombia, Santander), 400m, 1995, leg. G. Rodríguez (GR).

HOLOTYPE DESCRIPTION

FW length 21 mm.

Dorsal side: the male specimen selected as the holotype has the typical wing pattern of the genus *Aeria*, characterized by two colours: black for the wing margins and yellow-green for the typical coloured areas.

Ventral side: in addition to the patterns described for the dorsal surface, there are some additional reddish markings..

DFW, median discal vein dark from the base to almost the junction with Cu₂. The black costal margin is about 1 mm near the base, broadening to 4 mm in the postdiscal area. The yellow, postdiscal, costal spot is very small. The black margin in the tornus is over 3 mm wide, at the wing base being over 1,5 mm.

DHW, the costal black margin covers over half of the discal area, the black distal margin is very broad, reducing the yellow-green area.

VFW, sickle-shaped reddish area, extended about 1 mm., in the black apical margin; small reddish area in the tornus and part of Cu₁-Cu₂; reddish costal streak from the wing base to the end of discal vein, about 1 mm broad. A complete series of 6 pairs of white faint spots, just basal of the distal margin from tornus to apex.

VHW, costal yellow-green streak covering all HW costa, with a posterior, broad black margin, with a reddish streak. A similar reddish streak is in the distal black margin where there are 3 pairs of faint white spots.

Collar, patagia and other structures

Holotype: collar with very few orange scales dorsally; patagia dark brown; antennae black; abdomen ventrally yellow, dorsally black.

Allotype: collar orange dorsally and white laterally; patagia orange; antennae black; abdomen ventrally yellow, dorsally black.



Hypocleria ocalca nigromarginata ssp.n. male Holotype



Hypocleria ocalca nigromarginata ssp.n. female Paratype



Aeria elara nigra ssp.n. male Holotype



Aeria elara nigra ssp.n. female Allotype

TAB. 1

ALLOTYPE DESCRIPTION

FW length 22.5 mm, dorsally as holotype, black margins broader, especially in HW. Ventrally, the allotype lacks the reddish FW costal streak; but among 6 females paratypes, 3 lack the costal streak, 2 have a really faint streak and 1 has a costal streak. Other characters as in holotype.

DISCUSSION

The distinctive character of this new subspecies is the extension of the black margin, especially in the costal margins where it covers half of the discal area. In contrast, this margin in *Aeria elara elara* and *A. e elarina* is reduced and covers the discal area only marginally. Because of the extension of the black margins, the yellow-green areas of the new subspecies, in Cu₁-Cu₂ and Cu₂-2A, are proportionally smaller than in other described subspecies.

MALE GENITALIA OF PARATYPE FROM YOLOMBO (COLOMBIA, ANTIOQUIA)

We examined male genitalia of many populations belonging to the three different species of this genus. Those of *Aeria elara* are very different from those of *Aeria eurimedia* and *Aeria olenia*. *Aeria elara* is unique in having a valve with an apical process, formed by a deep furrow (Tab. 2). Moreover, on the vesica, the cornuti have terminal spines as long as the more basal spines; in *Aeria eurimedia* and *Aeria olenia*, the terminal spines are longer than more basal spines.

ANDROCONIAL SCALES

Strong differences are observed in the form of basal androconial patch scales beneath hair pencil between *Aeria eurimedia*, where are narrow and club-shaped (Tab. 2 A – 400x) and *Aeria elara*, where they are larger and shining (Tab. 2 B – 400x)

***Hypoleria ocalea* (DOUBLEDAY, 1847)**

To this species belong two subspecies: the nominate subspecies *Hypoleria ocalea ocalea*, a very common taxon, widely distributed in Venezuela, Trinidad and the eastern slope of Cordillera Oriental of Colombia (Meta: Villavicencio, Río Ocoa); and *Hypoleria ocalea gephira* (HEWITSON, 1856) known from Colombia (Boyacá: Otanche). A population belonging to *Hypoleria ocalea* distributed in many localities along the Cauca river valley (Colombia, Antioquia), differs from the two previous subspecies and is here described as:

***Hypoleria ocalea nigromarginata* n. ssp.**

(Tab. 1)

ETYMOLOGY

The name refers to the broad black wing margins which distinguish this subspecies from other described subspecies.

TYPE MATERIAL

Holotype: ♂ Bolombolo (Colombia, Antioquia), 08/07/01, 1200m, leg Gabriel Rodríguez (FVLI)

Paratypes: (13♂♂, 21♀♀) 1♂ and 2♀♀ Amaga (Colombia, Antioquia), 11/1996, 1300m, leg G. Rodríguez (GR); 2♀♀ Amaga (Colombia, Antioquia), 11/1995, 1300m, leg G. Rodríguez, (GR) ; 1♂ Sabanalarga Colombia, Antioquia), 01/12/04, 700 m, leg Gabriel Rodríguez, (GR) ; 1♂ San Jerónimo (Colombia, Antioquia), 20/03/05, 900m, leg Gabriel Rodríguez, (GR) ; 1♀ Irra (Colombia, Risaralda), 13/03/05, 1000m, leg Gabriel Rodríguez, (GR) ; 1♀ La Pintada (Colombia, Antioquia), 06/12/04, 600 m, leg Gabriel Rodríguez, (GR) ; 1♂ Rio Cauca, Aug 1999, Leg. J. Salazar (FVLI) ; 2♂♂ and 2♀♀ Amaga (Colombia, Antioquia), 4/1/02, 900-1200m, leg Gabriel Rodríguez (FVLI) ; 1♂ and 1♀ La Pintada (Colombia, Antioquia), 27/12/02, 800-1200 m, leg Gabriel Rodríguez (FVLI); 3♂♂ and 2♀♀ Barbosa (Colombia, Antioquia), 20/01/02, 1000m, leg Gabriel Rodríguez (FVLI); 1♂ and 6♀♀ same holotype; 1♂ Sabanalarga Colombia, Antioquia), 01/12/04, 700 m, leg Gabriel Rodríguez, (FVLI) ; 2♀♀ Amaga (Colombia, Antioquia), 4/1/02, 900-1200m, leg Gabriel Rodríguez (FVLI) ; 1♀ San Jerónimo (Colombia, Antioquia), 28/04/02, 800-1400m, leg Gabriel Rodríguez, (FVLI); 1♀ Rio Porce (Colombia, Antioquia), 5/7/04, 1000m, leg Gabriel Rodríguez, (FVLI); 1♂ Rio Porce (Colombia, Antioquia), 10/8/2003, 800 m., leg. G. Rodríguez (FVLI)

HOLOTYPE DESCRIPTION

The holotype has a pattern broadly similar to that of the nominate subspecies, except for the width , of the black margin in FW and especially in the HW, which is greater in the new taxon.

DFW: in the distal margin there are 2 whitish 2mm oval spots in R_5-M_1 and M_1-M_2 , two more tiny spots lie anterior and posterior of the first two. Black margin is larger in the apex area , reaching about 5mm. Wing area from basal to median area is strongly rust coloured, almost opaque. Veins Cu_2 , Cu_1 , M_3 , M_2 and M_1 are black, isolating in the relative spaces Cu_2-Cu_1 , Cu_1-M_3 , M_3-M_2 , M_2-M_1 , M_1-R_3 circular yellow areas adjacent to the black distal margin. There is the typical postdiscal black spot and a yellow costal spot about 2,5 mm wide.

DHW: in the black distal margin there are 3 pairs of 4mm white spots, scarcely visible, along the wing margin. HW is rust coloured, rather uniform, almost opaque, slightly shaded and more transparent in Cu_1-M_3 and M_3-M_2 .

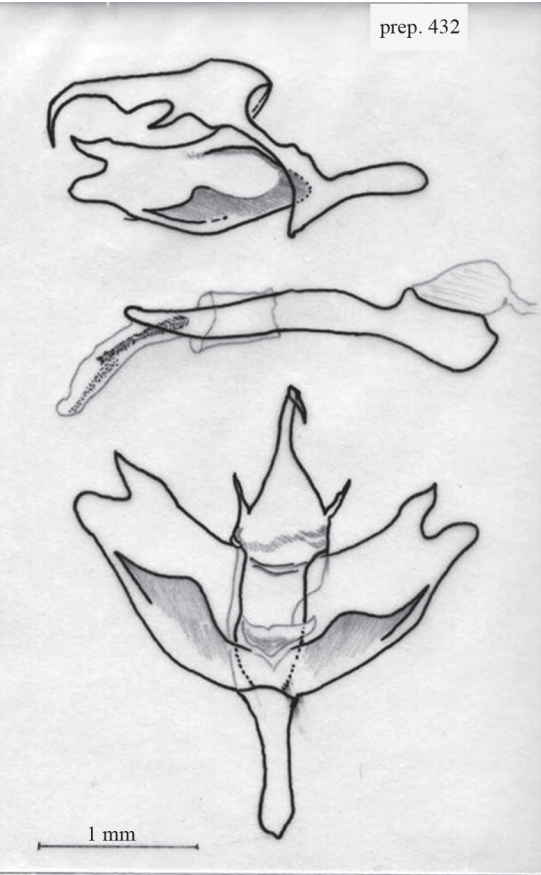
VFW: in the black distal margin there are 4 white apical spots. Cell vein is marked along the costal margin by an orange streak.

VHW: in the black distal margin there are 3 pairs of 4mm white spots, and a fourth white spot, in Cu_2-2A . Along the costal margin there is an orange streak, about 1 mm wide.

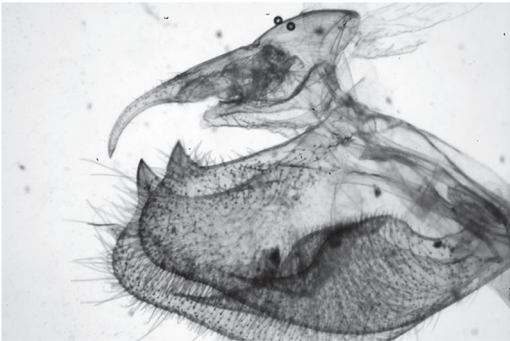
VARIABILITY OF SELECTED PARATYPE SPECIMENS

DFW: in the apex is possible to find specimens with 2, 3 or 4 white spots.

DHW: the width of black distal margin is variable from 2 to 4 mm.



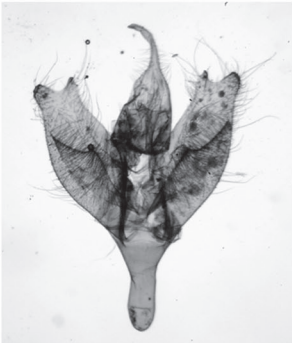
Aeria elara nigra ssp.n. male (Paratype)



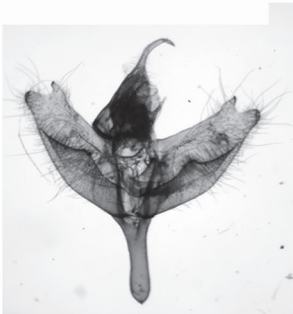
Aeria eurimedia agna (Venezuela) male



A B
Androconian scales



Aeria elara elara (Venezuela)
male



Aeria elara nigra ssp.n. male
(Paratype)

TAB. 2

MALE GENITALIA

We examined genitalia of many males coming from many populations in Venezuela (Carabobo, Anzoategui, Bolivar), Trinidad and Colombia (Villavicencio), all belonging to the nominate subspecies, and some specimens from the Cauca river valley and Porce river (Colombia, Antioquia) and Tolima (Colombia), without finding significant differences.

DISCUSSION

Every population of *Hypoleria ocalea* has a certain variability, so putative taxonomically important differences between subspecies must be based on observations of substantial series of specimens. In contrast, there is very little sexual dimorphism.

The new subspecies has a pattern broadly similar to *Hypoleria ocalea ocalea*, except for the width of the black margin in the FW and especially in the HW, which is greater in the new taxon. The new taxon differs from *Hypoleria ocalea gephira* especially in the HW pattern of the latter, which is characterized by the dark colour of veins Cu_2 and M_3 and by cells Cu_2-M_3 and M_3-M_2 being more transparent in *H. o. gephira*.

Beyond the described subspecies, we know of a specimen from Chocò (Colombia) which seems to belong to a different subspecies.

ABBREVIATIONS:

DFW: dorsal surface of forewing;

VFW: ventral surface of forewing;

DHW: dorsal surface of hindwing;

VHW: ventral surface of hindwing;

FW: anterior wing; HW: inferior wing.

Collections:

FVLI : Fabio Vitale, Lecce, Italy;

GR: Gabriel Rodriguez, Envigado, Colombia.

ACKNOWLEDGMENTS

We thank Antonio DURANTE (San Cesario di Lecce, Italy) for his help drawing genitalia and for the androconial scales photo and Keith R. WILLMOTT (McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, USA) for his kind suggestions and help in English text.

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