# REVIEW OF THE NEOTROPICAL SPECIES OF THE FAMILY PTEROPHORIDAE, PART 5: ADDITIONS FROM PERU, ECUADOR, COLOMBIA, VENEZUELA AND THE GUYANAS (LEPIDOPTERA)

Cees Gielis

Naturalis Biodiversity Center, P.O. Box 9517, 2300 RA Leiden, The Netherlands — Pterophoridae@gmail.com.

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 Guyanas. The following new species are recognized: Platyptilia wojtusiaki, Anstenoptilia brevianellus, Stenoptilia cinnamalta, Postplatyptilia oxapampa, P. sangayae, Lioptilodes gualeco, L. macubajia, L. yanachagae, Buckleria tridens, Hellinsia espejoi, H. hami, H. bifurca, H. carpishia, H. impuritatis, H. aldasi, H. macritudinis, H. estrellae, H. meridae, H. pascoae, H. schneblei, H. patate, H. viridia, H. griseopuncta, H. yacumbae, H. carbonerae, H. migmatis and Adaina pittieri. 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, Guyanas.

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

Resumen: Después de la publicación de las partes 1 a 4 de esta revisión, se ha podido disponer de nueva información faunística, ecológica y taxonómica derivada de material de Peru, Ecuador, Colombia, Venezuela y las Guayanas. Se reconocen las siguientes especies nuevas: Platyptilia wojtusiaki, Anstenoptilia brevianellus, Stenoptilia cinnamalta, Postplatyptilia oxapampa, P. sangayae, Lioptilodes gualeco, L. macubajia, L. yanachagae, Buckleria tridens, Hellinsia espejoi, H. hami, H. bifurca, H. carpishia, H. impuritatis, H. aldasi, H. macritudinis, H. estrellae, H. meridae, H. pascoae, H. schneblei, H. patate, H. viridia, H. griseopuncta, H. yacumbae, H. carbonerae, H. migmatis y Adaina pittieri. Se describen e ilustran por primera vez las genitalias de Stenoptilodes huanacoicus, Hellinsia spiculibursa, H. pelospilus, H. montufari, H. cajanuma y Oidaematophorus papallacta.

**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. macubajia 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. impuritatis sp.n., H. aldasi sp.n., H. macritudinis sp.n., H. estrellae sp.n., H. meridae sp.n., H. pascoae sp.n., H. schneblei sp.n., H. patate sp.n., H. viridia sp.n., H. griseopuncta sp.n., H. yacumbae sp.n., H. carbonerae sp.n., H. migmatis sp.n., Adaina pittieri 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 Guyanas. 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 Zoologíca Agrícola Francisco Fernández Yepéz, Maracay, Venezuela. MHNG = Muséum d'Histoire Naturelle de Genève, Switzerland

MNHN = Museum National d'Histoire Naturelle, Paris, France.

N.P. = National Park

P.N. = Parque Nacional

RMNH = Naturalis Biodiversity Center (formerly: Rijksmuseum van Natuurlijke Historie), Leiden, The Netherlands.

Sta = Collecting station.

USNM = U.S. National Museum of Natural History, Smithsonian Institution, Washington, D.C., U.S.A.

VOB = Dr. Vitor O. Becker, Reserva Serra Bonita, Camacan, Bahia, Brazil.

ZMJU = 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).

MATERIAL. 1  $\circlearrowleft$ , Venezuela, Aragua, PN H. Pittier, Paso Portachuela, 10°20,851'N 67°41276'W, 1136 m, 21.VII.2009 (B. Landry), gent CG 6991 (MHNG). New for Venezuela.

#### **Sochchora dotina** Walsingham, 1915 Sochchora dotina Walsingham, 1915: 436. Panama.

MATERIAL. 1 ♂, Venezuela, Aragua, PN H. Pittier, Paso Portachuela, 10°20,851'N 67°41,276'W, 1136 m, 19.VII.2009 (B. Landry), gent CG 6992 (MHNG); 1 ♀, Guyana Française, ch. Forestier sur Route de Kaw@ pk 40, 4°32,138'N 52°7,398'W, 264 m, 26.III.2008 (B. Landry, C.Reuteler) (MHNG). New for Venezuela and French Guyana.

# *Platyptilia wojtusiaki Gielis*, sp. n. Fig. 1, 29.

MATERIAL. Holotype &, Ecuador, Napo, Papallacta, 3250 m, 18.I.2004 (J. Wojtusiak), gent CG 6922 (ZMJU).

DIAGNOSIS. The species resembles *Platyptilia* thyellopa Meyrick, 1926. The present species differs by the darker color, more extensive black-brown markings, and on both lobes wide and white subterminal line, which has an oblique direction in first lobe; and in the male genital structure valves with more rounded shape, vinculum broad, spade-like shaped, and, in the aedeagus presence of rows of spiculae, creating a cornutus-like structure.

DESCRIPTION. Wingspan 24 mm. Head apressedly scaled, brownish-white, with conical frons half eye-diameter in height. Palps protruding, first and second segment pale brown, third segment brownish-white, 2½x eye-diameter. Antennae dark brown, shortly ciliated. Collar grey-brown. Thorax and tegulae not described. Mesothorax grey-white. Abdomen first segment grey-white, other segments grey-brown. Hind legs ochreous-white, tibiae in basal half laterally pale brown, with pale brown scale-bristles at base of spurs. Spurs of unequal length, proximal spurs longer than distal pair, and medial spurs longer than lateral spurs.

Fore wings cleft from 7/10, grey-brown. Markings dark brown: poorly defined discal spot; diffuse darkening of costa, progressing towards and into costal triangle, which is positioned just before base of cleft; less pronounced darkening along dorsal margin; first lobe with costal spot in triangular shape and terminally margined by oblique wide and white subterminal line, between spot and triangular spot ochreous-white; second lobe with basal, transverse spot and wide and white subterminal line parallel to termen. Fringes grey-white, at termen with basal brown row of scales; black at apex and anal angle of both lobes; small scale-bristles at mid-dorsum and at base of cleft. Underside grey-brown, with grey-white markings as above.

Hind wings and fringes brown-grey. At mid-dorsum of third lobe A scale-bristle at mid-dorsum of third lobe, and between this scale-bristle and wing base scattered dark scales in fringes. Underside grey-brown. Venous scales ferruginous-brown, in double row, costal row longer.

Male genitalia. Symmetrical. Valves oval, rounded in shape, with pronounced sacculus. Uncus stout, curved. Tegumen bilobed. Juxta short, narrow, with long and slender anellus arms, which have small sclerotized ridge in basal half, and delicate tips,  $\frac{2}{3}$  of tegumen length. Vinculum large and broad, with blunt tip. Aedeagus curved, with slender processus basalis, and small coecum. In aedeagus numerous rows of delicate spiculae, creating the cornuti.

Female genitalia. Unknown.

ECOLOGY. The moth flies in January, at an altitude of 3250 meters. Hostplant unknown.

DISTRIBUTION. Ecuador: Napo.

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.I.2004 (J. Wojtusiak), gent CG 6925 (ZMJU).

DIAGNOSIS. The species differs from *A. hugoliella* Gielis, 1996 and *A. marmarodactyla* (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.

DESCRIPTION. Wingspan 21 mm. Head apressedly scaled, brown-ochreous. Palps brown-ochreous, protruding,  $1\frac{1}{2}$  x eye-diameter. Antennae dark brown, pectinate. Thorax, tegulae, and abdomen ochreous-brown. Mesothorax brown-ochreous. Hind legs: tibiae with two pairs of spurs, first spurs dividing tibiae into two parts, proximally brown-ochreous and distally towards spur pairs brown-grey; basal half of tarsal segments brown-ochreous, distal half brown-grey.

Fore wings cleft from <sup>2</sup>/<sub>3</sub>, pale ochreous-brown. Markings dark brown: poorly developed discal spot; diffuse scaling along costa; well-developed costal triangle, just before base of cleft, neat 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 <sup>3</sup>/<sub>4</sub> and 4/5. Underside brown-grey, with pale ochreous markings as above.

Hind wings in first and second lobe grey-brown, third lobe ochreous-brown. Fringes pale grey-brown; subterminally at dorsum of third lobe well-developed black scale-tooth. Underside grey-brown. Venous scales ferruginous, in double row, costal row longer.

Male genitalia. Symmetrical. Valve with cucullar tip acute, curvedly ending, longer than sacculus. Sacculus bilobed. Uncus well-developed, half tegumen length. Juxta small, with two short, broad anellus arms. Vinculum 1½x longer than wide, strongly forked. Aedeagus curved, well-developed processus basalis and slender coecum; tip of aedeagus simple. No cornuti.

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.

Stenoptilodes huanacoicus Gielis, 1996: 90. Peru.

MATERIAL.  $1 \subsetneq$ , Ecuador, Napo, Papallacta, 3250 m, 18.I. 2004 (J. Wojtusiak), gent CG 6912 (ZMJU);  $1 \circlearrowleft$ , Ecuador, P.N. Sangay, Via Guamote – Macas, 3400 m, 24.I.2004 (J. Wojtusiak) (CG);  $1 \subsetneq$ , Ecuador, Tungurahua, Baños – Runtun, 3170 m, 22.I.2002 (J. Wojtusiak) (ZMJU). New for Ecuador.

FEMALE GENITALIA. Ostium right- positioned, obliquely funneled. Antrum 1½x 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 slender, approximately  $3\frac{1}{2}$ x papillae anales.

REMARKS. Female genitalia illustrated for the first time.

#### Stenoptilodes medius Gielis, 2006

Stenoptilodes medius Gielis, 2006: 73. Ecuador.

MATERIAL. 1 ♀, Peru, Pasco, Cordilliera 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 6963 (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.

DESCRIPTION. Wingspan 19 mm. Head apressedly scaled, ochreous-brown. Above eye narrow, distinct white line of scales. Frons conical, <sup>2</sup>/<sub>3</sub>x eye-diameter. Palps 2½x eye-diameter, basal segment whitish, second segment widened ochreous-brown, third segment small just extending beyond pronounced scales of second segment. Antennae dark brown, basal ½ ventrally whitish, shortly ciliated. Thorax and tegulae ochreous-brown. Mesothorax laterally whitish. Abdomen pale ochreous-brown, dorso-lateral on segments five to eight black dots. Legs pale brown-grey. Hind legs with two pairs of spurs, medial spurs longer than lateral spurs, proximal pair as long as distal pair, tarsal segments distally darkened.

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 betwe-

en 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.

Hind wings and fringes grey-brown. Underside pale brown, first lobe grey-white. Venous scales pale ferruginous, in double row, costal row longer.

Male genitalia. Unknown.

Female genitalia. Ostium centrally positioned, excavated, with lateral rims extending distally. Antrum with parallel margins,  $2\frac{1}{3}x$  width of ostium. Ductus bursae 2x length of antrum, narrow, with central small sclerite. Bursa copulatrix vesicular, with pair of horn-like signa. Lamina ante-vaginalis waved. Lamina post-vaginalis poorly developed. Apophyses anteriores absent. Apophyses posteriors  $3\frac{1}{2}x$  papillae anales.

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 (=altum) where it flies.

#### Postplatyptilia nebuloarbustum Gielis, 2006.

Postplatyptilia nebuloarbustum Gielis, 2006: 94. Ecuador.

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 apressedly scaled, brown, around eye ochreous-brown. Palps protruding, 2x eye-diameter, brown, second segment terminally thickened, third segment short. Antennae greybrown, 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 dark brown: spots along dorsum at ½ 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 ½ 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 blackbrown, 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: Oxapampa.

# Postplatyptilia sangayae Gielis sp. n.

Fig. 5, 32.

MATERIAL. Holotype ♂, Ecuador, P.N. Sangay, Quebrada Shilñan, 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.

DESCRIPTION. Wingspan 22 mm. Head apressedly scaled, dark brown. Frons conical, almost as long as eye-diameter. Above eye some whitish scales. Palps protruding,  $2\frac{1}{2}x$  eye-diameter, dark cinnamon-brown and some scattered white scales; basal segment small, second segment dorso-ventrally widened, third segment extending just beyond scales of second segment. Antennae dark brown, shortly ciliated. Collar with long bifid scales, dark brown. Thorax and tegulae cinnamon-brown. Mesothorax whitish mixed. Abdomen dark brown. Fore legs: femur and tibia pale brown mixed ochreous, tibia with distally scale-bristle, tarsal segments ochreous with distally brown ring. Mid legs: as fore legs, but tibia with basal and distal scale-bristle. Hind legs: ochreous-brown, single pair of spurs, small scale-bristles at base of spurs and distally on tibia, tarsal segments as in fore legs.

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 basa-

lly 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 <sup>3</sup>/<sub>4</sub> and 5/6. Underside dark brown, with ochreous markings as above

Hind wings and fringes grey-brown. Along dorsum of third lobe pronounced large scales, and scale-teeth in middle and terminal. Underside dark brown, with in first lobe subterminally small ochreous spots. Venous scales dark ferruginous-brown, in double row, costal row longer.

Male genitalia. Valves symmetrical. Sacculus basally and terminally widened. Cucullus with extension around apex, with bird-head like shape; tip rather slender. Uncus slender, well extending beyond tegumen. Juxta with pair of broad anellus arms. Vinculum triangularly shaped. Aedeagus mildly curved, with rounded tip, laterally serrate. Female genitalia. Unknown.

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

Postplatyptilia transversus Gielis, 2006: 106. Colombia.

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

#### Lioptilodes cocodrilo Gielis, 2006

Lioptilodes cocodrilo Gielis, 2006: 152. Ecuador.

MATERIAL. 1  $\circlearrowleft$ , 2  $\circlearrowleft$   $\circlearrowleft$ , 1 without abdomen, Peru, Huanaco, Carpish Pass, 23.I.2003 (J. Wojtusiak), gent CG 6909 ( $\circlearrowleft$ ) (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 scaleteeth is in this genus a feature only seen in *Lioptilodes yanachagae* Gielis, sp. n., which will be described below. *L. yanachaga* 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.

DESCRIPTION. Wingspan 22 mm. Head apressedly scaled, dark grey-brown, frons minimally conical. Palps protruding, grey-brown, 1½x eye-diameter. Antennae grey-brown, shortly ciliated. Thorax and tegulae pale ferruginous-brown. Mesothorax white. Abdomen dark grey-brown, dorsally on segment one two white, longitudinal lines, and white on segments three and five. Hind legs pale brown-white, with faint scale-bristles at base of spurs. Spurs grey-white, medial spurs slightly longer than lateral spurs.

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 <sup>2</sup>/<sub>3</sub> 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.

Male genitalia. Symmetrical. Valve broad, lanceolate. Sacculus narrow and extended to near tip, and near tip with small hook. Uncus slender, curved, broad at base, as long as tegumen. Tegumen bilobed. Juxta broad, with two broad, angulated anellus arms. Vinculum shaped as a rounded, almost circular, plate. Aedeagus curved, with pronounced coecum and processus basalis.

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 Gielis, sp. n.

Fig. 7, 34.

MATERIAL. Holotype &, Venezuela, Merida, Mucubaji 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. cuzcoicus* and *L. subantarcticus*, have gradually narrowing valves.

DESCRIPTION. Wingspan 24 mm. Head pale brown-grey. Frons with conical protrusion,  $1\frac{1}{2}x$  eye-diameter, pale greybrown. Palps pale grey-brown, 3x eye-diameter, protruding. Antennae pale brown ciliated. Collar pale brown. Thorax and tegulae brown-grey.

Fore wings cleft from  $\frac{2}{3}$ , grey-brown. Just before base of cleft dark brown, oblique spot. Fringes brown-grey. Underside pale grey-brown.

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

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.

ECOLOGY. The moth flies in February, at an altitude of 3350 meters. Hostplant unknown.

DISTRIBUTION. Venezuela: Merida.

ETYMOLOGY. The species is named after the collecting site, the Macubaji Research Station, in the province of Merida, Venezuela.

#### Lioptilodes neuquenicus Gielis, 1991

Lioptilodes neuquenicus Gielis, 1991: 21. Argentina.

MATERIAL. 1  $\stackrel{\frown}{}$ , 1 without abdomen, Peru, Lima, I.2013 (C. Snijer), gent CG 6865 (Snijer). New for Peru.

#### Lioptilodes parafuscicostatus Gielis, 1996

Lioptilodes parafuscicostatus Gielis, 1996: 85. (probably) Peru.

MATERIAL. 2  $\circlearrowleft$   $\circlearrowleft$  , 2  $\hookrightarrow$   $\circlearrowleft$  , Ecuador, Napo, Papallacta, 2950-3250 m, 17-20.1.2004 (J. Wojtusiak), gent CG 6914 ( $\hookrightarrow$ ) (ZMJU, CG). 1  $\circlearrowleft$  , Venezuela, Merida, El Baho, Val Santo Domingo, 2300 m, 19-20.IV.2006 (T. Pyrcz), gent CG 6917 (ZMJU). New for Ecuador and Venezuela.

# Lioptilodes yanachagae Gielis, 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 Gielis, 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,  $\frac{2}{3}$  of eyediameter. Palps protruding, brown-black, 3x eye-diameter. Antennae brown-black, ciliated. Collar with erect, bifid, brown-black scales. Thorax and tegulae pale cinnamonbrown, 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 greywhite; in both lobes central longitudinal white dash. Fringes cinnamon-grey; at dorsum grey-black scale-teeth at  $\frac{2}{3}$  and just before anal angle. Underside dark brown; along costa white dashes at  $\frac{2}{3}$  and a bigger one at costa of first lobe.

Hind wings and fringes grey-brown. Along dorsum of third lobe tall 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 blisterlike 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 white 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, biffid, 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 beyond base of cleft; transverse bands in both lobes at ½ 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. Scaleteeth 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.

Hind wings and fringes dark brown-grey. Underside grey-brown. Venous scales in double short row, dark ferruginous.

Male genitalia. Valves with tridentate tip. At ½ of valve length vesicular process, covered with setae. No uncus. Tegumen bilobed. Juxta small, poorly developed. Vinculum small. Aedeagus minimally "S"-shaped, no cornutus.

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).

MATERIAL. 1  $\circlearrowleft$ , Venezuela, Aragua, P.N. H. Pittier, Estacion Rancho Grande & Sendero la Toma, 1100-1125 m, 14.VII.2009 (B. Landry), gent CG 7014 (MNHG);  $2 \circlearrowleft \circlearrowleft$ ,  $10 \circlearrowleft \circlearrowleft$ , Venezuela, Aragua, Rancho Grande, 7-8.VI.1967, 8-14.VI.1967, 22-31.VII.1967, 1-7.VIII.1967, 8-14.VIII.1967, 6-23.X.1966, 24-31.X.1966, 1-5.XI.1966 (W.D. Duckworth, S.S. & W.D. Duckworth, R.W. Poole) (USNM, CG);  $1 \circlearrowleft$ , Venezuela, Aragua,  $1 \ker S$  Rancho Grande, 5.II.1976 (C.M. & O.S. Flint) (USNM);  $1 \circlearrowleft$ , Venezuela, Merida, Rt. 4 at 19 km W Merida, Rio Montalban, 20.II.1976 (C.M. & O.S. Flint) (USNM);  $6 \circlearrowleft \circlearrowleft$ ,  $4 \circlearrowleft$ , Venezuela, Lara, Yacambu N.P.,  $13 \ker S$  Sanare,  $1260 \operatorname{m}$ , 4-7.III.1978, 1-5.VIII.1981 (J.B. Heppner) (USNM, CG).

MALE GENITALIA. Genitalia asymmetrical. Left valve with curved saccular spine, and large club-like cucullar process with serrate tip. Right valve with slightly slimmer saccular spine, and club-like cucullar process with serrate tip. Uncus slender, half length of tegumen. Tegumen bilobed. Juxta with almost symmetrical shape and short anellus arms. Vinculum narrow and arched. Aedeagus short and broad, with arrow-like tip. Cornuti in shape of two densely and delicately speculated plates.

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).

FEMALE GENITALIA. Ostium centrally positioned, asymmetrically excavated. Antrum as long as width of ostium, gradually tapering, basally with some longitudinal sclerotized ridges. Ductus bursae 2x antrum, basal half wide and funneling into bursa copulatrix. Bursa copulatrix vesicular, with pair of signa. Signa shaped by two spiculated plates in top half of bursa. Ductus seminalis 2x bursa copulatrix, slender. Lamina ante-vaginalis with poorly sclerotized rim. Apophyses anteriores absent. Apophyses posteriores just under 2x papillae anales.

REMARKS. Female genitalia illustrated for the first time.

#### Hellinsia praealtus Walsingham, 1915

Pterophorus praealtus Walsingham, 1915: 445. Guatemala.

DIAGNOSIS. Group: B03 (Gielis, 2011).

MATERIAL. 1  $\stackrel{\frown}{}$ , 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.

Hellinsia montufari Gielis, 2011: 686. Ecuador.

DIAGNOSIS. Group: B05. Left valve with saccular process less than ½ of valve length, mildly curved. Right valve with long straight saccular process, less than ½ 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). 1 ♀, Peru, Pasco, Oxapampa, El Cedro, Yanachaga-Chemillen N.P., 10°32′43″S 75°21′30″W, 2460 m, 4-5.II.2003 (J. Wojtusiak) (ZMJU). New for Peru.

MALE GENITALIA. Valves asymmetrical. Left valve with saccular process less than ½ of valve length, mildly curved. Right valve with long straight saccular process, less than ½ 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 group: XXX (only female known, or type without abdomen), to group: B05. Male genitalia illustrated for the first time.

#### 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.

Hellinsia aguilerai Gielis, 2011: 678.- Ecuador.

DIAGNOSIS. Group C02 (Gielis, 2011). Male genitalia asymmetrical. Left valve with curved saccular spine, between  $\frac{1}{3}$  and  $\frac{1}{3}$  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 ½ and ⅓ 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 sclerotized ridges.

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

#### 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 ½ and ½ of valve length, well curved. Right valve with saccular knob. Uncus very slender, as long as tegumen.

DESCRIPTION. Wingspan 33 mm. Head appressedly scaled, ochreous-white. Collar and between the base of antennae pale ferruginous. Palps protruding, slender, pale ochreous. Antennae pale ochreous, ciliated. Thorax, tegulae, mesothorax and abdomen pale ochreous. Legs pale ochreous. Hind legs with two pairs of spurs, medial spurs longer than lateral spurs, and proximal pair longer than distal pair.

Fore wings cleft from just over ½3, 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.

Male genitalia. Asymmetrical. Left valve wide, almost circularly rounded, with well- curved saccular spine of 2/5 of valve length. Right valve with almost straight saccular margin and evenly arched cucullar margin, with small saccular knob. Uncus slender, almost as long as tegumen. Tegumen bilobed. Juxta rather small, with asymmetrical anellus arms. Vinculum arched, centrally widened. Aedeagus mildly curved, without cornutus.

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.

# Hellinsia hami Gielis, sp. n.

Fig. 11, 40.

MATERIAL. Holotype &, Ecuador, Napo, Papallacta, 2950 m, 17.I.2004 (J. Wojtusiak), gent CG 6971 (ZMJU). Paratypes: 1 &, Same locality and date (CG); 1 &, Same locality, 2650 m, 20.I.2004 (J. Wojtusiak) (ZMJU).

DIAGNOSIS. Group: C02 (Gielis, 2011). Fore wings with longitudinal spot in centre of first lobe, which is a continuation of the dense scaling towards the base of the wing. Left valve with saccular spine almost straight, slender but for the wide base, just over ½ of valve length. Right valve with saccular process shaped as a small hook, with the tip towards the saccular rim.

DESCRIPTION. Wingspan 20-22 mm. Head appressedly scaled, vertex creamy-white, face ochreous-white, collar grey-brown. Palps protruding, ochreous-white, third segment laterally with

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  $\frac{2}{3}$ , 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  $\frac{1}{3}$ ; 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, midtermen, 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 greybrown. 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 ½ 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, 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).

DIAGNOSIS. Group: C03 (Gielis, 2011). Male genitalia asymmetrical. Left valve with mildly curved saccular spine of just over ½ of valve length. Right valve with long saccular process with bifurcate tip; the tips of bifurcation less than ½ valve width.

DESCRIPTION. Wingspan 24 mm. Head appressedly scaled, vertex and lower face pale ochreous-ferruginous, between base of antennae white, and upper part of face pale ferruginous. Palps protruding, 1½x eye-diameter, pale ochreous with on segments two and three laterally a narrow pale brown line. Antennae pale grey-white, with on one side longitudinally very pale brown colored, ciliated. Collar ochreous-ferruginous. Thorax, tegulae, mesothorax and abdomen pale ochreous-ferruginous, with dorsally on mesothorax and abdomen three narrow, longitudinal lines. Hind legs white, with two pairs of asymmetrical spurs, medial spurs longer than lateral spurs, and proximal pair longer than distal pair of spurs.

Fore wings cleft from 4/7, pale ochreous. Markings pale brown: costal line from wing base to middle of first lobe; line from wing base to just under base of cleft; indistinct line along dorsum from wing base to just 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.

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

Male genitalia. Asymmetrical. Left valve with mildly curved saccular spine of just over ½ of valve length. Right valve with long saccular process with bifurcate tip; the tips of bifurcation less than ½ valve width. Uncus curved, ¾ 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  $\circlearrowleft$ , Peru, Huanaco, Carpish Pass, 23.I. 2003 (J. Wojtusiak), gent CG 6973 (ZMJU). Paratypes:  $1 \circlearrowleft$ , Ecuador, Morona-Santiago, via Gualéco – Limon, 2400 m, 20.VIII.2004 (J. Wojtusiak) (CG);  $1 \circlearrowleft$ , Ecuador, Tungurahue, Rio Verde, 1600 m, 26.XII.1992 (V.O. Becker), gent CG 7023 (Becker nr. 103.981);  $1 \circlearrowleft$ , Argentina, Jujuy, P.N. Calilegua, Mesada las Colmenas, 1150 m, 24.I.1996 (NEENA sta 49), gent CG 6826 (CG);  $1 \hookrightarrow$ , Argentina, Tucuman, 11 km S Tacanas, 28 km WSW Trancas, 800 m, 15.XI.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 ½ and ½ of valve length. Right valve with saccular spine rod shaped, with near tip small thorn.

DESCRIPTION. Wingspan 21-23 mm. Head appressedly scaled, pale ochreous-white. Palps protruding, pale ochreous-white, 1x eye-diameter. Antennae pale ochreous, ciliated. Collar pale ferruginous. Thorax, tegulae mesothorax and abdomen pale ochreous. Abdomen dorsally with three longitudinal, pale brown, narrow lines. Hind legs pale ochreous-white, with two pairs of spurs, medial spurs longer than lateral spurs, and proximal pair longer than distal pair.

Fore wings cleft from 5%, 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, and distinct longitudinal costal spot at base of cleft; second lobe with small spot at mid-termen. Fringes pale grey-white, with greyish patch at dorsum from anal angle to base of cleft. Un-

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.

Male genitalia. Valves asymmetrical. Genitalia left valve with well-developed, almost rectangular curved saccular spine, with length between ½ and ¾ of valve length. Right valve with saccular spine rod shaped, with near tip small thorn. Uncus rather slender, slightly widened just before tip, almost as long as tegumen. Tegumen bilobed. Juxta blunt, with short asymmetrical anellus arms. Vinculum arched. Aedeagus curved, with acute tip. No cornuti.

Female genitalia. Ostium gently curved. Antrum 1½x width of ostium, distal half almost parallel, proximal half funneled towards the very short ductus bursae. Right tip of antrum extended into lamina ante-vaginalis, left tip minimally extended. Bursa copulatrix with narrow top part and vesicular ending. Ductus seminalis slender. No signum. Apophyses anteriores short, with acute tip. Apophyses posteriores 1½x papillae anales, with spade-like widened tip.

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

DISTRIBUTION. Ecuador: Morona-Santiago; Peru: Huanaco; Argentina: Tucuman.

ETYMOLOGY. The species is named after the collecting site of the holotype: Carpish Pass, in Huanaco, Peru.

# Hellinsia cajanuma Gielis, 2011

Fig. 62.

Hellinsia cajanuma Gielis, 2011: 626.- Ecuador.

DIAGNOSIS. Group: C05 (Gielis, 2011).

MATERIAL. 7 ♂♂, Peru, Huanaco, Carpish Pass, 23.I.2003 (J. Wojtusiak) (ZMJU, CG). 1 ♀, Ecuador, P.N. Sangay, Via Guamote – Macas, 3400 m, 24.I.2004 (J. Wojtusiak), gent CG 6908 (ZMJU); 1 ♂, Ecuador, Loja, East Cordillera, Saraguro – Las Antenas, 3100 m, 24.VIII.2004 (J. Wojtusiak) (ZMJU). New for Peru.

FEMALE GENITALIA. Ostium centrally positioned, saucer-like shaped. Antrum funnel-shaped, as long as width of ostium, with pair of well-developed sclerites. Ductus bursae very short. Bursa copulatrix vesicular, without signum. Ductus seminalis  $1\frac{1}{2}x$  length of bursa copulatrix, vesicular. Lamina ante-vaginalis poorly developed and with sclerotized ridge. No apophyses anteriores. Apophyses posteriores slender, 2x papillae anales.

REMARKS. Female genitalia illustrated for first time.

#### Hellinsia impuritatis Gielis, sp. n.

Fig. 14, 43.

MATERIAL. Holotype &, Peru, Pasco, Oxapampa, Yanachaga-Chemillen N.P., El Cedro, 10° 32' 43"S 75° 21' 30"W, 2460 m, 4-5.II.2003 (Wojtusiak & Garlacz), gent CG 6985 (ZMJU).

DIAGNOSIS. Group: C05 (Gielis, 2011). Fore wings with grey-brown color, and brown markings. Genitalia asymmetrical. Left valve with pronounced saccular spine, with direct length from base to tip between  $\frac{1}{3}$  and  $\frac{2}{3}$  of valve length, almost biangulated in shape. Right valve with straight, acute, saccular spine.

DESCRIPTION. Wingspan 20 mm. Head appressedly scaled, vertex white, face pale brown. Palps pale ochreous-brown, protruding, straight, slender; third segment laterally with dark brown longitudinal line. Antennae pale ochreous-brown, ciliated. Collar pale ferruginous, with erect scales. Thorax, tegulae, mesothorax and abdomen pale ochreous-brown; dorsally abdomen with on each segment black-brown dot. Hind legs pale ochreous, with two pairs of asymmetrical spurs, medial spurs longer than lateral spurs, and proximal pair longer than distal pair of spurs.

Fore wings cleft from  $\frac{2}{3}$ , pale ochreous-brown. Markings brown: sparsely scattered scales along costa; indistinct discal spot; oblique spot just before base of cleft; first lobe with central, longitudinal indistinct linear spot, costal spot at  $\frac{2}{3}$ , and small spot in anal area; second lobe diffusely darkening towards apex. Fringes grey-brown. Underside dark brown, paler in costa area of wing.

Hind wings and fringes pale grey-brown. Underside grey-brown, paler in terminal part of first, and entire second and third lobes. Venous scales blackish, in double row, costal row longer.

Male genitalia. Asymmetrical. Left valve with pronounced saccular spine, with direct length from base to tip between ½ and ⅔ of valve length, almost bi-angulated in shape. Right valve with straight, acute, saccular spine. Uncus well-developed, slender and with acute tip, almost as long as tegumen. Tegumen bilobed. Juxta stout, with pair of slender, asymmetrical anellus arms. Vinculum arched. Aedeagus mildly curved, with 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 *impuritatis* (= dirty) for its color and brown spotting.

# Hellinsia phloeochroa Walsingham, 1915

Pterophorus phloeochroa Walsingham, 1915: 447. Mexico (Ver).

DIAGNOSIS. Group: C08 (Gielis, 2011).

MATERIAI. 1 &, Venezuela, Aragua, Rancho Grande, 1100 m, 24-31.X.1966 (S.S. & W.D. Duckworth), gent CG 7026 (USNM). New for Venezuela.

#### Hellinsia ruminahuii Gielis, 2011

Hellinsia ruminahuii Gielis, 2011: 638. Ecuador.

DIAGNOSIS. Group: C08 (Gielis, 2011).

MATERIAL. 1  $\circlearrowleft$ , 1 $\hookrightarrow$ , Peru, Pasco, El Cedro, Yanachaga Chemillen N.P., 10° 32′ 43″S 75° 21′ 30″W, 2460 m, 1.II.2003 ( $\hookrightarrow$ ), 3.ii.2003 ( $\circlearrowleft$ ), gent CG 6978 ( $\circlearrowleft$ ) (ZMJU, CG). New for Peru.

#### Hellinsia surinamensis (Sepp. 1855)

Phalaena didactyla surinamensis Sepp, 1855: 311. Surinam.Oedaematophorus pelodactylus Berg, 1885: 284. Argentina & Uruguay.

Pterophorus sacrificus Meyrick, 1926: 299. - Colombia.

DIAGNOSIS. Group: C08 (Gielis, 2011).

MATERIAL. 1 ♀, Venezuela, Aragua, P.N. H. Pittier, Est Rancho Grande & Sendero la Toma, 1100-1125 m, 14.VII.2009 (B. Landry), gent CG 6995 (MHNG). New for Venezuela.

#### Hellinsia aldasi Gielis, sp. n.

Fig. 15, 44.

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

DIAGNOSIS. Group: C09. Fore wings white with pale ochreous-brown markings. Male genitalia with left valve with saccular spine just under <sup>2</sup>/<sub>3</sub> 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 apressedly 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  $\frac{2}{3}$ , 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.

Hind wings pale ochreous-white. Fringes silvery-white. Underside pale brown-grey. Venous scales ferruginous-orange, in double row, costal row longer and better expressed.

Male genitalia. Left valve wider and rounded, with saccular spine just under ¾ of valve length. Right valve lanceolate, with double saccular process, basally narrow, curved, distally stout rod with widened base and small hook at tip. Uncus narrow, slender, and rather short, half tegumen length. Tegumen bilobed. Juxta blunt, with two short, asymmetrical anellus arms. Vinculum arched, distinctly widened in middle. Aedeagus almost straight, with rather acute tip. Cornutus in shape of a group of delicately sclerotized ridges.

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.

*Hellinsia paramoi* Arenberger & Wojtusiak, 2001 *Hellinsia paramoi* Arenberger & Wojtusiak, 2001: 73. Vene-

DIAGNOSIS. Group: C09 (Gielis, 2011).

MATERIAL. 1  $\circlearrowleft$ , 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.

zuela.

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.

DESCRIPTION. Wingspan 22 mm. Head appressedly scaled, ferruginous-brown, between base of antennae and frons ochreous-white. Palps protruding, white, 1½x eye-diameter. Antennae faintly ringed ochreous-brown and brown, ciliated. Collar ferruginous-brown, with large erect, bifid scales. Thorax, tegulae, mesothorax and abdomen ochreous-white.. Hind legs pale ferruginous-brown, with two pairs of brown spurs, of unequal length. Medial spurs longer than lateral spurs, and proximal pair longer than distal pair.

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.

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

Male genitalia. Valves asymmetrical. 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. Uncus rather slender, half the length of tegumen. Tegumen bilobed. Juxta blunt, with pair of asymmetrical anellus arms. Vinculum arched, rather wide. Aedeagus minimally curved, slender, without cornuti.

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) reflexes the poverty of markings on the fore wing.

#### Hellinsia argutus (Meyrick, 1926)

Pterophorus argutus Meyrick, 1926: 299. Colombia.Pterophorus chionophanes Meyrick, 1930: 569. Peru.Oidaematophorus chionoptila T.B. Fletcher, 1940: 83. Colombia.

DIAGNOSIS. Group: D01 (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.

#### 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  $\frac{2}{3}$  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, 1½x 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 5/8, 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 5/8 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-termal, and spot at anal angle. Fringes brown-grey. Underside grey-brown.

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

Male genitalia. Asymmetrical. Left valve with long, slightly curved saccular spine, longer than  $\frac{2}{3}$  of valve length. Right valve without saccular process. Uncus half length of tegumen, curved, rather slender. Tegumen bilobed. Juxta and anellus arms rather slender,  $\frac{4}{5}$  of tegumen length. Vinculum centrally widened. Aedeagus mildly curved, oblique tip, with cornutus in shape of plate with numerous sclerotized ridges.

Female genitalia. Ostium centrally positioned, with delicately sclerotized rings around ostium. Antrum  $1\frac{1}{2}x$  width of ostium, funneling, with pair of sclerites. Ductus bursae very short. Ductus seminalis slender, twice length of bursa copulatrix. Bursa copulatrix membraneous with complex signum, composed of numerous spiculae. Apophyses anteriores absent. Apophyses posteriores 3x papillae anales.

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.

#### Hellinsia postnigrata Gielis, 2011

Hellinsia postnigrata Gielis, 2011: 654. Ecuador.

DIAGNOSIS. Group: D04 (Gielis, 2011).

MATERIAL. 1 &, Venezuela, Merida, El Baho, Val Santo Domingo, 2300 m, 19-20.IV.2006 (T. Pyrcz), gent CG 6964 (ZMJU); 2 & &, British Guyana, Botanical Garden, e.l. Wulffia, no date (H.W.B. Moore), gent CG 7048 (USNM, CG). New for Venezuela and British Guyana.

REMARKS. Hostplant Wulffia recorded for first time.

#### Hellinsia meridae Gielis, sp. n.

Fig. 18, 47, 64.

MATERIAL. Holotype ♂, Venezuela, Merida, Mucubaji 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  $\frac{2}{3}$  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 greywhite around cleft, differentiating it from the other species.

DESCRIPTION. Wingspan 27 mm. Head appressedly 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 2x eye-diameter. Antennae pale brown-grey, ciliated. Collar pale brown, with long erect, bifid scales. Thorax and tegulae in cranial half grey-white, centrally 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 lateral grey-white line extending towards 9<sup>th</sup> 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 <sup>2</sup>/<sub>3</sub>, 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.

Male genitalia. Asymmetrical. Left valve with minimally curved and long saccular spine of over ½ of valve length. Right valve with delicate, short saccular rod. Uncus slender, curved, half the tegumen length. Tegumen bilobed. Juxta with asymmetrical anellus arms. Vinculum arched, rather narrow. Aedeagus minimally curved, without cornuti.

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,

and pair of sclerotized plates which both transform into an arrowhead-like signum. Ductus seminalis almost as long as ductus bursae and bursa copulatrix, slender. Lamina antevaginalis shaped as semi-circular rim. Lamina post-vaginalis indistinct. No apophyses anteriores. Apophyses posteriores three times papillae anales, rather well-developed.

ECOLOGY. The moth flies in February, at an altitude of 2200-3350 meters. Hostplant unknown.

DISTRIBUTION. Venezuela: Merida.

ETYMOLOGY. The species is named after the province of Merida in Venezuela, the locality of collecting.

#### 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 ½ 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. Palps protruding, pale ochreous-white, 2x eye-diameter. Antennae pale ochreous-white, ciliated. Collar pale ferruginous, with large erect, and bifid scales. 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 <sup>3</sup>/<sub>4</sub> and <sup>7</sup>/<sub>8</sub>. Fringes pale yellow-white, at dorsum slightly pale ochreous tinged. Underside pale grey-brown, with brown markings as above.

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

Male genitalia. Genitalia asymmetrical. Left valve with long, slightly curved, saccular spine of more than ½ of valve length. Right valve with straight, saccular spine, with acute tip. Uncus curved, half the tegumen length. Tegumen bilobed. Juxta blunt, with two rather slender asymmetrical anellus arms. Vinculum straight, centrally widened. Aedeagus mildly curved. Cornuti shaped by minimal sclerotized ridges.

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 de region of collecting: Pasco in Peru.

#### Hellinsia schneblei Gielis sp. n.

Fig. 20, 49.

MATERIAL. Holotype &, Colombia, Medellin, La Estrella, 1700 m, 22-24.V.1963 (B. Schneble), gent CG 5669 (ZSM).

DIAGNOSIS. Group: D07. Left valve with mildly curved saccular spine of just over ½ of valve length. Right valve with long saccular spine, with club-like tip.

DESCRIPTION. Wingspan 22 mm. Head apressedly scaled, grey-brown. Palps curved, grey-brown, as long as eye-diameter. Antennae pectinate, indistinctly ringed: pale brown and ochreous-brown. Thorax, and tegulae grey-brown mixed with dark brown scales. Mesothorax ochreous-brown. Abdomen grey-brown. Hind legs grey-brown, with faint ochreous-brown rings proximal of spur pairs; small scale-brush at basal ½ of tibia. Spur pairs of unequal length, proximal spurs longer than distal pair, and medial spurs longer than lateral spurs.

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.

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

Male genitalia. Asymmetrical. Left valve with mildly curved saccular spine of just over ¾ of valve length. Right valve with long saccular spine, with club-like tip. Uncus strongly curved, half the length of tegumen. Tegumen bilobed. Juxta very blunt, with asymmetrical anellus arms, with blunt appearance. Vinculum arched, centrally wide. Aedeagus almost straight, tip acute and slightly curved, without cornutus

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.

#### Hellinsia barbatus Gielis, 1996

Oidaematophorus barbatus Gielis, 1996: 97. Colombia.

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). New for Venezuela.

#### Hellinsia cervicalis Meyrick, 1932

Pterophorus cervicalis Meyrick, 1932: 251. Bolivia.

DIAGNOSIS. Group: E05 (Gielis, 2011).

MATERIAL. 1  $\circlearrowleft$ , Peru, Pasco, Oxapampa, El Cedro, Yanachaga Chemillen N.P., 2420 m, 1-6.II.2003 (J. Wojtusiak), gent CG 6984 (ZMJU); 1  $\circlearrowleft$ , Ecuador, Napo, Papallacta, 2650 m, 20.I.2004 (J. Wojtusiak) (ZMJU); 1  $\circlearrowleft$ , 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.

#### Hellinsia patate Gielis, sp. n.

Fig. 21, 50.

MATERIAL. Holotype ♂, Ecuador, Tungurahue, Patate, 3000

m, 7.XII.1992 (V.O. Becker), gent CG 7017 (Becker nr. 100100).

DIAGNOSIS. Group: E09. Left valve with long, basally directed curl, and extending beyond tip of valve. Right valve with double saccular process, small knob, followed by small hook. This feature is a unique combination.

DESCRIPTION. Wingspan 25 mm. Specimen in rather poor condition. Head grey-brown. Palps pale brown, slightly curved up, length just over eye-diameter, second segment with drooping scales. Antennae faintly ringed pale brown and pale grey-brown, ciliated. Collar dark brown, with long, erect, bifid scales. Thorax and tegulae ochreous-brown. Mesothorax pale ochreous-brown. Abdomen brown-grey.

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.

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

Male genitalia. Asymmetrical. Left valve wider than right valve, with long, basally directed curl, and extending beyond tip of valve. Right valve with double saccular process, small knob, followed by small hook. Uncus curved and slender ½ of tegumen length. Tegumen bilobed. Juxta rather slender, with pair of asymmetrical anellus arms. Vinculum arched, rather narrow. Aedeagus mildly curved, without cornutus

Female genitalia. Unknown.

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

DISTRIBUTION. Ecuador: Tungurahue.

ETYMOLOGY. The species is named after the place of collecting: Patate, in the province of Tungurahue in Ecuador.

# *Hellinsia viridia* Gielis, sp. n. Fig. 22, 51.

MATERIAL. Holotype ♂, Peru Huanaco, Carpish Pass, 23.I. 2003 (J. Wojtusiak), gent CG 6961 (ZMJU). Paratype ♂, Peru, Pasco, Oxapampa, El Cedro, Yanachaga-Chemillen N.P., 10° 32′ 43″S 75° 21′ 30″W, 2460 m, 3.II.2003 (J. Wojtusiak) (CG).

DIAGNOSIS. Group: F02. Left vale with curved saccular spine, ending with knob. Right valve with saccular spine shaped as a curved hook. The fore wings of the species have a distinctive greenish color, not seen in other species from group F.

DESCRIPTION. Wingspan 17 mm. Head apressedly scaled, pale blue-green, frons ochreous-brown. Palps ochreous-brown, second segment laterally brown, just under 2x eye-diameter, protruding. Antennae faintly ringed pale brown and brown, ciliated. Thorax, tegulae and mesothorax pale ochreous-brown, on tegulae pale blue-green gloss. Abdomen pale ochreous-brown; segments one to seven with dark brown scale groups. Hind legs pale ochreous, with two spur pairs, before first and at second spur pair narrow brown band, and tarsal segments distally with brown bands.

Fore wings cleft from 3/5, pale blue-green. Markings dark brown: costal line from wing base to ½ of first lobe and interrupted at base of cleft, costal triangles at ½ of wing and just before base of cleft, dorsal spot at ¼ of wing; first lobe at ¾ 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, midtermen, 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.

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

Male genitalia. Valves asymmetrical. . Left vale rather wide, with curved saccular spine, ending with knob. Right valve lanceolate, with saccular spine shaped as a curved hook. Uncus rather stout, half tegumen length. Tegumen bilobed. Juxta broad, with two short anellus arms. Vinculum rather narrow, mildly arched. Aedeagus almost straight. Cornuti as minimal condensed sclerotized ridges, near tip.

Female genitalia. Unknown.

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

DISTRIBUTION. Peru: Huanaco, Oxapampa.

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 ½ of valve length. Right valve with slender rod-shaped saccular process, less than ½ 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  $\frac{2}{3}$ , 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  $\frac{2}{4}$ , apical and at anal region; second lob with spots apical, at midtermen, 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.

Hind wings and fringes grey-brown. Underside browngrey. Venous scales in double row, black, costal row longer. Male genitalia. Valves asymmetrical. Left valve with saccular spine with abrupt thinner tip, less than ½ of valve length. Right valve with slender rod-shaped saccular process, less than ½ valve length. Uncus rather short, slender. Tegumen bilobed. Juxta normally developed, with near base of anellus arms spike-like process; anellus arms asymmetrical. Vinculum arched. Aedeagus almost straight, without cornutus.

Female genitalia. Ostium centrally positioned, deeply excavated. Antrum oblique, top half wide, in middle strongly reduced into narrow basal half. Ductus bursae slender, ½ of antrum length. Bursa copulatrix vesicular, without signum. Apophyses anteriores absent. Apophyses posteriores 2x papillae anales. Papillae anales followed by a ring of sclerotized ridges.

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.

#### Hellinsia yacumbae Gielis, sp. n.

Fig. 24, 53.

MATERIAL. Holotype ♂, Venezuela, Estado Lara, Yacumba National Park, 13 km SE Sañare, 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 appressedly scaled, white, face pale brown-ochreous. Palps pale brown-ochreous, protruding, 1½x 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  $\frac{1}{3}$ ,  $\frac{2}{3}$ ,  $\frac{3}{4}$ , 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 grey-brown.

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

Male genitalia. Valves asymmetrical. Left valve, strongly rounded in shape, 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. Uncus rather strong, curved, ½ of tegumen length. Tegumen bilobed. Juxta symmetrical, blunt stalk with pair of anellus arms. Vinculum arched, with central semi-circular

widening. Aedeagus mildly curved, tip widened and oblique in shape; no cornuti.

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.

#### Hellinsia caligo Gielis, 2012

Hellinsia caligo Gielis, 2012: 113. Ecuador.

DIAGNOSIS. Group: I08 (Gielis, 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.

#### Hellinsia carbonerae Gielis, 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.

DESCRIPTION. Wingspan 35 mm. Head appressedly scaled, pale brown. Palps curved up, pale brown towards tip gradually turning dark brown, 1½x eye-diameter. Antennae pale brown, ciliated. Collar dark brown, with erect, long, bifid scales. Thorax, tegulae, mesothorax and abdomen pale beigebrown. Abdomen dorsally, at distal margin of segments, 4 to 8 small black dot. Hind legs very pale beige-brown, with two pairs of unequal dark brown spurs. Medial spurs longer than lateral spurs, and proximal pair longer than distal pair.

Fore wings cleft from ½, 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 termen; 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,

with short asymmetrical anellus arms. Vinculum arched, rather broad. Aedeagus minimally curved, irregularly tipped; no cornuti.

Female genitalia. Unknown.

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).

MATERIAL. 16, Colombia, Medellin, La Estrella, 1700 m, 28-29.VIII.1962 (B. Schneble), gent CG 5673 (ZSM). 4 ∂∂, 4 ♀♀, Venezuela, Aragua, Rancho Grande, 1100 m, 22-23.I.1978, 25-26.I.1978, 1-7.VIII.1967, 24-31.X.1966 (S.S. & W.D. Duckworth, R.W. Poole, J.B. Heppner), gent CG 7027 (3) (USNM, CG). New for Colombia and Venezuela.

#### 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 H. limariae has a left saccular process of this shape, but widening is centrally positioned, and in the right valve the saccular process has a short hook near tip.

DESCRIPTION. Wingspan 20 mm. Head appressedly scaled, beige, between base of antennae grey-white. Palps protruding, ventrally white, dorsally beige, 1½x eye-diameter. Antennae pale ochreous-white, ciliated. Collar dark beige. Thorax and tegulae rostrally and caudally grey-white, midarea beige. Mesothorax beige, mixed grey-white. Abdomen beige, with brown dorsal longitudinal line. Hind legs ochreous-white, with two pairs of asymmetrical spurs, medial spurs longer than lateral spurs and proximal pair longer than

Fore wings cleft from \(^2\)\_3, pale beige. Markings brown: narrow double lines from wing base to discal spot; oblique spot just before base of cleft; diffuse scaling along costa from wing base to costal spot, which is above base of cleft; first lobe with central, longitudinal spot, and narrow line along cleft; second lobe with oblique line from oblique spot before base of cleft to anal region. Fringes in cleft greybrown, at termen and wing dorsum grey-white. Underside brown.

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

Male genitalia. Genitalia asymmetrical. Left valve with saccular spine short, and rather broad, knob-like, widening before tip, followed by short, slender tip. Right valve with narrow longitudinal saccular stick. Uncus rather slender, curved, <sup>2</sup>/<sub>3</sub> of tegumen length. Tegumen bilobed. Juxta rather 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) reflexes the mix of beige and brown pattern elements on the fore wing.

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

Fig. 27, 56, 66.

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

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

# Oidaematophorus papallacta Gielis, 2011 comb.n.

Fig. 67.

Hellinsia papallacta Gielis, 2011: 660. Ecuador.

MATERIAL. 1 \(\text{\text{\text{\text{\text{Venezuela, Trujillo, Sector Cañadas, 2300}}}\) m, 18.IV.2006 (T. Pyrcz), gent CG 6988 (ZMJU). New for Venezuela.

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 seminalis 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 \(\sigma\), 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, Ara-

gua, Rancho Grande, 1100 m, 24-31.X.1966 (S.S. & W.D.

Duckworth), gent CG 7041 (USNM, CG). New for Ecuador

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

and Venezuela.

MATERIAL. 3 & Nenezuela, 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.

MATERIAL. Holotype ♂, Venezuela, Aragua, P.N. H. Pittier, Estacion Rancho Grande & Sendero la Toma, 1100-1125 m, 17.VII.2009 (B. Landry), gent CG 6989 (MIZA). Paratype ♀, Venezuela, Aragua, P.N. H. Pittier, Paso Portachuelo, 10° 20,851'N 67° 41,276'W, 1136 m, 21.VII.2009 (B. Landry), gent CG 7015 (CG).

DIAGNOSIS. The species externally and in the male genitalia resembles *A. planaltina* Gielis, 1992. It differs by the greyblack 6<sup>th</sup> 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 appressedly scaled, vertex pale ochreous-white, between base of antennae pale brown, face gradually changing from pale brown to 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 ½; 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 greybrown, 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.

Male genitalia. Asymmetrical. Left valve with saccular process from 5/12 of valve length, well developed, and strongly curved near tip. Right valve with long, mildly curved saccular process. Uncus half tegumen length, slender. Tegumen broad, bilobed. Juxta strongly developed, with asymmetrical anellus arms. Vinculum arched. Aedeagus slender, minimally curved. No cornutus.

Female genitalia. Ostium curved. Antrum slightly longer than wide, with pair of longitudinal sclerites. Ductus bursae long and slender. Bursa copulatrix vesicular, without signum. Ductus seminalis just over half the length of ductus bursa, slender. Lamina ante- and post-vaginalis poorly developed. Apophyses anteriores absent. Apophyses posteriores 2x papillae anales.

ECOLOGY. The moth flies in July, at an altitude of 1100 meters. Hostplant unknown.

DISTRIBUTION. Venezuela: Aragua.

ETYMOLOGY. The species is named after H. Pittier, a biologist who explored the region Aragua in the first half of the 20<sup>th</sup> 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

Leioptilus thomae Zeller, 1877: 480. Virgin Is., St. Thomas.

MATERIAL. 2  $\circlearrowleft$  Venezuela, Aragua, Rancho Grande, 1100 m, 16-19.I.1966, 1-5.IX.1966 (S.S. & W.D. Duckworth), gent CG 7043 (USNM). New for Venezuela.

## Emmelina aethes (Walsingham, 1915)

Pterophorus aethes Walsingham, 1915: 447. Mexico (Ver).

MATERIAL.  $2 \circlearrowleft \circlearrowleft, 7 \hookrightarrow \circlearrowleft$ , Venezuela, Aragua, Rancho Grande, 11-15.I.1966, 8-14.VII.1967, 16-23.X.1966, 24-31.X. 1966, 5.XI.1966 (S.S. & W.D. Duckworth, R.W. Poole), gent CG 7028 ( $\circlearrowleft$ ) (USNM, CG). New for Venezuela.

#### **Acknowledgements**

I wish to express my thanks for the help, loans of specimens, advice, and donation of specimens to the following persons: Dr. Vitor O. Becker, Camaran, Brazil (VOB); Dr. Dierl, Munich, Germany (ZSM); Mrs. Dr. Hernandez-Duran, Bogota, Colombia; Dr. O. Karsholt, Copenhagen, Denmark (ZMUC); Dr. B. Landry, Geneva, Switzerland (MHNG); Prof. Dr. N. Minet, Paris, France (MNHN); Mr. Chris Snijer, Belgium; Mrs. Dr. Alma Solis, Washington, U.S.A (USNM).; Prof. Dr. Janusz Wojtusiak (†), Cracow, Poland (ZMJU). A special word of thanks goes to Hugo W. van der Wolf, for his critical reading of the text and linguistic help.

#### References

- GIELIS, C. 2006. Review of the Neotropical species of the family Pterophoridae, part I: Ochyroticinae, Deuterocopinae, Pterophorinae (Platyptiliini, Exelastini, Oxyptilini). Zoologische Mededelingen, Leiden 80: 1-290.
- GIELIS, C. 2011. Review of the Neotropical species of the family Pterophoridae, part II: Pterophorinae (Oidaematophorini, Pterophorini). Zoologische Mededelingen, Leiden, 85: 589-824.
- GIELIS, C. 2012. Review of the Neotropical species of the family Pterophoridae, part III: Additions from Chile, Ecuador and Paraguay (Lepidoptera). Boletin de la Sociedad Entomologica Aragonesa (S.E.A.), 51: 105-124.
- GIELIS, C. 2013. Review of the Neotropical species of the family Pterophoridae, part IV: Additions from Argentina, Bolivia, Chile, and Uruguay (Lepidoptera). *Boletin de la Sociedad Entomologica Aragonesa (S.E.A.)*, **53**: 95-109.
- HERNAMDEZ, L. C., L. S. FUENTES, G. E. FAJARDO & D. L. MATTHEWS 2014. A new species of Oidaematophorus from Chingaza National Natural Park Colombia. *Tropical Lepidoptera Research*, 24: 15-21.

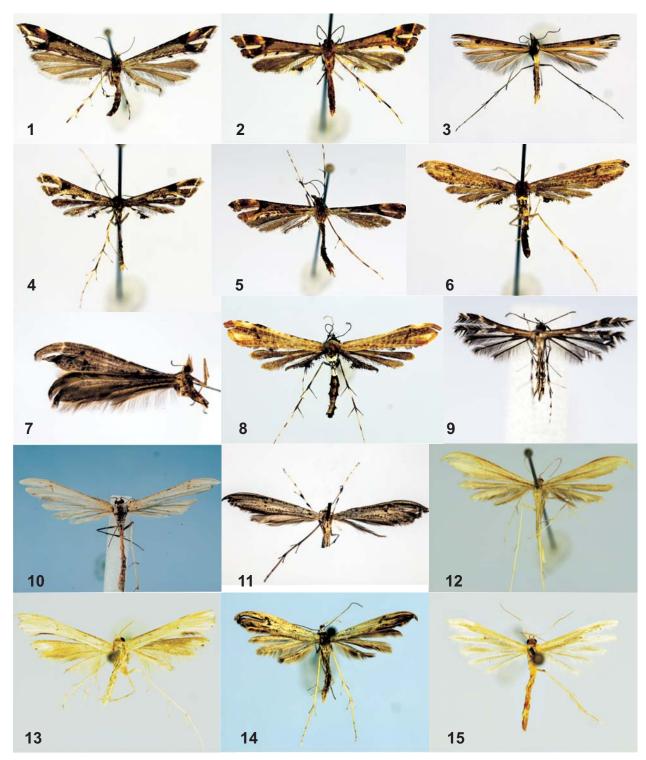


Fig. 1 - 15. Imago. 1. Platyptilia wojtusiaki Gielis, sp. n. Holotype. Ecuador, Napo, Papallacta, 3250 m, 18.I.2004 (J. Wojtusiak), gent CG 6922 (ZMJU). 2. Anstenoptilia breviane llus Gielis sp. n. Holotype. Ecuador, Napo, Papallacta, 2650 m, 20.1.2004 (J. Wojtusiak), gent CG 6925 (ZMJU). 3. Stenoptilia cinnamalta Gielis sp. n. Holotype. Ecuador, Carchi, Tufiño - Maldonado, 3350 m, 27.VIII.2004 (J. Wojtusiak), gent CG 6963 (ZMJU). 4. Postplatyptilia oxapampa Gielis sp. n. Holotype. Peru, Pasco, Yanachaga-Chemillen N.P., Oxapampa, El Cedro, 10°32'42"S 75°21'30"W, 2460 m, 1.II.2003 (J. Wojtusiak & Gapricz), gent CG 6929 (ZMJU). 5. Postplatyptilia sangaya e Gielis sp. n. Holotype. Ecuador, P.N. Sangay, Quebrada Shilñan, 3100 m, 23.I.2005 (J. Wojtusiak), gent CG 6927 (ZMJU). 6. Lioptilo des gualaceo Gielis, sp. n. Holotype. Ecuador, Morona-Santiago, via Gualaceo - Limon, 2400 m, 20.VIII.2004 (J. Wojtusiak), gent CG 6965 (ZMJU). 7. Lioptilo des macubajia Gielis, sp. n. Holotype. Venezuela, Merida, Mucubaji Research Stt., 3350 m, 6-7.II.1978 (J.B. Heppner), gent. CG 7040 (USNM). 8. Lioptilodes yanachagae Gielis, sp. n. Holotype. Peru, Oxapampa, Yanachaga-Chemillen N.P., El Cedro, 2460 m, 3.II.2003 (J. Wojtysiak), gent CG 6966 (ZMJU). 9. Buckleria tridens Gielis, sp. n. 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). 10. Hellinsia espejoi Gielis, sp. n. Holotype. Ecuador, Carchi, Maldonado, 2200 m, 9-11.I.1993 (V.O. Becker), gent CG 7019 (Becker nr. 105091). 11. Hellinsia hami Gielis, sp. n. Holotype. Ecuador, Napo, Papallacta, 2950 m, 17.I.2004 (J. Wojtusiak), gent CG 6971 (ZMJU). 12. Hellinsia bifurca Gielis, sp. n. 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). 13. Hellinsia carpishia Gielis, sp. n. Holotype. Peru, Huanaco, Carpish Pass, 23.I.2003 (J. Wojtusiak), gent CG 6973 (ZMJU). 14. Hellinsia impuritatis Gielis, sp. n. Holotype. Peru, Pasco, Oxapampa, Yanachaga-Chemillen N.P., El Cedro, 10° 32' 43"S 75° 21' 30"W, 2460 m, 4-5.II.2003 (Wojtusiak & Garl;acz), gent CG 6985 (ZMJU). 15. Hellin sia aldasi Gielis, sp. n. Holotype. Ecuador, Carchi, Lita, El Tambo, II.2004 (J. Aldas), gent CG 6969 (ZMJU).

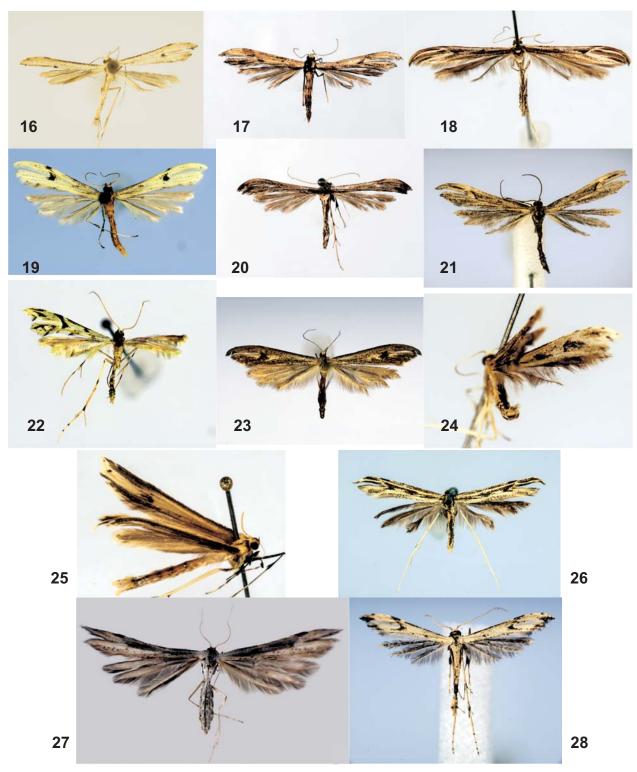


Fig. 16 - 28. Imago. 16. Hellinsia macritudinis Gielis, sp. n. Holotype. Venezuela, Merida, Mucuy Fish Hatchery, 7 km E Tabay, 2000 m, 10-13.II.1978 (J.B. Heppner), gent CG 7042 (USNM). 17. Hellinsia estrellae Gielis sp. n. Holotype. Colombia, Medellin, La Estrella, 1700 m, 2-5.IX.1962 (B. Schneble), gent CG 5674 (ZSM). 18. Hellinsia meridae Gielis, sp. n. Paratype. Venezuela, Merida, 4 km S Sto Domingo, 19-23.II.1976 (C.M. & S.S. Flint), gent CG 7055 (CG). 19. Hellinsia pascoae Gielis, sp. n. 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). 20. Hellinsia schneblei Gielis sp. n. Holotype. Colombia, Medellin, La Estrella, 1700 m, 22-24.V.1963 (B. Schneble), gent CG 5669 (ZSM). 21. Hellinsia patate Gielis, sp. n. Holotype. Ecuador, Tungurahue, Patate, 3000 m, 7.XII.1992 (V.O. Becker), gent CG 7017 (Becker nr. 100100). 22. Hellinsia viridia Gielis, sp. n. Paratype. Peru, Pasco, Oxapampa, El Cedro, Yanachaga-Chemillen N.P., 10° 32' 43"S 75° 21' 30"W, 2460 m, 3.II.2003 (J. Wojtusiak) (CG). 23. Hellinsia griseopuncta Gielis sp. n. Paratype. Ecuador, P.N. Sangay, Via Guamote – Macas, 3400 m, 24.I.2004 (J. Wojtusiak), gent CG 6920 (CG). 24. Hellinsia yacumbae Gielis, sp. n. Holotype. Venezuela, Estado Lara, Yacumba National Park, 13 km SE Sañare, 1550 m, 28-31.VII.1981 (J.B. Heppner), gent CG 7031 (USNM). 25. Hellinsia carbonerae Gielis, sp. n. Holotype. Venezuela, Merida, 25 km SE La Azulita, La Carbonera, 2165 m, 20.II.1978 (J.B. Heppner), gent CG 7037 (USNM). 26. Hellinsia migmatis Gielis, sp. n. Holotype. Ecuador, Loja, no date, no collector, gent CG 7051 (USNM). 27. Oidaematophorus espeletiae Hernandez, Fuentes, Fajardo & Matthews, 2014. After Hernandez ao, 2014. 28. Adaina pittieri Gielis, sp. n. Holotype. Venezuela, Aragua, P.N. Pittier, Estacion Rancho Grande & Sendero la Toma, 1100-1125 m, 17.VII.2009 (B. Landry), gent CG 6989 (MIZA).

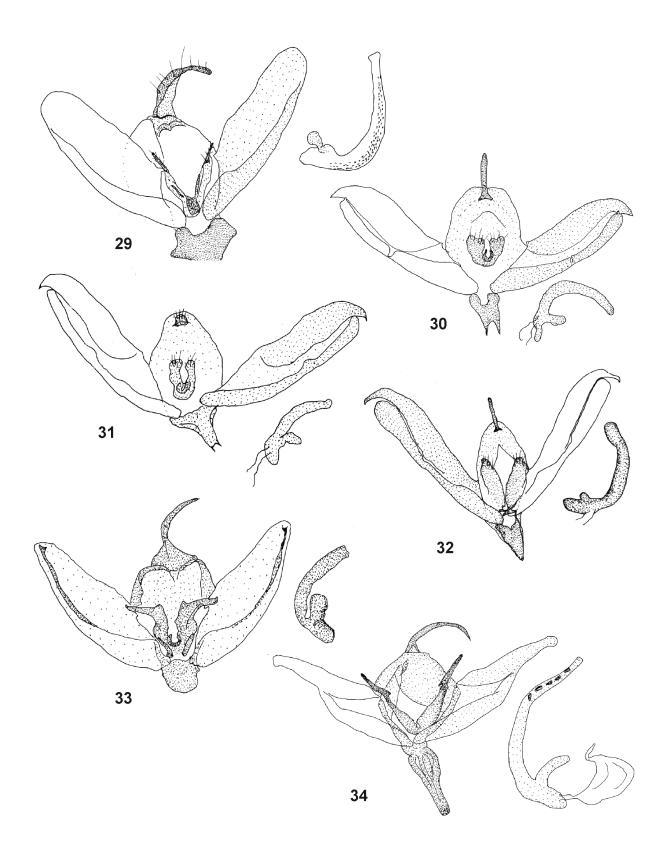


Fig. 29 - 34. Male genitalia. 29. Platyptilia wojtusiaki Gielis, sp. n. Holotype. Ecuador, Napo, Papallacta, 3250 m, 18.1.2004 (J. Wojtusiak), gent CG 6922 (ZMJU). 30. Anstenoptilia brevianellus Gielis sp. n. Holotype. Ecuador, Napo, Papallacta, 2650 m, 20.1.2004 (J. Wojtusiak), gent CG 6925 (ZMJU). 31. Postplatyptilia oxapampa Gielis sp. n. Paratype. Peru, Pasco, Yanachaga-Chemillen N.P., Oxapampa, El Cedro, 10°32'42"S 75°21'30"W, 2460 m, 1.II.2003 (J. Wojtusiak & Gaprlcz), gent CG 6924 (CG). 32. Postplatyptilia sangayae Gielis sp. n. Holotype. Ecuador, P.N. Sangay, Quebrada Shilñan, 3100 m, 23.I.2005 (J. Wojtusiak), gent CG 6927 (ZMJU). 33. Lioptilodes gualaceo Gielis, sp. n. Holotype. Ecuador, Morona-Santiago, via Gualaceo – Limon, 2400 m, 20.VIII.2004 (J. Wojtusiak), gent CG 6965 (ZMJU). 34. Lioptilodes macubajia Gielis, sp. n. Holotype. Venezuela, Merida, Mucubaji Research Stt., 3350 m, 6-7.II.1978 (J.B. Heppner), gent. CG 7040 (USNM).

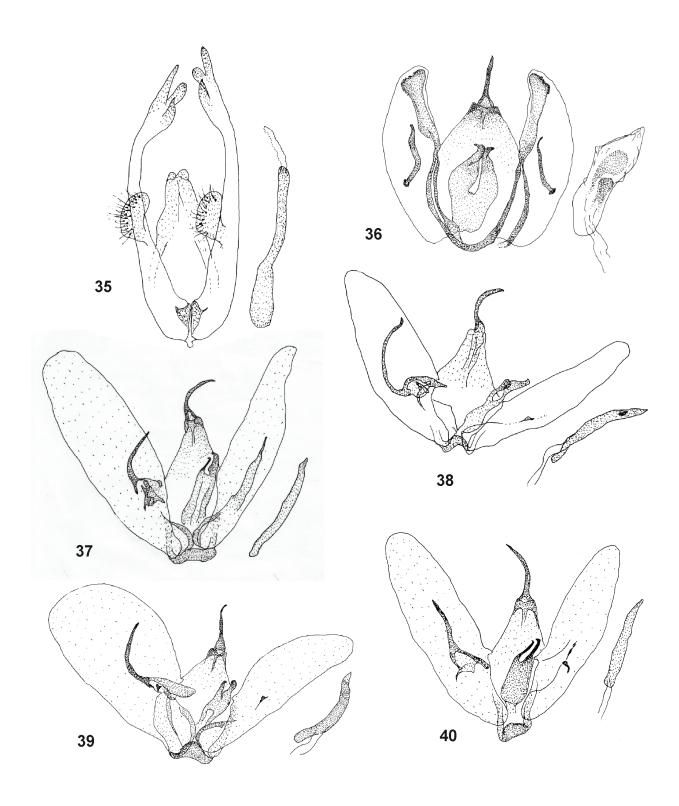


Fig. 35 - 40. Male genitalia. 35. Buckleria tridens Gielis, sp. n. Holotype. French Guyana, 400 m N Route N2, at 1,5 km route D6, 4° 47,710'N 52° 23,804'W, 5 m, 9.IV.2008 (Landry, Reuteler, Néron), gent CG 6990 (MHNG). 36. Hellinsia spiculibursa Gielis. Venezuela, Aragua, P.N. H. Pittier, Estacion Rancho Grande & Sendero la Toma, 1100 – 1125 m, 14.VII.2009 (B. Landry), gent CG 7014 (MNHG). 37. Hellinsia montufari Gielis. Ecuador, Loja, East Cordilliera, Saraguro – Las Antenas, 3100 m, 24.VIII.2004 (J. Wojtusiak), gent CG 6913 (CG). 38. Hellinsia aguilerai Gielis. Ecuador, Pichincha, Chiriboga, West Coredilliera, 3100 m, 5.II.2005 (J. Wojtusiak), gent CH 6968 (ZMJU). 39. Hellinsia espejoi Gielis, sp. n. Holotype. Ecuador, Carchi, Maldonado, 2200 m, 9-11.I.1993 (V.O. Becker), gent CG 7019 (Becker nr. 105091). 40. Hellinsia hami Gielis, sp. n. Holotype. Ecuador, Napo, Papallacta, 2950 m, 17.I.2004 (J. Wojtusiak), gent CG 6971 (ZMJU).

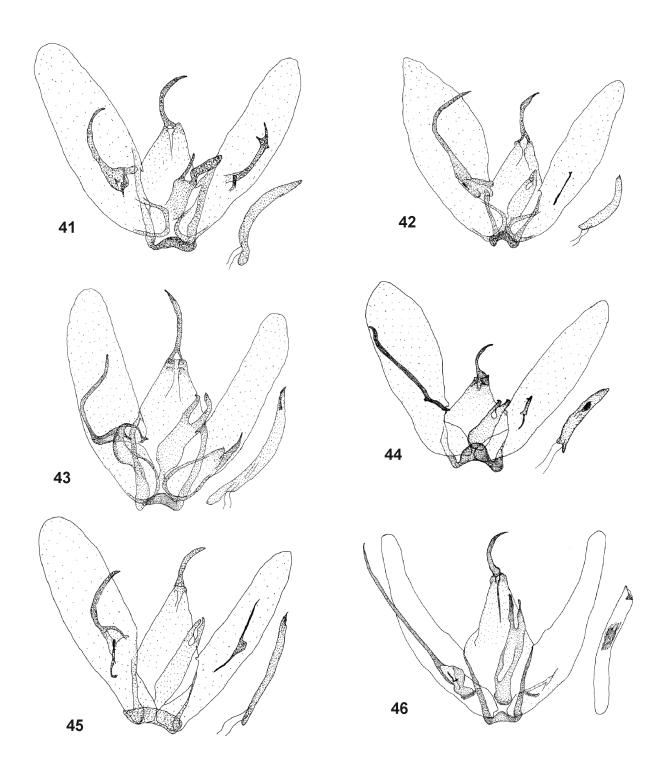


Fig. 41 - 46. Male genitalia. 41. Hellinsia bifurca Gielis, sp. n. Holotype. Peru, Pasco, Oxapampa, Yanachaga-Chemillen N.P., El Cedro, 10°32'43"S 75°21'30"W, 2460 m, 1.II.2003 (J. Wojtusiak), gent CG 6986 (ZMJU). 42. Hellinsia carpishia Gielis, sp. n. Holotype. Peru, Huanaco, Carpish Pass, 23.I.2003 (J. Wojtusiak), gent CG 6973 (ZMJU). 43. Hellinsia impuritatis Gielis, sp. n. Holotype. Peru, Pasco, Oxapampa, Yanachaga-Chemillen N.P., El Cedro, 10° 32' 43"S 75° 21' 30"W, 2460 m, 4-5.II.2003 (Wojtusiak & Gart;acz), gent CG 6985 (ZMJU). 44. Hellinsia aldasi Gielis, sp. n. Holotype. Ecuador, Carchi, Lita, El Tambo, II.2004 (J. Aldas), gent CG 6969 (ZMJU). 45. Hellinsia macritudinis Gielis, sp. n. Holotype. Venezuela, Merida, Mucuy Fish Hatchery, 7 km E Tabay, 2000 m, 10-13.II.1978 (J.B. Heppner), gent CG 7042 (USNM). 46. Hellinsia estrellae Gielis sp. n. Holotype. Colombia, Medellin, La Estrella, 1700 m, 2-5.IX.1962 (B. Schneble), gent CG 5674 (ZSM).

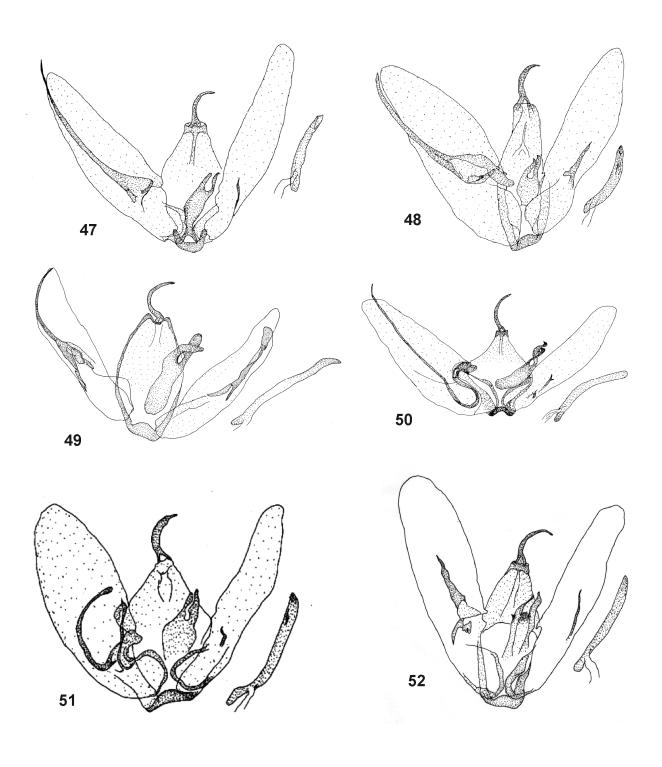


Fig. 47 - 52. Male genitalia. 47. Hellinsia meridae Gielis, sp. n. Holotype. Venezuela, Merida, Mucubaji Research Stt., 3350 m, 6-7.II.1978 (J.B. Heppner), gent. CG 7032 (USNM). 48. Hellinsia pascoae Gielis, sp. n. Holotype. Peru, Pasco, El Cedro, Yanachaga Chemillen N.P., 10° 32′ 43″S 75° 21′ 30″W, 2460 m, 4-5.II.2003, gent CG 6980 (ZMJU). 49. Hellinsia schneblei Gielis sp. n. Holotype. Colombia, Medellin, La Estrella, 1700 m, 22-24.V.1963 (B. Schneble), gent CG 5669 (ZSM). 50. Hellinsia patate Gielis, sp. n. Holotype. Ecuador, Tungurahue, Patate, 3000 m, 7.XII.1992 (V.O. Becker), gent CG 7017 (Becker nr. 100100). 51. Hellinsia viridia Gielis, sp. n. Holotype. Peru Huanaco, Carpish Pass, 23.I.2003 (J. Wojtusiak), gent CG 6961 (ZMJU). 52. Hellinsia griseopuncta Gielis sp. n. Holotype. Ecuador, Napo, Papallacta, 2650 m, 20.I.2004 (J. Wojtusiak), gent CG 6916 (ZMJU).

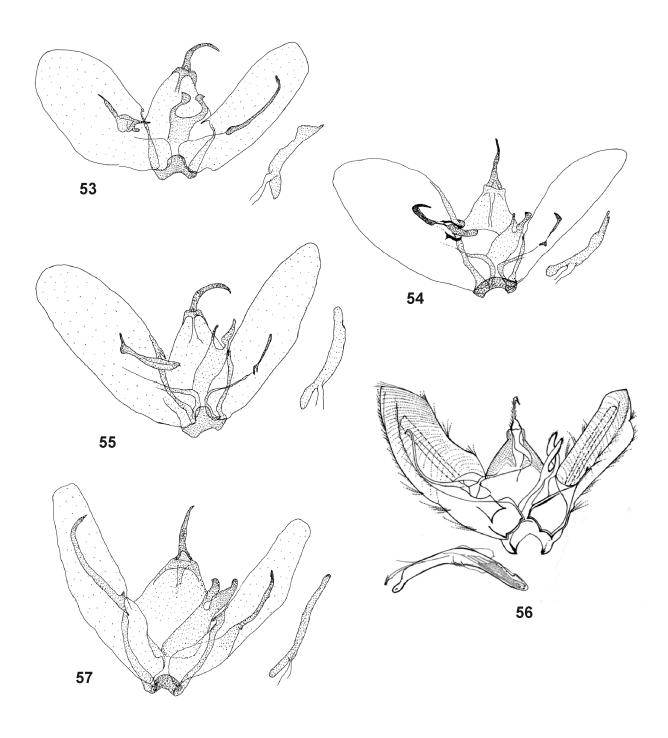


Fig. 53 - 57. Male genitalia. 53. Hellinsia yacumbae Gielis, sp. n. Holotype. Venezuela, Estado Lara, Yacumba National Park, 13 km SE Sañare, 1550 m, 28-31.VII.1981 (J.B. Heppner), gent CG 7031 (USNM). 54. Hellinsia carbonerae Gielis, sp. n. Holotype. Venezuela, Merida, 25 km SE La Azulita, La Carbonera, 2165 m, 20.II.1978 (J.B. Heppner), gent CG 7037 (USNM). 55. Hellinsia migmatis Gielis, sp. n. Holotype. Ecuador, Loja, no date, no collector, gent CG 7051 (USNM). 56. Oidaematophorus espeletiae Hernandez, Fuentes, Fajardo & Matthews, 2014. After Hernandez ao, 2014. 57. Adaina pittieri Gielis, sp. n. Holotype. Venezuela, Aragua, P.N. Pittier, Estacion Rancho Grande & Sendero la Toma, 1100-1125 m, 17.VII.2009 (B. Landry), gent CG 6989 (MIZA).

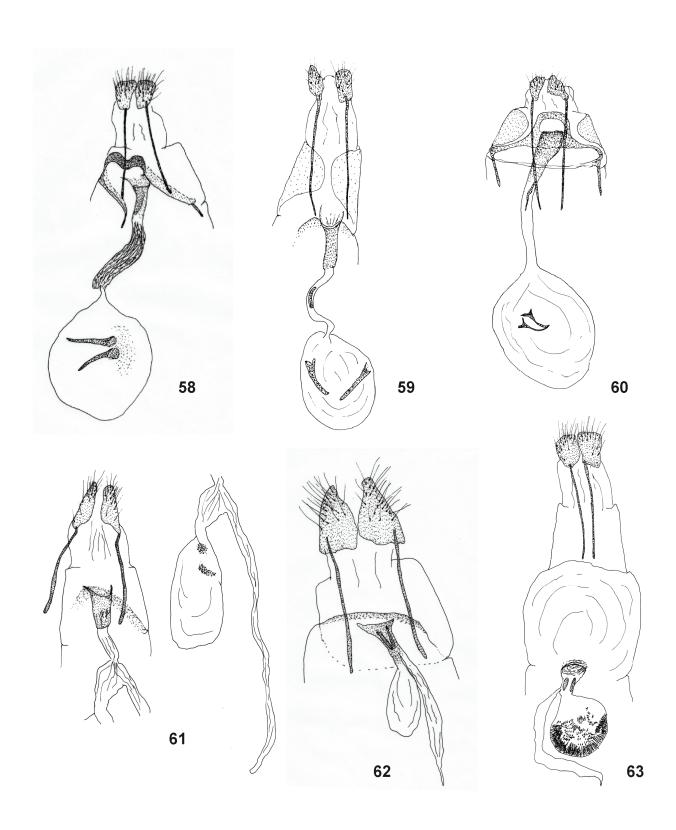


Fig. 58 - 63. Female genitalia. 58. Stenoptilodes huanacoicus Gielis. Ecuador, Napo, Papallacta, 3250 m, 18.1.2004 (J. Wojtusiak), gent CG 6912 (ZMJU). 59. Stenoptilia cinnamalta Gielis sp. n. Holotype. Ecuador, Carchi, Tufiño — Maldonado, 3350 m, 27.VIII.2004 (J. Wojtusiak), gent CG 6963 (ZMJU). 60. Lioptilodes yanachagae Gielis, sp. n. Holotype. Peru, Oxapampa, Yanachaga-Chemillen N.P., El Cedro, 2460 m, 3.II.2003 (J. Wojtysiak), gent CG 6966 (ZMJU). 61. Hellinsia pelospilus (Zeller). Ecuador, Loja, Vilcabamba, 1530 m, 31.1.2004 (J. Wojtusiak), gent CG 6921 (ZMJU). 62. Hellinsia cajanuma Gielis. Ecuador, P.N. Sangay, Via Guamote — Macas, 3400 m, 24.1.2004 (J. Wojtusiak), gent CG 6908 (ZMJU). 63. Hellinsia estrellae Gielis sp. n. Paratype. Colombia, Medellin, La Estrella, 1700 m, 15-20.IX.1962 (B. Schneble), gent CG 6923 (CG).

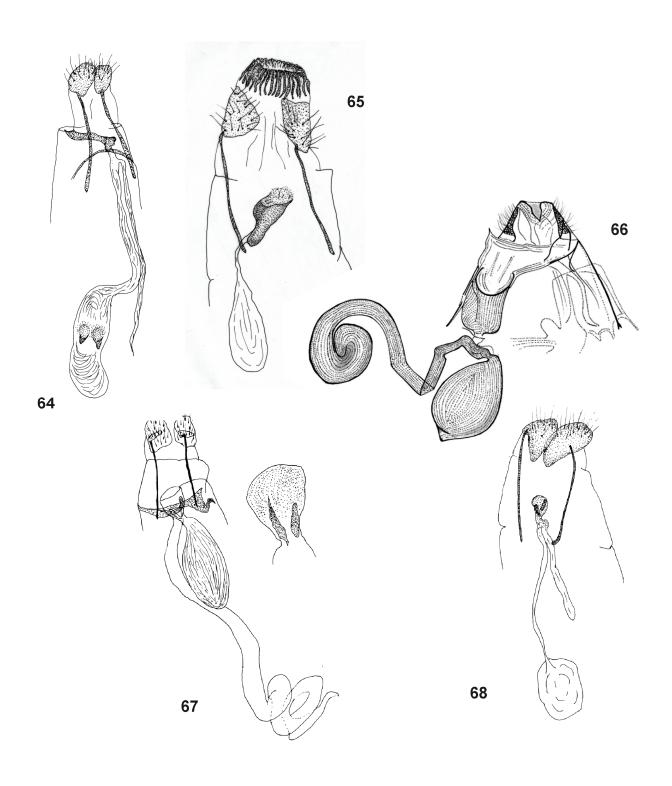


Fig. 64 - 68. Female genitalia. 64. Hellinsia meridae Gielis, sp. n. Paratype. Venezuela, Merida, 4 km S Sto Domingo, 19-23.II.1976 (C.M. & S.S. Flint), gent CG 7055 (CG). 65. Hellinsia griseopuncta Gielis sp. n. Paratype. Ecuador, P.N. Sangay, Via Guamote – Macas, 3400 m, 24.I.2004 (J. Wojtusiak), gent CG 6920 (CG). 66. Oidaematophorus espeletiae Hernandez, Fuentes, Fajardo & Matthews, 2014. After Hernandez ao, 2014. 67. Oidaematophorus papallacta (Gielis, 2011). Venezuela, Trujillo, Sector Cañadas, 2300 m, 18.IV.2006 (T. Pyrcz), gent CG 6988 (ZMJU). 68. Adaina pittieri Gielis, sp. n. Paratype. Venezuela, Aragua, P.N. H. Pittier, Paso Portachuelo, 10° 20,851'N 67° 41,276'W, 1136 m, 21.VII.2009 (B. Landry), gent CG 7015 (CG).