Abstract: After the publication of parts 1 to 4 of this review, new faunistic, ecological, and taxonomic information has become available, mainly derived from material from Peru, Ecuador, Colombia, Venezuela, and the Guayanas. The following new species are recognized: Platyptilia wojtusiaki, Anstenoptilia brevianellus, Stenoptilia cinnamalta, Postplatyptilia oxapampa, P. sangayae, Lioptilodes gualeco, L. macubaja, L. yanachagae, Buckleria tridens, Hellinsia espejoi, H. hami, H. bifurca, H. carpishia, H. impurtitatis, H. aldarsi, H. macritudinis, H. estrellae, H. meriae, H. pascoeae, H. schnebelei, H. patate, H. viridia, H. griseopectuncta, H. yacumbae, H. carbonerae, H. migmatis and Adaina pitteii. The genitalia of several species are described and illustrated for the first time: Stenoptilodes huanacoicus, Hellinsia spiculibursa, H. pelospilus, H. montufari, H. cajanuma and Oidaematophorus papallacta.

Key words: Lepidoptera, Pterophoridae, review, new species, new combinations, faunistics, ecology, Neotropics, Peru, Ecuador, Colombia, Venezuela, Guayanas.

Revisión de las especies neotropicales de la familia Pterophoridae, parte 5: Adiciones de Peru, Ecuador, Colombia, Venezuela y las Guayanas (Lepidoptera)


Palabras clave: Lepidoptera, Pterophoridae, revisión, especies nuevas, combinaciones nuevas, faunística, ecología, Región Neotropical, Perú, Ecuador, Colombia, Venezuela, Guayanas.

Taxonomy / Taxonomía: Platyptilia wojtusiaki sp. n., Anstenoptilia brevianellus sp. n., Stenoptilia cinnamalta sp. n., Postplatyptilia oxapampa sp. n., P. sangayae sp. n., Lioptilodes gualeco sp. n., L. macubaja sp. n., L. yanachagae sp. n., Buckleria tridens sp. n., Hellinsia espejoi sp. n., H. hami sp. n., H. bifurca sp. n., H. carpishia sp. n., H. impurtitatis sp. n., H. aldarsi sp. n., H. macritudinis sp. n., H. estrellae sp. n., H. meriae sp. n., H. pascoeae sp. n., H. schnebelei sp. n., H. patate sp. n., H. viridia sp. n., H. griseopectuncta sp. n., H. yacumbae sp. n., H. carbonerae sp. n., H. migmatis sp. n., Adaina pitteii sp. n., Oidaematophorus papallacta (Gielis, 2011) comb. n.

Introduction

After the publication of the first four parts of the review of neotropical Pterophoridae (Gielis, 2006, 2011, 2012, 2013), numerous specimens are still available for further study. This fourth part of the review of the neotropical Pterophoridae mainly contains information derived from specimens from Peru, Ecuador, Colombia, Venezuela, and the Guayanas. The sequence of reproduction of species is in accordance with the checklists in the first and second part. The grouping code for the genus Hellinsia Tutt, 1908, as introduced in the second part, is used and mentioned in the species diagnosis.

Abbreviations

ao = And others.
CG = Dr. Cees Gielis, Lexmond, The Netherlands. Collection CG is part of the collection of Naturalis Biodiversity Center (formerly: Rijksmuseum van Natuurlijke Historie, RMNH), Leiden, The Netherlands.
Gent = Genital preparation.
MIZA = Museo del Instituto de Zoología Agrícola Francisco Fernández Yepéz, Maracay, Venezuela.

MHNG = Muséum d’Histoire naturelle de Genève, Switzerland.
N.P. = National Park
P.N. = Parque Nacional
RMNH = Naturalis Biodiversity Center (formerly: Rijksmuseum van Natuurlijke Historie), Leiden, The Netherlands.
Sta = Collecting station.
VOB = Dr. Vitor O. Becker, Reserva Serra Bonita, Camacan, Bahia, Brazil.
ZMU = Zoological Museum of the Jagiellonian University, Cracow, Poland.
ZMUC = Zoological Museum of the University of Copenhagen, Denmark.
ZSM = Zoologische Staatssammlung München, Munich, Germany.
Species examined

Leptodeuterocopus neales Walsingham, 1915
Oxyptilus neales Walsingham, 1915: 435. - Mexico (Tab).


Sochchora dotina Walsingham, 1915


Oxyptilus wojtusiaki Gielis


Female genitalia. Unknown.

ETYMOLOGY. The species is named after Prof. Dr. Janusz Wojtusiak, to honor him for his extensive field work in South-America.

Anstenoptilia brevianellus Gielis, sp. n.

Fig. 2, 30.

MATERIAL. Holotype ♂, Ecuador, Napo, Papallacta, 2650 m, 20.1.2004 (J. Wojtusiak), gent CG 6925 (ZMJU).

DIAGNOSIS. The species differs from A. hugoliella Gielis, 1996 and A. marmorodactyla (Dyar, 1902) on the fore wing by the well-developed costal triangle, and subterminal line; in the male genitalia by the short and broad anellus arms and the well-developed processus basalis and slender coecum of the aedeagus.


Fore wings cleft from ⅔, pale ochreous-brown. Markings dark brown: poorly developed discal spot; diffuse scaling along costa; well-developed costal triangle, just before base of cleft, near base of cleft rectangular to costa, and closer to costa oblique; in both lobes basal half darkened, terminally abruptly margined by well-developed ochreous subterminal line. In both lobes subterminal area brown-grey; between costal triangle and darkening in first lobe bright orange-ochreous transverse spot, best developed at costa, towards base of cleft gradually fainting to ochreous-brown. Fringes pale grey, with blackish basal scales at apex of second lobe and anal angles of both lobes; at dorsum small scale-bristles at ⅔ and 4/5. Underside brown-grey, with pale ochreous markings as above.


Female genitalia. Unknown.
ECOLOGY. The moth flies in January, at an altitude of 2650 meters. Hostplant unknown.

DISTRIBUTION. Ecuador: Napo.

ETYMOLOGY. The species name reflects the very short (= brevis) anellus arms in the male genitalia.

**Stenoptilodes huanacoicus** Gielis, 1996

Fig. 58.


MATERIAL. 1 ♂, Ecuador, Napo, Papallacta, 3250 m, 18.I. 2004 (J. Wojtusiak), gent CG 6912 (ZMJU); 1 ♂, Ecuador, P.N. Sangay, Via Guamote – Macas, 3400 m, 24.I.2004 (J. Wojtusiak) (CG); 1 ♂, Ecuador, Tungurahua, Baños – Rutun, 3170 m, 22.1.2002 (J. Wojtusiak) (ZMJU). New for Ecuador.

FEMALE GENITALIA. Ostium right- positioned, obliquely funnelled. Antrum ⅓ x width of ostium, with large wedge-like sclerite, margins almost parallel. Ductus bursae 2x length of antrum, with numerous longitudinal, delicately sclerotized ridges. Junction with bursa copulatrix narrow. Bursa copulatrix vesicular, with signum in shape of pair of horns. Lamina ante-vaginalis centrally with two distally positioned extrusions, laterally progressing into poorly sclerotized rim which ends in short apophyses anteriores. Apophyses posteriores 3½x papillae anales.

REMARKS. Female genitalia illustrated for the first time.

**Stenoptilodes medius** Gielis, 2006


MATERIAL. 1 ♂, Peru, Pasco, Cordillera Vilcanota, Marcapaña, 3100 m, 14.II.2005 (J. Wojtusiak), gent CG 6931 (ZMJU). New for Peru.

**Stenoptilia cinnamalta** Gielis sp. n.

Fig. 3, 59.

MATERIAL. Holotype ♂, Ecuador, Carchi, Tufiño – Maldonado, 3350 m, 27.VIII.2004 (J. Wojtusiak), gent CG 6931 (ZMJU).

DIAGNOSIS. The species resembles *S. karsholti* Gielis, 1995, but differs in cinnamon-brownish instead of grey color, and the presence on fore wing of a spot at end of discus. At base of cleft a well-defined spot. Fringes evenly colored, without distinct scale bristles or fringe spots.


Fore wings cleft from 5/7, pale cinnamon-brown. Markings brown: indistinct short basal line, spot at end of discus, well-defined spot at base of cleft, scattered dark scales between discal spot and spot at base of cleft, first lobe with central longitudinal dash, second lobe with some linear-arranged dark scales. Fringes pale grey-brown, darker at anal area of first lobe and around apex of second lobe distal half of fringes. Underside pale brown, terminally in lobes turning grey-white, with barely recognizable spot at base of cleft.


Male genitalia. Unknown.


ECOLOGY. The moth flies in August, at an altitude of 3100 meters. Hostplant unknown.

DISTRIBUTION. Ecuador: Carchi.

ETYMOLOGY. The name of the species *Stenoptilia cinnamalta* reflects the colour, cinnamon (=cinnamum), of the species and the altitude (=alumt) where it flies.

**Postplatyptilia nebuloarbustum** Gielis, 2006.


MATERIAL. 1 ♂, Venezuela, Merida, La Carbonerra Forest, 25 km SE La Azulta, 2165 m, 20.II.1978 (J.B. Heppner), gent CG 7035, old Podocarpus forest (USNM). New for Venezuela.

**Postplatyptilia oxapampa** Gielis sp. n.

Fig. 4, 31.

MATERIAL. Holotype ♂, Peru, Pasco, Yanachaga-Chemillen N.P., Oxapampa, El Cedro, 10°32’42”S 75°21’30”W, 2460 m, 1.II.2003 (Wojtusiak & Gapricz), gent CG 6929 (ZMJU). Paratype ♂ , same data, gent CG 6924 (CG).

DIAGNOSIS. The species is characterized by the male genitalia. Uncus a small knob, within margins of tegumen; short and broad anellus arms; and delicately bifid tip of vinculum. This combination of characteristics is not met in any other species in this genus. Wings are relatively wide, giving the species the resemblance of a Platyptilia species, but for the terminal position of the scale-tooth along the third hind wing lobe.

DESCRIPTION. Both specimens are somewhat worn, and miss the tips of their fore wings. Wingspan approximately 18 mm. Head apressely scaled, brown, around eye ochreous-brown. Palps protruding, 2x eye-diameter, brown, second segment terminally thickened, third segment short. Antennae grey-brown, ciliated. Collar chocolate-brown. Thorax, tegulae and abdomen dark grey-brown; mesothorax and last abdominal segment pale ochreous-brown. Hind legs pale grey-brown, at base of spurs pale brown. Spurs pale brown-ochreous, with pale brown rings at base and tip; proximal spur pair longer than distal pair, and medial spurs shorter than lateral spurs.

Fore wings cleft from 2/3, ferruginous-brown. Markings brown: spots along dorsum at ¼ and at middle, discal spot, triangular spot just before base of cleft, and in first lobe darkening in center. In both lobes distinct straight white sub-
terminal line; and oblique dash from costa of first lobe around base of cleft, fainting in second lobe. Fringes not examined. Along dorsum black scale teeth at ⅓ and in middle. Underside uniformly dark ferruginous-brown, with white markings as above.

Hind wings grey-brown, in third lobe mixed with numerous white scales. Fringes (as far as examined) grey-brown; third lobe with subterminal black scale-tooth at dorsum. Underside uniformly dark ferruginous-brown, with mix of white scales in third lobe. Venous scales dark ferruginous black-brown, in double row, costal row longer.

Male genitalia. Symmetrical. Valve with saccular rim, which has small bulge in middle; wing tip acute and arched around saccular rim. Uncus small knob, within margins of tegumen. Tegumen simple, arched. Juxta small, with pair of short and broad anellus arms. Vinculum as long as wide, gradually tapering towards tip, tip delicately bifid. Aedeagus mildly curved; processus basalis developed and as long as coecum. No cornuti.

Female genitalia. Unknown.

ECOLOGY. The moth flies in February, at an altitude of 2450 meters. Hostplant unknown.

DISTRIBUTION. Peru: Pasco.

ETYMOLOGY. The species is named after the collecting locality: Oxpampa.

**Postplatyptilia sangayae** Gielis sp. n.

Fig. 5, 32.

MATERIAL. Holotype ♂, Ecuador, P.N. Sangay, Quebrada Shilfan, 3100 m, 23.I.2005 (J. Wojtusiak), gent CG 6927 (ZMJU).

DIAGNOSIS. The species closely resembles *P. boletus* Gielis, 2006 from Peru. It differs in the fore wing by the rounded instead of sinuate tip, and costal triangle situated at base of cleft and not separated from it by a pale dash. Other species in the genus have distinctly different wing markings.


Fore wings cleft from 5/17, dark cinnamon-brown. Markings dark brown: basal half of costa with diffuse darkening; at 1/3 of dorsum oblique dash, costal triangle reaching base of cleft and progressing obliquely into second lobe, first lobe with diffuse central darkening. At mid-dorsum four small pale ochreous oblique lines, in both lobes subterminal ochreous dashes, best expressed in first lobe; and in first lobe basally a pale spot separating costal triangle from central darkening. Fringes at termen grey-brown; in cleft basal 2/3 grey-white and terminal 1/3 dark grey; at dorsum grey-white; at dorsum large pronounced dark ferruginous-brown scale-teeth in middle, at ¾ and 5/6. Underside dark brown, with ochreous markings as above.


ECOLOGY. The moth flies in January, at an altitude of 3100 meters. Hostplant unknown.

DISTRIBUTION. Ecuador: Morona-Santiago, Parque Nacional Sangay.

ETYMOLOGY. The species is named after the National Park of its occurrence: Sangay.

**Postplatyptilia transversus** Gielis, 2006


MATERIAL. 1 ♂, Ecuador, Sucumbios, La Bonita, 20.VI.1999 (J. Wojtusiak), gent CG 6930 (ZMJU). New for Ecuador.

**Lioptilodes cocodrilo** Gielis, 2006


MATERIAL. 1 ♂, 2 ♀♀, 1 without abdomen, Peru, Huanaco, Carpish Pass, 23.I.2003 (J. Wojtusiak), gent CG 6909 (♀) (ZMJU). New for Peru.

**Lioptilodes gualaceo** Gielis, sp. n.

Fig. 6, 33.

MATERIAL. Holotype ♂, Ecuador, Morona-Santiago, via Gualaceo – Limon, 2400 m, 20.VIII.2004 (J. Wojtusiak), gent CG 6965 (ZMJU).

DIAGNOSIS. The shape of the wing and the male genitalia place this species in the genus *Lioptilodes*. The presence, on the dorsum of the third hind wing lobe, of extensive scale-teeth is in this genus a feature only seen in *Lioptilodes yancha* Gielis, sp. n., which will be described below. *L. yancha* is considerably larger, has a black head and palps; palps longer than in present species; has distinct rings on hind legs; and on fore wing at the costa of first lobe four white spots with in between dark brown.

Fore wings cleft from 9/10, cleft positioned near costa, colour pale ferruginous-brown. Colour in lobes paler than ground colour, and an oblique brown spot well before base of cleft. Fringes brown-grey; along dorsum groups of pronounced black-brown scales at ⅔ and 5/6. Underside pale brown.

Hind wings and fringes grey-brown. Along dorsum of third lobe pronounced black-brown scale-teeth near wing base and in middle, and a row of scales between middle and apex. Underside pale brown. Venous scales ferruginous-ochreous, in double row, costal row longer.


Female genitalia. Unknown.

ECOLOGY. The moth flies in August, at an altitude of 2400 meters. Hostplant unknown.

DISTRIBUTION. Ecuador: Morona-Santiago.

ETYMOLOGY. The species is named after the town of Gualaceo, near the collecting site.

Lioptilodes macubajia Gieli, sp. n.

Fig. 7, 34.

MATERIAL. Holotype ♂, Venezuela, Merida, Mucubají Research Stt., 3350 m, 6-7.II.1978 (J.B. Heppner), gent. CG 7040 (USNM).

Diagnosis. The species is best characterized by the male genital structures. Valves are rather wide, up to half their length and rather abruptly narrow in the distal half. This feature is also seen in L. cocodrilo, L. limbani, and L. tribonia, whereas in L. yungas the transition to the narrow distal half is very smooth. None of these species have cornuti in the aedeagus. The species with cornuti: L. cuzoicus and L. subantarcticus, have gradually narrowing valves.


Male genitalia. Valves symmetrical, basally wide, gradually narrowing up to middle, here abruptly narrowing to the narrow distal half. Tip of valve slightly club-like. Uncus slender, approximately as long as tegumen. Tegumen bilobed. Juxta with two symmetrical anellus arms; these arms as long as tegumen, just beyond middle widened and gradually tapering towards tip. Vinculum with long and broad saccus. Aedeagus mildly curved, with arched coecum. Five small bean-like cornuti.

Female genitalia. Unknown.

Lioptilodes neuquenicus Gieli, 1991


Lioptilodes parafuscicostatus Gieli, 1996


Lioptilodes yanachagae Gieli, sp. n.

Fig. 8, 60.

MATERIAL. Holotype ♂, Peru, Oxapampa, Yanachaga-Chemillen N.P., El Cedro, 2460 m, 3.II.2003 (J. Wojtusiak), gent CG 6966 (ZMJU).

Diagnosis. The species resembles L. gualaceo Gieli, sp. n., and for diagnosis see also this species. L. yanachagae is considerably larger, has a black head and palps; palps longer than in L. yanachagae; has distinct rings on hind legs; and on fore wing at costa of first lobe four white spots; between these spots dark brown.

Description. Wingspan 34 mm. Head apressedly scaled, brown-black. Frons with small conical protrusion, ⅜ of eye-diameter. Palps protruding, brown-black, 3x eye-diameter. Antennae brown-black, ciliated. Collar with erect, bifid, brown-black scales. Thorax and tegulae pale cinnamon-brown, cranially paler. Mesothorax white. Abdomen dark grey-brown, dorsally on segment one, two and three white, laterally along segments four to eight brown-black. Hind legs grey-brown; a grey-white band between spur pairs, and tarsal segments basally grey-white; two pairs of spurs, grey-brown, medial spurs longer than lateral spurs, and proximal pair longer than distal pair.

Fore wings cleft from 10/11, cinnamon-brown, cleft near costa. Markings brown: scattered ill-defined spots along costa, oblique spot well before base of cleft; at costa of first lobe four decreasingly big spots; between these spots grey-white; in both lobes central longitudinal white dash. Fringes cinnamon-grey; at dorsum grey-black scale-teeth at ⅔ and just before anal angle. Underside dark brown; along costa white dashes at ⅔ and a bigger one at costa of first lobe.

Hind wings and fringes grey-brown. Along dorsum of third lobe black-brown scale-tooth from middle towards apex, and a row of these scales from base to middle. Underside grey-brown, first and third lobes dark brown. Venous scales ferruginous-brown, in double row, costal row longer.

Male genitalia. Unknown.

Female genitalia. Ostium flat. Antrum gradually narrowing, and progressing into ductus bursae. In ductus bursae a narrow sclerite. Bursa copulatrix vesicular, with pair of horn-
like, slender signa. Lamina ante-vaginalis as poorly defined rim. Lamina post-vaginalis bulged out distally. Apophyses anteriores 1½x papillae anales. Apophyses posteriores 5x papillae anales

ECOLOGY. The moth flies in February, at an altitude of 2460 meters. Hostplant unknown.

DISTRIBUTION. Peru: Oxapampa.

ETYMOLOGY. The species is named after the National Park where it occurs: Yanachaga-Chemillen N.P.

**Buckleria tridens** Gielis, sp. n.

Fig. 9, 35.

MATERIAL. Holotype ♂, French Guyana, 400 m N Route N2, at 1,5 km route D6, 4° 47,710’N 52° 23,804’W, 5 m, 9.IV.2008 (Landry, Reuteler, Néron), gent CG 6990 (MHNG). Paratype: 1 ♂, Same location and date (CG).

DIAGNOSIS. The species is separated from other species in this genus by the tip of the male genitalia, which is tridentate. This feature is not met in other species. At most a minimal blister-like thickening is seen in the African species: B. negotiosus (Meyrick, 1926).

DESCRIPTION. Wingspan 10-11 mm. Head appressedly scaled, brown-grey, along upper rim of eye white, between base of antennae some scales. Palps slender, protruding, 2x eye-diameter, grey-brown and dorsally white. Antennae longitudinally lined grey-brown and white, basally ciliated, distally pectinate. Collar grey-brown, with erect, bifid, long scales. Thorax and tegulae grey-brown. Mesothorax grey-white. Abdomen grey-brown, with small groups of white scales at distal margin of segments. Hind legs dark brown, with faint longitudinal white lines. Two pairs of unequal spurs, medial spurs longer than lateral spurs, and proximal pair longer than distal pair.

Fore wings cleft from 4/9, grey-olive-brown. White spots: at 2/5 of dorsum; at end of cell; in first lobe directly between base of cleft; transverse bands in both lobes at ⅓ and ½. Dark brown markings: some scales basally from dorsum white spot; along costa; around base of cleft, but in first lobe interrupted; in first lobe along costa before first and between both transverse bands. Fringes: in first lobe, at costa grey-olive-brown and white at transverse bands, in cleft grey-olive-brown and at anal region white; in second lobe grey-olive-brown interrupted white at transverse bands, white at apex, and at dorsum at band and beyond second band white. Scale-teeth black: at dorsum of first lobe between transverse bands, and at anal region; second lobe along costa as at dorsum of first lobe, at apex and three at dorsum. Underside grey-brown, in first lobe white markings as two transverse bands.


Female genitalia. Unknown.

ECOLOGY. The moth flies in April, at sea level. Hostplant probably Drosera sp.

DISTRIBUTION. French Guyana.

ETYMOLOGY. The species is named tridens (=tridentate), to indicate the distinct tridentate shape of the tip of the valve, in the present genus unique for this species.

**Hellinsia spiculibursa** Gielis, 1996

Fig. 36.

**Hellinsia spiculibursa** Gielis, 1996: 100.- Venezuela.

DIAGNOSIS. Group: **Hellinsia ochracealis** (Gielis, 2011).


REMARKS. Male genitalia illustrated for the first time.

**Hellinsia pelospilus** Zeller, 1877

Fig. 61.

**Leioptilus pelospilus** Zeller, 1877: 481. Peru.

DIAGNOSIS. Group: B03 (Gielis, 2011).

MATERIAL. 1 ♀, Ecuador, Loja, Vilcabamba, 1530 m, 31.I.2004 (J. Wojtusiak), gent CG 6921 (ZMJU).


REMARKS. Female genitalia illustrated for the first time.

**Hellinsia praedium** Walsingham, 1915


DIAGNOSIS. Group: B03 (Gielis, 2011).

MATERIAL. 1 ♀, Venezuela, Merida, 4 km S Sto Domingo, 19-23.II.1976 (C.M. & O.S. Flint), gent CG 7036 (USNM). New for Venezuela.
**Hellinsia montufari** Gielis, 2011
Fig. 37.


**DIAGNOSIS.** Group: B05. Left valve with saccular process less than $\frac{1}{3}$ of valve length, mildly curved. Right valve with long straight saccular process, less than $\frac{1}{5}$ valve length. The species resembles _H. orellanai_ Gielis, 2011, but differs in fore wing by more slender first lobe, in male genitalia right valve has a more pronounced saccular process, and anellus arms are different in size.

**MATERIAL.** 1 ♂, Ecuador, Napo, Papallacta, 2950 m, 17.I.2004 (J. Wojtusiak) (ZMJU); 1 ♂, Ecuador, Moreno-Santiago, via Gualaceo – Limon, 2750 m, 21.VIII.2004 (J. Wojtusiak) (ZMJU); 1 ♂, Ecuador, Loja, East Cordilliera, Saraguro – Las Antenas, 3100 m, 24.VIII.2004 (J. Wojtusiak), gent CG 6913 (CG). New for Peru.

**MALE GENITALIA.** Valves asymmetrical. Left valve with saccular process less than $\frac{1}{5}$ of valve length, mildly curved. Right valve with long straight saccular process, less than $\frac{1}{5}$ valve length. Uncus slender. Curved. Tegumen bilobed. Juxta blunt, with asymmetrical anellus arms. Vinculum broad, minimally arched. Aedeagus almost straight, without cornutus.

**REMARKS.** The finding of male specimens enables the grouping of this species. The species has been transferred from _Pterophorus spermatias_ Meyrick, 1908: 499. Brazil (SP).

** Hellinsia spermatias** Meyrick, 1908

_Pterophorus spermatias_ Meyrick, 1908: 499. Brazil (SP).

**DIAGNOSIS.** Group: B05 (Gielis, 2011).

**MATERIAL.** 1 ♂, Ecuador, Morona-Santiago, Via Gualaceo – Limon, 2400 m, 20.VIII.2004 (J. Wojtusiak), gent CG 6959 (ZMJU). New for Ecuador.

**Hellinsia aguilerai** Gielis, 2011
Fig. 38.


**DIAGNOSIS.** Group C02 (Gielis, 2011). Male genitalia asymmetrical. Left valve with curved saccular spine, between $\frac{1}{3}$ and $\frac{1}{5}$ of valve length. Right valve with small knob-like saccular process. In this group it is the only very dark, and almost evenly colored species.

**MATERIAL.** 1 ♂, Ecuador, Pichincha, Chiriboga, West Cordilliera, 3100 m, 5.II.2005 (J. Wojtusiak), gent CH 6968 (ZMJU); 1 ♂, Ecuador, Napo, Papallacta, 3450 m, 6.II.2005 (J. Wojtusiak) (CG).

**MALE GENITALIA.** Asymmetrical. Left valve with curved saccular spine, between $\frac{1}{3}$ and $\frac{1}{5}$ of valve length. Right valve with small knob-like saccular process. Uncus curved, rather short. Tegumen bilobed. Vinculum arched. Aedeagus slightly curved, with acute tip. Cornutus small group of scleritized ridges.

**REMARKS.** Male genitalia illustrated for the first time. The male genital structure enables the grouping of this species into group: C02.

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**Hellinsia espejoi** Gielis, sp. n.
Fig. 10, 39.

**MATERIAL.** Holotype ♂, Ecuador, Carchi, Maldonado, 2200 m, 9-11.I.1993 (V.O. Becker), gent CG 7019 (Becker nr. 105091).

**DIAGNOSIS.** Group: C02 (Gielis, 2011). Left valve, very wide, with saccular spine between $\frac{1}{3}$ and $\frac{1}{5}$ of valve length, well curved. Right valve with saccular knob. Uncus very slender, as long as tegumen.


Fore wings cleft from just over $\frac{1}{3}$, pale ochreous. Markings very pale brown: oblique spot well before base of cleft, diffusely scattered scales along costa, and in second lobe indistinct dorso-subterminal line. Fringes pale ochreous-white. Underside pale ochreous, with some pale brown scales as markings above.

Hind wings and fringes pale ochreous-white. Underside pale ochreous-white. Venous scales ferruginous-orange, in double row, costal row longer.


**Female genitalia.** Unknown.

**ECOLOGY.** The moth flies in January, at an altitude of 2200 meters. Hostplant unknown.

**DISTRIBUTION.** Ecuador: Carchi.

**ETYMOLOGY.** The species is named after and in honor of Eugenia Espejo, son of an indian father and mulatto mother, born in 1747. He was a brilliant scholar and poet, writing against colonialism. He died in prison in 1795.
brown longitudinal line, 1½ times eye-diameter. Antennae faintly ringed pale brown and darker brown, ciliated. Thorax, tegulae, mesothorax and abdomen brown-ochreous. Hind legs brown-ochreous, thickened at base of spur pairs; two spur pairs of unequal length, medial spurs longer than lateral spurs, and proximal pair longer than distal pair.

Fore wings cleft from ⅜, brown-ochreous. Markings brown: in centre of first lobe longitudinal spot, which is a continuation of dense scaling originating from near base of wing; small spot well before base of cleft; along costa dark scales from wing base to ⅜; costal spot above base of cleft; first lobe with darkening from apex to anal area; second lobe with costal spot along cleft near apex, spots at apex, mid-termen, anal angle and at dorsum just before anal angle. Fringes brown-grey, with black fringe bristles at anal angle of first lobe and apex of second lobe. Underside grey-brown.

Hind wings and fringes grey-brown. Underside grey-brown. Venous scales black, in double row, costal row more intensely scaled and longer.

Male genitalia. Left valve with saccular spine almost straight, slender but for the wide base, just over ⅝ of valve length. Right valve with saccular process shaped as a small hook, with the tip towards the saccular rim. Uncus long, almost as long as tegumen, and slender. Tegumen bilobed. Juxta broad, with a pair of slender, asymmetrical anellus arms. Vinculum arched, centrally widened. Aedeagus straight, acute tip. No cornutus.

Female genitalia. Unknown.

ECOLOGY. The moth flies in January, at an altitude between 2650–2950 meters. Hostplant unknown.

DISTRIBUTION. Ecuador: Napo.

ETYMOLOGY. The name hami (hamus) (=hook, thorn) is chosen for the shape and position of the saccular process in the right valve. This saccular process is directed towards the saccular rim, instead of to the cucullar rim as mostly seen, and so acts as a virtual hook.

_Hellinsia bifurca_ Gielis, sp. n.

Fig. 12, 41.

MATERIAL. Holotype ♂, Peru, Huanaco, Carpish Pass, 23.I. 2003 (J. Wojtusiak), gent CG 6973 (ZMJU). Paratypes: 1 ♀, Ecuador, Morona-Santiago, via Gualéco – Limon, 2400 m, 20.VIII.2004 (J. Wojtusiak) (CG); 1 ♂, Ecuador, Tungurahua, Rio Verde, 1600 m, 26.XII.1992 (V.O. Becker), gent CG 7023 (Becker nr. 103.981); 1 ♀, Argentina, Jujuy, P.N. Calilegua, Mesada las Colmenas, 1150 m, 24.I.1996 (NEENA sta 49), gent CG 6826 (CG); 1 ♀, Argentina, Tucuman, 11 km S Tacanas, 28 km WSW Trancas, 800 m, 15.II.1995 (NEENA sta 13), gent CG 6829 (CG).

DIAGNOSIS. Group: C03 (Gielis, this publication), but differing in the male genitalia. In male genitalia left valve with well-developed, almost rectangular curved saccular spine, with length between ⅜ and ⅞ of valve length. Right valve with saccular spine rod shaped, with near tip small thorn.


Fore wings cleft from ⅝, pale grey-white with indications of veins pale ochreous-white. Markings brown: spot at end of discal cell; pair of small spots just before base of cleft; faint costal line from wing base to before base of cleft; oblique spot above base of cleft, connecting costal and central lines. Fringes pale ochreous. Underside pale brown, paler into lobes, pattern almost like lines in wing pattern.


Male genitalia. Asymmetrical. Left valve with mildly curved saccular spine of just over ⅝ of valve length. Right valve with long saccular process with bifurcate tip; the tips of bifurcation less than ½ valve width. Uncus curved, ⅞ of tegumen length. Tegumen bilobed. Juxta stout, with pair of anellus arms, one very slender, the other blunt. Vinculum arched, rather narrow. Aedeagus mildly curved, acute tip. No cornutus.

Female genitalia. Unknown.

ECOLOGY. The moth flies in February, at an altitude of 2460 meters. Hostplant unknown.

DISTRIBUTION. Peru: Pasco.

ETYMOLOGY. The species is named bifurca (=two-pronged fork) for the unique shape in the right valve of saccular process.

_Hellinsia carpishia_ Gielis, sp. n.

Fig. 13, 42.

MATERIAL. Holotype ♂, Peru, Pasco, Oxapampa, Yanachaga-Chemillen N.P., El Cedro, 10°32’43”S 75°21’30”W, 2460 m, 1.II.2003 (J. Wojtusiak), gent CG 6986 (ZMJU). Paratypes: 1 ♂, Argentina, Jujuy, P.N. Calilegua, Mesada las Colmenas, 1150 m, 24.I.1996 (NEENA sta 49), gent CG 6826 (CG); 1 ♀, Argentina, Tucuman, 11 km S Tacanas, 28 km WSW Trancas, 800 m, 15.II.1995 (NEENA sta 13), gent CG 6829 (CG).

DIAGNOSIS. Group: C03 (Gielis, 2011). Wing shape and colour as in _H. aldasi_ Gielis (this publication), but differing in the male genitalia. In male genitalia left valve with well-developed, almost rectangular curved saccular spine, with length between ⅜ and ⅞ of valve length. Right valve with saccular spine rod shaped, with near tip small thorn.


Fore wings cleft from ⅝, pale grey-white with indications of veins pale ochreous-white. Markings brown: spot at end of discal cell; pair of small spots just before base of cleft; faint costal line from wing base to before base of cleft; oblique spot above base of cleft, connecting costal and central lines. Fringes pale ochreous. Underside pale brown, paler into lobes, pattern almost like lines in wing pattern.


Male genitalia. Asymmetrical. Left valve with mildly curved saccular spine of just over ⅝ of valve length. Right valve with long saccular process with bifurcate tip; the tips of bifurcation less than ½ valve width. Uncus curved, ⅞ of tegumen length. Tegumen bilobed. Juxta stout, with pair of anellus arms, one very slender, the other blunt. Vinculum arched, rather narrow. Aedeagus mildly curved, acute tip. No cornutus.

Female genitalia. Unknown.

ECOLOGY. The moth flies in February, at an altitude of 2460 meters. Hostplant unknown.

DISTRIBUTION. Peru: Pasco.
derside brown, with in first lobe one, and in second lobe two white wedges which have their base at termen and tip near base of cleft.

Hind wings pale grey-white, first lobe terminally whitish, and with dark spot at anal angle. Underside brown, in first lobe terminally with white wedge and second lobe scattered white scales near tip; at anal angle of first lobe dark dot. Venous scales dark ferruginous, in double row, costal row longer.


Female genitalia. Ostium centrally positioned, saucer-like

\[ 6908 \ (ZMJU); \ 1 \ \text{Guamote – Macas, 3400 m, 24.I.2004 (J. Wojtusiak), gen} t CG \]

\[ \text{Wojtusiak) (ZMJU, CG). 1 – Las Antenas, 3100 m, 24.VIII.2004 (J. Wojtusiak) (ZMJU).} \]

\[ \text{MATERIAL. Holotype: Carpish Pass, in Huanaco, Peru.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ECOLOGY. The moth flies in January and August, at an altitude of 2400 meters. Hostplant unknown.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{ECOLOGY. The moth flies in January and August, at an altitude of 2400 meters. Hostplant unknown.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

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\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

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\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

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\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]

\[ \text{DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.} \]

\[ \text{ETYMOLOGY. The species is named after the collecting site of Argentina: Tucuman.} \]
**Hellinsia surinamensis** (Sepp, 1855)

*Phalaena didactyla surinamensis* Sepp, 1855: 311. Surinam.


*Pterophorus sacrificus* Meyrick, 1926: 299. - Colombia.

**DIAGNOSIS.** Group: C08 (Gielis, 2011).


**Hellinsia aldasi** Gielis, sp. n.

Fig. 15, 44.

**MATERIAL.** Holotype ♂, Ecuador, Carchi, Lita, El Tambo, II.2004 (J. Aldas), gent CG 6969 (ZMU).

**DIAGNOSIS.** Group: C09. Fore wings white with pale ochre-ous-brown markings. Male genitalia with left valve with saccular spine just under ½ of valve length. Right valve with double saccular process, basally narrow curved, distally stout rod with widened base and small hook at tip. This combination differs from other species in this group.

**DESCRIPTION.** Wingspan 19 mm. Head appressedly scaled, pale ochreous-white. Palps as long as eye-diameter, mildly curved, slender, pale ochreous-white. Antennae pale ochreous-white, ciliated. Thorax, tegulae, mesothorax and abdomen pale ochreous-white. Hind legs pale ochreous-white, with two pairs of spurs, proximal pair of unequal length, distal pair of equal length, proximal medial spur longer than lateral spur, and distal spurs as long as proxima-lateral spur.

Fore wings cleft from just under ½, whitish. Markings pale ochreous-brown: diffuse scaling along dorsum from base to near base of cleft, small oblique spot just before base of cleft, in center of first lobe faint, longitudinal spot, and ditto in center of second lobe. Fringes silvery-white. Underside pale brown-grey from base to spot near base of cleft, and gradually narrowing into both lobes.


Female genitalia. Unknown.

**ECOLOGY.** The moth flies in February. The altitude is not indicated. Hostplant unknown.

**DISTRIBUTION.** Ecuador: Carchi.

**REMARKS.** The abdomen and wings of the species show a greasy aspect. This made particularly the description of the head difficult. This greasing of a species is often an indication that the larva of the species lives as a stem-borer.

**ETYMOLOGY.** The species is named after its collector, Mr J. Aldas.

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**Hellinsia paramoi** Arenberger & Wojtusiak, 2001


**DIAGNOSIS.** Group: C09 (Gielis, 2011).

**MATERIAL.** 1 ♂, Ecuador, Napo, Rd Saleedo – Napo km 49, no date (N. Venedictoff), gent CG 7044 (USNM). New for Ecuador.

**Hellinsia macritudinis** Gielis, sp. n.

Fig. 16, 45.

**MATERIAL.** Holotype ♀, Venezuela, Merida, Mucuy Fish Hatchery, 7 km E Tabay, 2000 m, 10-13.II.1978 (J.B. Heppner), gent CG 7042 (USNM).

**DIAGNOSIS.** Group: C11. Left valve with saccular process just over ½ of valve length, mildly curved. Right valve with long and slender saccular process, with just before middle a blister-like widening. This latter feature has not been met in other species.


Fore wings cleft from 5/8, pale white-ochreous. Markings brown: narrow costal line from wing base to just beyond base of cleft; round dot just before base of cleft; small spot in both lobes in anal region and diffuse spot at apex. Fringes white-ochreous, darker at anal region of first lobe. Underside grey-brown.


Female genitalia. Unknown.

**ECOLOGY.** The moth flies in February, at an altitude of 2000 meters. Hostplant unknown.

**DISTRIBUTION.** Venezuela: Merida.

**ETYMOLOGY.** The name *macritudinis* (= being skinny) reflexivity the poverty of markings on the fore wing.

**Hellinsia argutus** (Meyrick, 1926)


*Odeaematophorus chionoptila* T.B. Fletcher, 1940: 83. Colombia.
**Hellinsia estrellae** Gielis sp. n.

Fig. 17, 46, 63.

**Material.** Holotype ♀, Colombia, Medellin, La Estrella, 1700 m, 2-5.IX.1962 (B. Schneble), gent CG 5674 (ZSM). Paratypes: 2 ♀♀, same locality, 28-29.VIII.1962, 15-20.IX.1962 (B. Schneble), gent CG 5670, 6923 (ZSM, CG).

**Diagnosis.** Group D01. Left valve with long, slightly curved saccular spine, longer than ⅔ of valve length. Right valve without saccular process. The species closely resembles *H. monteverda* Gielis, 1999, but differs in the male genitalia by a straighter shape of the valves, shorter juxta and anellus arms, shape of the vinculum, and the longer aedeagus with presence of cornuti.

**Description.** Wingspan 17-24 mm. Holotype in rather poor condition, description after female paratype. Head apressedly scaled, brown-ochreous. Palps brown-ochreous, curved up, ⅛ eye-diameter. Antennae ciliated, faintly ringed pale brown and ochreous-brown. Thorax, tegulae, mesothorax and abdomen ochreous-brown; dorsally on abdomen three faint, brown, longitudinal lines. Hind legs brown-ochreous; two spur pairs, proximal pair longer than distal pair, and medial spurs longer than lateral spurs.

Fore wings cleft from ⅔, brown-ochreous. Markings ochreous-brown: diffuse scaling along costa and dorsum of wing; small discal spot; oblique spot just before base of cleft, which is more pronounced in dorsal half of this spot; first lobe with longitudinal costal dash just beyond base of cleft, and small spot at ⅛ of costa, darkening in apical region, and small spot in anal area; second lobe with two longitudinal lines in basal half of lobe, and apical, mid-terminal, and spot at anal angle. Fringes brown-grey. Underside grey-brown.

Hind wings and fringes brown-grey. Underside grey-brown. Venous scales in double, interwoven rows, very dark brown, costal row longer.


**Ecology.** The moth flies in August and September, at an altitude of 1700 meters. Hostplant unknown.

**Distribution.** Colombia: Medellin.

**Etymology.** The species is named after the locality of collecting: La Estrella, in the department of Medellin, Colombia.

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**Hellinsia postmigrata** Gielis, 2011


**Material.** 1 ♀♀, Venezuela, Merida, El Baho, Val Santo Domingo, 2300 m, 19-20.IV.2006 (T. Pyrcz), gent CG 6896 (ZMJU). New for Venezuela.

**Remarks.** Hostplant Wulffia recorded for first time.

**Hellinsia meridae** Gielis, sp. n.

Fig. 18, 47, 64.

**Material.** Holotype ♂, Venezuela, Merida, Mucubají Research Stt., 3350 m, 6-7.II.1978 (J.B. Heppner), gent. CG 7032 (USNM). Paratype ♀, Venezuela, Merida, 4 km S Sto Domingo, 19-23.II.1976 (C.M. & S.S. Flint), gent CG 7055 (CG).

**Diagnosis.** Group D05. Male genitalia asymmetrical. Left valve with minimally curved and long saccular spine of over ⅔ of valve length. Right valve with delicate, short saccular rod. This combination resembles *H. palmates* and *H. pascoae*, but in these species the saccular process in the right valve is distinctly larger. Wing color is dark, and the pattern shows grey-white around cleft, differentiating it from the other species.

**Description.** Wingspan 27 mm. Head apressedly scaled, pale brown. Around eye small ring of grey-white scales. Palps protruding, first segment pale brown-grey, second and third segments pale brown, almost ⅛ eye-diameter. Antennae pale brown-grey, ciliated. Collar pale brown, with long erect, bifid scales. Thorax and tegulae in cranial half grey-white, centrally brown-grey, ciliated. Collar pale brown, and caudally strong mix of pale brown and grey-white. Mesothorax cranially very pale brown, caudally grey-white. Abdomen pale ferruginous-brown, with from first segment cranial grey-white line extending towards 9th segment, gradually displacing to dorsal. Hind legs pale brown, with two pairs of unequal spurs, medial spurs longer than lateral spurs, and proximal and distal pair of equal length.

Fore wings cleft from ⅛, grey-white. Markings grey-brown: longitudinal dash from wing base to region of discal spot, extending along dorsum and leaving costa unmarked; well defined discal spot; oblique spot well before base of cleft; longitudinal spot above oblique spot and reaching into first lobe to cleft; costal line from just before discal spot to apex of first lobe; in first lobe central longitudinal dark brown line; diffuse scattered scales along dorsum of wing from discal spot to just beyond base of cleft; in second lobe diffuse pale brown scales between veins Cu1 and Cu2, and along M3. Fringes pale brown-grey. Underside unmarked, ferruginous.

Hind wings and fringes grey-brown. Underside ferruginous. Venous scales in double row, black, costal row longer.


Female genitalia. Ostium left lateral positioned. Antrum slender, with in middle small knob-like widening. Ductus bursae long, slender, with longitudinal sclerotized ridges. Bursa copulatrix vesicular, with numerous sclerotized ridges,
**Hellinsia pascoae** Gielis, sp. n.

Fig. 19, 48.

**MATERIAL.** Holotype ♂, Peru, Pasco, El Cedro, Yanachaga Chemillen N.P., 10°32′43″S 75°21′30″W, 2460 m, 4-5.II.2003, gent CG 6980 (ZMJU).

**DIAGNOSIS.** Group: D05 (Gielis, 2011). A pale yellow-white species with distinct large spots just before base of cleft, and at costa above base of cleft. Left valve with long, slightly curved, saccular spine of more than ⅔ of valve length. Right valve with straight, saccular spine, with acute tip.

**DESCRIPTION.** Wingspan 22 mm. Head appressedly scaled, vertex pale ochreous-white, face pale brown. Antennae pectinate, indistinctly ringed: pale brown, as long as eye-diameter. Antennae pectinate, indistinctly ringed: pale brown and ochreous-brown. Thorax, tegulae, mesothorax and abdomen pale ochreous, abdomen with three delicate, longitudinal pale brown lines.

Fore wings cleft from 3/5, pale yellow-white. Markings dark brown: scattered scales along costa from wing base to middle; distinct large spots just before base of cleft, and at costa above base of cleft; some dark scales in first lobe at anal region; second lobe with some dark scales at mid-termen and anal angle; and at dorsum at ¾ and ⅔. Fringes pale yellow-white, at dorsum slightly pale ochreous tinged. Underside pale grey-brown, with brown markings as above.


Female genitalia. Unknown.

**ECOLOGY.** The moth flies in May, at an altitude of 1700 meters. Hostplant unknown.

**DISTRIBUTION.** Colombia: Medellin.

**ETYMOLOGY.** The species is named after the collector: B. Schneble, a missionary very active in collecting insects.

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**Hellinsia barbatus** Gielis, 1996


**DIAGNOSIS.** Group: E04 (Gielis, 2011).

**MATERIAL.** 1 ♂, Venezuela, Merida, El Baho, Val Santo Domingo, 2300 m, 19-20.IV.2006 (T. Pyrcz), gent CG 6970 (ZMJU); 1 ♂, Ecuador, Napo, Papallacta, 2650 m, 20.I.2004 (J. Wojtusiak) (ZMJU). New for Venezuela.

**DIAGNOSIS.** Group: D07. Left valve with mildly curved saccular spine of just over ⅔ of valve length. Right valve with long saccular spine, with club-like tip.


Fore wings cleft from just behind middle, grey-brown. Markings dark brown: faint basal-dorsal dash; oblique spot just before base of cleft; in first lobe narrow longitudinal line, diffusely darkening in apical region and distinct spot in anal region; second lobe with diffusely darkening of apical region, small spots at mid-termal, anal region and just above dorsum at 4/5. Fringes brown-grey. Underside grey-brown.


Female genitalia. Unknown.

**ECOLOGY.** The moth flies in May, at an altitude of 1700 meters. Hostplant unknown.

**DISTRIBUTION.** Colombia: Medellin.

**ETYMOLOGY.** The species is named after the collector: B. Schneble, a missionary very active in collecting insects.

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**Hellinsia cervicalis** Meyrick, 1932


**DIAGNOSIS.** Group: E05 (Gielis, 2011).

**MATERIAL.** 1 ♂, Peru, Pasco, Oxapampa, El Cedro, Yanachaga Chemillen N.P., 2420 m, 1-6.II.2003 (J. Wojtusiak), gent CG 6984 (ZMJU). New for Venezuela.

**DIAGNOSIS.** Group: D07. Left valve with mildly curved saccular spine of just over ⅔ of valve length. Right valve with long saccular spine, with club-like tip.


Fore wings cleft from just behind middle, grey-brown. Markings dark brown: faint basal-dorsal dash; oblique spot just before base of cleft; in first lobe narrow longitudinal line, diffusely darkening in apical region and distinct spot in anal region; second lobe with diffusely darkening of apical region, small spots at mid-termal, anal region and just above dorsum at 4/5. Fringes brown-grey. Underside grey-brown.


Female genitalia. Unknown.

**ECOLOGY.** The moth flies in May, at an altitude of 1700 meters. Hostplant unknown.

**DISTRIBUTION.** Colombia: Medellin.

**ETYMOLOGY.** The species is named after the collector: B. Schneble, a missionary very active in collecting insects.

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**Hellinsia patate** Gielis, sp. n.

Fig. 20, 49.

**MATERIAL.** Holotype ♂, Ecuador, Tungurahue, Patate, 3000 meters. Hostplant unknown.

**DIAGNOSIS.** Group: E04 (Gielis, 2011).

**MATERIAL.** 1 ♂, Ecuador, Napo, Papallacta, 2650 m, 20.I.2004 (J. Wojtusiak) (ZMJU); 1 ♂, Venezuela, Merida, 7 km E Tabay, Mucuy Fish Hatchery, 2000 m, 10-13.II.1978 (J.B. Heppner), gent CG 7024 (USNM). New for Peru, Ecuador and Venezuela.
ETYMOLOGY. The species is named after the place of collection.

ECOLOGY. The moth flies in December, at an altitude of 3000 meters. Hostplant unknown.


Fore wings cleft from 2/3, pale ochreous-brown. Markings dark brown: diffuse costal dash near wing base, oblique spot well before base of cleft, in first lobe a central, longitudinal line; and diffuse brown-orange scales between base of wing and oblique spot. Fringes very pale ochreous-brown. Underside dark brown, with pattern as above.


Female genitalia. Unknown.

ECOLOGY. The moth flies in January and February, at an altitude of 2460 meters. Hostplant unknown.

DIAGNOSIS. Group: H05. Left valve with saccular spine with abrupt thinner tip, less than ⅓ of valve length. Right valve with slender rod-shaped saccular process, less than ⅓ of valve length. Fore wings brown-grey, at base of cleft distinct large spot.

DESCRIPTION. Wingspan male 20 mm, female 28 mm. Head apressedly scaled, brown-grey, between base of antennae grey-white. Palps curved up, grey-white, lateral on second and third segment with broad brown line, just over eye-diameter. Antenna pectinate, basal segments white, other segments pale grey and dark brown ringed. Collar dark ferruginous-brown. Thorax and tegulae brown-grey; mesothorax grey-white, and abdomen grey-brown with dorso-lateral longitudinal line. Hind legs grey-brown, tarsi terminally dark brown; with two pairs of spurs, proximal spurs longer than distal spurs, and medial spurs longer than lateral spurs.

Fore wings cleft from ⅔, pale blue-green. Markings dark brown: costal line from wing base to ⅓ of first lobe and interrupted at base of cleft, costal triangles at ⅓ of wing and just before base of cleft, dorsal spot at ¾ of wing; first lobe at ⅓ of costa with large, longitudinal spot, delicate row of scales along cleft and two indistinct spots in center of lobe, small spot at anal angle which progresses into small black fringe brush; second lobe in basal ⅓ with large oblique spot, followed by longitudinal spot from middle of cleft to apex, and branching to anal angle. Fringes pale grey, with black fringes brushes at anal angle of first lobe, at second lobe at apex, mid-ternum, at anal angle, at mid-dorsal of second lobe and at middle of wing dorsum. Underside dark brown, with some ochreous scales in apical area of both lobes.


Female genitalia. Unknown.

ETHYMOLOGY. The name *viridia* (=greenish) reflects the distinct blue-green color of the species.

*Hellinsia griseopuncta* Gielis sp. n.

Fig. 23, 52, 65.

MATERIAL. Holotype ♂, Ecuador, Napo, Papallacta, 2650 m, 20.I.2004 (J. Wojtusiak), gent CG 6916 (ZMJU). Paratype ♀, Ecuador, P.N. Sangay, Via Guamote – Macas, 3400 m, 24.I.2004 (J. Wojtusiak), gent CG 6920 (CG).

DIAGNOSIS. Group: H05. Left valve with saccular spine with abrupt thinner tip, less than ⅓ of valve length. Right valve with slender rod-shaped saccular process, less than ⅓ of valve length. Fore wings brown-grey, at base of cleft distinct large spot.

DESCRIPTION. Wingspan male 20 mm, female 28 mm. Head apressedly scaled, brown-grey, between base of antennae grey-white. Palps curved up, grey-white, lateral on second and third segment with broad brown line, just over eye-diameter. Antenna pectinate, basal segments white, other segments pale grey and dark brown ringed. Collar dark ferruginous-brown. Thorax and tegulae brown-grey; mesothorax grey-white, and abdomen grey-brown with dorso-lateral longitudinal line. Hind legs grey-brown, tarsi terminally dark brown; with two pairs of spurs, proximal spurs longer than distal spurs, and medial spurs longer than lateral spurs.

Fore wings cleft from ⅔, brown-grey, and large spot just before base of cleft. Markings dark brown: longitudinal costal spot above base of cleft; first lobe wit costal spot at ⅓, apical and at anal region; second lob with spots apical, at mid-ternum, and at anal angle. Fringes grey-brown, along termen of second lobe with basal darker band. Underside grey-brown, with minimal spot just before base of cleft.
Fig. 24, 53.

**Material.** Holotype *Hellinsia yacumbae* just before base of cleft.


**Ecology.** The moth flies in January, at an altitude between 2650 and 3400 meters. Hostplant unknown.

**Distribution.** Ecuador: Napo, Loja.

**Etymology.** The species is named *griseopuncta* (griseus=grey; punctum=spot) because of its distinct grey spot just before base of cleft.

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**Helhinsia yacumba* Giels, sp. n.**

Fig. 24, 53.

**Material.** Holotype ♂, Venezuela, Estado Lara, Yacumba National Park, 13 km SE Safaré, 1550 m, 28-31.VII.1981 (J.B. Heppner), gent CG 7031 (USNM).

**Diagnosis.** Group: H06. Left valve with rather short saccular spine, basally with even width, terminal part abruptly reduced to narrow acute tip. Right valve with long saccular rod, with curved distal part.

**Description.** Wingspan 18 mm. Head appressly scaled, white, face pale brown-ochreous. Palps pale brown-ochreous, protruding, ⅓ ø eye-diameter. Antennae white, ciliated. Collar dark ferruginous-brown, with long, erect, bifid scales. Thorax, tegulae, mesothorax and abdomen pale brown-ochreous, dorsally on abdominal segments brown-black. Hind legs white, with two pairs of unequal spurs; medial spurs longer than lateral spurs, and proximal pair longer than distal pair.

Fore wings cleft from just beyond middle, white mixed with pale ochreous scales. Markings brown: costal line from base of wing to just before base of cleft; longitudinal dash at discus; spot at, and around base of cleft; first lobe with costal spots at ⅓, ⅔, ⅔, and at apex, and a central dash reaching towards spot at anal region; second lobe without significant spots. Fringes pale ochreous-brown, with in first lobe brown sections at apex and anal region. Underside greys-brown.


Female genitalia. Unknown.

**Ecology.** The moth flies in July, at an altitude of 1550 meters. Hostplant unknown.

**Distribution.** Venezuela: Lara.

**Etymology.** The species is named after the collecting site: Yacumba National Park, in the province Lara, Venezuela.

**Helhinsia caligo* Giels, 2012**


**Diagnosis.** Group: I08 (Giels, 2011; 2012).

**Material.** 1 ♂, Peru, Pasco, Oxapampa, El Cedro, Yanachaga Chemillen N.P., 10° 32′ 43″S 75° 21′ 30″W, 2460 m, 1.II.2003 (J. Wojtusiak), gent CG 6974 (ZMJU). New for Peru.

**Helhinsia carbonerae* Giels, sp. n.**

Fig. 25, 53.

**Material.** Holotype ♂, Venezuela, Merida, 25 km SE La Azulita, La Carbonera, 2165 m, 20.II.1978 (J.B. Heppner), gent CG 7037 (USNM).

**Diagnosis.** Group: I09. Left valve with saccular spine broad-based, followed by narrow section, suddenly widening into tip half, distal half strongly curved; near saccular base two sclerotized spines which point towards cucullus. Right valve with double saccular process: basally small knob, and distally small stalked hook.


Fore wings cleft from ⅔, pale beige-brown. Markings brown: a narrow costal line which widens in first lobe to half lobe width; small dark brown spot just before base of cleft; from area of discus dash gradually widening into the second lobe and completely filling this lobe; in first lobe small dark brown dots at anal region and apex. Fringes of first lobe and in cleft pale ochreous; along dorsum of second lobe pale ochreous, with broad dark brown dash at apical half of terren; and basal brown line parallel to wing margin, reaching to half the wing dorsum. Underside dark grey-brown.

Hind wings and fringes pale grey-brown; dorsal fringes of second lobe with basal fringe line parallel to wing margin. Underside pale grey-brown. Venous scales dark ferruginous, in double row, costal row longer.

Male genitalia. Valves asymmetrical. Left valve with saccular spine broad-based, followed by narrow section, suddenly widening into tip half, distal half strongly curved; near saccular base two sclerotized spines which point towards cucullus. Right valve with double saccular process: basally a small knob, and distally a small stalked hook. Uncus long and slender, as long as tegumen. Tegumen bilobed. Juxta blunt,

ECOLOGY. The moth flies in February, at an altitude of 2150 meters. Hostplant unknown.

DISTRIBUTION. Venezuela: Merida.

ETYMOLOGY. The species is named after the village of collecting: La Carbonera in the province of Merida in Venezuela.

**Hellinsia praenigratus** Meyrick, 1921
*Pterophorus praenigratus* Meyrick, 1921: 421. Peru.

DIAGNOSIS. Group: J03 (Gielis, 2011).


**Hellinsia migmatis** Gielis, sp. n.

Fig. 26, 55.

MATERIAL. Holotype ♂, Ecuador, Loja, no date, no collector, gent CG 7051 (USNM).

DIAGNOSIS. Group: L05. Male genitalia with in left valve saccular spine short, and rather broad, with knob-like widening before tip, followed by short, slender tip. Right valve with narrow longitudinal saccular stick. In group L only hind leg long, with asymmetrical anellus arms. Vinculum arched, with pronounced widening in middle. Aedeagus mildly curved, no cornuti. Female genitalia. Unknown.

ECOLOGY. Neither the flight period, nor the flying altitude, is known. Hostplant unknown.

DISTRIBUTION. Ecuador: Loja.

ETYMOLOGY. The name *migmatis* (= a mixture) reflects the mix of beige and brown pattern elements on the fore wing.

**Oidaematophorus espeletiae** Hernandez, Fuentes, Fajardo & Matthews, 2014

Fig. 27, 56, 66.

**Oidaematophorus papallacta** Gielis, 2011 comb.n.

Fig. 67.


REMARKS. This species is recently recognized from Colombia. In order to update information in this review, the imagos and genital structures are reproduced here (with kind permission of the authors).

**Oidaematophorus papallacta** Gielis, 2011

**Pterophorus trachyphloeus** Meyrick, 1926

**Oidaematophorus trachyphloeus** Meyrick, 1926: 300. Costa Rica.

MATERIAL. 1♀, Ecuador, Guachayaca, IX-X.1926 (Vorbeck), gent CG 4297 (ZMUC). New for Ecuador. **Adaina buscki** Barnes & Lindsey, 1921

**Adaina buscki** Barnes & Lindsey, 1921: 370.- USA (Fl).


FEMALE GENITALIA. Ostium centrally positioned, slightly bulged out. Antrum wide, funnel-shaped, with dense, however minute, speculation; basally with pair of longitudinal sclerites. Bursa copulatrix almost directly connected with antrum, vesicular; with numerous delicate sclerotized ridges. Ductus seminialis 5x longer than bursa copulatrix, terminal half in spiral shape. Lamina ante-vaginalis with lateral blunt well-developed apophyses anteriores. Apophyses posteriores 2x papillae anales.

REMARKS. The shape of the antrum indicates that this species has to be transferred to the present genus. The female genitalia are illustrated for the first time.

**Oidaematophorus trachyphloeus** Meyrick, 1926

**Pterophorus trachyphloeus** Meyrick, 1926: 300. Costa Rica.

MATERIAL. 1♀, Ecuador, Guachayaca, IX-X.1926 (Vorbeck), gent CG 4297 (ZMUC). New for Ecuador.

**Adaina buscki** Barnes & Lindsey, 1921

**Adaina buscki** Barnes & Lindsey, 1921: 370.- USA (Fl).

MATERIAL. 1♀, Ecuador, Guayas, Guayaquil, House of J.-T. Bujard, 2°11,114'S 80°01,223'W, 30 m, 21.IV.2006 (P. Schmitz), gent CG 6996 (MHNG); 1♀, Ecuador, Manabi, P.N. Machalilla, Los Frailes, 1°29,340'S 80°46,686'W, 40 m, 25.IV.2006 (P. Schmitz) (MHNG); 2♀♀, Venezuela, Aragua, Rancho Grande, 1100 m, 24-31.X.1966 (S.S. & W.D. Duckworth), gent CG 7041 (USNM, CG). New for Ecuador and Venezuela.

**Adaina excreta** Meyrick, 1930.

**Adaina excreta** Meyrick, 1930: 568. Peru.

MATERIAL. 3♀♀, Venezuela, Merida, Mucuy Fish Hatchery,
7 km E Tabay, 2000 m, 10-13.II.1978 (J.B. Heppner), gent CG 7038 (USNM, CG). New for Venezuela.

Adaina pittieri Gielis, sp. n.
Fig. 28, 57, 68.


Diagnosis. The species externally and in the male genitalia resembles A. planaltina Gielis, 1992. It differs by the grey-black 6th abdominal segment, not seen in A. planaltina. In the male genitalia the left saccular process originates more distally; tegumen broader, and aedeagus slender.

Description. Wingspan 13-14 mm. Head appressibly scaled, lly; tegumen broader, and aedeagus slender. Male genitalia the left saccular process originates more distally; tegumen broader, and aedeagus slender.


Diagnosis. The species externally and in the male genitalia resembles A. planaltina Gielis, 1992. It differs by the grey-black 6th abdominal segment, not seen in A. planaltina. In the male genitalia the left saccular process originates more distally; tegumen broader, and aedeagus slender.

Description. Wingspan 13-14 mm. Head appressibly scaled, vertex pale ochreous-white. Palps protruding, as long as eye-diameter, pale ochreous, first segment with mix of pale ochreous and pale brown drooping scales, second, and third segments pale ochreous with lateral longitudinal narrow brown line. Antennae pale ochreous, pectinate. Collar grey-brown, with numerous erect, long bifid scales. Thorax, tegulae, mesothorax and abdomen pale ochreous. Abdominal segment 6 grey-black, and on segments 3 and 4 mid-dorsal and most distal a black dot, segments 7 and 8 with distal and lateral black dots. Hind legs pale ochreous, tarsal segments basally covered by narrow black scale ring; two pairs of spurs, pale ochreous with basal and subterminal black-brown scale ring; medial spurs longer than lateral spurs and proximal pair longer than distal pair. Fore wing cleft from 10/17, pale ochreous. Markings dark brown: scales diffuse, distributed along costa; dorsal spot at ⅓; spot just before base of cleft, progressing into longitudinal spot along costa; darkened around apex progressing to anal region; and darkening along in second lobe before apex. Fringes brownish-white, darkened at termen of first lobe and around apices of both lobes. Underside grey-brown, pale ochreous in both lobes, with some indication of spots as above. Hind wings pale brown-grey. Fringes brownish-white. Underside grey-brown, Venous scales black, in double row, costal row longer and more densely scaled than dorsal row.


Etymology. The species is named after H. Pittier, a biologist who explored the region Aragua in the first half of the 20th century. He described numerous plants and animals, and kick started the founding of the first National Park in Venezuela, later to be named after him.

Adaina thomae Zeller, 1877


Emmelina aethes (Walsingham, 1915)


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