Genus *Tigrioides* Butler, 1877 does not occur in New Guinea, a revision of the taxa concerned from New Guinea with four new genera and nine new species (Lepidoptera: Erebidae, Arctiinae, Lithosiini)

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Abstract: Six species from New Guinea which previously were placed in the genus *Tigrioides* Butler, 1877 are transferred to five genera of which four new to science: *Chionatosia* **gen. nov.**, *Parapelosia* Bethune-Baker, 1908, *Lithopelosia* **gen. nov.**, *Blavipelosia* **gen. nov.** and *Eugopelosia* **gen. nov.** Nine species have been discovered new to science: *Blavipelosia tenebris* **spec. nov.**, *B. staatsi* **spec. nov.**, *B. habbemaensis* **spec. nov.**, *B. armata* **spec. nov.**, *Eugopelosia gaedei* **spec. nov.**, *E. obscura* **spec. nov.**, *E. transnovaguinea* **spec. nov.**, *E. milnensis* **spec. nov.** and *E. nana* **spec. nov.**
Tigrioides costaepunctata f. *inversa* Gaede, 1925 is an infraspecific and therefore invalid name for what appears to be a new species: *Eugopelosia gaedei* **spec. nov.**
The species are described and the adults and genitalia depicted.

Rangkuman: Enam spesies dari New Guinea yang sebelumnya dimasukan dalam genus *Tigrioides* Butler, 1877 direvisi menjadi 5 genera dan 4 diantaranya baru untuk sains yaitu: *Chionatosia* **gen. nov.**, *Parapelosia* Bethune-Baker, 1908, *Lithopelosia* **gen. nov.**, *Blavipelosia* **gen. nov.** dan *Eugopelosia* **gen. nov.** Sembilan spesies ditemukan baru untuk sains yaitu: *Blavipelosia tenebris* **spec. nov.**, *B. staatsi* **spec. nov.**, *B. habbemaensis* **spec. nov.**, *B. armata* **spec. nov.**, *Eugopelosia gaedei* **spec. nov.**, *E. obscura* **spec. nov.**, *E. transnovaguinea* **spec. nov.**, *E. milnensis* **spec. nov.** dan *E. nana* **spec. nov.**
Tigrioides costaepunctata f. *inversa* Gaede, 1925 adalah infraspecific sehingga nama invalid terhadap spesies baru: *Eugopelosia gaedei* **spec. nov.** Spesies-spesies tersebut di deskripsi dan disertai gambar dan ilustrasi serangga dewasa dan alat kelamin (genitalia).

Keywords: Revision, transfer, new genera, new species, Papua, Indonesia, Papua New Guinea.

Introduction

The genus *Tigrioides* Butler, 1877 up to now comprises 21 known valid species which mainly are distributed in the Indo-Australian region but with some species reaching the Palearctic region and two in Australia, among which the type species *Setina alterna* Walker, 1854. This type species should be the model for the characters of all species which are currently placed in *Tigrioides*, but even when having a superficial look at the habitus of the species one would suspect that this group of species hardly form a homogenous collection, already noted by Holloway (2001). Study of the genitalia of the species distributed in New Guinea indeed

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reveal that all species have little in common with *Tigrioides alterna* from Australia, and even not mutually. The genus is in desperate need of a revision, of which this paper may contribute to this, starting with the study of the New Guinea members currently placed in *Tigrioides*, of which it turned out that not a single species passed the test of belonging to the genus.

Previously *Lexis minima* Hampson, 1903 (which was moved by Hampson (1914) to *Tigrioides*) was already transferred to *Eilema* Hübner, [1819] as a subspecies of *E. nitens* (Rothschild, 1912, = *flavibasis* Hampson, 1900) by Holloway (1979) and recently *Tigrioides laniata* Hampson, 1914 was transferred to *Blaviodes* Bethune-Baker, 1910 (De Vos, 2020). Still six already described New Guinea species remained to be investigated and some others turned out to be new species.

Abbreviations used

BMNH(E) – Old prefix for the unique registration number of slides and specimens in the insect collection of NHM (London, UK)
Fwl. – Forewing length, measured from base of wing to apex
MFN – Museum für Naturkunde, Berlin, Germany
MFN.LEP – Prefix for the unique registration number of slides and specimens in the Lepidoptera collection of MFN
NHMUK – New prefix for registration numbers in the Natural History Museum, London, United Kingdom
RMNH – Naturalis Biodiversity Center (former Rijksmuseum voor Natuurlijke Historie)
RMNH.INS – Prefix for the unique registration number of slides and specimens in the insect collection of RMNH

Systematic part

Checklist of treated taxa

Chionatosia **gen. nov.**
    chionostola (Hampson, 1918) **comb. nov.**
Parapelosia Bethune-Baker, 1908
    grisescens Bethune-Baker, 1908 **comb. rev.**
Lithopelosia **gen. nov.**
    euscia (Hampson, 1914) **comb. nov.**
Blavipelosia **gen. nov.**
    schraderi (Gaede, 1925) **comb. nov.**
    costaepunctata (Gaede, 1925) **comb. nov.**
    angulata (Gaede, 1925) **comb. nov.**
    tenebris **spec. nov.**
    staatsi **spec. nov.**
    habbemaensis **spec. nov.**
    armata **spec. nov.**
Eugopelosia **gen. nov.**
    transnovaguinea **spec. nov.**
    gaedei **spec. nov.**
        inversa (Gaede, 1925) **infraspec. name**

obscura **spec. nov.**
milnensis **spec. nov.**
nana **spec. nov.**

Tigrioides Butler, 1877 sensu stricto

Type species: *Setina alterna* Walker, 1854

Treated by De Vos (2020) in the revision of genus *Blaviodes* Bethune-Baker, 1910. Apart from the very different external appearance and much larger size, the much different structures of the genitalia prove that the hereafter treated taxa have not much in common with *Tigrioides* but to belong to Lithosiini.
Tigrioides alterna (Walker, 1854) is the only species which can be positioned in the genus according to the external wing characters and structure of genitalia. The other endemic species from Australia which is traditionally placed in *Tigrioides*, *T. nitens* (Walker, 1865), is externally very similar to the genus *Eilema* Hübner, [1819] or *Brunia* Moore, 1878 and its position should be established by molecular or genitalia study.

Citation from De Vos (2020): "*Like Scoliacma, the genus Tigrioides Butler, 1877 is a heterogeneous mix of at least 24 species which should be revised. The type species Setina alterna Walker, 1854 from southern Australia is a very conspicuously patterned and a bright coloured species, most Asiatic and Melanesian species however are very different in size (from large to tiny) and usually rather dull patterned, some with a totally different wing shape..... The structure of the male genitalia of Tigrioides is very similar to that of Scoliacma Meyrick, 1886. Uncus long and finger-shaped with a sharp hooked apex. Tegumen high and triangular, vinculum with short robust bilobed saccus. Valve with distally of broad cucullus a large and broad extension with rounded apex. Sacculus broad, gradually extended with a robust curved process with a hooked blunt apex. No clasper present. Aedeagus short with a triangular carinal plate. Vesica with on the basal lobe a very robust claw-shaped cornutus in a scobinated field, distal lobe without cornuti. Female genitalia with a broad shield-shaped sclerotized antrum. Cervix bursae large and globular, broadly connected to the oval bursa copulatrix. Bursa with two signa, both being a sclerotized irregular patch....The general structure of both, male and female genitalia, is very similar in Scoliacma and Tigrioides and indicates a very close alliance or even congenericity. This should be further investigated with a revision of all species considered to belong to Scoliacma and Tigrioides*."

Chionatosia gen. nov.

urn:lsid:zoobank.org:act: 9BEC7A82-422B-46C8-8822-AC030F8DF06F
Type species: *Tigrioides chionostola* Hampson, 1918

The genus is monotypic. No other species than the type species has yet been discovered to belong to the genus. The type species was originally placed in *Tigrioides* but wing characters and genitalia show that it has in fact not much in common with this genus. Since no other genus name was available for the species a new name is proposed, *Chionatosia*.

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Diagnosis: Wing shape of a typical Lithosiine type, though short and with strongly arched forewing costa. The main distinguishing features are found in the male genitalia. Uncus strong and relatively long, valvae robust, sacculus apically with main thorn angled upwards and accompanied by several sharp smaller thorns. Aedeagus tube-shaped, vesica scobinated and with several fields of smaller and larger spikes. Female with short and broad ductus bursae, a broad and slightly sclerotized cervix bursae and bursa copulatrix, no conspicuous defined signum present, though indicated by a longitudinal depression.

Description: Medium sized moths, male antennae fasciculate, female antennae thinner with much shorter setae. Palpae short and porrect.
Forewings in male narrow with distinctly arched costa, in female slightly broader and also with arched costa. Hindwings of normal shape
Male and female genitalia as described in Diagnosis. Uncus large, long and slender with sharp apex. Tegumen high and narrow, anal tube strengthened by a long sclerotized rib. Cucullus narrow and slightly sclerotized, sacculus broad with strongly sclerotized dorsal rim, apically with an upwards angled strong thorn and some smaller thorns at its base. Clasper forming a longitudinal sclerotized ridge, apically mitten-shaped.
Aedeagus with simple tube, vesica strongly scobinated, distally with some fields of shorter and longer spikes.
Female genitalia with narrow ostium. Ostium rim stronger sclerotized, resembling human mouth lips. Ductus bursae short and broad, cervix bursae at the left side swollen and slightly sclerotized with the ductus seminalis connected dorsally. Bursa copulatrix oval, without distinct signum but indicated by a longitudinal depression.

Distribution: New Guinea (see below).

Etymology: The genus name *Chionatosia* is derived from the Greek *Chionatos* which means “snowy”, referring to the snow-white appearance of the type species.

Chionatosia chionostola (Hampson, 1918) comb. nov. (Figs 1-2, 28-29, 48-49)

Tigrioides chionostola: Hampson (1918: 97); Strand (1922: 520)

Holotype: ♂, NHMUK-BMNH(E)1325482, [Indonesia, Papua], Central Dutch N.Guinea, Mt.Goliath, 5-7000 ft., A.S. Meek, 1915-113, Tigrioides chionostola, type ♂ Hmpsn.

Diagnosis: Its pure white wings with reddish brown costal rim and vertex and antennae of the same colour makes it unmistaken. There is no other white lithosiine species in New Guinea with such habitus.

Description: Fwl. ♂ 10.4-10.6 mm, ♀ 12.7-13.3 mm. Male with fasciculate antennae, reddish brown, distally suffused to brown. Head with cranium white, vertex black with a red rim, palpae short, reddish bown. Thorax pure white, abdomen caudal part grey-white, distal part ochreous , anal tuft yolk-yellow. Forelegs reddish brown, mid- and hindlegs yellow-brown.
Forewings narrow and rather short, costa distinctly arched. Forewing without pattern, snow-white with a silky shine. Costal rim orange- to reddish brown, distally slightly thicker, at wing

base black. Hindwings of normal shape, entirely snow-white. Forewings at underside with costal rim broad and evenly reddish brown, in basal area at costa with short androconial scales.
Female with antennae filiform with setae much shorter than in male, basal part reddish brown, distally suffused with dark brown. Head and thorax as in male, abdomen grey-white and with distal part pale yellow, distal end white. Legs as in male. Forewings broader than in male with costa distinctly arched, costal rim much thinner than in male. Hindwings like in male of normal shape and snowy white. Underside of forewing with costal rim broadly yellow-brown.
Genitalia as described with the genus.

Distribution: Seems mainly restricted to the Central Mountain Range of Papua, Indonesia. Known localities are Mt. Goliath (1500 m, now Gn. Yamin), Utakwa River (1050 meter, Lorentz Reserve), Pass Valley (1950 meter, Jayawijaya Mts), Mist Camp (1800 meter, 3rd Archbold Expedition) and Ubrub (300 meter).

Parapelosia Bethune-Baker, 1908

Type species: *Parapelosia grisescens* Bethune-Baker, 1908

A monotypic genus. Description as published by Bethune-Baker (1908):
"Proboscis developed, palpi minute; antennae with very fine longish cilia. Primary long and narrow, with vein 2 from the cell strongly curved at the base, 3 and 4 stalked on a long stalk, 5 absent, 6, 7, 8, and 9 stalked, 6 from near cell with base curved, 7 and 8 on a long stalk, 9 from just beyond 6, 10 from the cell, 11 anastomosing with 12. Secondary with costa straight; apex acute; termen evenly curved rapidly receding to the anal angle, with vein 2 from beyond the middle of the cell, 3 and 4 coincident, 5 absent, 6 and 7 stalked, anastomosing with 8 to half the cell."

Diagnosis: Forewings narrow, almost rectangular, with a distinct pattern of spots and patches. Male genitalia rather broad for lithosiine type, conspicuously dense covered with setae. Aedeagus with distally a large and narrow "V"-shaped extension. Vesica without cornuti and not scobinated.
Female genitalia with a small ostium, a funnel shaped antrum and narrow ductus bursae. Cervix bursae hardly developed, gradually running into bursa copulatrix. One well developed signum present.

Description: Small moths. Male with antennae fasciculate with rather long cilia, in female much thinner and with shorter cilia. Palpae very small. Forewings almost rectangular, rather narrow. Male genitalia of the typical lithosiine type but rather broad and hairy, apical process of sacculus of irregular width with sharp apex. Aedeagus slightly "S"-shaped with a large and narrow "V"-shaped extension. No cornuti present. Female genitalia as mentioned in diagnosis, bursa copulatrix of peculiar bilobed shape, with one square signum, covered with short blunt spikes.

Distribution: New Guinea, in mountain areas.

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***Parapelosia grisescens* Bethune-Baker, 1908 comb. rev.** (Figs 3-4, 30-31, 50-51)
Parapelosia grisescens: Bethune-Baker (1908: 192); Draudt (1914: 228); Watson et al. (1980: 142)
Tigrioides grisescens (Bethune-Baker, 1908): Hampson (1914: 468); Strand (1922: 520); Holloway (2001: 301).

Holotype: ♀, NHMUK-BMNH(E)1325480, [Papua New Guinea], B.N.Guinea, Owgarra, A.S. Meek, G.T.B.-Baker Coll., Brit.Mus 1927-360.

Diagnosis: The species is distinguished by the rather narrow forewings with a marbled pattern of grey and brown and a longitudinal costal mark. The hindwings of the male show a diffuse darkened bar on vein CuA2. Genitalia as described with the genus.

Description: Fwl. ♂ 8.9-10.0 mm, ♀ 9.2-11.4 mm. Male described for the first time. Male with fasciculate antenna with rather long cilia, brown. Head and thorax chocolate brown. Abdomen grey, distal half grey-brown. Legs brown. Forewings rather narrow, almost rectangular. Ground colour of the forewing chocolate brown, scarcely sprinkled with cream-white scales. At wing base and basal area above cubital vein cream-white. In the middle a dark brown longitudinal costal mark, followed by a square cream-white costal patch. An acute angled row of four dark brown longitudinal spots from costa to dorsum. Fringe line dark brown, fringes distally cream-white. Hindwings of male broad, in the middle of the termen slightly angled. Hindwings basally bone-white, halfway and distally gradually suffused with grey-brown. Submarginally with a diffuse dark brown mark on CuA2.
Female with thin filiform antennae, brown, cilia much shorter than in male. Head and thorax chocolate brown and marbled with cream-white scales. Abdomen with long grey-brown hairs, distally darker to dark brown or black. Legs pale buff. Forewings rather narrow, slightly broadening distally, termen oblique which makes the apex rather sharp. Forewing ground colour dark brown, strongly marbled with cream-white. Dorsal basal area mainly dark brown, a small dark brown longitudinal costal mark in the middle and a dark brown apical streak. An acute and strongly “Z”-shape row of partly confluent longitudinal dark brown spots from postmedian costal position to mid-dorsum. Hindwings broad and of normal shape. Grey-brown, basally fainting to pale buff.
Male genitalia with uncus long and slender with a sharp apex. Tegumen stretched and narrow, vinculum with a short saccus. Valva with cucullus at base narrow, in the middle and apically equally wider with a broad costal sclerotized area which is apically narrowing in a curve. Sacculus basally broad with three sclerotized ridges, gradually narrowing towards apex into an irregular curved process with a sharp apex. Aedeagus a slightly “S”-shaped tube with a large narrow “V”-shaped distal extension. Vesica without any cornuti or scobination.
Female genitalia rather simple. Ostium small, antrum small and funnel-shaped. Ductus bursae narrow and gradually run into an hardly defined cervix bursae, followed by the bursa copulatrix which has a reverse heart-shape, at the bottom bilobed. One distinct and square signum present which is covered with short blunt spikes.

Distribution: The species is distributed from the Arfak Mountains in Papua Barat, Indonesia, in the West, in the Central Mountain Range through whole New Guinea to the East of Papua New Guinea. It is found at altitudes from 850-2150 meter. It is a very common species.

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Lithopelosia gen. nov.

urn:lsid:zoobank.org:act: B1EA67E8-E5E1-4B78-A1A9-AED951217388
Type species: *Tigrioides euscia* Hampson, 1914

Diagnosis: Palpae rather long. Forewings narrow, termen oblique. Male genitalia with apical process of sacculus, unlike most lithosiini, short and straight and with the distal apex curved downwards and accompanied by small thorns. Aedeagus simple, straight, vesica with some sharp cornuti.
Female genitalia with a wide ostium, a broad collar-shaped antrum and broad ductus bursae. Cervix bursae not sclerotized, narrowing towards bursa copulatrix, which is relatively small and globular, without signum.

Description: Small moths. Antennae filiform, cilia of antennae are in male longer than in female. Palpae relatively long. Forewings rather narrow, termen oblique. Genitalia as described in Diagnosis and in detail below with *Lithopelosia euscia* (Hampson, 1914).

Distribution: New Guinea.

Etymology: The name is a combination of *Lithosia* Fabricius, 1798 and *Pelosia* Hübner, 1819, referring to characters of both genera partly present in the new genus.

Lithopelosia euscia (Hampson, 1914) comb. nov. (Figs 5-6, 32-33, 52-53)

Tigrioides euscia: Hampson (1914: 468)
Tigrioides euschia (sic) sensu Strand (1922: 520)

Holotype: ♀, NHMUK-BMNH(E)1325479, [Indonesia, Papua], Mt. Goliath., Cent. D.N.Guinea, 5-7000ft. Meek, *Tigrioides euscia*. type ♀. Hmpsn, 1913-180.

Diagnosis: The species is characterized by the conspicuous oblique postmedial fascia, at the innerside bordered by a broad pale area. This is somewhat similar as in some species of *Scoliacma* and *Lambula*, but the genitalia are quite different. The hindwings show a diffuse darkened bar on vein CuA2. Genitalia as described with the genus.

Description: Fwl. ♂ 8.8-9.3 mm, ♀ 10.6-10.8 mm. Antennae brown or buff. Male described for the first time. Male with head grey, labial palpae rather long, ventrally black. Thorax grey, first three segments of abdomen pale grey, distal segment darker grey, anal tuft buff. Legs dark buff. Forewings of male rather narrow, costa slightly concave, termen oblique. Ground colour of forewing buff-brown, midcostal and subapically black from where an oblique black fascia obliquely runs towards the middle of the dorsum. At the inner side of this fascia a broad pale buff area is present. From fascia to termen dark brown, fringes dark grey. Hindwings of male of normal shape, more or less triangular. Basal half whitish, distally gradually suffused with grey-brown. Vein CuA2 near termen obscurely suffused.
Female with head brown, thorax grey-brown. Abdomen grey, legs brown. Forewings like in male, rather narrow, costa straight, termen oblique. At costa subapically a dark brown irregular fascia runs oblique towards the middle of the dorsum. At the innerside of this fascia

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a pale patch near costa and slightly larger pale patch near dorsum. Form fascia till termen brown, darker than basal half of the wing. Fringes grey or buff. Hindwing of normal shape, more or less triangular. Hindwings white, apically gradually suffused with grey-brown. Vein CuA2 near termen obscurely suffused.
Male genitalia with uncus long and slender, apex sharp. Tegumen narrow and stretched, transtilla rather broad and strong, forming a bow. Vinculum with "U"-shaped saccus. Valvae symmetrical, basally rather narrow. Sacculus large and broad with a folded sclerotized ridge running from costal base to distal process, in the middle covered with short hairs. The distal process is short and straight, apically with a sharp down-curved hook and at base accompanied by two small thorns. Cucullus slightly sclerotized, elongated and curved at costa, covered with small setae. Aedeagus rather simple, tube-shaped, slightly curved. Short vesica with two cornuti, a short one flat and pointy and a longer sliver-like one (in fig. 32 the third feature seen is a scale of the wing).
Female genitalia with ostium rather broad, rim not heavy sclerotized. Antrum broad, flat and square, followed by a short broad ductus bursae which runs into the unsclerotized cervix bursae, towards bursa copulatrix strongly narrowing, connection with ductus seminalis at the right side. Bursa copulatrix relatively small and globular, no signum present.

Distribution: Recorded from Indonesian New Guinea only, mainly distributed in the Central Mountain Range (Papua), one record from Mokwam, the Arfak Mountains (Papua Barat). It is found at altitudes from 1500-1970 meter.

Blavipelosia gen. nov.

urn:lsid:zoobank.org:act: A854A40C-A5E8-4CDF-8297-BFA7B06AFCE2
Type species: *Tigrioides schraderi* Gaede, 1925

Diagnosis: Forewings with a conspicuous row of postmedial spots, in male separate, in female (semi)confluent. This row is seen in many other genera too but not as large as in the species of this genus and on another position on the forewing. Hindwings of male with a costal flap, also seen (but more extreme) in *Blaviodes* Bethune-Baker, 1910 and *Eugopelosia* **gen. nov.** (see description of *Eugopelosia*). Male genitalia similar as in *Scoliacma bicolora*, with one large cornutus on the vesica of aedeagus, but female with only one signum instead of two.

Description: Antennae filiform, in female thinner than in male, with short cilia. Forewings rather broad, costa arched, with a postmedial row of dots which in males are separate and in females often (semi)confluent. Hindwings of male with costa extended with an arched flap which may be folded back to the underside of the wing, with a diffuse submarginal spot on vein CuA2. Female hindwing of normal shape.
Tegumen narrow and stretched, uncus rather short and slender. Valvae with process of sacculus long, slender and strongly curved, following the apical rim of the cucullus. Aedeagus a tube with a dagger-like distal extension, vesica with one large claw-shaped cornutus.
Female genitalia with a bowl-shaped structure at the distal part of the sclerotized antrum. Globular bursa copulatrix with one signum which can be very obscure.

Distribution: New Guinea.

Etymology: The genus name is a combination of the genus names *Blaviodes* Bethune-Baker, 1910 and *Pelosia* Hübner, 1819, referring to combined wing characters of both genera in the new genus.

***Blavipelosia schraderi* (Gaede, 1925) comb. nov.** (Figs 7-8, 34-35, 54-55)

Tigrioides schraderi: Gaede (1925: 237)

Holotype: ♀, MFN, [Papua New Guinea], D.N.Guinea, Schraderberg 2100 m, 1-4.vi.1913, Kais. Augustafl. Exp., Bürgers S.G., TYPE.

Diagnosis: Reddish brown forewings with a distinct postmedial row of isolated or semiconfluent dots. Hindwing of male with conspicuous diffuse submarginal patch, in female smaller.

Description: Fwl. ♂ 8.6 mm, ♀ 9.5-11.4 mm. Antennae filiform with short cilia, red-brown, in female thinner. Head, thorax and abdomen reddish brown. Legs buff. Male with forewings reddish brown, with postmedial row of five prominent black dots of different size, obliquely running from subapical area to two-third of dorsum. Fringes greyish brown. Hindwing with a costal flap which can be folded backwards to the underside. Hindwings cream-coloured with a fine grey-brown fringe line. A conspicuous but diffuse wide black submarginal patch on vein CuA2.

Female with forewings longer than in male and with sharper apex, reddish brown, in some specimens with more contrast with black edges near apex and dorsum and a more accentuated blackish postmedial fascia formed by (semi)confluent dots. In paler specimens this fascia can be very obscure. Hindwing pale grey-brown, in basal half paler, with a diffuse darker submarginal patch on vein CuA2.

Male genitalia with tegumen almost rectangular, stretched, at base of uncus straight. Uncus rather short and straight, slender with sharp apex. Saccus rather deep, “U”-shaped. Valvae from base to apex almost of equal width, cucullus broad and at apex half circular round, covered with short setae. Sacculus broad, at two-third narrowing and extended by a rather long, slender and curved process which follows the rim of the rounded cucullus, apex sharp. Aedeagus straight, at coecum slightly curved, distally with a dagger-like extension. One large cornutus which is claw-shaped with a long open base, and a field of fine scobination.

Female genitalia with a bowl-shaped structure at the entrance of the antrum, followed by a short swollen collar, which is connected to the unsclerotized swollen cervix bursae. Ductus seminalis connected at the left side of the cervix bursae. Bursa copulatrix connected to cervix with a broad unsclerotized part of the ductus bursae. Bursa copulatrix at first sight without signum but there is an initiation of a signum at the right side in the middle of the globular bursa (fig. 55, see arrow).

Distribution: Central Mountain Range of New Guinea. In Papua (Indonesia) found in Pass Valley (Jayawijaya Mountains) at 1800 meter, and the type locality “Schraderberg” at the “Kaiserin Augusta Fluss” in German New Guinea (now Papua New Guinea, southern part of

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the West Sepik Province, at the Upper Sepik River) in the Victor Emanuel Range at an altitude of 2100 meter, probably near Telefomin.

***Blavipelosia costaepunctata* (Gaede, 1925) comb. nov.** (Figs 9-10, 36-37, 56-57)

Tigrioides costaepunctata: Gaede (1925: 237)

Lectotype (herewith designated from syntypes): ♂, MFN.LEP.1108, [Papua New Guinea], D.N.Guinea, Schraderberg 2100 m, 1-4.vi.1913, Kais.Augustafl.Exp., Bürgers S.G., TYPE.
Paralectotype (herewith designated from syntypes): 1 ♀, MFN.LEP.1443, same as lectotype.

Diagnosis: Forewing buff with at costa a dark brown spot, an oblique row of arrow-shaped dark brown spots running from apex to dorsum, at apex along margin some dark brown spots. Fringes white.

Description: Fwl.: 7 mm (sensu Gaede, 1925). Male with head pale yellow, cranium with some brown, antennae brown. Thorax and abdomen brown to grey-brown, anal tuft pale yellow, legs pale yellow with some obscure buff bands. Male forewings rather short with arched costa and rounded termen, dorsum straight. Ground colour pale buff with dense brown scaling. At mid-costa a dark brown spot. Fascia running from apex to two-third of dorsum, formed by a row of dark brown arrow-shaped spots. At apex at least three or more dark brown marginal spots, fringes whitish. Hindwing pale yellow with some grey-brown smudges along the veins, fringes whitish.
Female with pale buff head with some brownish scaling, antennae brown. Thorax and abdomen brown. Legs alternate pale yellow and buff banded. Forewings like in male but the fascia not complete: the dark brown spots limited to three near the apex and one at the dorsum. Hindwing uniformly grey-brown, a paler marginal line and fringes whitish.
Male genitalia with tegumen stretched and narrow triangular, at base of uncus concave. Uncus strongly curved, slender with sharp apex. Saccus deeply excavate with two lobes. Valvae broad, cucullus from base to apex equally broad, covered with short setae. Sacculus broad, gradually narrowing and extended by a short, broadly based, sharp and curved process which follows the rim of the rounded apex of cucullus. Aedeagus short and almost straight, slightly sinuous. Vesica with a larger thorn-shaped cornutus and a field of some small needle-shaped cornuti.
Female genitalia with indistinct ostium, not sclerotized. Antrum cuff-shaped just in front of cervix bursae. Cervix at the right side with a long ductus seminalis, followed by a bulla seminalis between cervix and bursa copulatrix. Bursa copulatrix with one small signum, star-shaped with blunt spikes.

Distribution: Only known from the Central Mountain Range in Papua New Guinea from the type locality “Schraderberg” at the “Kaiserin Augusta Fluss” in German New Guinea (now Papua New Guinea, southern part of the West Sepik Province, at the Upper Sepik River) in the Victor Emanuel Range at an altitude of 2100 meter, near Telefomin.

Blavipelosia angulata (Gaede, 1925) comb. nov. (Figs 11, 58-59)

Tigrioides angulata: Gaede (1925: 237)

Lectotype (herewith designated from syntypes): ♀, MFN.LEP.1109, [Papua New Guinea], D.N.Guinea, Hunsteinspitze iii.1913, Kais.Augustafl.Exp., Bürgers S.G., TYPE.
Paralectotype (herewith designated from syntypes): 1 ♀ [Gaede (1925) erroneously mentioned it to be ♂], MFN.LEP.1110, same as lectotype.

Diagnosis: Forewings of female cinnamon coloured, with a sinuous brown post-median line and with dark grey hindwings. Head and patagia distintly paller than thorax and abdomen. Male unknown.

Description: Fwl. 10 mm. (sensu Gaede, 1925). Head and patagia pale yellow-brown, antennae red-brown. Thorax and abdomen brown, legs buff. Forewing elongate triangular, costa arched, rounded apex, termen oblique. Ground colour pale buff with dense reddish-brown scaling, post-median line brown and slightly sinuous. Hindwing uniformly grey, marginal line slightly darker, fringes white.
Female genitalia with antrum cylindrical shaped and slightly constricted. Cervix small and slightly swollen with ductus seminalis running from the dorsal side. Bursa copulatrix globular with one central oval bowl-shaped signum.

Distribution: Known from the type locality only, “Hunsteinspitze” at the “Kaiserin Augusta Fluss” in German New Guinea (now Papua New Guinea, central-southern part of the East Sepik Province, at the Upper Sepik River) in the Hunstein Range at an altitude of about 1350 meter.

Blavipelosia tenebris spec. nov. (Figs 12, 60-61)

urn:lsid:zoobank.org:act: 4DA280BD-B888-4B9D-99FA-B8A83B7348A5

Holotype: ♀, RMNH.INS.1283303, Indonesia, Irian Jaya, Pass Valley, 49 km N Wamena, 2140 m, at light, 25.x.1993, A.J. de Boer, A.L.M. Rutten & R. de Vos.

Diagnosis: Forewings sprinkled with dark brown scales, postmedial fascia distinct. Hindwings in (sub)marginal field dark grey. Easily distinguished from *B. schraderi*, which occurs at the same locality, by the plain reddish brown ground colour of *schraderi* and the dark brown colour of *tenebris*. Female genitalia with the signum more developed.

Description: Fwl. ♀ 11.5 mm. Female with thin filiform antennae, brown. Head and thorax brown, somewhat mottled with dark brown scales. Abdomen dark brown, legs buff. Forewings of normal lithosiine form, apex with a rectangular angle. Ground colour brown, sprinkled with numerous dark brown scales. Postmedial fascia “S”-shaped, black, running from subapical area to two-third of dorsum, fascia for the greater part continued, partly broken up. Hindwing of normal shape, in submarginal and marginal area dark grey, basally fainted to cream-coloured.

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Female genitalia with entrance of antrum bowl-shaped, continued by a long and flat sclerotized part which is connected to the unsclerotized cervix bursae of the same width. Ductus seminalis connected at the right side of cervix. Bursa copulatrix globular with one distinct signum. Signum "H"-shaped and covered with shallow blunt spines.
Male unknown.

Distribution: The holotype was found at an altitude of 2140 meter in the Jayawijaya Mountains (Papua, Indonesia) in the Central mountain Range of New Guinea.

Etymology: The species is named *tenebris* (= "dark" in Latin) after its darker appearance, compared to *schraderi*.

***Blavipelosia staatsi* spec. nov.** (Figs 13, 62-63)

urn:lsid:zoobank.org:act: BC30CE33-3A11-46DC-B296-5CC015060C5C

Holotype: ♀, RMNH.INS.1283343, Ned. Nieuw Guinea, Sterrengebergte, Molbakon, [1800 m], 2-11.ix.1959, Sterrengebergte Exp.

Diagnosis: Forewings of female with a prominent oblique row of five black dots which are semiconfluent. Ground colour of forewing buff, not reddish brown as in *schraderi*. Hindwings with marginal half suffused with grey-brown. Female genitalia with a very wide ostium, antrum strongly developed and ending with a coil.

Description: Fwl. ♀ 11.0 mm. Antennae fasciculate with rather long cilia, buff. Head and thorax buff. Abdomen grey, legs buff. Forewings elongate and narrow with arched costa, apex bluntly angeled (larger than 90˚). Ground colour of forewing buff, scattered sprinkled with brown and black scales. Oblique postmedial fascia formed by five distinct dots which are partly confluent or touching others. Hindwing of normal shape, marginal half of the wing suffused with grey-brown, basal half pale cream-coloured. On CuA2 an obscure darker marginal patch is present. Fringes dark grey.
Female genitalia with very wide ostium. Antrum strongly developed and sclerotized, entrance of antrum widely "V"-shaped, continued by a broad funnel-shaped first part of the ductus which is in the centre ribbon-shaped sclerotized and curled in one coil which continues in a small unsclerotized cervix bursae. Ductus seminalis attached to the cervix at the right side. Bursa copulatric oval with one signum at the right side. Signum oval with small blunt spikes.
Male unknown.

Distribution: The holotype has been collected in a small village, Molbakon, in the Star Mountains (Papua, Indonesia), at an altitude of 1800 meter.

Etymology: The species is named in honour of John J. Staats, technical assistant (preparator) of Zoology during the Star Mountains Expedition in 1959. He was employee of Rijksmuseum van Natuurlijke Historie (RMNH, now Naturalis Biodiversity Center) and was responsible for the preparation for transport to RMNH of the animals that were collected during this

expedition. It is therefore most likely that he must have seen this specimen, unknowingly that it represented a new species.

Blavipelosia habbemaensis spec. nov. (Figs 15-16, 38-39, 64-65)

urn:lsid:zoobank.org:act: 5D5EEFBE-194E-4AF6-9391-B4B6BAE67995

Holotype: ♂, RMNH.INS.1108650, Indonesia, Papua, Lorentz Reserve, Lake Habbema, 3457 m, at light, 4˚08'S – 138˚42'E, 30.ix-1.x.2018, leg. Rob de Vos (PIF).
Paratype: 1 ♀, RMNH.INS.1108651, same as holotype.

Diagnosis: Larger than the other species in this genus and because of the pale ground colour the oblique postmedial row of dots is more pronounced, with four prominent black dots instead of the usually five in other species. Male with a costal flap on the hindwing which is much narrower and shifted to the wingbase than in *B. schraderi*. Male genitalia with a peculiar swollen costa of the cucullus and rather short and curved aedeagus. Female genitalia with a conspicuous "U"-shaped vaginal plate. Signum seems lacking but there is an obscure depression at the right side of the bursa (arrow, fig. 65) which could be an initiation of a signum.

Description: Fwl. ♂ 11.9 mm, ♀ 13.9 mm. Male antennae buff, strongly fasciculate with rather long cilia. Female antennae reddish brown, filiform with almost even so long cilia as in male. Male with palpae very short and porrect, head and thorax dark buff with a reddish brown tinge. Abdomen and legs pale buff. Forewings of male rather narrow, distally gradually broadening, costa slightly arched. Ground colour of forewing buff and scarcely sprinkled with reddish brown scales, at costa somewhat denser. Postmedial fascia obliquely running from subapical area to two-third of dorsum, forming a straight row of four prominent black dots. Hindwing at costa slightly modified with a narrow and elongated flap which is broader near the wingbase. Ground colour of hindwing cream-white without any pattern or suffusion. Underside forewing in the center dark brown.
Female with head, thorax and abdomen silvery-grey, abdomen distally with yellowish. Legs bone-white to pale buff. Forewings more or less oval-shaped, costa at two-third strongly arched and with apex widely angled, dorsum slightly arched, tornus not angled. Ground colour of forewing cream-white, scarcely sprinkled with scattered brown scales, more strongly in the marginal area. Postmedial fascia formed by an obliquely running row of four diffuse black dots. Hindwing of normal triangular shape, cream-white and without pattern or suffusion.
Male genitalia tegumen wide triangular, uncus rather short claw-shaped with apex sharp and curved. Saccus short and bilobed. Valvae symmetrical, broad with cucullus at costa swollen and apically broadening. Apex of cucullus curved, blunt and thumb-shaped. Below this swollen costal rim the basal half of cucullus is slightly sclerotized, the distal half almost unsclerotized. Sacculus evenly wide and in the middle at costa densely spined like a grater, apically constricted and continued by a curved process which resembles the sting of a scorpion. Process at base slightly swollen, at apex sharp. Aedeagus rather short and curved in the middle, apically with a "V"-shaped extension. Vesica bearing at least two small bundles of cornuti, a distal one formed by five small needles, a basal one of five thicker

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spines. Inside the aedeagus a bilobed sclerotized structure is visible with ventrally three small teeth.
Female genitalia with a wide ostium. Vaginal plate peculiarly sclerotized with a wide narrow "U"-shaped band. Ostium rim slightly sclerotized, also deeply "U"-shaped. Antrum stronger sclerotized, almost rectangular and sharply extended at the distal edges. Ductus copulatrix very short, almost immediately continued by the unsclerotized short cervix bursae and then broadening to the much larger globular bursa copulatrix. At the right side, just below the cervix, a depression is seen which could indicate a trace of a signum (see arrow, fig. 65). In preparation slide RMNH.INS.1108651 the left side of the bursa has been teared open (to let dirt out) but no signum or other structure was seen there.

Distribution: The types of the species were found near Lake Habbema (Lorentz National Park, Papua, Indonesia) at an altitude of 3457 meter. It is probably endemic for the region.

Etymology: The species name *habbemaensis* refers to its type locality Lake Habbema.

***Blavipelosia armata* spec. nov.** (Figs 14, 66-67)

urn:lsid:zoobank.org:act: F706526B-E5AB-49AC-AC24-86DF5094CD65

Holotype: ♀, RMNH.INS.1108799, Indonesia, Papua Barat, Birdshead Peninsula, Arfak Mountains, Mokwam, 1469 m, 1˚06' S – 133˚54' E, 21-23.x.2014, at light, Leg. P.J. Zumkehr & F. Groenen.

Diagnosis: Forewings rather narrow. The fascia on the forewing unbroken, like in *schraderi* and *tenebris*, but ground colour of wing much paler. Female with an almost circular shield-shaped vaginal plate with an extremely strong sclerotized crescent-shaped band caudally. Bursa copulatrix without signum.

Description: Fwl. ♀ 9.5 mm. Antennae filiform with short cilia. Head, antennae and tegulae grey-brown, patagia and thorax dark brown. Abdomen pale buff, distally darker, legs buff. Forewings narrow with straight costa and oblique termen. Ground colour pale buff, scarcely sprinkled with dark brown scales. At two-third an oblique more or less "S"-shaped obscure fascia running from costa to dorsum. Hindwings cream-white, apically suffused with grey-buff. On vein CuA2 near margin a diffuse dark patch.
Female genitalia with a conspicuous large almost circular shield-shaped lamella antevaginalis which has a crescent-shaped extremely strong sclerotized band caudally. Ductus bursae unsclerotized, like the globular bursa copulatrix which has no signum.
Male unknown.

Distribution: The holotype has been found in Mokwam, in the northern Arfak Mountains, Papua Barat, Indonesia, at an altitude of almost 1500 meters.

Etymology: The species name refers to the genitalia of the female, with a strongly sclerotized lamella antevaginalis and with an even stronger sclerotized crescent-shaped band, which reminds at an armour.

Eugopelosia gen. nov.

urn:lsid:zoobank.org:act: 8361B867-3C42-4F4F-B441-E71FDCDCE277
Type species: *Eugopelosia transnovaguinea* **spec. nov.**

Diagnosis: Externally resembling genus *Blavipelosia* **gen. nov.** but with some important differences. Both sexes with a slightly "S"-shaped postmedial row of usually five to seven small black dots of various size, in *Blavipelosia* usually with five spots. In *Eugopelosia* the postmedian row is shifted more distally than in *Blavipelosia*. Hindwings of male like in *Blavipelosia*, but usually with less strong arched costa, with the exception of *Eugopelosia milnensis* and *E. nana*, which show strongly arched costae.
Male genitalia of the usual lithosiine structure, but the aedeagus very short and broad. This peculiar shaped aedeagus resembles those from the genus *Eugoa* Walker, [1858], but the structures of the aedeagus and valvae are quite different and have not much in common.
Female genitalia with cervix bursae large and broadly connected to the bursa copulatrix. No clearly defined signum present, in some species with some chitinous drops or spikes.

Description: Antennae in both sexes filiform, in male thicker, and with fine short cilia. Rather small species with relatively short forewings. Ground colour of forewing usually rather dull, the only pattern being a postmedial row of six to seven dots of various size and in males a dark dorsal patch. Costa of forewing in males slightly arched, in females stronger, termen oblique, dorsum slightly arched. Hindwings in male with moderate costal modification, in some species strongly arched. On vein CuA2 in the margin a diffuse patch.
Male genitalia with tegumen simple and arched, uncus slender, claw-shaped with sharp curved apex. Valvae of normal lithosiine shape, cucullus broad and apically rounded, sacculus with apical extended slender process which is curved up and more or less follows the rim of the cucullus. Saccus short and bilobed. Aedeagus squat, almost as long as broad and at coecum strongly tapering. Vesica bearing one bundle of small cornuti and a scobinated band.
Female genitalia with a sclerotized sternite plate and stronger sclerotized vaginal plate. Ostium wide and antrum not strongly developed. Cervix bursae large and broadly connected to the globular bursa copulatrix which may have scattered chitinous drops or spikes but no concentrated signum present.

Distribution: New Guinea.

Etymology: The name of the genus is formed of a combination of *Eugoa* (to the resemblance of the aedeagus) and *Pelosia* (to the wing appearance).

Eugopelosia transnovaguinea spec. nov. (Figs 21-23, 42-43, 72-73)

urn:lsid:zoobank.org:act: EB2B9DD6-AE71-4D91-A346-276BAC4110F5

Holotype: ♂, RMNH.INS.1283308, Indonesia, Papua Barat, Birdshead Peninsula, Arfak Mountains, Demaisi, 1645 m, 1˚10' S – 133˚53' E, 24.x.2014, at light, S. & J. Sinnema, F. Groenen & P.J. Zumkehr.

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Paratypes: 1 ♀, RMNH.INS.1283366, same as holotype; 1 ♂, RMNH.INS.1283307, Indonesia, Papua Barat, Birdshead Peninsula, Arfak Mountains, Mokwam, 1510 m, 1˚06' S – 133˚54' E, 6-10.xi.2011, at light, Papua Insects Foundation; 1 ♂, RMNH.INS.1108773, Indonesia, Papua Barat, Birdshead Peninsula, Demaisi, 1637 m, 1˚10' S – 133˚53' E, 14.xi.2011, at light, Papua Insects Foundation; 1 ♂, NHMUK014201599, Papua [New Guinea, Central Province], Mafulu, 4,000 ft., i.1934, L.E. Cheesman, B.M.1934-321.

Diagnosis: A rather small species in the genus. The ground colour usually paler than in the other species. Male usually with a distinct black dorsal streak on the forewing. Male and female with a postmedial row of about five black dots of various size.
Male genitalia with the saccular process not curved along the apical rim of the cucullus and overlapping the cucullus. Aedeagus longer than broad.
Female genitalia very similar to that of *E. obscura*. The junction between cervix and bursa copulatrix in *obscura* more constricted, in *transnovaguinea* smooth, together pear-shaped.

Description: Fwl. ♂ 7.6-7.9 mm, ♀ 8.9 mm. Antennae in male fasciculate, in female filiform, both with short cilia, brown. Male with head and thorax brown to buff, abdomen first half grey-buff, distal half black with a yellow anal tuft. Legs pale buff. Forewings of male with costa arched and with rounded oblique termen. Ground colour of forewing buff and more or less sprinkled with brown scales. A distinct black dorsal streak present and with a postmedial row of about five black dots of various size. Hindwing of male in apical half grey-brown, basally paler. On vein CuA2 a marginal black diffuse patch.
Female with head and thorax dark grey-brown, abdomen dark grey, legs buff. Forewing with slightly arched costa, a sharp apex and straight termen. Ground colour of forewing buff, sprinkled with dark brown scales. A vague dark dorsal patch present and a distinct postmedial row of five black dots of almost equal size. Hindwing of normal form. Ground colour grey, fringe line yellowish, fringes grey.
Male genitalia with tegumen stretched, rather narrow, uncus slender with sharp curved apex. Vinculum with short bilobed saccus. Valvae with cucullus rather narrow, tongue-shaped. Sacculus broadly based, apically strongly narrowing to a robust but rather short hook-like process which overlaps the cucullus. Aedeagus short, longer than broad, coecum strongly narrowing. At a quarter from distal rim a stronger sclerotized band, inside the aedeagus strongly sclerotized ridge. Vesica scobinated and with a small field of small spikes as cornuti.
Female genitalia with sternum rounded with rim of ostium depressed in the middle. Antrum not sclerotized, ductus bursae very short, almost directly running into the cervix bursae which has a broad and smooth connection with the globular bursa copulatrix. Because the cervix is smaller than the bursa it has together a pear-shaped structure. Ductus seminalis attached at the right side of the cervix. No signum or spines present.

Distribution: The type specimens have been found in the northern part of the Arfak Mountains (Papua Barat, Indonesia) at altitudes of 1500-1650 meter, and about 2000 kilometers eastwards in the Owen Stanley Range (Central Province, Papua New Guinea) at 1200 meter.

Etymology: The name *transnovaguinea* refers to the wide distribution of the species in New Guinea, Arfak Mountains (Papua Barat, Indonesia) versus the Owen Stanley Range North of Port Moresby (Papua New Guinea).

Eugopelosia gaedei spec. nov. (Figs 19-20, 40-41, 70-71)

urn:lsid:zoobank.org:act: 25CA7CDF-6A4B-4BB7-AA36-6BA4AE4BBD65

Tigrioides costaepunctata f. *inversa*: Gaede (1925: 237) **infraspecific name**

Holotype: ♀, MFN.LEP.1442, [Papua New Guinea, West Sepik Province], D.N.Guinea, 10.12 [x.1912], Etappenberg, 850m., Bürgers S.G., Type [f. inversa].
Paratypes: 1 ♀, RMNH.INS.1283296, Indonesia, Papua, Kecamatan Nipsan, Walmak, 1710 m, 4˚07' S – 138˚36' E, 31.i.-09.ii.2005, at light, cultivated area/disturbed montane forest, UNCEN-ZMA Expedition, Papua Indonesia 2005; 1 ♀, RMNH.INS.1283297, Indonesia, Papua, Kecamatan Abenaho, Pass Valley, 1950 m, 3˚51' S – 139˚05' E, 11-17.ii.2005, at light, disturbed montane forest, UNCEN-ZMA Expedition, Papua Indonesia 2005; 1 ♀, NHMUK014201597, [Papua New Guinea, Oro Province], Biagi, Mambare R., B.N.G. [= British New Guinea], iv.1906, A.S. Meek.

Taxonomical note: The taxon *inversa* Gaede, 1925 was described as a colour and pattern form of *Tigrioides costaepunctata* Gaede, 1925 from the same locality as the type from the latter. It was by Gaede (1925) therefore never considered to be a subspecies so f. *inversa* is an invalid name, being infraspecific. The type specimen of f. *inversa* Gaede, 1925 is designated to be the holotype of the new species *gaedei*.

Diagnosis: Paler than *Eugopelosia obscura* but darker and larger than *E. transnovaguinea*. The postmedial spots on the forewing are elongate. In female genitalia, ductus copulatrix short and bursa copulatrix without spines or signum.

Description: Fwl. ♀ 9.0-10.1 mm. Antennae filiform with short cilia, brown. Head, thorax and abdomen brown. Legs dark buff. Forewings at costa arched, uniformly brown, 6-7 postmedial spots of various size and elongate, connected with dark brown veins in the marginal field. Hindwings of normal form, grey-brown, in basal area slightly paler. Vein CuA2 in marginal area with a small diffuse patch.
Female genitalia with a large rounded sclerotized sternum. Antrum hardly sclerotized, ductus bursae broad and short, continued by an unclear slightly swollen cervix bursae which is broadly connected to the globular bursa copulatrix. No spines or signum present.
Male unknown.

Distribution: Central Mountain Range of New Guinea, from Jayawijaya Mountains and Star Mountains in Papua (Indonesia) in the West; the Victor Emanuel Range in West Sepik Province (Papua New Guinea), and in the Oro Province (Papua New Guinea) in the East. Found at altitudes from 850-2000 meter.

Etymology: The species is named in honour of Max Gaede who described this specimen in 1925 as f. *inversa* of *Tigrioides costaepunctata* Gaede, 1925, unknowingly that both concern two different species.

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Eugopelosia obscura spec. nov. (Figs 17-18, 68-69)

urn:lsid:zoobank.org:act: 47603443-D9CD-4D30-9CA6-14DA9F9AAF52

Holotype: ♂, RMNH.INS.1283301, Indonesia, Papua, Kecamatan Nipsan, Walmak, 1710 m, 4˚07' S – 138˚36' E, 31.i.-09.ii.2005, at light, cultivated area/disturbed montane forest, UNCEN-ZMA Expedition, Papua Indonesia 2005.
Paratypes: 1 ♀, RMNH.INS.1283302, same as holotype; 1 ♂, RMNH.INS.1283304, Indonesia, Papua, Kab. Yahukimo, Walmak (distr. Nipsan), 1710 m, 4˚07' S – 138˚36' E, 24-29.x.2008, at light, leg. R. de Vos & P.J. Zumkehr; 1 ♀, Indonesia, Papua, Kecamatan Oksibil, Mabilabol, 1340 m, 4˚54' S – 140˚37' E, 21-25.ii.2005, at light, disturbed montane forest, UNCEN-ZMA Expedition, Papua Indonesia 2005; 1 ♀, RMNH.INS.1283306, Indonesia, Papua, Star Mountains, Abmisibil, 1970 m, 4˚40' S – 140˚34' E, at light, cultivated area/disturbed montane forest, UNCEN-ZMA Expedition, Papua Indonesia 2005.

Diagnosis: The darkest species in this genus. In both, male and female, on the forewing a dark dorsal patch which may in some specimens be somewhat obscure. In *E. gaedei* **spec. nov.** this patch is absent and in *E. transnovaguinea* **spec. nov.** it is very prominent. Postmedial dots small and not elongate like in *gaedei.* Tegumen wide, in *transnovaguinea* narrow and stretched. Cucullus apically round, in *transnovaguinea* tongue-shaped. Sacculus with apical process gradually narrowing and slender, in *transnovaguinea* broadly based, thicker and more strongly curved, overlapping the cucullus. Aedeagus as short as broad, in *transnovaguinea* longer. In female, bursa copulatrix ventrally covered with small spines, in *gaedei* no signum or spines present.

Description: Fwl. ♂ 8.5-9.3 mm, ♀ 9.4-10.5 mm. Antennae in male and female rather short, filiform, in male thicker than in female, with very fine and short cilia, brown. Head and thorax dark brown, abdomen grey with in male an ochreous anal tuft. Legs buff. Male with forewing costa slightly arched, termen slightly rounded oblique. In female forewing costa more arched and with stronger oblique termen. Ground colour in both brown to dark brown with diffuse black dorsal patch, in female more obscure. A distinct oblique row of postmedial black dots, usually six to seven of various size.
Hindwings in male pale grey, suffused with brown scales at apex, margin and a diffuse patch on vein CuA2 near margin. Fringe line grey-brown. In female the ground colour of hindwing is buff, at margin and apex slightly suffused with grey-brown and with the familiar diffuse patch on vein CuA2.
Male genitalia as described with the genus, tegumen wide and broad. Cucullus apically half-circular, scarcely covered with fine setae, at costa with long setae. Sacculus gradually tapering to a slender apical process which is slightly curved up and follows the apical rim of the cucullus. Aedeagus squat, as short as broad, at coecum strongly tapering. At one-third from distal end a strong sclerotized band, inside the aedeagus a broad ridge which is distally curled as a hook. The completely everted vesica is two times longer than aedeagus and bears basally a bundle of small needle-shaped cornuti, distally with a diffuse scobinated band.
Female genitalia with a wide and broadly sclerotized ostium rim, vaginal plate almost square and strongly sclerotized, at upper rim slightly falcate. Antrum not clearly developed, ductus

bursae broad, almost directly forming the broad and globular cervix bursae which is broadly and oblique connected to the globular bursa copulatrix. No concentrated signum present but at ventral side covered with numerous small crescent-shaped spines.

Distribution: The species has been found in the Jayawijaya Mountains and the Star Mountains of the Central Mountain Range in Papua, Indonesia, at altitudes of 1700-1950 meter.

Etymology: The name refers to its rather dark and dull appearance, apart from the postmedial dots without any pattern (*obscura* = obscure, unclear).

Eugopelosia milnensis spec. nov. (Figs 24-25, 44-45, 74-75)

urn:lsid:zoobank.org:act: ADCB7C15-BA1F-4250-A2A3-D495FA1B80FB

Holotype: ♂, NHMUK014201579, [Papua New Guinea], Milne Bay, Brit. N.G., xi.[18]98, (A.S. Meek), Rothschild Bequest, B.M. 1939-1.
Paratypes: 1 ♀, NHMUK014201580, as holotype, but xii.[18]98; 1 ♀, NHMUK014201581, [Papua New Guinea, Central Province], Mailu [Island], Brit. N.G., vii.[18]95, (Anthony), Rothschild Bequest, B.M. 1939-1.

Diagnosis: Plain coloured forewings in male and female, with exception of the postmedial row of irregular sized and obscure spots. Forewing in male rather broad with rounded apex. Hindwing in male with strongly arched costa, at apex excavated. Process on sacculus in male at base straight and distally curved, while in *gaedei* and *transnovaguinea* this is gradually curved at full length. Costa of sacculus in *milnensis* with a blunt angle, in the other species without angle. Aedeagus with large claw-shaped cornutus. Rim of female ostium very thin, shallow "M"-shaped. Antrum hardly sclerotized, cervix bursae with fine chitinous striae, bursa copulatrix simple, no signum.

Description: Fwl. ♂ 8.3 mm, ♀ 8.9-9.0 mm. Male with head relatively large in comparison with the body size, grey, on cranium darker grey. Patagia and tegulae dark grey, rest of thorax paler grey. Abdomen with first three segments pale grey, other segments dark grey. Forelegs black with narrow pale rings on tarsi, other legs dark buff. Forewing of male rather broad, apex and termen rounded, costa arched. Ground colour of forewing plain brown-grey, an obscure postmedian row of about 5-6 spots of variable size. Hindwing of male with strongly arched costa, at apex excavated. Ground colour grey, at apex darker brown-grey.
Head of male grey, antennae buff. Patagia and tegulae dark yellow-brown, metathorax grey. First segment of abdomen grey, other segments dark grey. Legs yellow-buff. Forewings of female stretched triangular and of normal shape for lithosiini. Gound colour of forewing plain yellow-buff. Postmedian row of spots obscure, about 5 longitudinal dark brown spots. Hindwing with termen slightly concave. Ground colour plain dark grey-brown.
Male genitalia with wide tegumen and small slender uncus with a sharp apex. Vinculum with bilobed saccus. Valvae with costa of cucullus arched with a blunt angle in the middle, and a triangular lobe at the innerside slightly distal from the middle of cucullus. Sacculus broadly based, extended with a distal process which is ¾ straight and acutely curved distally. Aedeagus short and broad, with a stronger sclerotized broken band at one-third from distal

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rim. Vesica with a large claw-shaped cornutus distally, and with an indistinct small field with tiny scobination centrally.
Female genitalia with narrow shallow "M"-shaped rim of ostium. Antrum wide and short funnel-shaped, hardly sclerotized. Ductus bursae broad and short, cervix bursae cone-shaped at the upper right side of bursa copulatrix with ductus seminalis connected at the apex. Below the cervix a field of tiny striae of chitinous drops at the right upper quarter of the bursa copulatrix. Bottom of the bursa copulatrix covered with tiny spicula.

Distribution: The species has been collected near Milne Bay and Mailu Island, in the extreme Southeast part of Papua New Guinea.

Etymology: The name of the species refers to the type locality Milne Bay.

***Eugopelosia nana* spec. nov.** (Figs 26-27, 46-47, 76-77)

urn:lsid:zoobank.org:act: 1A14A351-DF68-433F-99E5-63EE49AEF79D

Holotype: ♂, NHMUK014201584, [Papua New Guinea, Oro Province], Hydrographer Mts, Brit. N.G., 2500 ft., ii.1918, (Eichhorn Bros.).
Paratypes: 2 ♂♂, 1 ♀, same as holotype, NHMUK014201585 (♂), ii.1918; NHMUK 014201586 (♂), i.1918, NHMUK014201587 (♀), iii.1918.

Diagnosis: The smallest species of the genus. Forewing of male short and compressed, rather broad, hindwing with strongly arched costa and slightly protruding apex. Postmedian row of spots pronounced with relatively large spots. Female with similar pattern on normal shaped forewings. Male genital with wide clock-shaped tegumen and slender finger-shaped uncus. Vinculum with deeply bilobed saccus. Cucullus rather narrow, sacculus strongly broadening in the middle. Aedeagus with small claw-shaped cornutus, much less robust as in *milnensis*. Ostium rim in female straight, ductus bursae broad and as long as the size of bursa copulatrix. Cervix bursae laterally at right side of bursa with connection to ductus seminalis. Bursa small, compressed oval-shaped and covered with tiny spines.

Description: Fwl. ♂ 7.9 mm, ♀ 8.6 mm. Male with relatively large head and large eyes. Head and antennae buff coloured. Thorax, including patagia and tegulae, and abdomen dark grey. Anal tuft yellow-buff. Legs yellow-buff with tibia and tarsi dark grey. Forewing of male rather short and broad with arched costa and straight termen. Ground colour buff, sprinkled with dark brown scales, more concentrated at dorsum and marginal field. A prominent postmedian row of about six relatively large black spots of different size, more or less longitudinal. Hindwing of male with highly arched costa and sharp apex which is slightly protruding. Hindwing dark grey, at base of fringes yellowish.
Female with head and thorax dark grey, patagia and tegulae black. Abdomen grey, distally with a small yellowish tuft. Legs black. Forewings of female narrow and stretched, ground colour buff, densely covered with dark brown scales, at apex suffused with dark brown to black. A distinct row of about five postmedian narrow longitudinal spots. Hindwing with sharp apex, termen only slightly concave, ground colour pure grey, at base of fringes yellowish.

Male genitalia with wide clock-shaped tegumen and a slender finger-shaped uncus which is slightly broader in the middle. Vinculum with a deeply bilobed saccus. Cucullus with a half circular lobe at the innerside at one-third of cucullus length. Sacculus in the middle with a strongly broadening pledge, distal process broadly based, at base of it two small shallow teeth, then narrowing and gradually curved with sharp apex. Aedeagus as short as broad, with a curved ribbon-like sclerotized ridge. Vesica with a horn-shaped cornutus.
Female genitalia with straight sclerotized ostium rim, followed by a plate fading into the ductus bursae. Ductus bursae broad and as long as the size of the bursa copulatrix. Cervix bursae laterally at the right side of the bursa copulatrix, unsclerotized and wrinkled, and with the connection to the ductus seminalis. Bursa copulatrix small, compressed oval-shaped and at the left side densely covered with tiny spines.

Distribution: The species has been found in the Hydrographers Range in the Oro Province of Papua New Guinea at about 750 meters.

Etymology: The species name refers to the small size, it is the smallest known species of this genus.

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This revision was not possible without the help of the following persons and institutions, for which I am most grateful: For allowing me to examine specimens from the collections I thank Alberto Zilli (Natural History Museum, London), Theo Leger and Viola Richter (Museum für Naturkunde, Berlin) and Naturalis Biodiversity Center. The Uyttenboogaart-Eliasen Foundation (Dutch Entomological Society) I am grateful for financing the visits to the museums in London and Berlin and the expeditions to New Guinea in 1993, 2005, 2011 and 2018. Pictures of species concerned are depicted with permission of the Museum für Naturkunde in Berlin and the Natural History Museum in London.

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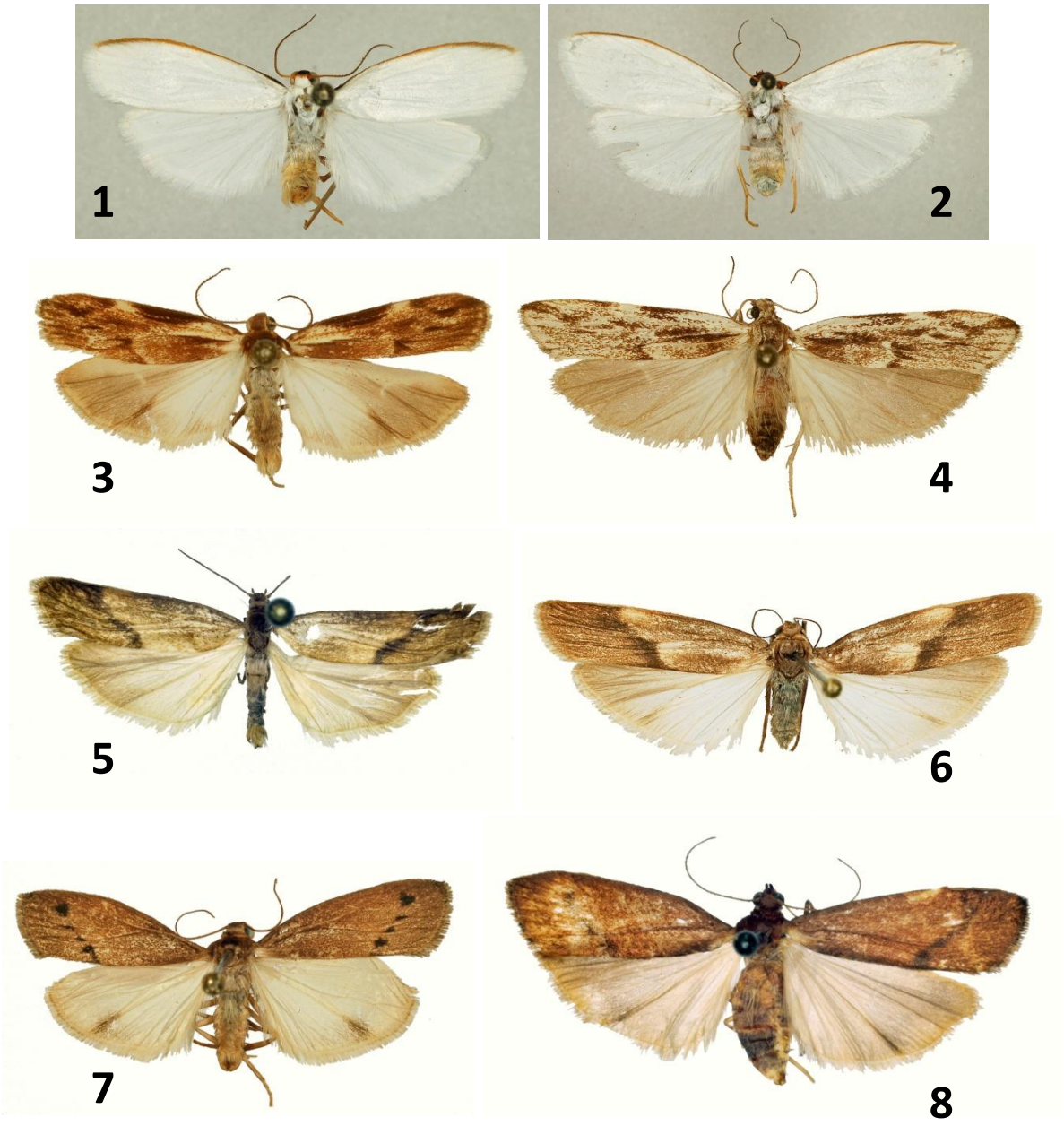

Figs 1-8. Adults of Lithosiini species transferred from *Tigrioides*. **1-2.** *Chionatosia chionostola* (Hampson, 1918), Pass Valley, Papua: **1.** ♂, RMNH.INS.1283299; **2.** ♀, RMNH.INS.1108892; **3-4.** *Parapelosia grisescens* Bethune-Baker, 1908, Pass Valley, Papua: **3.** ♂, RMNH.INS.1108893; **4.** ♀, RMNH.INS.1108894; **5-6.** *Lithopelosia euscia* (Hampson, 1914): **5.** ♂, Molbakon, Papua, RMNH.INS.1283342; **6.** ♀, Abmisibil, Papua, RMNH.INS.1283292; **7-8.** *Blavipelosia schraderi* (Gaede, 1925), Pass Valley, Papua: **7.** ♂, RMNH.INS.1283293; **8.** ♀, RMNH.INS.1283311.

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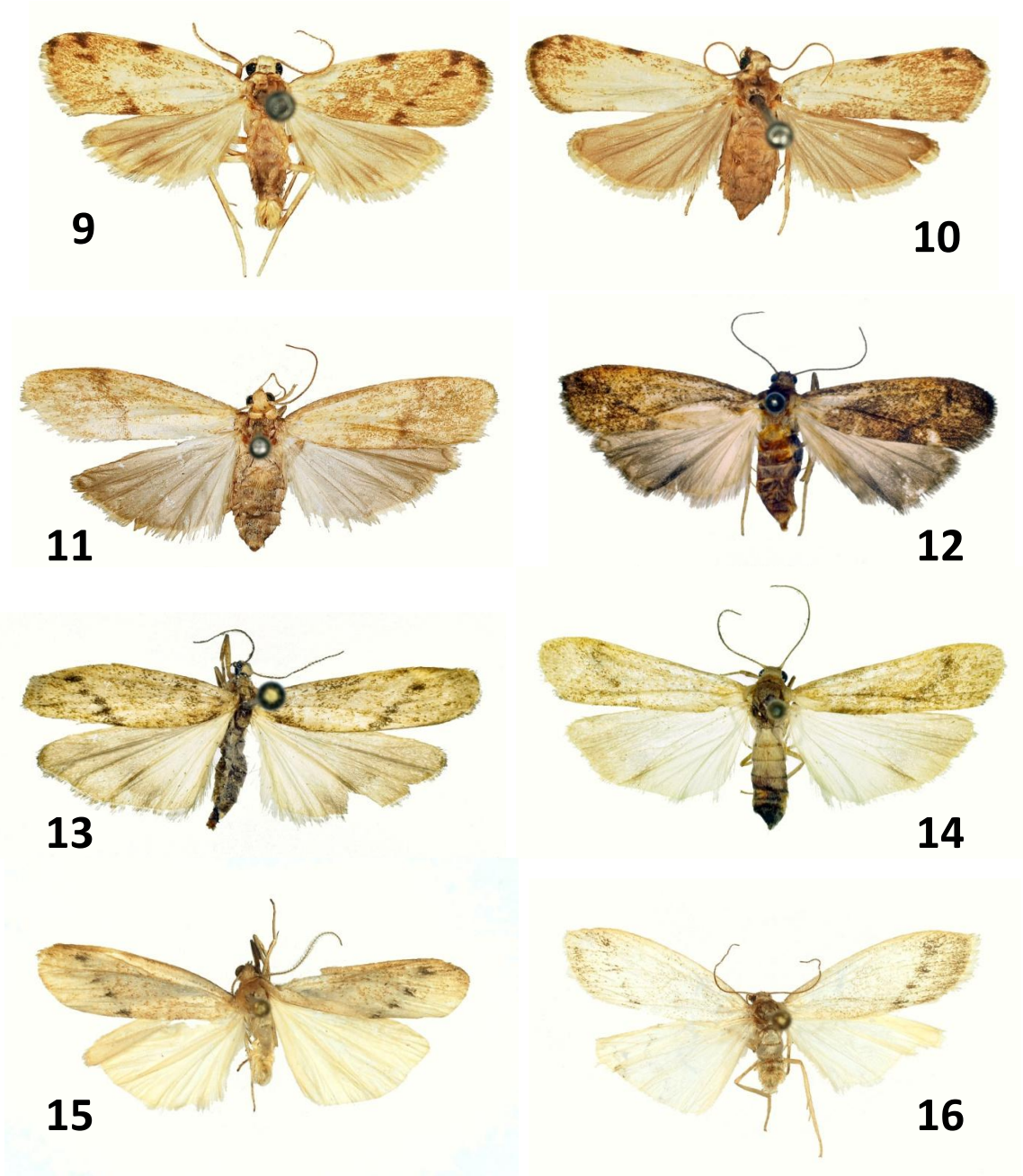

Figs 9-16. Adults of Lithosiini species transferred from *Tigrioides* and new species. **9-10.** *Blavipelosia costaepunctata* (Gaede, 1925), Etappenberg, PNG: **9.** ♂ lectotype, MFN.LEP.1108; **10.** ♀ paralectotype, MFN.LEP.1443; **11.** *Blavipelosia angulata* (Gaede, 1925), lectotype ♀, Hunsteinspitze, PNG, MFN.LEP.1109; **12.** *B. tenebris* **spec. nov.**, ♀ holotype, Pass Valley, Papua, RMNH.INS.1283303; **13.** *B. staatsi* **spec. nov.**, ♀ holotype, Molbakon, Papua, RMNH.INS.1283343; **14.** *B. armata* **spec. nov.**, ♀ holotype, Mokwam, Papua Barat, RMNH.INS.1108799; **15-16.** *B. habbemaensis* **spec. nov.**, Lake Habbema, Papua: **15.** ♂ holotype, RMNH.INS.1108650; **16.** ♀ paratype, RMNH.INS.1108651.

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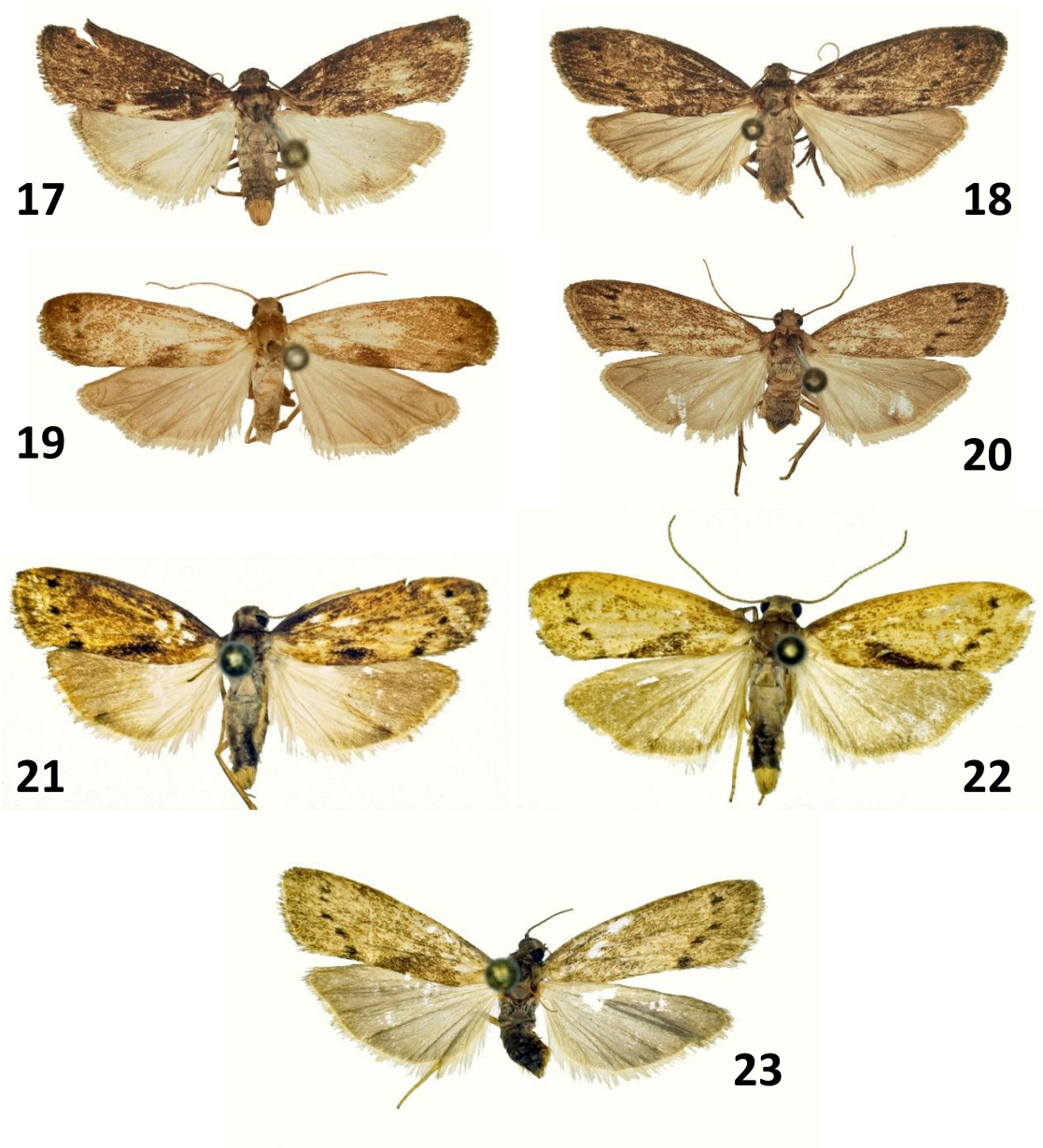

Figs 17-23. Adults of Lithosiini species transferred from *Tigrioides* and new species: **17-18.** *Eugopelosia obscura* **spec. nov.**, Walmak, Papua: **17.** ♂ holotype, RMNH.INS.1283301; **18.** ♀ paratype, RMNH.INS.1283302; **19-20.** *E. gaedei* **spec. nov.**: **19. "***Tigrioides costaepunctata* f. *inversa*" Gaede, 1925, ♀ holotype, PNG, MFN.LEP.1442; **20.** ♀ paratype, Walmak, Papua, RMNH.INS.1283296; **21-23.** *E. transnovaguinea* **spec. nov.: 21.** ♂ holotype, Demaisi, Papua Barat, RMNH.INS.1283308; **22.** ♂ paratype, Mokwam, Papua Barat, RMNH.INS.1283307; **23.** ♀ paratype, Demaisi, Papua Barat, RMNH.INS.1283366.

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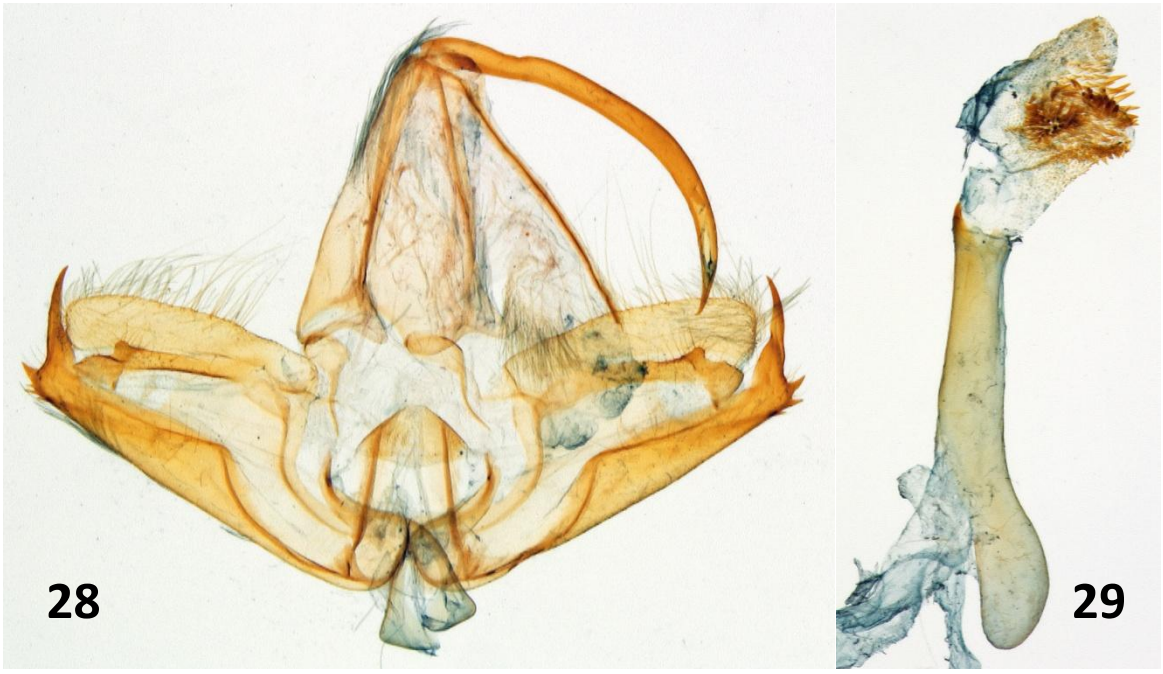
Figs 24-27. Adults of new *Eugopelosia* species: **24-25.** *Eugopelosia milnensis* **spec. nov.**, Milne Bay, PNG: **24.** ♂ holotype, NHMUK014201579; **25.** ♀ paratype, NHMUK014201580; **26-27.** *E. nana* **spec. nov.**, Hydrographer Mts, PNG: **26.** ♂ holotype, NHMUK014201584; **20.** ♀ paratype, NHMUK014201587.



Figs 28-29. ♂ genitalia of *Chionatosia chionostola* (Hampson, 1918), RMNH.INS.1283299. **28.** genital armature; **29.** aedeagus.

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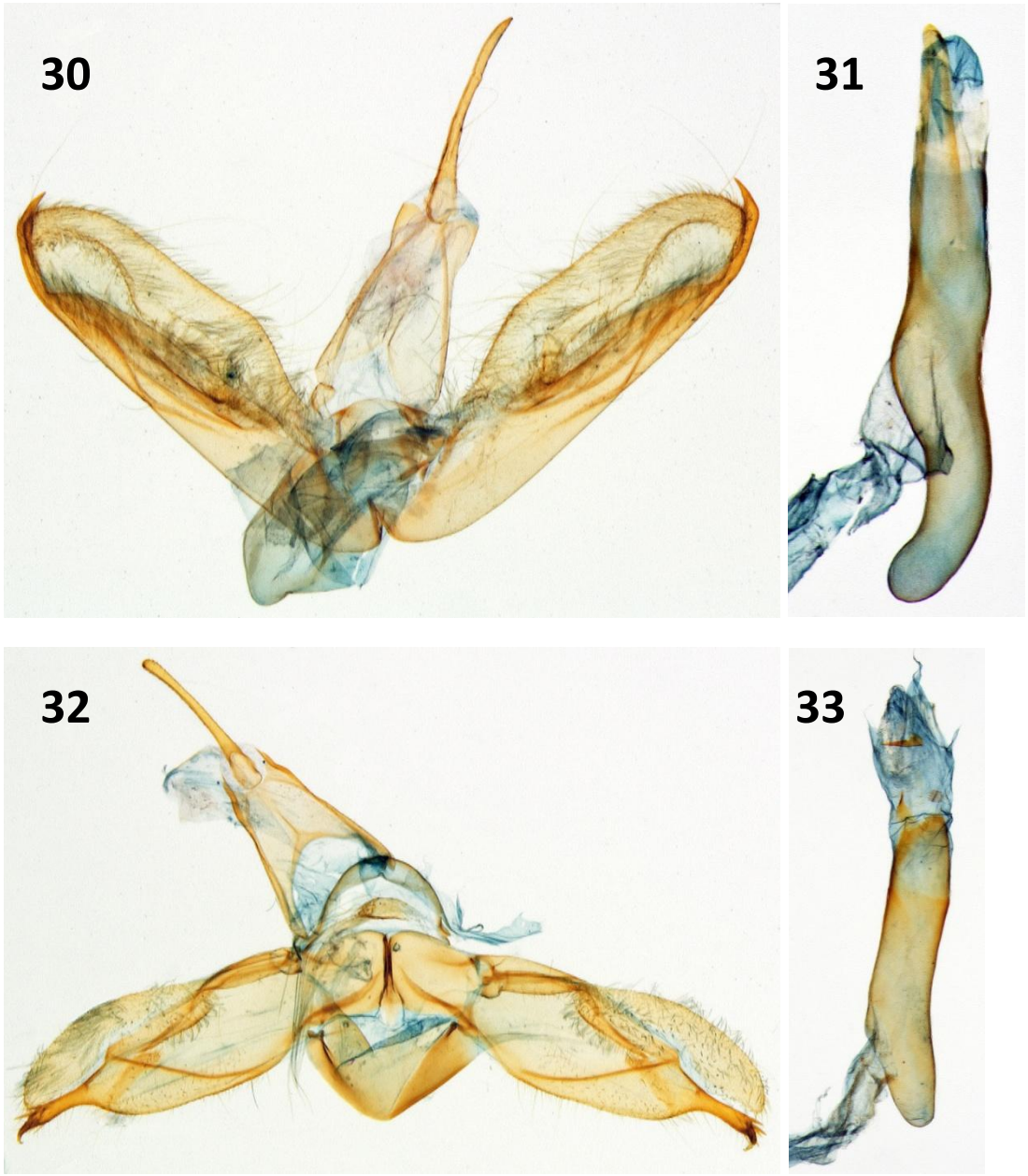

Figs 30-31. ♂ genitalia of *Parapelosia grisescens* Bethune-Baker, 1908, RMNH.INS.1283290. **30.** genital armature; **31.** aedeagus. **Figs 32-33.** ♂ genitalia of *Lithopelosia euscia* (Hampson, 1914), RMNH.INS.1283310. **32.** genital armature; **33.** Aedeagus.

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Figs 34-35. ♂ genitalia of *Blavipelosia schraderi* (Gaede, 1925), RMNH.INS.1283293. **34.** genital armature; **35.** aedeagus. **Figs 36-37.** ♂ genitalia of *Blavipelosia costaepunctata* (Gaede, 1925), MFN.LEP.1108. **36.** genital armature; **37.** aedeagus.

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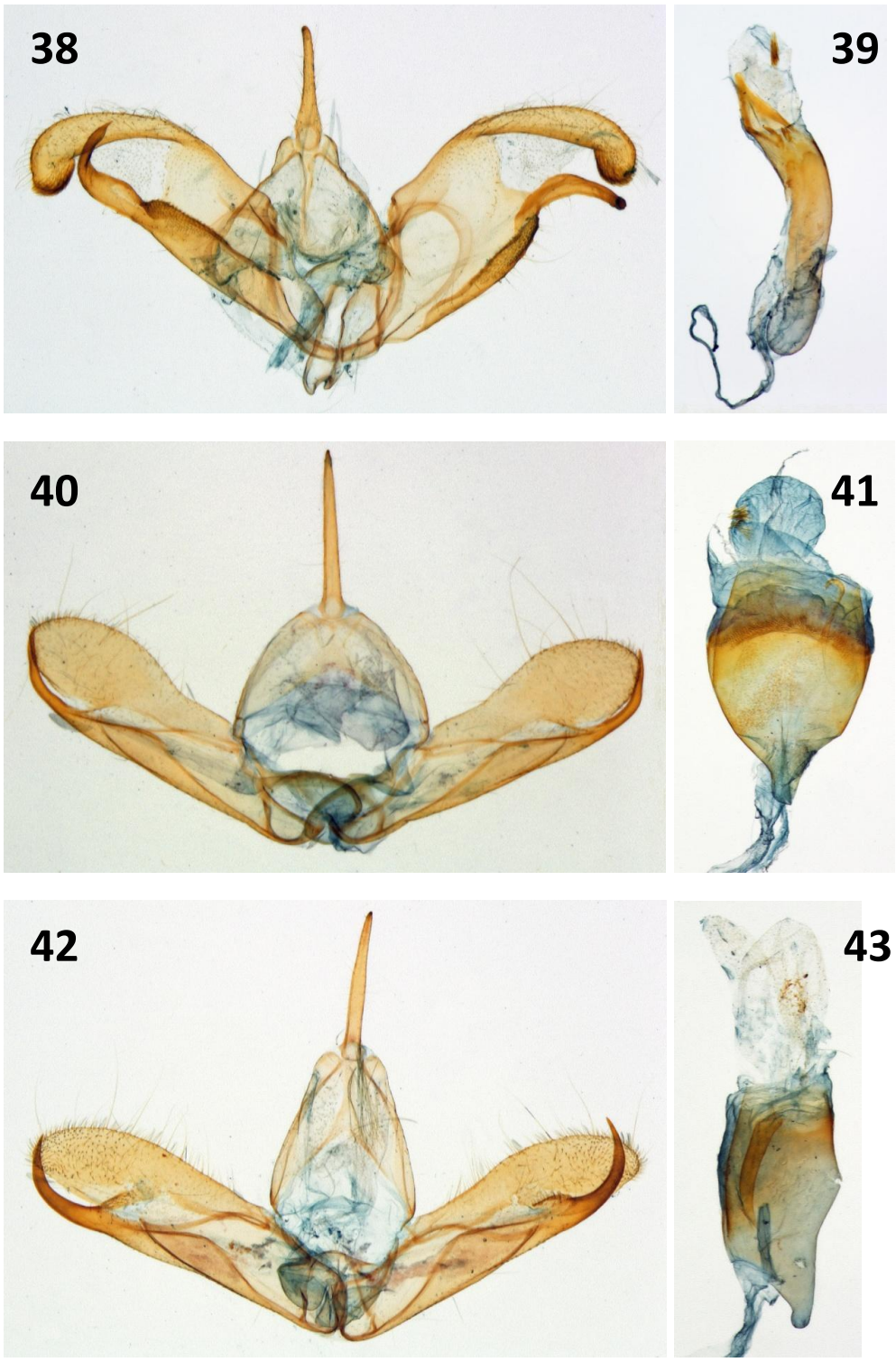

Figs 38-39. ♂ genitalia of *Blavipelosia habbemaensis* **spec. nov.**, RMNH.INS.1108650. **38.** genital armature; **39.** aedeagus. **Figs 40-41.** ♂ genitalia of *Eugopelosia gaedei* **spec. nov.**, RMNH.INS.1283301. **40.** genital armature; **41.** aedeagus. **Figs 42-43.** ♂ genitalia of *Eugopelosia transnovaguinea* **spec. nov.**, RMNH.INS.1283307. **42.** genital armature; **43.** aedeagus.

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Figs 44-45. ♂ genitalia of *Blavipelosia milnensis* **spec. nov.**, NHMUK014201579. **44.** genital armature; **45.** aedeagus. **Figs 46-47.** ♂ genitalia of *Eugopelosia nana* **spec. nov.**, NHMUK014201584. **46.** genital armature; **47.** aedeagus.

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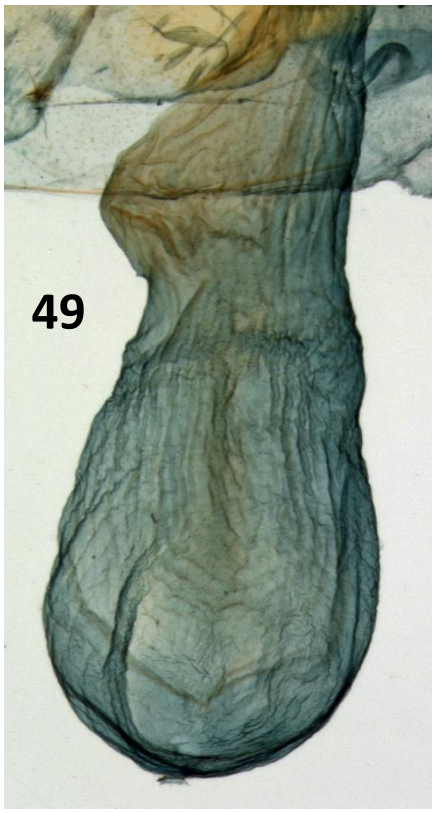

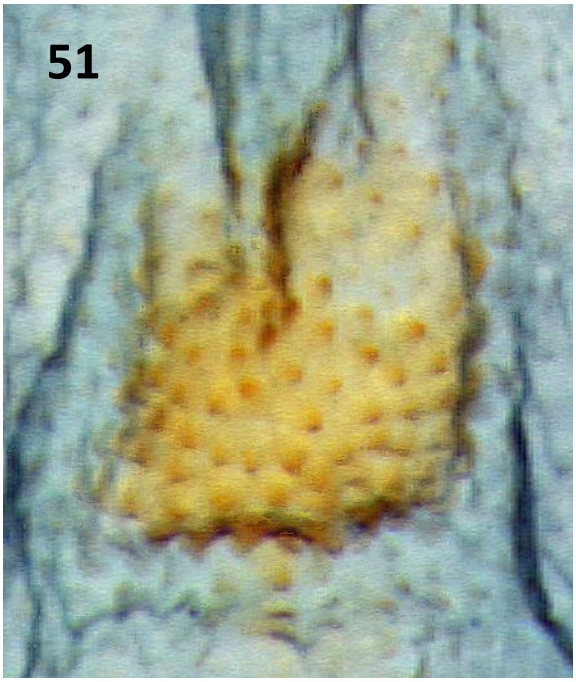

Figs 48-49. ♀ genitalia of *Chionatosia chionostola* (Hampson, 1918), RMNH.INS.1283300. **48.** habitus; **49.** bursa with indication of a longitudinal signum. **Figs 50-51.** ♀ genitalia of *Parapelosia grisescens* Bethune-Baker, 1908, RMNH.INS.1283291. **50.** habitus; **51.** signum.

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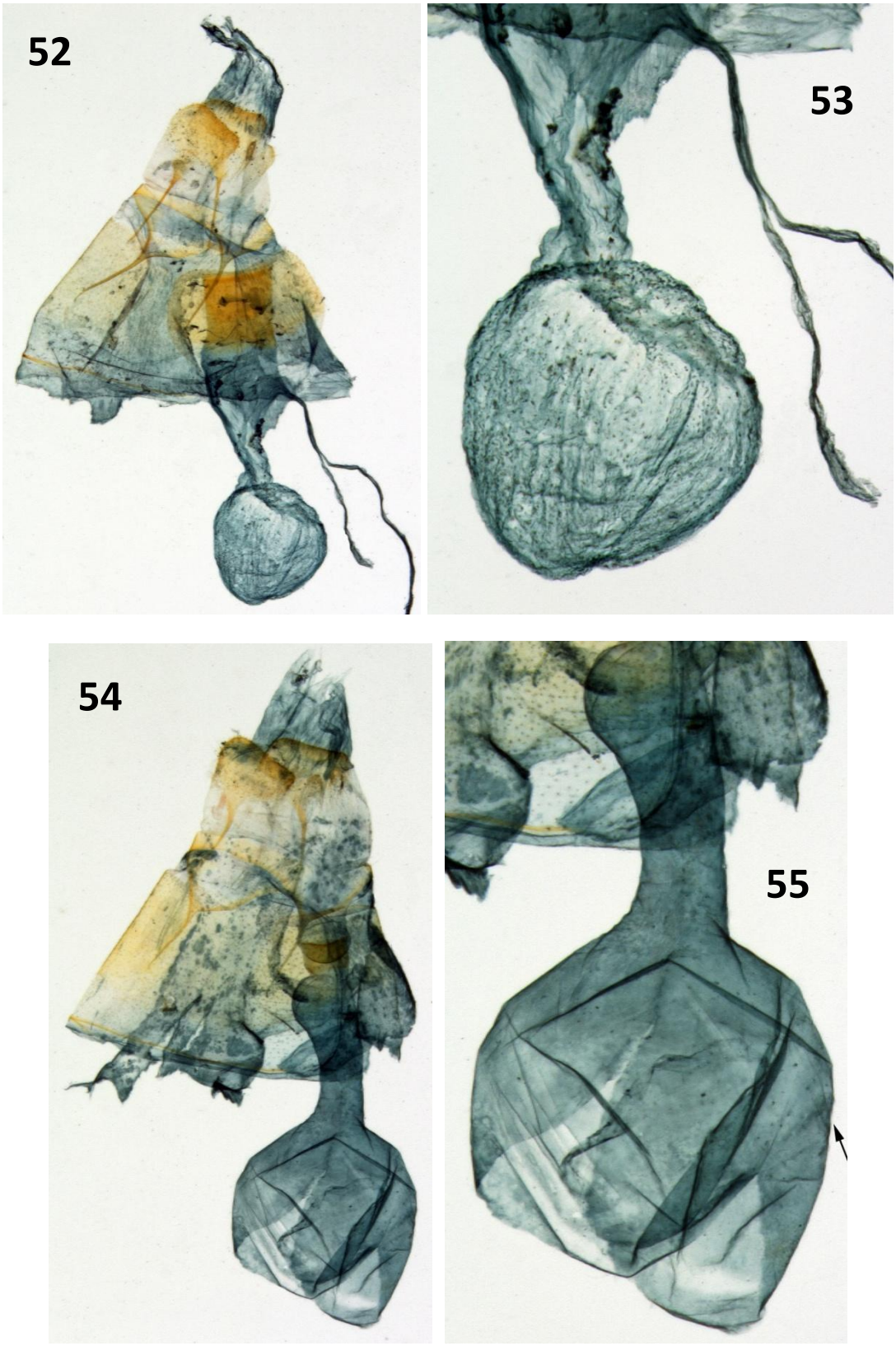

Figs 52-53. ♀ genitalia of *Lithopelosia euscia* (Hampson, 1914), RMNH.INS.1283292. **52.** habitus; **53.** bursa. **Figs 54-55.** ♀ genitalia of *Blavipelosia schraderi* (Gaede, 1925), RMNH.INS.1283311. **54.** habitus; **55.** bursa, arrow pointing at an indication of signum.

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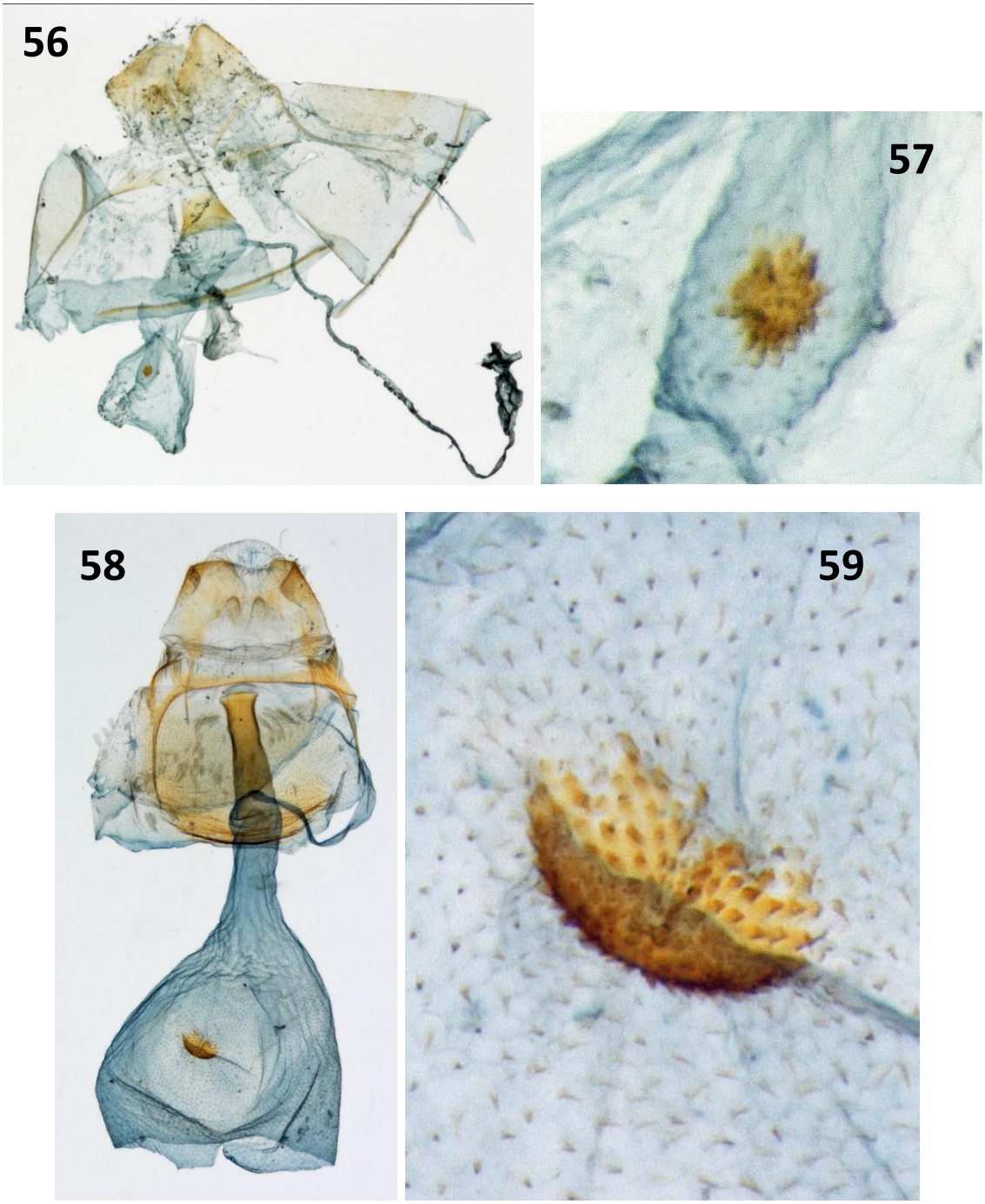

Figs 56-57. ♀ genitalia of *Blavipelosia costaepunctata* (Gaede, 1925), MFN.LEP.1443. **56.** habitus; **57.** bursa. **Figs. 58-59.** ♀ genitalia of *Blavipelosia angulata* (Gaede, 1925), MFN.LEP.1110. **58.** habitus; **59.** signum.

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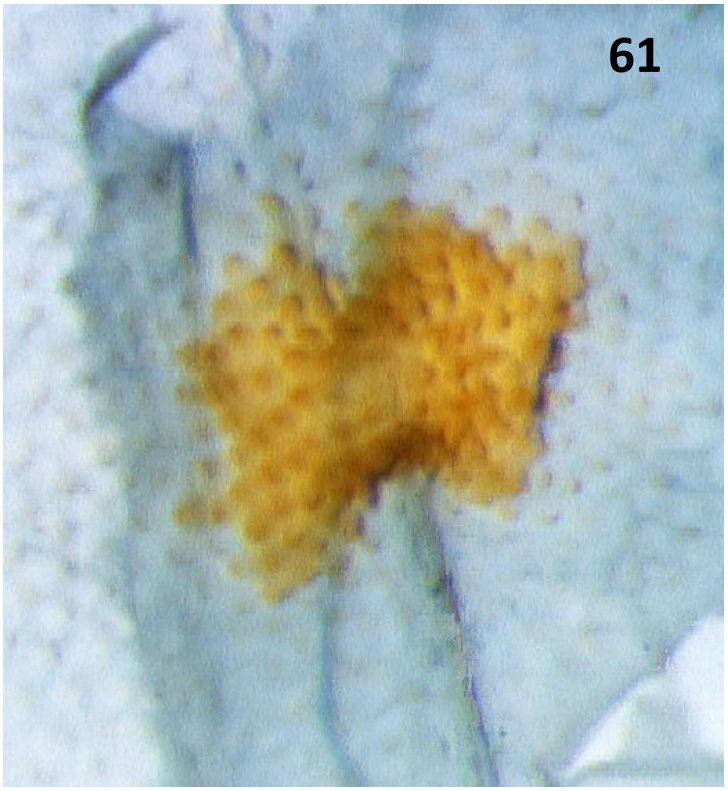

Figs. 60-61. ♀ genitalia of *Blavipelosia tenebris* **spec. nov.**, RMNH.INS.1283303. **60.** habitus; **61.** signum. **Figs. 62-63.** ♀ genitalia of *Blavipelosia staatsi* **spec. nov.**, RMNH.INS.1283343. **62.** habitus; **63.** signum.

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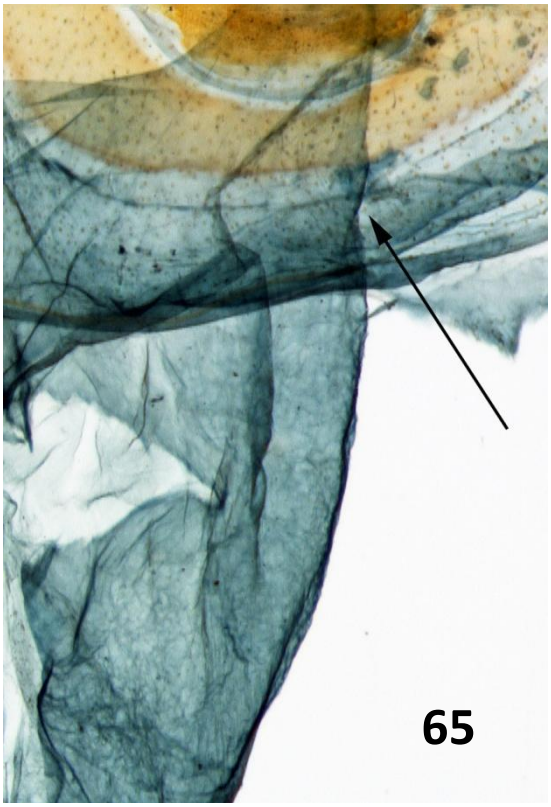

Figs 64-65. ♀ genitalia of *Blavipelosia habbemaensis* **spec. nov.**, RMNH.INS.1108651. **64.** habitus; **65.** right side of bursa, arrow pointing at indication of signum. **Figs 66-67.** ♀ genitalia of *Blavipelosia armata* **spec. nov.**, RMNH.INS.1108799. **66.** habitus; **67.** lamella antevaginalis.

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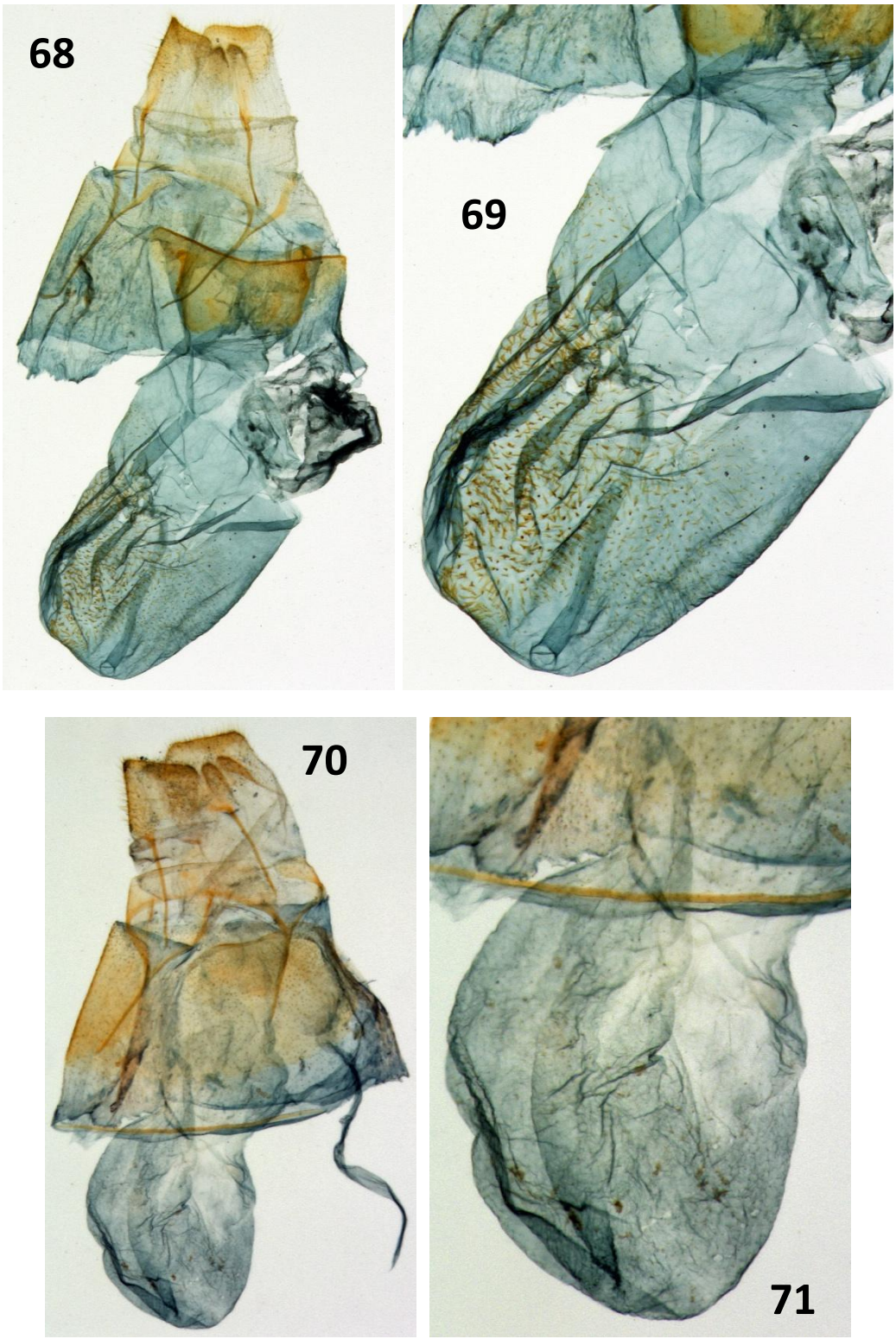

Figs 68-69. ♀ genitalia of *Eugopelosia obscura* **spec. nov.**, RMNH.INS.1283295: **68.** habitus; **69.** bursa with signa spines. **Figs 70-71.** ♀ genitalia of *Eugopelosia gaedei* **spec. nov.**, RMNH.INS.1283297: **70.** habitus; **71.** bursa.

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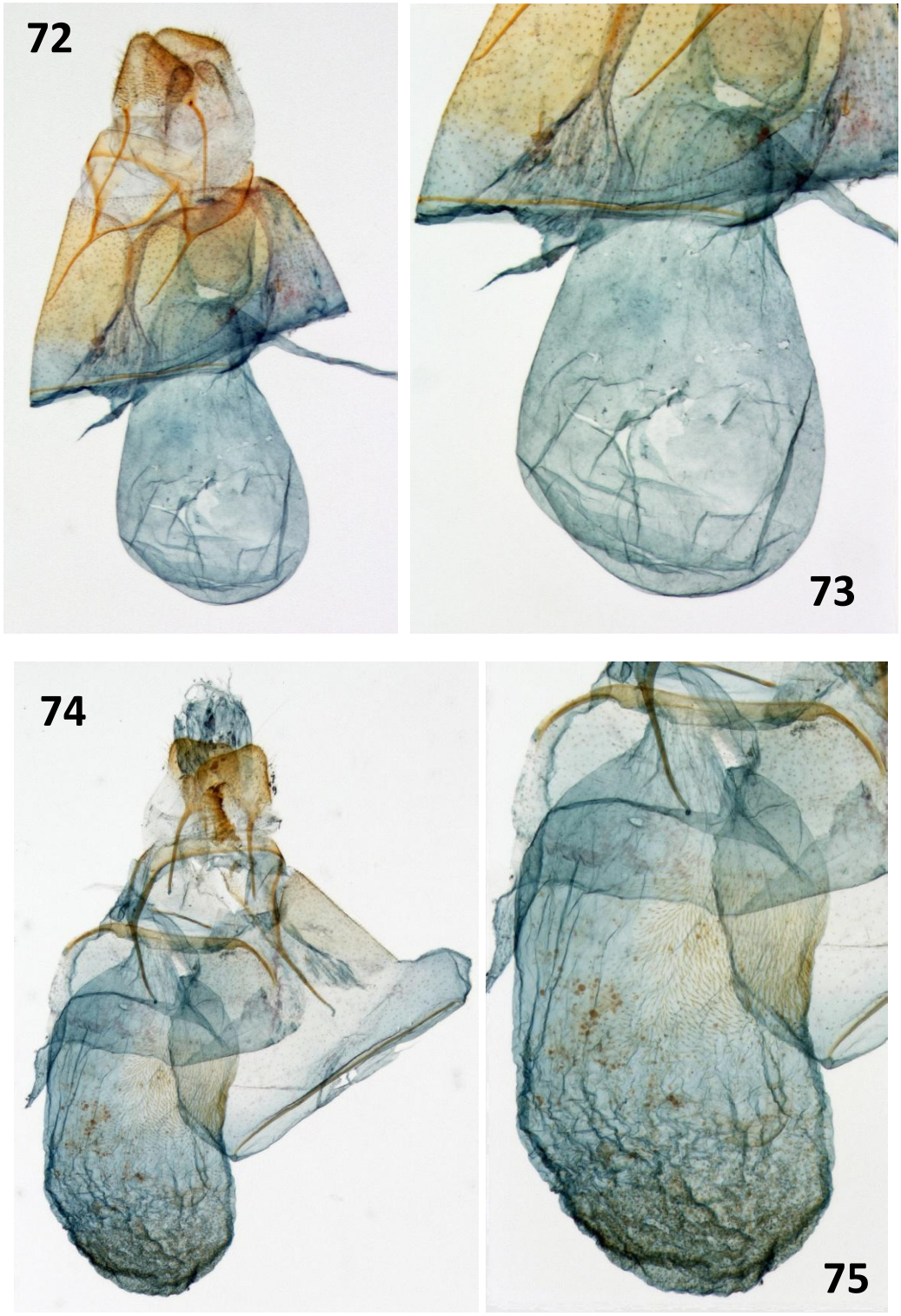

Figs 72-73. ♀ genitalia of *Eugopelosia transnovaguinea* **spec. nov.**, RMNH.INS.1283366. **72.** habitus; **73.** bursa. **Figs 74-75.** ♀ genitalia of *Eugopelosia milnensis* **spec. nov.**, NHMUK014201580. **74.** habitus; **75.** bursa.

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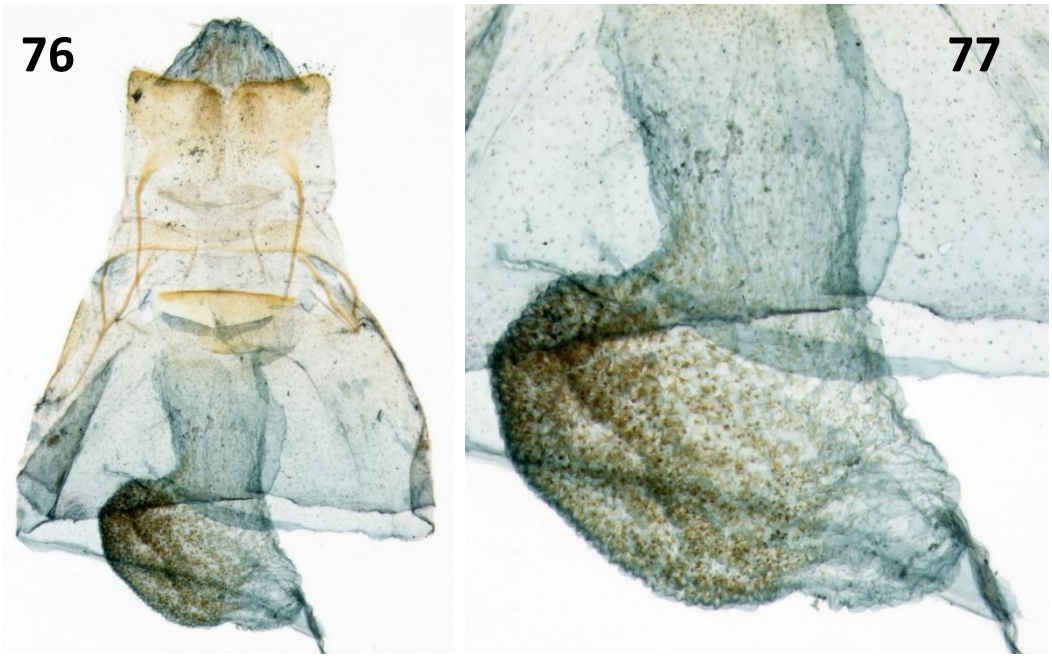

Figs 76-77. ♀ genitalia of *Eugopelosia nana* **spec. nov.**, NHMUK014201587. **76.** habitus; **77.** bursa.