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Additions to the Pterophoridae (Lepidoptera) fauna of Papua

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Abstract

In recently obtained material from Papua, the Indonesian part of New Guinea, new species were recognized: *Leptodeutero copus sorongensis* sp.n., *Deutero copus papuaensis* sp.n., *Platyptilia microscura* sp.n., *Lantanophaga dubitationis* sp.n., *Xyroptila colluceo* sp.n., *Nippoptilia pullum* sp.n., *Megalorhipida madoris* sp.n., and *Hellinsia biangulata* sp.n. Synonyms were established: *Platyptilia petila* YANO, 1963 is a junior synonym of *Platyptilia molopias* MEYRICK, 1906 (syn.nov.); *Platyptilia monotrigona* DIAKONOFF, 1952 is a junior synonym of *Stenoptilodes taprobanes* (FELDER & ROGENHOFER, 1875) (syn.nov.); and *Hellinsia agassizi* GIELIS, 2003 is a junior synonym of *Hellinsia wamenae* GIELIS, 2003 (syn.nov.). The female genitalia structure of *Nippoptilia spinosa* YANO, 1963 is illustrated for the first time.

Zusammenfassung

In kürzlich erhaltenem Material aus Papua, dem Indonesischen Teil Neu-Guineas, wurden neue Arten gefunden: *Leptodeutero copus sorongensis* sp.n., *Deutero copus papuaensis* sp.n., *Platyptilia microscura* sp.n., *Lantanophaga dubitationis* sp.n., *Xyroptila colluceo* sp.n., *Nippoptilia pullum* sp.n., *Megalorhipida madoris* sp.n. und *Hellinsia biangulata* sp.n. Synonyme wurden festgestellt: *Platyptilia petila* YANO, 1963

ist ein jüngeres Synonym von *Platyptilia molopias* MEYRICK, 1906 (syn.nov.); *Platyptilia monotrigona* DIAKONOFF, 1952 ist ein jüngeres Synonym von *Stenoptilodes taprobanes* (FELDER & ROGENHOFER, 1875) (syn.nov.); und *Hellinsia agassizi* GIELIS, 2003 ist ein jüngeres Synonym von *Hellinsia wamenae* GIELIS, 2003 (syn.nov.). Die weibliche Genitalstruktur von *Nippoptilia spinosa* YANO, 1963 wird erstmals abgebildet.

Key words : Indo-australian fauna; new species; synonyms; illustrations.

Introduction

In 2003, the first author (Gielis) composed a review of the Pterophoridae species of the entire island of New Guinea. This publication was related to projects of the Papua Insects Foundation to draw up an inventory and to map all insects from Papua Indonesia. Ever since new species have been discovered from the Papua Indonesia part of the island. In this publication some new species of Pterophoridae are described from recently obtained material of the UNCEN-ZMAN expedition in 2005. The other specimens originate from the RMNH collection in Leyden.

The projects of the Papua Insects Foundation (PIF) focusses on Papua Indonesia only, which comprises the western part of New Guinea upto 141° East at the PNG border, the Schouten Islands (Biak, Supiori, Numfoor and Yapen) and the Raja Ampat Islands (Waigeo, Batanta, Salawati and Misool). One of the most important aims of PIF, which is supported by Conservation International, is to cooperate with the local University of Cenderawasih (UNCEN) in order to involve the Papua students in the understanding and respectation of their environment and teach them the basics of entomology, ecology, taxonomy and more. More details can be found on the website of the foundation (www.papua-insects.nl).

Abbreviations

CG	Collection Cees GIELIS, Lexmond, The Netherlands.
KSP	Koleksie Serangga Papua (Private collection Henk VAN MASTRIGT), Jayapura, Papua, Indonesia
PIF	Papua Insects Foundation
PNG	Papua New Guinea
RMNH	Naturalis (Nationaal Natuurhistorisch Museum) (formerly Rijksmuseum voor Natuurlijke Historie), Leyden, The Netherlands
UNCEN	University of Cenderawasih, Waena, Papua, Indonesia
ZMAN	Zoölogisch Museum Amsterdam, University of Amsterdam, The Netherlands

***Leptodeuterocopus sorongensis* sp.n. (Figs 1, 14)**

M a t e r i a l : Holotype ♀. Indonesia, NW New Guinea, Sorong, Ramoi, 18.VII-14.VIII.1948, leg. M.A. Lieftinck, genitalia slide CG 5272 (RMNH).

D i a g n o s i s : The species is best characterized by the extensive mottled orange pattern on the forewings.

D e s c r i p t i o n : Female. Wingspan 12 mm. Head appressedly scaled, orange-brown. At the collar numerous erect, bifid scales. Palps two and a half times eye-diameter; dorsally orange and ventrally brown; curved up. Antennae shortly ciliated, blocked pattern: brown and brown-grey. Thorax and tegulae brownish-orange. Mesothorax brownish-orange with transverse white lines at cranial and rostral end; contact area with abdomen yellow-orange. Legs orange, with tarsal segments basally orange and distally brown.

Forewings cleft from 4/7th and 9/10th, brown colour with a densely mottled orange spot pattern on entire wing. dark tip of the three lobes. Fringes greyish, with two dark grey dashes at the dorsum, and black-brown at the apex and anal angle of all lobes. Underside dark brown, with some orange-white scales at 2/3rd of the first lobe.

Hindwings and fringes dark orange-brown. No evident scale tooth. Underside orange-brown, with a white transverse band in middle of first lobe. Venous scales covered by pronounced, very long orange scales, originating from the costal area of the wing.

Male genitalia: Unknown.

Female genitalia (Fig. 14): Ostium excavated. Antrum long, slender, tube-like; three times the ductus bursae. Ductus seminalis from junction between antrum and ductus bursae. Bursa copulatrix vesicular, without a signum. No apophyses anteriores. Apophyses posteriores three and a half times the papillae anales.

E c o l o g y : The moth flies in July and August. The hostplant is unknown.

D i s t r i b u t i o n : Indonesia, New Guinea: Sorong.

E t y m o l o g y : The species is named after the locality of its first discovery.

***Deuterocopus papuaensis* sp.n. (Figs 2, 9, 15)**

M a t e r i a l : Holotype ♂: Indonesia, Papua, Kecamatan Nipsan, Walmak, 1710 m, 4° 07'S 139° 38'E, 31.I-9.II.2005, Exp. UNCEN-ZMAN, genitalia slide CG 5275 (ZMAN).

Paratype ♀: Indonesia, Papua, Kecamatan Abenaho, Pass Valley, 1950 m, 3° 51'S 139° 05'E, 11-17.II.2005, Exp. UNCEN-ZMAN, genitalia slide CG 5404 (CG).

D i a g n o s i s : The species is characterized by the distinctive wing pattern and genital structures.

D e s c r i p t i o n : Male, female. Wingspan 11 mm. Head appressedly scaled, dark grey-brown. The tip of the scales dark brown. Collar with numerous long, erect, orange-brown, bifid scales. Palps slender, protruding, twice eye-diameter; second segment orange-brown, with terminal pale ring; third segment brown with central pale ring. Antennae shortly ciliated, blocked dark brown and ochreous-white. Thorax and tegulae dark brown and dark orange-brown scales. Mesothorax cranially orange, caudally white.

Fore legs orange-brown, tarsal segments black-brown. Mid legs as fore legs, with at the end of the tibiae a pair of equal long, long spurs and an orange-brown prominent scale brush. Hind legs, as mid legs, but tibiae with two pairs of spurs and three scale brushes.

Forewings cleft from $\frac{1}{2}$ and $\frac{3}{8}$ th; dark brown, with orange markings. Markings: a large subbasal dash; a transverse band before and at the base of the cleft, with a pair of brown dots at the base of the cleft; a transverse band at $\frac{1}{4}$ th of the first lobe, followed by a small dash at $\frac{3}{4}$; a continuation of the transverse band at the base of the cleft into the base of the second and third lobe; an ill-defined dash in the middle of the second lobe. Fringes grey-black, with grey-brown patches at: basal half of first cleft; a mid-dorsum and anal angle of second lobe; at mid-dorsum of third lobe with two patches separated by a narrow band of dark fringes, and an ill-defined patch at the anal angle of the third lobe. Underside dark brown, with some orange scaling in the basal parts of the wing, and in the middle of the first and second lobe.

Hindwings basally orange, gradually progressing into the first lobe dark brown; orange-brown in the second lobe and orange with whitish scales in the third lobe. Fringes grey-brown, in the third lobe mixed ochreous-orange. The third lobe with a small dark brown scale tooth, followed by a large terminal scale tooth at the dorsum and costa. Underside brown-orange. Venous scales bright orange, basally in a double row, terminally in a single row of double scales.

Male genitalia (Fig. 9): Valves symmetrical, split into a tubular sacculus part and a slightly longer and axe-like cucullus part. Especially the cucullar half covered with pronounced setae. Near the fusion point of the valve a small sclerotized ridge. Uncus bilobed, laterally covered with pronounced setae. Saccus bilobed, arched. Aedeagus semicircular curved, gradually narrowing.

Female genitalia (Fig. 15): Ostium slightly curved, covered by the triangular shaped extension of the lamina antevaginalis. Antrum gradually narrowing, with a double twist. Ductus bursae rather short, gradually progressing into the vesicular bursa copulatrix. Signum in shape of a large spiculated section of the bursa. Apophyses anteriores short and blunt. Apophyses posteriores three times longer than the papillae anales.

E c o l o g y : The moth flies in January - February. The hostplant is unknown.

D i s t r i b u t i o n : Indonesia, Papua: Kecamatan Nipsan.

E t y m o l o g y : The species is named after the Indonesian province of occurrence.

***Platyptilia microobscura* sp.n. (Figs 3, 10, 16)**

M a t e r i a l : Holotype ♂: Indonesia, Misool, Fakal, 0-75 m, 8.IX-20.X.1948, leg. M.A. Liefertinck (RMNH). Paratypes: 1♂, 2♀, same locality and date, genitalia slide CG 5569 (♂), 5570 (♀) (RMNH).

D i a g n o s i s : The species is characterized by its small size; the position of the scale teeth on the hindwing lobes; and the blackish colour of the entire insect.

D e s c r i p t i o n : Male, female. Wingspan 10 mm (male), 12 mm (female). Head appressedly scaled, brown-black, face ochreous-brown. Palps three times eye-diameter, mildly curved up, dark and ochreous-brown dorsally, and brown-ochreous ventrally.

Antennae shortly ciliated, dark brown with regular dispersed whitish scales, creating a blocked line pattern. Thorax and tegulae dark ochreous-brown; mesothorax ochreous. Legs ringed dark brown and ochreous-brown, the ochreous-brown in midcoxa and tibiae, and at the junctions of the tarsal segments; hind legs with two pairs of spurs, the proximal pair longer than the distal pair, dark brown with a central ochreous-brown area.

Forewings cleft from 2/3rd, dark black-brown. On the wing scattered ochreous-brown scales, minimally grouped to a small dorsal spot at 1/4th, and a small discal spot; some white scales at the costa, an oblique spot at 1/3rd of the costa of the first lobe, a transverse line at 3/4rd, and a subterminal transverse spot in both lobes. Fringes whitish, at the dorsum with black-brown patches at 3/4 and at the anal angle; basally, central at termen of the second lobe, and at the apex of both lobes; in the middle and at the subterminal area of the cleft, and basally at the termen of the first lobe. Underside Dark brown, with white markings as above.

Hindwings brown-black. The first lobe rather narrow, and acute; the second lobe with a large sinoid termen; and the third lobe short, 1/4th of the length of the first lobe. Fringes dark brown-grey, with whitish brown colour at the termen and dorsum of the second lobe; scaleteeth at costa and dorsum of the third lobe in middle and at the apex; at the anal angle and at a small one at 4/5 of the dorsum of the second lobe. Underside dark brown, with small white spots in the first lobe and a faint whitish spot in the centre of the second lobe. Venous scales reddish-ferruginous, in a double row, the costal row the longer.

Male genitalia (Fig. 10): Valvae symmetrical, elongate. Tip of valve with a saccular spine, and narrowed to accommodate a cucullar spine. Tegumen simple. Uncus rather short, and very wide, blunt. Saccus arched, with a bilobed extension with central scleritisation and acute tips. Tegumen and uncus covered with a membranous sheet from the 8th tergite. Aedeagus gradually narrowing, mildly curved.

Female genitalia (Fig. 16): Ostium narrow, excavated. Antrum as an extension of the narrow ostium, progressing into the ductus bursae. Bursa copulatrix vesicular, with a pair of signa, with a group of spiculae, with central a group of spiculae creating a small ridge. Lamina antevaginalis simple and narrow, Apophyses anteriores absent. Apophyses posteriores blunt, two and a half times the papillae anales, with a distinct hooked tip. Papillae anales densely covered with setae.

E c o l o g y : The moth flies in September and October. The hostplant is unknown.

D i s t r i b u t i o n : Indonesia: Misool.

E t y m o l o g y : The name reflects the eye striking characteristics of the species, being small and brown-black of colour.

R e m a r k s : The species has been placed in the genus *Platyptilia*. The shape of the male genitalia may cause discussion. The shape of the valve is unlike the regular shape which is not cleft, but there is a splitting of the tip into a separate saccular and cucullar tip, may be regarded as a line of development within this genus. So far, without further species to obtain more information on this development, the species seems best positioned in the present genus.

***Platyptilia molopias* MEYRICK, 1906**

Platyptilia molopias MEYRICK, 1906: 135.
Platyptilia petila YANO, 1963: 853. **syn.nov.**

After careful reading the descriptions of these species and examining the genital structures, we can find no substantial differences between any of the discussed structures. For this reason we propose to consider *Platyptilia petila* YANO to be a junior synonym of *P. molopias* MEYRICK.

***Stenoptilodes taprobanes* (FELDER & ROGENHOFER, 1875)**

Amblyptilia taprobanes FELDER & ROGENHOFER, 1875: plate 140, fig. 54.
Platyptilia brachymorpha MEYRICK, 1888: 240.
Platyptilia seeboldi HOFMANN, 1898: 33.
Platyptilia terlizzii TURATI, 1926: 67.
Platyptilia monotrigona DIAKONOFF, 1952: 15. **syn.nov.**
Amblyptilia zavatterii HARTIG, 1953: 67.
Platyptilia legrandi BIGOT, 1962b: 86.
Stenoptilodes vittata SERVICE, 1966: 11.

After careful reexamination of the holotype of *Platyptilia monotrigona* DIAKONOFF, we come to the conclusion that this species has to be considered a junior synonym of *Stenoptilodes taprobanes* (FELDER & ROGENHOFER, 1875), based on the following arguments:

- A. The shape and position of the subterminal line in the forewing;
- B. The spot pattern on the forewing;
- C. The shape of the forewing;
- D. The terminal position of the scale tooth at the third lobe of the hindwing.

***Lantanophaga dubitationis* sp.n. (Figs 4, 17)**

M a t e r i a l : Holotype ♀: Indonesia, Papua, Kecamatan Abenaho, Pass Valley, 3° 51'S 139° 05'E, 1950 m, 11-17.II.2005, Exp. UNCEN-ZMAN, genitalia slide CG 5277 (ZMAN).

D i a g n o s i s : The species characterized by the genital structure. The wing pattern, nor the genital structure is conclusive in the determination of the generic status of this species, so it will be temporarily placed in the genus which holds the best characteristics to match.

D e s c r i p t i o n : Female. Wingspan 19 mm. Head appressedly scaled, dark brown with some white scales between the base of the antennae and at the frons. Palps twice the eye-diameter; second segment dark brown, widened; third segment ochreous, slender. Antennae shortly ciliated, dark brown, ventrally in basal part with white scales. Collar with blunt, broad scales with a serrate tip; brown and white. Thorax and tegulae dark brown. Mesothorax whitish. first abdominal segments dark brown. (The abdomen has

been broken off the thorax and glued back up side down.) Legs dark brown. The hind legs with two pairs of spurs of equal length, the proximal pair longer than the distal pair; spurs with an ochreous-white, broad ring at 2/3rd. Forewings cleft from 9/13th, grey-brown. Markings dark brown: a costal triangle at the base of the cleft, and a transverse band in the center of both lobes. A white subterminal line margins the dark band. Fringes grey; dark patches at the apices and anal angles of the lobes, in the center of the termen of both lobes, and at the costa at middle and 3/4th; at the termen, between the dark patches white. Underside black-brown with a white subterminal line in both lobes.

Hindwings black-brown. Fringes grey. At the dorsum of the third lobe a subterminal triangular, black scale tooth. Underside black-brown. Venous scales dark ferruginous, in a double row, the costal the longer.

Male genitalia: Unknown.

Female genitalia (Fig. 17): Ostium slightly excavated. Antrum four times longer than wide. Ductus bursae long and slender. Bursa copulatrix vesicular, with a pair of arched, spiculated signa. Lamina ante-vaginalis extended as a rectangular plate, over the antrum and ostium, with a terminal sclerotized band and a number of transverse ridges. Apophyses anteriores from the lamina ante-vaginalis, three times the papillae anales. Apophyses posteriores five times the papillae anales.

E c o l o g y : The moth flies in February. The hostplant is unknown.

D i s t r i b u t i o n : Indonesia, Papua: Kecamatan Abenaho.

E t y m o l o g y : The name "dubitationis" meaning in doubt or doubtful, reflects the doubtful generic position the species has to be placed now, by the lack of a male.

Xyoptila colluceo sp.n. (Figs 5, 11)

M a t e r i a l : Holotype ♂: Indonesia, New Guinea, Sorong, 8.VI-14.VIII.1948, leg. M.A. Lieftinck, genitalia slide CG 5403 (RMNH).

D i a g n o s i s : The species is characterized by the pattern of spots on the forewing and the male genital structure.

D e s c r i p t i o n : Male. Wingspan 10 mm. Head appressedly scaled, dorsally brown, frons orange-brown. Palps curved up, three times eye-diameter, second segment dorsally orange-brown and ventrally brown, third segment brown. Antennae shortly ciliated, dark brown, with sparse white scales. Thorax and tegulae shining orange. Mesothorax shining orange with white scales. Legs shining orange; hind legs with two pairs of spurs of equal length, at the base of the spurs a small, brown scale brush; tarsal segments dark brown.

Forewings cleft from 3/5th, bright orange. Markings dark brown: a basal darkening along 1/4th of wing along the costa and dorsum; a discal spot extending to the costa; a costal and dorsal spot at the base of the cleft; a transverse band in the center of both lobes; and a subterminal darkening in both lobes. Termen of second lobe sinuate. Fringes orange-grey, with: a dark grey terminal 1/3rd in the cleft; dark at the termen of the first lobe and at the apex and anal angle of the second lobe; and a brush at 6/7th of the dorsum. Underside basally orange-brown, gradually dark brown towards apex; with an orange

dash along the costa above the base of the cleft and an orange costal spot at 1/3rd of the first lobe.

First and second lobe of hindwings dark brown; third lobe orange-brown. Fringes orange-grey. No scale teeth. Underside orange with brown costal streaks in first lobe. Venous scales bright orange, in a double row, the costal being the longer.

Male genitalia (Fig. 11): Valves symmetrical. Sacculus bilobed, and slightly angulated. Central in the valve a prominent setal brush. Cucullus near the tip of the valve with a double serrate margin. Tegumen extended, with short cleft in tip. Uncus not apparent. Juxta small, simple. Saccus blunt pointed. Aedeagus gradually conical, with acute tip.

Female genitalia: Unknown.

E c o l o g y : The moth flies in July and August. The hostplant is unknown.

D i s t r i b u t i o n : Indonesia, New Guinea: Sorong.

E t y m o l o g y : The name "colluceo" means shining. This reflects the bright shining appearance of the species.

R e m a r k s : In a recent review (KOVTONOVICH & USTJUZHANIN, 2006) of the genus *Xyroptila* a great number of new species were described. This has, on species level, substantially increased the knowledge of this genus. There is, however, a down side to this publication. Without a proper genus description, which is not present in the cited publication, it is difficult, if not impossible, to find the arguments used by the authors to comment on earlier publications, nor could the reason be detected which they used to place the treated species in the current genus. Also the removing of species out of this genus, without explaining the reason for this decision, and without indicating where that species has to be placed must be considered very poor, and not convincing.

***Nippopectia pullum* sp.n. (Figs 6, 12)**

M a t e r i a l : Holotype ♂: Indonesia, New Guinea, Sorong, 5.VI-7.VII.1948, leg. M.A. Lieftinck, genitalia slide CG 5273 (RMNH).

D i a g n o s i s : The species is characterized by the dark grey colour, and the male genital structures.

D e s c r i p t i o n : Male. Wingspan 11 mm. Head appressedly scaled, dark brown. Collar with erect, bifid, dark brown scales. Palps slender, curved up, pale brown with two dark rings at the second segment and one ring, basally at the third segment. Antennae shortly ciliated, ringed dark brown and greyish white. Thorax and tegulae dark brown. Mesothorax whitish. Fore, mid and hind legs dark brown with white scales; hind legs with white line along the tibiae; two pairs of spurs of equal length, at the base of the proximal pair a scale brush; last three tarsal segments whitish.

Forewings cleft from 6/11th; dark brown; markings faint ochreous: a dorsal spot at 1/4th, a discal spot, a spot at the base of the cleft, and a spot at 1/3rd in the first lobe. A subterminal white line in the first lobe. Fringes grey; white at the termen of the second lobe; blackish at the apex of the first lobe, in the terminal 1/3rd of the cleft and before the anal angle of the second lobe. Small scale teeth at the middle and at 1/4th of the dorsum,

and scattered black scales in the fringes of the cleft. Underside dark brown. A pale patch at 1/3rd and a white subterminal line in the first lobe.

Hindwings dark brown. Fringes brown-grey. At the dorsum of the third lobe small scale teeth at middle and 3/4th, and a large scale tooth terminally on the dorsum and costa. Underside dark brown. Venous scales in a double row, dark brown-ferruginous, the costal longer.

Male genitalia (Fig. 12): Valvae symmetrical, only slightly tapering towards tip. A large central saccular process, extending beyond the tip of the valve. Tegumen bilobed. Uncus small, below the cleft in the tegumen. Anellus arms slender and curved. Saccus arched. Aedeagus blunt, without cornutus.

Female genitalia: Unknown.

E c o l o g y : The moth flies in June and July. The hostplant is unknown.

D i s t r i b u t i o n : Indonesia, New Guinea: Sorong.

E t y m o l o g y : The name *pullum*, which means "of dark colour", reflects the general aspect of this moth.

***Nippoptilia spinosa* YANO, 1963. (Fig. 18)**

M a t e r i a l : Indonesia, NW New Guinea, Sorong, 5.VI-7.VII.1948, 28-VIII-6.IX.1948, leg. M.A. Lieftinck, genitalia slides CG 5402 (♂), 5269 (♀) (RMNH).

In the unidentified material stored in the RMNH specimens were found belonging to the present species. Among those is a female, hitherto not described. This description is given below:

Female genitalia (Fig. 18): Ostium excavated. Antrum gradually funneling to a narrow tube-like ductus bursae. Ductus bursae narrow, and long. Bursa copulatrix vesicular, with numerous spiculae, covering almost the entire bursa. Apophyses anteriores bluntly widened into lobe-like structures. Apophyses posteriores three times papillae anales.

***Megalorhipida madoris* sp.n. (Figs 7, 19)**

M a t e r i a l : Holotype ♀: Indonesia, Papua, Kecamatan Abenaho, Pass Valley, 3° 51'S 139° 05'E, 1950 m, 11-17.II.2005, Exp. UNCEN-ZMAN, genitalia slide CG 5276 (ZMAN).

D i a g n o s i s : The species is characterized by the shape of the female genitalia.

D e s c r i p t i o n : Female. Wingspan 11 mm. Head appressedly scaled, brown-grey mottled white. Palps drooping, brown-grey, just over eye-diameter. Antennae shortly ciliated, dark brown, with basally almost covered with white scales, distally less white scales, almost in a regular block pattern. Collar with rather short, erect brown-grey, bifid scales. Thorax and tegulae brown-grey. Mesothorax with sparse whitish scales. Legs grey-brown; hind legs with two pairs of spurs, all of equal length.

Forewings cleft from 6/11th, grey-brown. In the center of both lobes a transverse darker band, which is succeeded by a complete narrow, white subterminal line, which is

pronounced in the first lobe and obscure in the second. Fringes dark grey, blackish at the transverse bands and around the apices; a small scale tooth at the dorsum at 7/11th. Underside grey-brown, with small groups of ochreous-white scales at the base of the cleft, and in the lobes.

Hindwings and fringes dark brown. Terminally on the first and third lobe numerous whitish scales. At the dorsum of the third lobe a poorly developed scale tooth at 2/3rd. Underside: first lobe dark brown; second lobe ochreous-brown, and third lobe ochreous-brown with numerous white scales. Venous scales orange, in a double row, the costal row the longer.

Male genitalia: Unknown.

Female genitalia (Fig. 19): Ostium slightly excavated, with a left lateral appendix. Antrum funnel-shaped, one and a half times the width of the ostium. Ductus bursae slender, one and a half times antrum. Bursa copulatrix vesicular with a double signum, consisting of two rows of spiculae. Lamina antevaginalis bilobed. No apparent apophyses anteriores. Apophyses posteriores three times papillae anales.

E c o l o g y : The moth flies in February. The hostplant is unknown.

D i s t r i b u t i o n : Indonesia, Papua: Kecamatan Abenaho.

R e m a r k s : The species resembles *M. deboeri*, but differs in the more grey-brown colour of the forewing; the pattern and size of the palps and antennae, as well as the scale tooth on the dorsum of the hindwing.

E t y m o l o g y : The name *madoris* means humidity, which refers to the rainy season in which the species has been collected.

***Hellinsia wamenae* GIELIS, 2003**

Hellinsia wamenae GIELIS, 2003: 358.

Hellinsia agassizi GIELIS, 2003: 368. **syn.nov.**

In the now available material both, males and females, of *Hellinsia wamenae* were present. Comparing this material with the earlier described female of *Hellinsia agassizi* revealed no differences. For this reason *H. agassizi* has to be considered a junior synonym of *Hellinsia wamenae*.

***Hellinsia biangulata* sp.n. (Figs 8, 13)**

M a t e r i a l : Holotype ♂: Indonesia, Papua, Kecamatan Abenaho, Pass Valley, 3° 51'S 139° 05'E, 1950 m, 11-17.II.2005, Exp.UNCEN-ZMAN, genitalia slide CG 5264 (ZMAN).

Paratype ♂: Indonesia, Papua, Kecamatan Nipsan, Walmak, 4° 07'S 139° 38'E, 1710 m, 31.I-9.II.2005 (Exp. UNCEN-ZMAN) (CG).

D i a g n o s i s : The species is characterized by the fuscous scales in the basal forewing parts and the saccular structures in the valves of the male genitalia.

D e s c r i p t i o n : Male. Wingspan 16 mm. Head appressedly scaled, straw-yellow. Palps protruding, as long as eye-diameter, straw-yellow. Antennae pectinate, straw-

yellow. Thorax, tegulae, mesothorax and abdomen pale straw-yellow. Legs pale straw-yellow; hind legs with two pairs of spurs of equal length, the proximal pair longer than the distal pair.

Forewings cleft from 5/11th, straw-yellow. Markings brown: a diffuse, but intense, basal scaling more expressed dorsally, and reaching to the base of the cleft; scattered scales along the costa; a longitudinal dot at the costa just beyond the base of the cleft; subapical dots in both lobes; and a dorsal dot in the first lobe at 2/3rd. Fringes pale grey, darker near the apices. Underside straw-yellow, with a dense brown scaling from the base gradually less intense towards the apices.

Hindwings on sides and fringes straw-yellow. Underside of first lobe in basal area with pronounced, long brown scales. Venous scales black, in a double row, the costal row the longer.

Male genitalia (Fig. 13): Valves asymmetrical. Left valve rounded, with a double angulated saccular spine, which is just over 1/3rd of the valve length. Right valve slightly more parallel in shape, with a short and angulated saccular spine. Tegumen bilobed. Uncus short. Anellus arms short, and stout. Saccus arched. Aedeagus almost straight, with a small patch of spiculated cornuti.

Female genitalia: Unknown.

E c o l o g y : The moth flies in January and February. The hostplant is unknown.

D i s t r i b u t i o n : Indonesia, Papua: Kecamatan Abenaho, Kecamatan Nipsan.

E t y m o l o g y : The species is named after the characteristic double angulated structure of the left saccular spine.

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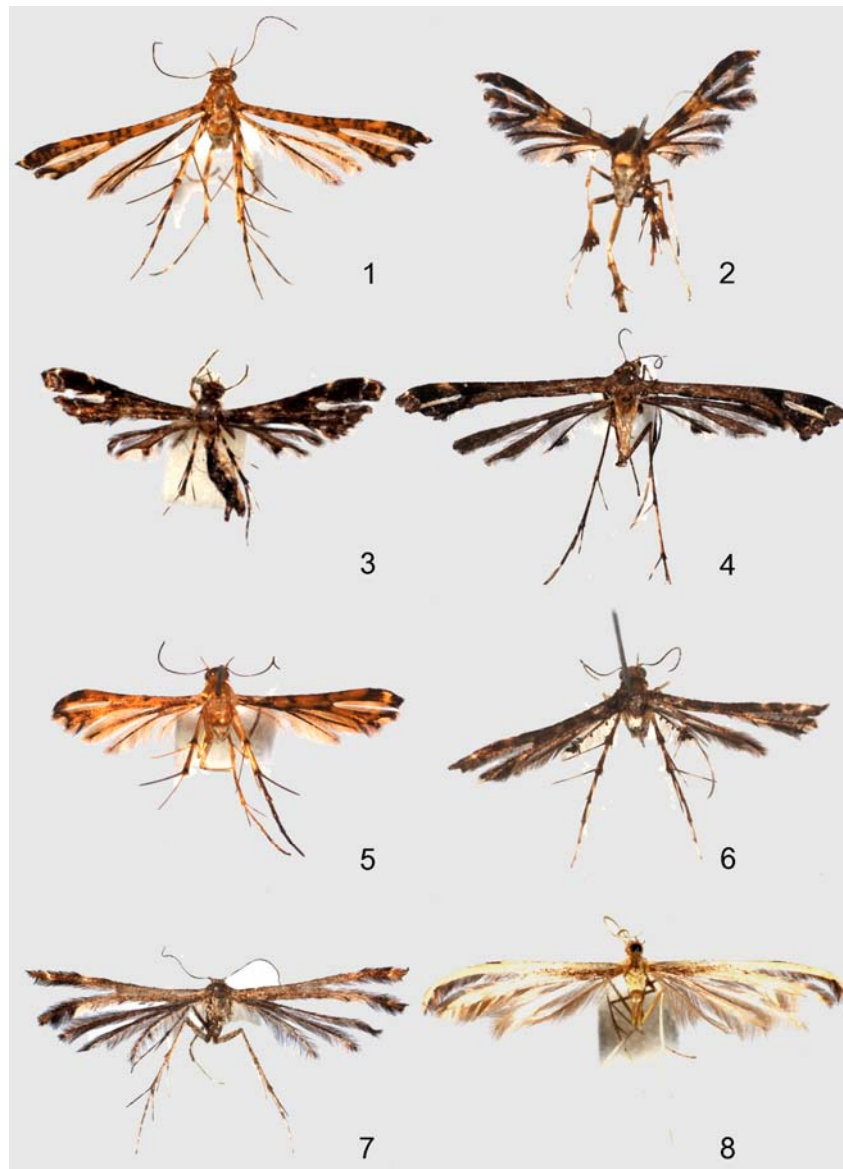


Fig. 1: *Leptodeuteroecopus sorongensis* sp.n., ♀, Holotype (Prep CG 5272). **Fig. 2:** *Deuteroecopus papuaensis* sp.n., ♂, Holotype (Prep CG 5275). **Fig. 3:** *Platyptilia microobscura* sp.n., ♂, Holotype. **Fig. 4:** *Lantanophaga dubitationis* sp.n., ♀, Holotype (Prep CG 5277). **Fig. 5:** *Xyroptila colluceo* sp.n., ♂, Holotype (Prep CG 5403). **Fig. 6:** *Nippoptilia pullum* sp.n., ♂, Holotype (Prep CG 5273). **Fig. 7:** *Megalorhipida madoris* sp.n., ♀, Holotype (Prep CG 5276). **Fig. 8:** *Hellinsia biangulata* sp.n., ♂, Holotype (Prep CG 5264).

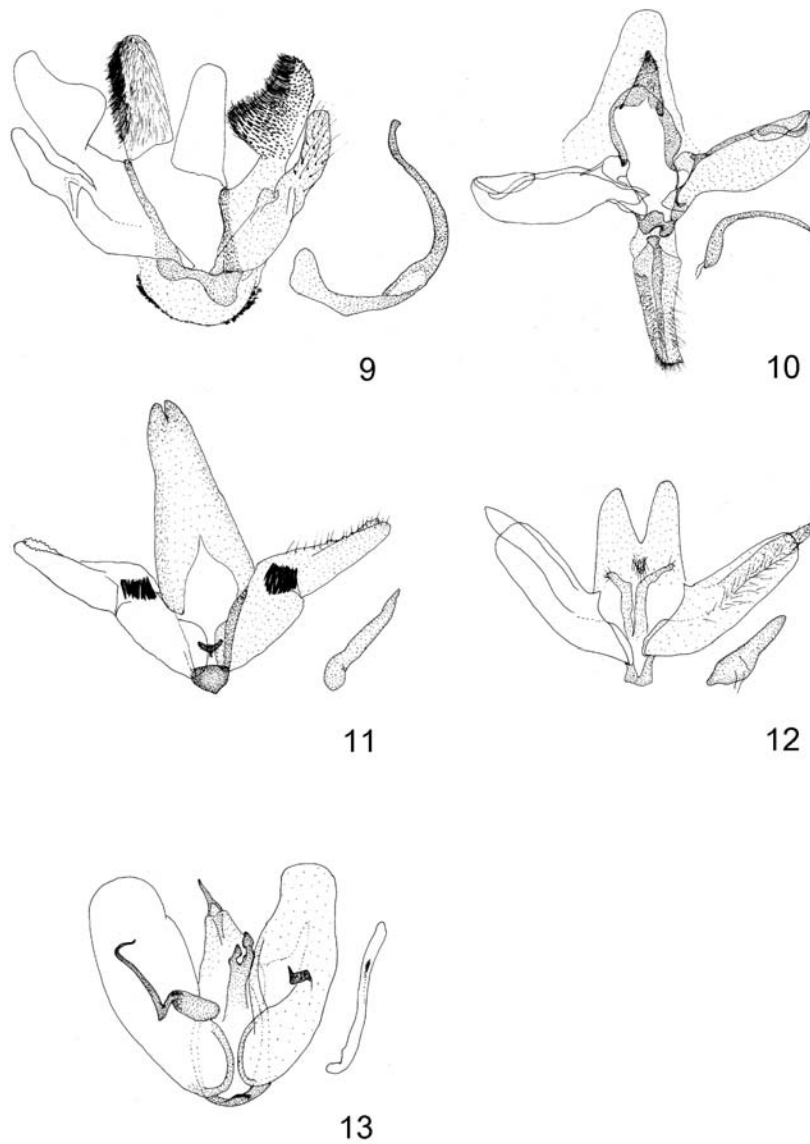


Fig. 9: *Deuterocopus papuaensis* sp.n., Holotype, ♂ genitalia (Prep CG 5275). **Fig. 10:** *Platyptilia microobscura* sp.n., Paratype, ♂ genitalia (Prep CG 5569). **Fig. 11:** *Xyoptila colluceo* sp.n., Holotype, ♂ genitalia (Prep CG 5403). **Fig. 12:** *Nippoptilia pullum* sp.n., Holotype, ♂ genitalia (Prep CG 5273). **Fig. 13:** *Hellinsia biangulata* sp.n., Holotype, ♂ genitalia (Prep CG 5264).

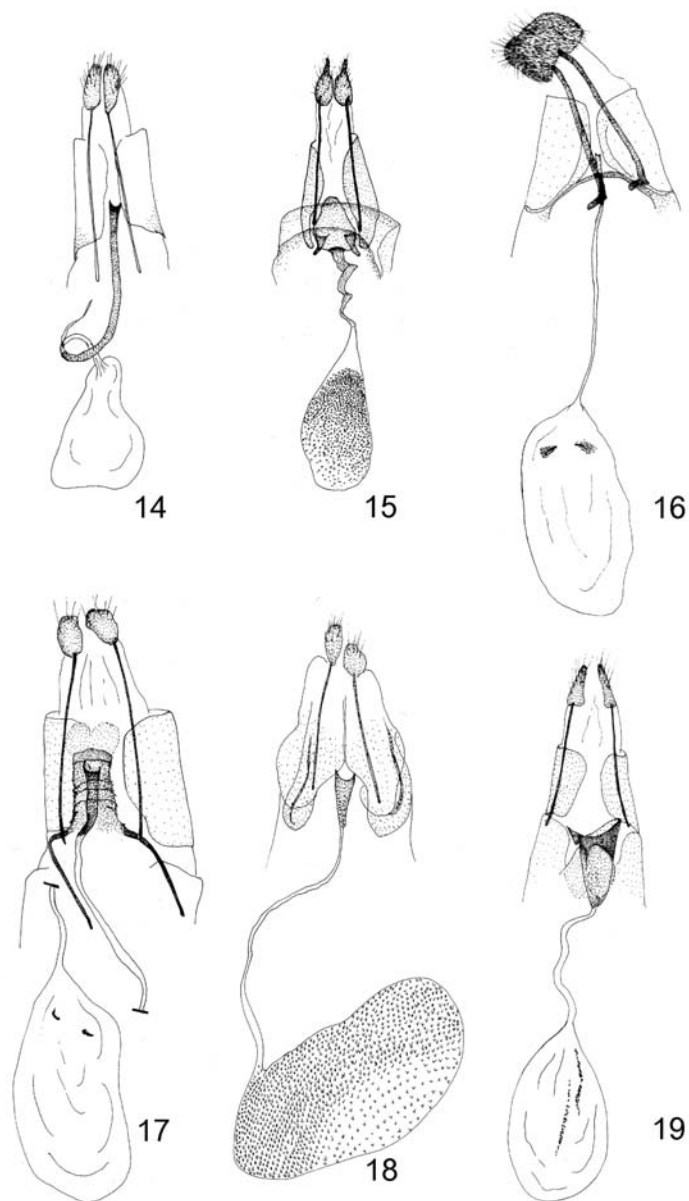


Fig. 14: *Leptodeutero copus sorongensis* sp.n., Holotype, ♀ genitalia (Prep CG 5272). **Fig. 15:** *Deutero copus papuaensis* sp.n., Paratype, ♀ genitalia (Prep CG 5404). **Fig. 16:** *Platyptilia microbscura* sp.n., Paratype, ♀ genitalia (Prep CG 5570). **Fig. 17:** *Lantanophaga dubitationis* sp.n., Holotype, ♀ genitalia (Prep CG 5277). **Fig. 18:** *Nippo ptila spinosa* YANO., ♀ genitalia (Prep CG 5269). **Fig. 19:** *Megalorhipida madoris* sp.n., Holotype, ♀ genitalia (Prep CG 5276).

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