

Description of three new subspecies of *Perisama* Doubleday from
Ecuador and Northern Peru
(*Lepidoptera*: *Nymphalidae*: *Eurytelinae*: *Catagrammini*)

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ABSTRACT. The following new subspecies are described: *Perisama hilara sabanillana*, *P. lebasii lathyi* and *P. ouma huacamayana*. Four status revisions are proposed: *Perisama priene* as a synonym of *P. hilara hilara*, *P. astuta* as a subspecies of *P. hilara*, *P. inconspicua* as a subspecies of *P. ouma* and *P. insignis* as a synonym of *P. ouma typhania*. Rio Marañon is regarded as distribution border of two subspecies of *P. lebasii*: *lathyi* and *koenigi*. A checklist of all the taxa related with the newly described subspecies is provided.

Key words: Entomology, *Lepidoptera*, *Perisama*, Neotropics, Taxonomy, new subspecies.

ABBREVIATIONS (names of curators given in parentheses):

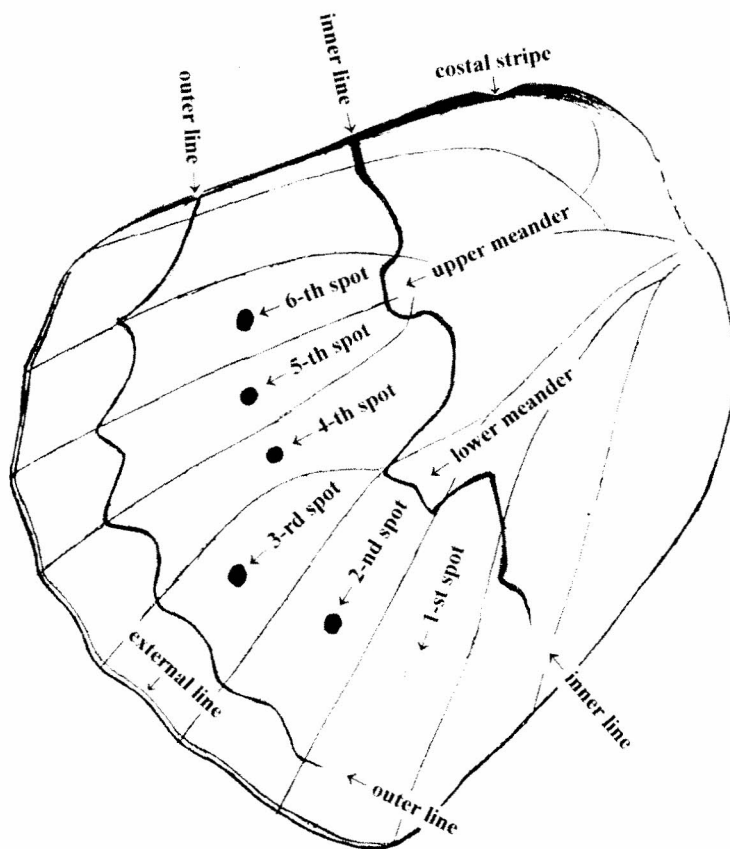
- BMNH - British Museum of Natural History, London, England (Phil ACKERY).
IZPW - Muzeum i Instytut Zoologii, Polska Akademia Nauk, Warsaw, Poland
(Tomasz HUFLEJT).
QCAZ - Departamento de Ciencias Biológicas Pontificia Universidad Católica del
Ecuador, Quito, Ecuador (Giovanni ONORE, Francisco PINAS).
USNM - Department of Entomology, United States National Museum of Natural
History, Smithsonian Institution, Washington, D. C., USA (Robert ROBBINS).

TERMINOLOGY:

The terminology of butterfly wing structure in this paper follows that of SCHWANWITSCH (1930), with some modifications (figs 1, 2). The following terms have been changed:

“M¹ (First Media)” = “inner line”,
 “E³ (Third Externa)” = “outer line”,
 “E¹ (First Externa)” = “external line”.

Gonostatumen: the term first used by DILLON (1948:IV); modern authors use the name *hypandrium* (c.f. JENKINS 1987:10).



1. Colour pattern of *Perisama* hindwing. Diagrammatic

***Perisama hilara sabanillana* ssp. nov.**

Perisama hilara SALVIN (1859:175) Peru ["Valley of the Cosnipata"].

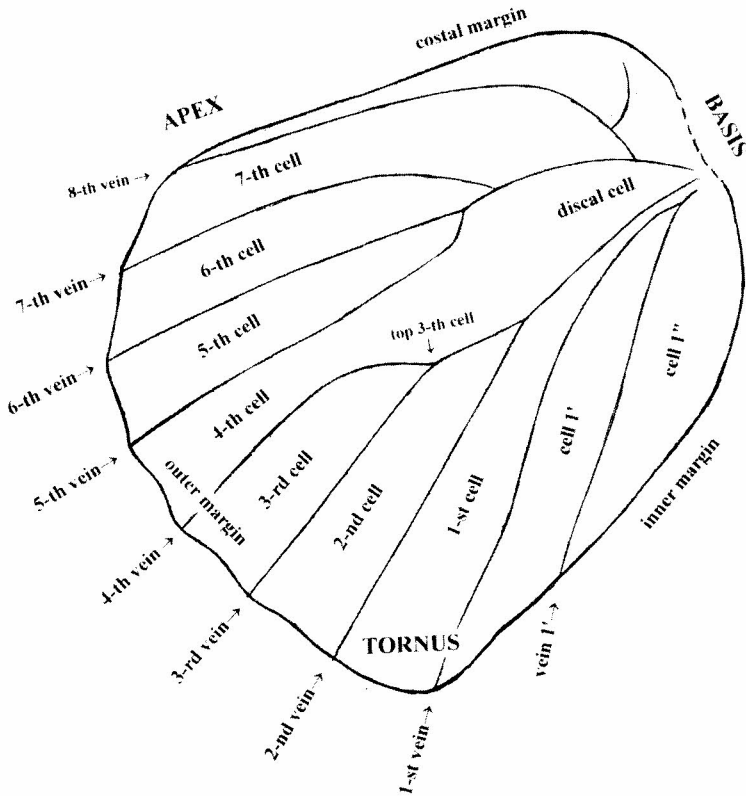
Taxa considered here or described as subspecies of *Perisama hilara* :

Perisama priene HOPFFER (1874:351). Peru [Moxos, Chanchamayo] (syn. *Perisama hilara hilara* **stat. nov.**).

Perisama astuta DOGNIN (1899:249). Colombia [Popayán] (= *Perisama hilara astuta* **stat. nov.**).

Perisama priene boliviana RÖBER (1915:497). Bolivia (= *Perisama hilara boliviana* **stat. nov.**).

Perisama hilara sabanillana JASIŃSKI (1996). Ecuador [Zamora Valley] (**ssp. nov.**).



2. Cells and veins of *Perisama* hindwing. Diagrammatic

Insertae sedis:

Perisama priene aenea RÖBER (1915:497). Colombia (probably synonym *Perisama lebasii lebasii*).

DESCRIPTION

Differences between the subspecies of *hilara* are the following:

- 1) Position of lower meander relative to the top of the 3rd cell:
sabanillana : lower meander of the inner line of the hindwing upper side touches the top of the cell (fig. 3 B).
astuta : lower meander of the inner line of the hindwing upper side does not reach the top of the cell (fig. 3 A).
hilara and *boliviana*: lower meander of the inner line of the hindwing upper side crosses veins 3 and 4 and stretches inside the 3rd cell (fig. 3 C).
- 2) Amplitude and shape of the lower meander of the hindwing underside:
sabanillana : amplitude of the lower meander of the inner line [Media (M^1)] of hindwing verso twice the amplitude of the upper meander (fig. 3 B).
astuta : amplitude of the lower meander only 1.5 times the amplitude of the upper meander (fig. 3 A).
hilara and *boliviana* : amplitude of the lower meander almost 3 times the amplitude of the upper meander. Additional characteristics of these two subspecies are: lower meander strongly asymmetrical (the upper edge of the meander longer than the bottom one) and sometimes a third and the smallest one appears below. The upper part of the lower meander inflated and outcurved.

3) Size:

Mean size of *hilara sabanillana* is larger than that of the remaining subspecies.

Wingspan and forewing length (in parentheses) [mm]:

sabanillana: 41 (23); 40 (22.5); 40 (22.5); 39 (22); 38 (21.5).

hilara: 38 (21.5); 37 (20.5); 36 (20); 34 (19); 34 (19).

boliviana: 36 (20).

astuta: 38 (22).

4) Distribution:

sabanillana: South Ecuador and Northern Peru.

astuta: Colombia.

hilara: Central and East Peru.

boliviana: South Peru and Bolivia.

ETYMOLOGY

Name derived from the river Rio Sabanilla in Southern Ecuador (locus typicus).

TYPES

Holotype: Male, leg. A. JASIŃSKI, deposit BMNH. Wingspan: 40 mm. Forewing length: 22.5 mm.

Paratype 1: Male, leg. A. JASIŃSKI, in coll. Artur JASIŃSKI. Wingspan: 40 mm. Forewing length: 22.5 mm.

Paratype 2: Male, leg. A. JASIŃSKI, deposit USNM. Wingspan: 39 mm. Forewing length: 21.5 mm.

Paratype 3: Male, leg. K. ŁOŚ, deposit QCAZ. Wingspan: 38 mm. Forewing length: 21 mm.

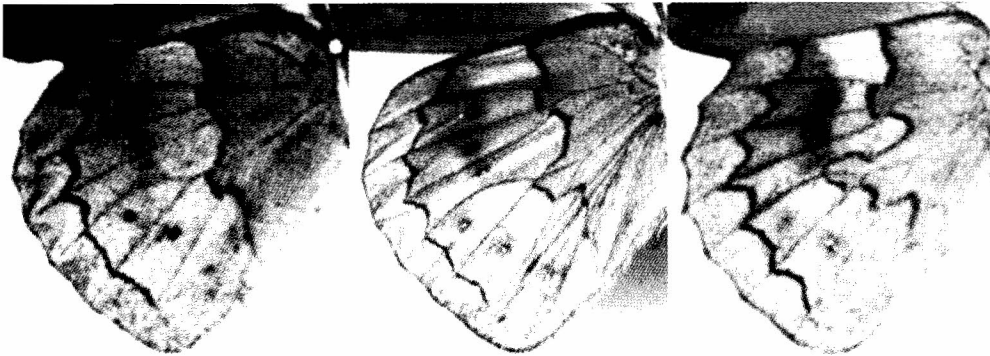
Paratype 4: Male, leg. A. JASIŃSKI, in coll. A. JASIŃSKI. Wingspan: 41 mm. Forewing length: 23 mm.

TYPE LOCALITY

Ecuador, Provincia Zamora-Chinchi, Rio Sabanilla between village Sonaderos and Sabanilla [4°02'S, 79°00'30"W, 1300 m.], 16-V-1996.

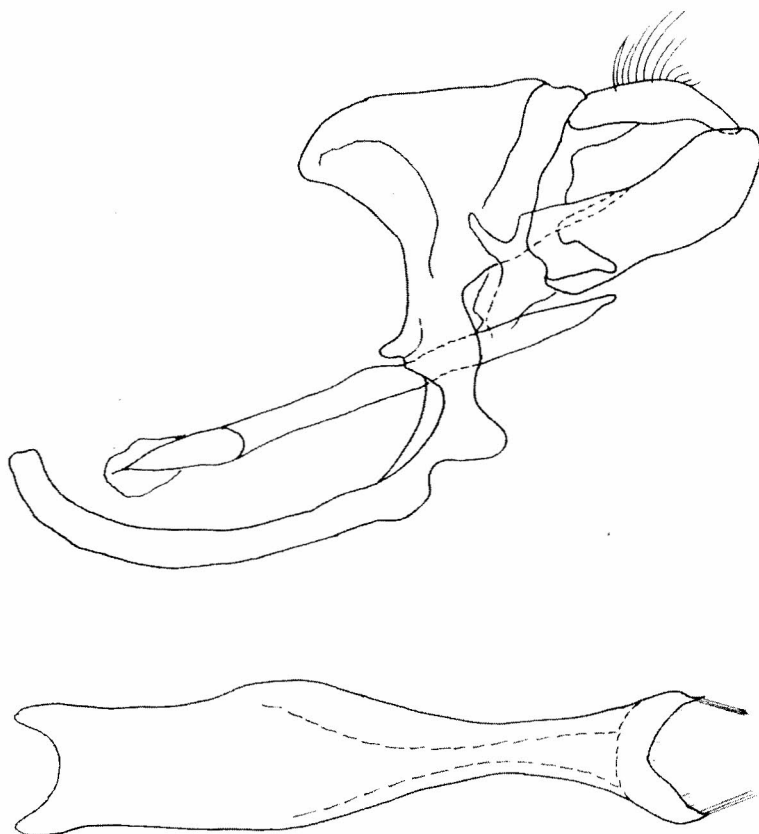
REMARKS

HOPFFER (1874:351,352) described *Perisama priene* as a distinct species from "Moxos" and "Chanchamayo". In the collection of IZPW I examined 4 specimens determined as *priene* HOPFFER (det. H. DOHRN 1923), of which 2 are labelled: "Peru, Chanchamayo, HOFFMANN'S". These specimens are similar to the syntype of *Perisama hilara* SALVIN from Cosnipata in the Eastern Peru - depository BMNH (examined). The types of HOPFFER are probably deposited at the Zoological Institute, St. Petersburg, Russia (G. LAMAS, pers. com.) (not examined). Chanchamayo is one of two original localities of *priene* HOPFFER, therefore I treat *priene* as a synonym of *hilara hilara* (stat. nov.). D'ABRERA (1987:567) synonymized *priene* with *picteti* GUENÉ, which



3. Verso hindwings from left to right: A - *hilara astuta*, B - *hilara sabanillana*, C - *hilara boliviana*

actually is a subspecies of *lanice* HEWITSON. SMART (1975:202 fig.14) illustrated *priene*, which differs from typical *priene* from Chanchamayo and is similar to the population from Southern Ecuador. The same applies to OBERTHÜR's (1916:36 fig. 2982 plate CCCLIX) specimen of *priene* from Chachapoyas. I have reasons to believe that subspecies *sabanillana* occurs also in Northern Peru, which region has a similar fauna of *Perisama* (f.e. *Perisama bomplandii albipennis*, *nyctimene* etc.). The taxon *astuta* DOGNIN (1899), described from Popayán in Colombia (type in the BMNH, examined), resembles *hilara sabanillana* in its wing colour pattern and is regarded here as a subspecies of *hilara* from Colombia, although I have never seen any specimens of *hilara* from Central Ecuador.



4. *Perisama hilara sabanillana* ssp. nov.: above: left lateral view of male genital armature without gonostatumen, below: gonostatumen

***Perisama lebasii lathyi* ssp. nov.**

Catagramma lebasii GUERIN (1844:485) Colombia [*Perisama lebasii* DOUBLEDAY (1849: 242)].

Taxa described or cited as subspecies *lebasii* (in chronological order):

Perisama lebasii lebasii (GUÉRIN 1844:485) (*Catagramma*). Colombia.

Perisama lebasii forma *negrina* RÖBER (1915:498). Colombia[Rio Negro] (= *lebasii* ssp. *negrina* status DESCIMON (1986:75).

Perisama lebasii hewitsoni OBERTHÜR (1916:96,99, plate CCCLVIII, fig. 2972). Colombia[Bogota].

Perisama lebasii manizalensis OBERTHÜR (1916:96,97,99, plate CCCLVIII, fig. 2974). Colombia[Manizales].

Perisama lebasii ambatensis OBERTHÜR (1916:96, plate CCCLVIII, fig. 2973). Ecuador[Ambato].

Perisama lebasii m. *pseudolebasi* STRAND (1916:10). Colombia (= *Perisama lebasii* ssp. *pseudolebasi* status DESCIMON (1986:75), range: Eastern Colombia).

Perisama lebasii ssp. *dividens* RÖBER (1924:1034). Western Colombia [Rio Magdalena].

Perisama lebasii ssp. *koenigi* DESCIMON & MAST DE MAEGHT (1995:14, plate 1, fig. G.) Peru North [Yambrasbamba, Rio Seco near Moyobamba].

"*Perisama tabaconas* (LATHY)" (= nom. nud.) Northern Peru [Rio Tabaconas].

Other taxa:

Perisama lebasii ab. *derufata* STRAND (1916:10, pl. XIV, fig. 19). Colombia.



5. Recto wings, from left to right: A - *lebasii ambatensis*, B - *lebasii lathyi*, C - *lebasii koenigi*

DESCRIPTION

Differences between the Ecuadorian and Peruvian subspecies of *lebasii* are the following (Colombian subspecies need a thorough study based on type material and long series of exactly labelled specimens).

1) Proportion of submarginal band in each cell:

lathyi and *koenigi*: recto hindwing submarginal band is wider than the distance between veins (fig. 5 B, C).

remaining subspecies: recto hindwing submarginal band is narrower than the distance between veins (fig. 5 A).

2) Colour of submarginal band:

lathyi: colour of the recto hindwing submarginal band grey with only slight metallic light cyan sheen.

koenigi: according to the original description of DESCIMON & MAST DE MAEGHT, (1995) the colour of the recto hindwing submarginal band is "green-gold".

ambatensis: colour of the recto hindwing submarginal band blue.

3) Width of recto hindwing black margins between submarginal band and outer margins:

lathyi: black margins as wide as fringe length (fig. 5 B).

koenigi: black margins very narrow, nearly absent (in some parts submarginal band almost touching outer margin) (fig. 5 C).

ambatensis: black margins 2 times wider than fringe length (fig. 5 A).

Note. In fresh specimens length of the fringes is 0.5 mm, in old or damaged ones it is reduced.

4) Distribution:

lathyi: Southern Ecuador, Northern Peru on North-East from Rio Marañon.

ambatensis: Central Ecuador.

koenigi: Northern Peru on South-West from Rio Marañon.

ETYMOLOGY

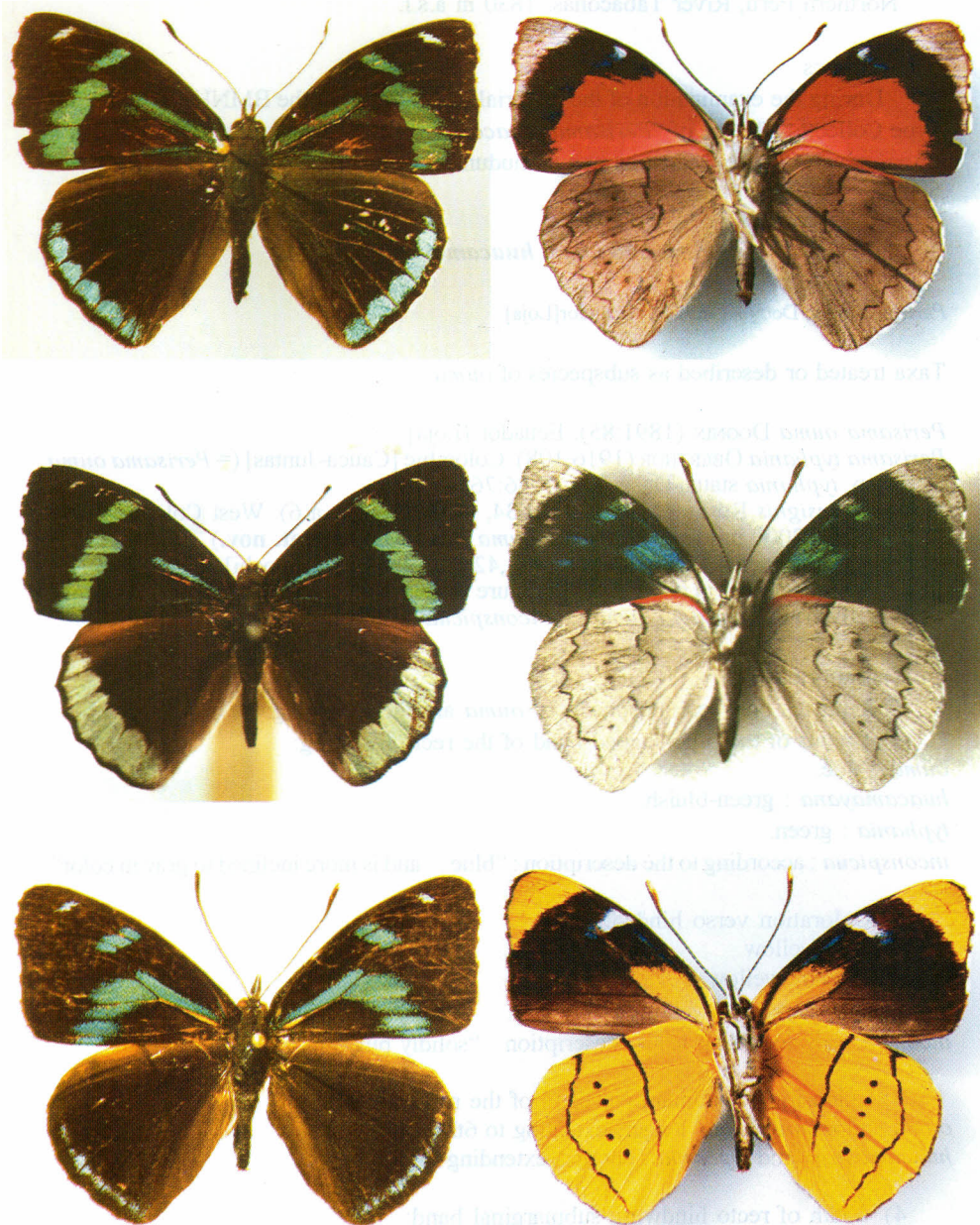
Name dedicated to Percy S. LATHY.

TYPES

Holotype: male, Northern Peru, River Tabaconas, 6000 ft. [= 1830 m.], leg. A.E. & E. PRATT 1912, in type collection BMNH as *Perisama tabaconas* LATHY.

Paratype 1: male, Northern Peru, "Valley River Tabaconas", leg. "Salesian Mission", 1994, in coll. Artur JASIŃSKI. Wingspan: 40 mm. Forewing length: 22.5 mm.

Paratype 2: male, South Ecuador, "San Francisco near Loja" (Probably "San Francisco near Loja" is mount Cerro San Francisco [4°01' S, 79°06' W.]) in coll. BMNH.



6. *Perisama hilara sabanillana* ssp. nov. holotype, male. 7. *Perisama lebastii lathyi* ssp. nov. left : holotype, male; right : paratype 1. 8. *Perisama ouma huacamayana* ssp. nov. holotype, male

TYPE LOCALITY

Northern Peru, River Tabaconas, 1830 m a.s.l.

REMARKS

During the examination of the material of *Perisama* in the BMNH I found in the Type Collection 1 type of "*Perisama tabaconas* LATHY". LATHY never published this taxon, which is here treated as nomen nudum.

***Perisama ouma huacamayana* ssp. nov.**

Perisama ouma DOGNIN (1891:85) Ecuador[Loja].

Taxa treated or described as subspecies of *ouma*:

Perisama ouma DOGNIN (1891:85). Ecuador [Loja].

Perisama typhania OBERTHÜR (1916:108). Colombie [Cauca-Juntas] (= *Perisama ouma* ssp. *typhania* status DESCIMON, 1986:76)

Perisama insignis ROBER (1924:1033,1034, pl. 102 C fig. a 6). West Colombia [Rio Dagua, 2000 m.] (syn. *Perisama ouma* ssp. *typhania* **stat. nov.**)

Perisama inconspicua MENGEL (1916:423,424) Colombia [Chaochi] (MENGEL 1919: 180; plate VIII; in caption to the figure on p. 182 another locality i. e. "Bolivia" is given) (= *Perisama ouma* ssp. *inconspicua* **stat. nov.**)

DESCRIPTION

Differences between subspecies of *ouma* are the following:

1) Colour of the pipe-shaped band of the recto forewing:

ouma : blue.

huacamayana : green-bluish.

typhania : green.

inconspicua : according to the description : "blue ... and is more inclined to gray in color"

2) Coloration verso hindwing:

ouma : dark yellow.

huacamayana : yellow.

typhania : ochraceous-yellow.

inconspicua : according to the description : "solidly buff".

3) Extension of submarginal band of the recto hindwing:

ouma and *inconspicua* : longer, extending to 6th cell.

huacamayana and *typhania* : shorter, extending to 5th cell.

4) Width of recto hindwing submarginal band:

inconspicua : 3 times wider than the thick black margins between submarginal band and outer margins.

ouma and *typhania* : as wide as the black margins between submarginal band and outer margins.

huacamayana: wider than the black margins between submarginal band and outer margins.

5) Distribution:

ouma : South Ecuador, Northern Peru.

huacamayana : Central Ecuador.

typhania : Cordillera Occidental in Colombia.

inconspicua : ? Cordillera Oriental in Colombia.

ETYMOLOGY

Named after its type locality, Cordillera de Huacamayos.

TYPES

Holotype: male, Ecuador, Cordillera de Huacamayos, km. 36, 1600 m, 28-IX-1995 leg. O. VELLASTEGUI, temporarily in coll. Artur JASIŃSKI. Wingspan: 39 mm. Forewing length : 21 mm

Paratype: male, with label: "Ecuador, Santa Inez" in coll. BMNH ("Santa Inez" LE MOULT & RÉAL (1962:106,109) most probably refers to a place situated in Pastaza Valley).

TYPE LOCALITY

Ecuador, Cordillera de Huacamayos.

REMARKS

D'ABRERA (1987:570) illustrated *P. ouma* (probably ssp. *typhania*) as *P. cloelia* on the basis of a specimen from Antioquia-Frontino [Northern Part of Cordillera Occidental in Colombia in the prov. Antioquia]. This specimen has a very wide forewing recto median band, similar to *inconspicua* but a narrower hindwing recto submarginal band similar to *typhania*. The type locality of *typhania* "Cauca-Juntas" refers either to Juntas in Rio Dagua Valley (Pacific slopes of Cordillera Occidental) in provincia Cauca or to Cauca Valley in Paramo de las Juntas in Cordillera Central. In the former case *insignis* is evidently a synonym of *ouma typhania* because of the proximity of the type localities of two taxa. The taxon *inconspicua* described by MENGEL has a very bright submarginal band of hindwing upper side, not observed in other subspecies. The photographed type of *inconspicua*, probably from Chaochi [Cordillera Oriental 50 km. on S-E from Bogota], is very distinct from another specimen with label "Bogota, 4000 m." from collection IZPW. Because these places are closely situated I assume that the type locality of *inconspicua* might be wrong.

ACKNOWLEDGEMENTS

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collecting *Perisama* in Ecuador, Mr. Oliveiro VELASTEGUI for collecting specimens and Mr. Marek SUTKOWSKI for photographs.

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