Acta zoologica cracoviensia, **51B**(1-2): 7-41, Kraków, 30 June, 2008
doi:10.3409/azc.51b_1-2.7-41

Tortricidae (Lepidoptera) from the mountains of Ecuador. Part 1: Southern Highlands

Józef RAZOWSKI, and Janusz WOJTUSIAK

Received: 15 Dec. 2007
Accepted: 17 Feb. 2008

RAZOWSKI J., WOJTUSIAK J. 2008. Tortricidae (Lepidoptera) from the mountains of Ecuador. Part 1: Southern Highlands. *Acta zoologica cracoviensia*, **51B**(1-2): 7-41.

Abstract. Tortricidae collected in mountains of the Loja province, Ecuador are listed. Two genera and 33 new species are described: *Saphenista saragurae* sp.n., *Thalleulia ochreorufa* sp.n., *Apotomops rhampha* sp.n., *Netechma cajanumae* sp.n., *Netechma albitermen* sp.n., *Galomecalpa minutuncus* sp.n., *Inape toledana* sp. n., *Inape lojae* sp.n., *Cincorunia monstruncus* sp.n., *Transtillaspis saragurana* sp.n., *Transtillaspis zamorana* sp.n., *Transtillaspis zenenaltana* sp.n., *Transtillaspis dromadaria* sp.n., *Transtillaspis curiosissima* sp.n., *Zenenata* gen.n., *Zenenata zenena* sp.n., *Intritenda* gen.n., *Intritenda tridentinda* sp.n., *Subterinebrica nigrosignatana* sp.n., *Subterinebrica albitaeniana* sp.n., *Oregocerata medioloba* sp. n., *Ptyongnathosia spinosa* sp.n., *Punctapinella paraconchitis* sp.n., *Sychnovalva flavida* sp.n., *Clepsis terevalva* sp.n., *Sisurcana obscura* sp.n.., *Auratonota rubromixta* sp.n., *Auratonota ovulus* sp.n., *Eccopsis eltundana* sp.n., *Epinotia lineana* sp. n., *Epinotia tubuligera* sp.n., *Epinotia zamorlojae* sp. n., *Quebradnotia saragurae* sp.n., *Rhopobota tentaculana* sp.n., *Mesochariodes micropollex* sp. n.

Key words: Insecta, Lepidoptera, Tortricidae, faunistics, new taxa, Ecuador.

Józef RAZOWSKI, Institute of Systematics and Evolution of Animals, Polish Academy of Sciences, Sławkowska 17, 31-016 Kraków, Poland;
E-mail: razowski@isez.pan.krakow.pl
Janusz WOJTUSIAK, Zoological Museum, Jagiellonian University, Ingardena 6, 30-60 Kraków, Poland;
E-mail: wojt@zuk.iz.uj.edu.pl

I. INTRODUCTION

This project was aimed to study diversity of moths of the family Tortricidae in mountains of Ecuador. The field work was concentrated mainly in the upper cloud forest zone of the both, western and eastern cordilleras of the Andes and in the ecotone between the cloud forest and open field vegetation of paramo. Collection sites were chosen to obtain data from areas that were little, or not explored by entomologists before. They were mostly concentrated within an elevational zone between 2200 m and 3700 m and distributed along the Western and Eastern Cordillera from the border with Colombia in the North to the border with Peru in the South. During the field work conducted in years 1998, 1999 and 2003-2005, a large material became available for further study.

This paper is the first part out of a series of four in which we will publish results of the study. The first part consists of a general discussion and the description of the fauna of the Southern High-

lands and deals with the material collected in the area from the Huashapamba (03°38' S, 79°17' W) near Saraguro in the north to Sozoranga and Podocarpus National Park in the south. Part two shall cover the fauna of the Western Cordillera. Part three which includes a study of the mountains surrounding the Valley of Rió Gualaceo in Eastern Cordillera, is already published (RAZOWSKI & WOJTUSIAK 2006). Part four will focus on the fauna of the Eastern Cordillera and shall include systematic-faunistic study and a comparison of the faunas of the four ranges.

In the present part we include the data from the Southern Highlands, i.e. from the mountains in the province Loja and Zamora Chinchipe.

The geographical positions of eight collection sites in the area of Southern Highlands of Ecuador listed below, from which the material presented in present paper originates, were measured by means of Garmin GPS receiver:

Collection site	Altitude	Latitude	Longitude
Saraguro	3100 m	S 03° 40' 16''	W 79° 15' 07''
Zenen	2750 m	S 03°49'24''	W 79°17'48''
vía Saraguro – Loja	3100 m	S 03°40'16''	W 79°15'07''
Cajanuma	2700 m	S 04°06'59''	W 79°01'48''
vía Vilcabamba – Valladolid	2459 m	S 04°25'26''	W 79°08'47''
Yangana, Cerro Toledo	3000 m	S 04°23'10''	W 79°07'08''
Quebrada San Francisco	2200 m	S 03°59'15''	W 79°05'37''
Sozoranga	1500 m	S 04°19'38''	W 79°46'49''

Material and methods

Moths were collected during the first three hours after the dusk to the Philips MLW 160W electric bulb emitting UV light together with ordinary 150 W bulb emitting visible light operated with portable Honda electric generator.

II. SYSTEMATIC PART

Tortricinae

Cochylini

Saphenista saragurae sp.n.

(Figs 51, 59)

D i a g n o s i s. Related to *S. sphragidias* (MEYRICK, 1932) from Andes of Bolivia but *saragurae* distinguished by presence of large subterminal blotch of forewing, large postostial sterigma, and broad cup-shaped part of sterigma.

E t y m o l o g y. The name refers to the type locality.

D e s c r i p t i o n. Wing span 16.5mm mm; costa of forewing somewhat curved outwards, termen weakly oblique. Ground colour cream white sprinkled brown; suffusions yellow-brown and brown. Markings: basal blotch rudimentary, pale brown; postbasal fascia in form of dark brown costal spot; median fascia incomplete consisting of costal spot, subcostal suffusion and triangular rust median blotch marked black fusing with broad dorsal suffusion; subapical spot and postmedian suffusion connected with subterminal blotch; the latter with dark brown admixture. Cilia cream with brown divisions. Hindwing brownish, whitish towards base, darkest at apex; cilia cream with brownish parts.

Male not known.

Female genitalia (Fig. 50). Papilla analis long; sterigma large, with rounded medioposterior half and broad cup-shaped portion; ductus bursae rather well sclerotized with some proximal folds and short membranous posterior part; corpus bursae rather sparsely spined.

Holotype female: "Ecuador, Prov. Loja, Saraguro, 24.08.2004, 3100 m, leg. J. WOJTUSIAK; GS 210 MZUJ.

Deltophalonia chlidonibrya RAZOWSKI & BECKER, 2003

Material examined. One male from Saraguro, 6.09.2004, 2980 m. Known from the Loja Province, Ecuador and Colombia (San Antonio).

Euliini

Anopinella parambana BROWN & ADAMSKI, 2003

Material examined. Two males from Prov. Loja, Sozoranga-Utuana, Res. El Tundo, 2400 m, 24.7.1998. Described from Ecuador (Paramba).

Thalleulia ochreorufa sp.n.

(Figs 1, 2, 60)

Diagnosis. Close to *T. gracilescens* RAZOWSKI, 2004 from Pichincha, Ecuador but distinguished by slender aedeagus and lack of free termination of sacculus.

Etymology. The name refers to colouration of forewing; Latin: ochreus; rufus – rusty.

Description. Wing span 21 mm. Head brown, labial palpus over 2; thorax chestnut brown, paler posteriorly. Forewing weakly expanding posteriorly; costa convex, termen sinuate beneath apex, weakly oblique. Ground colour cream ferruginous in basal half and apical third strongly mixed chestnut brown, browner at wing base. Traces of markings blackish brown: a series of costal spots and a curved subapical line. Cilia brownish grey with dark brown basal line. Hindwing cream in apical area slightly mixed with pale orange; cilia similar, tinged brown at apex.

Male genitalia (Figs 1, 2). Uncus long, slender from beyond middle; socius moderate; gnathos with fairly broad laterotermінal lobe marked with strongly sclerotized hook; valva broad terminally with costa concave before middle; sacculus slender with small postmedian prominence and thin termination; aedeagus slender; coecum penis long.

Female not known.

Holotype male: "Ecuador, Prov. Loja, Saraguro, 06.09.2004, 2980 m, leg. J. WOJTUSIAK"; GS 139 MZUJ.

Apotomops rhampha sp.n.

(Figs 52, 61)

Diagnosis. Facies reminiscent that of *A. boliviana* BROWN & RAZOWSKI, 2003 and *A. moronaecola* Razowski & Wojtusiak, 2006 from Morona Santiago Province, Ecuador but *rhampha* with slender, curved proximal lobes of sterigma.

Etmology. The specific name refers to the shape of the process of sterigma; Greek: rhamphos – beak of predaceous bird.

Description. Wing span 20 mm. Head and thorax pale brownish grey; labial palpus 1.5, brownish grey. Shape of forewing, pattern and colouration as in boliviana; ground colour white strigulated grey; costal and tornal spots darker; dorsum and base of wing brownish grey. Markings brownish grey with blackish brown spots; postbasal fascia reserved in costal half of wing; median fascia consisting of weak costal blotch and broad dorsal half fused with dorsal suffusion; row of

black spots along dorsum. Cilia grey, slightly tinged with brownish in apical third. Hindwing whitish, mixed cream brownish in apical portion, with weak concolorous strigulation; cilia white cream.

Male not known.

Female genitalia (Fig. 51), Apophyses slender, long; sterigma proportionally short, well sclerotized laterally and proximally, with large, slender proximal lobes; antrum large, bulbous; remaining part of ductus bursae very short; corpus bursae membranous with weak postmedian folds.

Holotype female: "Ecuador, Prov. Loja, Podocarpus N.P., Cajanuma, 2800 m, 20.VII.1998, leg. T. PYRCZ & J. WOJTUSIAK"; GS 147 MZUJ.

Neomarkia trifasciata (RAZOWSKI, 1995)

One male from Ecuador, Prov. Zamora Chinchipe, Estacion Cientifica "Arcoiris", 2200 m. Described from Prov. Morona-Santiago (Rio Culebrillas, 2200 m).

Netechma cajanumae sp.n.

(Figs 3, 62)

D i a g n o s i s. Related to Peruvian *N. bicerithium* RAZOWSKI, 1997 but *cajanumae* with long sacculus and very long, slender aedeagus.

D e s c r i p t i o n. Wing span 16 mm. Head brownish cream, labial palpus ca 3, whitish, brown to middle laterally; thorax yellowish brown. Forewing not expanding terminally; costa weakly convex near base; termen oblique, almost straight; ground colour whitish; suffusions pale yellowish brown; dots browner; costa suffused from base to apex, triangular, paler suffusions near mid-termen. Markings dark brown in dorsal area (submedian fascia and tornal spot), brown with dark brown spots at costa forming together two fasciae typical of the genus, connected with one another subcostally. Cilia brownish, cream at tornus. Hindwing whitish cream slightly tinged brownish at apex; strigulation pale brownish. Cilia whitish.

Male genitalia (Fig. 3). Valva broad with costa long and caudal edge weakly convex; sacculus beyond base forming a dorsal rod like sclerite; median part of transtilla consisting of two submedian lobes terminating in sharp processes; aedeagus very long, slender, curved.

Female not known.

Holotype male: "Ecuador, Prov. Loja, Podocarpus N.P., Cajanuma, 2850 m, 15-20.VII.1998, leg. T. PYRCZ & J. WOJTUSIAK"; GS 122 MZUJ.

Netechma albitermen sp.n.

(Figs 4, 5, 63)

D i a g n o s i s. Facies as with *N. graphidaspis* RAZOWSKI & BECKER, 2001 from Loja, Ecuador but *albitermen* easily distinguished by broad, uniform dorsal part of transtilla.

E t y m o l o g y. The name refers to colouration of forewing: Latin: albus – white.

D e s c r i p t i o n. Wing span 17 mm, Head white, vertex and labial palpus (ca 2.5) brownish grey; thorax cream, tinged brownish grey proximally. Forewing slender, slightly expanding posteriorly; costa almost straight, termen hardly sinuate postapically. Ground colour white slightly tinged grey at costa where dotted black, suffused rust cream in basal area almost to proximal edge of submedian fascia. Markings black-brown consisting of submedian fascia, subapical triangle connecting in costal half of wing by means of brown-grey suffusion, and small tornal blotch; proximal edge of submedian fascia straight, posterior edge with median prominence; terminal marking brownish, median. Cilia white, pale brownish at mid-termen. Hindwing cream with similar cilia and greyish strigulation.

Male genitalia (Figs 4, 5). Uncus long, slender except for base; socius broad; valva moderately broad with costa slightly expanding terminaly; sacculus broad to middle then slender with small

dentation; basal half of sacculus convex, rounded posteriorly; a sclerotized belt on disc from middle of sacculus to caudal edge; dorsal lobe of transtilla broad,tapering terminad with small laterotermi-nal processes; aedeagus uniformly broad with distinct ventroterminal process; 7 short cornuti in vesica; coecum penis well developed.

Female not known.

Holotype male: "Ecuador, Prov. Zamora Chinchipe, P.N. Podocarpus, Yangana, 08.09.2004, 2480 m, leg. WOJTUSIAK & PYRCZ"; GS 119 MZUJ.

Netechma niveonigra RAZOWSKI & BECKER, 2002

M a t e r i a l e x a m i n e d. Two males from Saraguro, Prov. Loja, 6.09.2004, 2980m; one male from the same locality on 24.8.2004 at 3100 m. Described from Loja Province (Loja, 2700 m). Male genitalia of our specimens show a slight variation in number and position of thorns of caudal edge of valva and size and number of cornuti.

Galomecalpa minutuncus sp.n.

(Figs 6, 7, 64)

D i a g n o s i s. Close to Peruvian *G. monogramma* RAZOWSKi, 1997 but median sinuation of sacculus distinct and uncus very short.

E t y m o l o g y. The name refers to the size of uncus; Latin: minutus – small.

D e s c r i p t i o n. Wing span 18 mm. Head white, labial palpus ca 3, brownish ochreous; thorax ferruginous brown. Forewing expanding terminally; costa weakly convex; apex pointed; termen long, gently sinuate, slightly oblique. Ground colour pale ferruginous, whitish along markings, brownish rust along termen and in part along costa. Markigs in form of 11 (2 or 3 incomplete) fas-ciae almost perpendicular to dorsum. Cilia concolorous with fasciae. Hindwing brownish cream, cream at base; strigulation slight, more brown; cilia (worn), whitish.

Male genitalia (Figs 6, 7). Uncus slender, short; socius and gnatos moderately long; valva rather slender, strongly tapering beyond sacculus terminally; sacculus weakly convex to middle, then gen-tly sinuate, with long free termination; transtilla convex dorsomedially; aedeagus short, moderately broad.

Female not known.

Holotype male: "Ecuador, Prov. Zamora Chinchipe, P.N. Podocarpus, Yangana, 08.09.2004, 2480 m, leg. WOJTUSIAK & PYRCZ"; GS 124 MZUJ.

Gorytvesica cerussolinea RAZOWSKI & WOJTUSIAK, 2006

One female from Prov. Zamora Chinchipe, P.N. Podocarpus, Cajanuma, 10.09.2007, 2700 m. Described from Morona-Santiago Prov. (Gualaceo – Limon, 2750 m).

Inape sinuata BROWN & RAZOWSKI, 2003

M a t e r i a l e x a m i n e d. A pair, female (GS 94 MZUJ) and male (GS 410 MZUJ) from Za-mora Chinchipe, Loja-Zamora, Arcoiris Estacion Cientifica, 12.09.2004, 2200 m. This species was described from Bolivia (Cochabamba, Incachaca, 2100 m) then found (RAZOWSKI & PELZ 2006) in Zamora-Chinchipe Province, Ecuador (near Loja, 2200 m).

Inape sororia lojana RAZOWSKI & PELZ, 2006

M a t e r i a l e x a m i n e d. Seven male specimens from Saraguro, Prov. Loja. 06.09.2004, 2980 m, 9 male specimens from the same locality but collected on 24.08.2004 at 3100 m, 1 male from Prov. Loja, P.N. Podocarpus, Cerro Toledo, Yangana-Antena, 19.09.2004, 3000 m, 1 male from Prov. Loja, via Saraguro – Loja, Zenen Alto, 11.09.2004, 2650 m, and two females from Saraguro,

Prov. Loja. 06.09.2004, 2980 m. Described from same province (PN Podocarpus, vicinity of Loja, 2850 m, in October).

Inape toledana sp. n.

(Figs 8, 9, 65)

D i a g n o s i s. Close to *I. laterosclera* RAZOWSKI & PELZ, 2006 from Napo Province but *toledana* easily distinguished by strongly sclerotized dorsolateral processes of transtilla, large triangular termination of sacculus, and numerous minute cornuti.

E t y m o l o g y. The specific name refers to the terra typica, Cerro Toledo.

D e s c r i p t i o n. Wing span 24 mm. Head pale ferruginous brown; labial palpus 2,5, brownish; thorax greyish brown, paler posteriorly. Forewing broad; costa weakly convex; termen weakly oblique, almost straight. Ground colour pale brownish, slightly mixed cream postmedially; strigulation and suffusions pale brown; some dots in posterior part of wing brown. Markings indistinct, brown, diffuse, usual of the genus. Cilia concolorous with ground colour. Hindwing brownish cream, densely spotted greyish brown. Cilia cream.

Male genitalia (Figs 8, 9). Base of uncus broad, posterior half slender, slightly tapering apicad; socius moderate; gnathos arms fairly long; sacculus short with distinct, elongate-triangular termination; processes of transilla strongly sclerotized, lateral; juxta with rather small dorsal processes; aedeagus broad in major part weakly sclerotized dorsally and short coecum penis; cornuti arranged in two groups, anterior with eight larger spines, posterior with numerous minute, also capitate spines.

Female unknown.

Holotype male: "Ecuador, Prov. Loja, P.N. Podocarpus, Cerro Toledo, Yangana-Antena, 19.09.2004, 3000 m, leg. WOJTUSIAK & PYRCZ"; GS 924 MZUJ.

Inape lojae sp.n.

(Figs 10, 11, 66)

D i a g n o s i s. Facies similar to *Inape porpax* RAZOWSKI & PELZ, 2006 but *lojae* with dark brown spot at the end of median cell of forewing; from *I. iantha* RAZOWSKI & WOJTUSIAK, 2006 from Prov. Morona-Santiago the new species differs in simple sacculus and higher number (eight instead of two) of cornuti.

D e s c r i p t i o n. Wing span 27 mm. Head yellow-brown, labial palpus over 2; flagellum of antenna brown; thorax dark purple brown to beyond middle, yellow brown posteriorly. Forewing broad; costa convex; termen not oblique, hardly sinuate beneath apex. Ground colour brownish yellow dotted black; blackish spot at end of median cell; brownish grey suffusion near middle of termen; costobasal part of wing dark brown with some refractive dots. Traces of brownish markings in form of diffuse, slender lines from beyond middle of costa to termen and from 2/3 of costa, parallel to one another. Cilia similar to ground colour. Hindwing cream slightly tinged brownish, spotted brownish grey; pencil of cream and black scent scales beyond mid-costa; cilia paler than wing.

Male genitalia (Figs. 10, 11). Uncus slender, somewhat broadening in median third where hairy; socius large, rather slender, rounded terminally; gnathos delicate with proportionally small terminal plate; valva rather slender, upcurved, rounded terminally; sacculus simple, reaching beyond 1/3 of ventral edge of valva; transtilla simple, moderalely broad; juxta small, without processes; aedeagus stout; coecum penis very short; cornuti unequally long forming three groups; 3 + 3 + 1 (proximal).

Female not known.

Holotype male: "Ecuador, Prov. Loja, Saraguro, 24.08.2004, 3100 m, leg. J. WOJTUSIAK"; GS 926 MZUJ.

Paratype: identically labelled male.

Albadea dea RAZOWSKI & BECKER, 2002

M a t e r i a l e x a m i n e d. One male from "Arcoiris" Scientific Station at Loja-Zamora, 2200 m, Province Zamora Chinchipe (12.09.2004). Described from Carchi Province where collected at the same altitude (9-11. I. 1993). Our specimen differs from the holotype in longer processes of median part of transtilla, slightly longer aedeagus and somewhat different termination of sacculus.

Cincorunia uncicornia RAZOWSKI & BECKER, 2002

One male from Ecuador, Prov. Zamora-Chinchipe, P.N. Podocarpus, Yangana, 08.09.2004, 2480 m. Described from Loja Prov. (Loja, 2750 m).

Cincorunia monstruncus sp.n.

(Figs 12, 13, 67)

D i a g n o s i s. Externally very similar to *uncicornia* but *monstruncus* with tornal part of cilia brownish; male genitalia dramatically differing in enormous terminal part of uncus.

E t y m o l o g y. The name refers to the unusual shape of uncus; Latin: monstrum – something curious.

D e s c r i p t i o n. Wing span 18 mm. Head brown suffused grey; labial palpus concolorous, 2,5. Thorax brown, pale posteriorly, marked dark brown proximally. Forewing as in *uncicornia*. Ground colour cinnamon brown, darker in costal part than dorsally, refractively spotted chiefly in distal third of wing. Marking in form of dark brown costal triangle spotted refractively. Cilia brown, more rust dorsad, dak browm beneath apex. Hindwing pale yellowish cream mixed orangeous apically; cilia rather concolorous with adjacent parts of wing.

Male genitalia (Figs 12, 13). Base of uncus subtrinagular, median part short, slender, remaining part very large, almost elliptic, densely spiny; socius large with rounded terminations; gnathos arm provided with large, laterosubterminal and slender, pointed submedian processes; vinculum short with broadening ventral portion; valva elongate-oval; sacculus slender, simple; median part of transtilla broadening; aedeagus small; terminal part slender, median part and coecum penis broad; one short cornutus spine.

Female not known.

Holotype male: "Ecuador, Prov. Loja, P.N. Podocarpus, Cerro Toledo, Yangana-Antena, 19.09.2004, 3000 m, leg. WOJTUSIAK & PYRCZ; GS 153 MZUJ.

Transtillaspis saragurana sp.n.

(Figs 14, 15, 68)

D i a g n o s i s. Related to *T. bascanion* RAZOWSKI, 1987 from Peru, with similar transtilla but differing in long free termination of sacculus, broad aedeagus, presence of median (fairly long spines) and posterior (small capitate spines) groups of cornuti and a series of rather equally long fixed cornuti (anterrior group).

E t y m o l o g y. The specific epithet refers to the type locality.

D e s c r i p t i o n. Wing span 23 mm. Head and thorax dark brown; labial palpus 2,5, brown. Forewing not expanding terminally; costa distinctly convex to middle; termen oblique, hardly convex. Ground colour yellowish brown with chestnut admixture, darker basally and terminally; veins of posterior area and subapical area suffused brown. Markings ill-defined consisting of dark brown blotch at base of costa, trace of media fascia somewhat darker than ground colour and brownish suffusion replacing subapical blotch; row of black spots along termen and at tornus. Cilia paler than postmedian interfascia, blackish at apex, with rust brown basal line. Hindwing cream tinged pale ferruginous on periphery, spotted grey; cilia concolorous with wing.

Male genitalia (Figs 14, 15). Uncus strong, tapering terminally, pointed; socius small; gnathos long, slender; valva broad proximally, curved upwards, slender terminally; sacculus almost uniformly broad throughout, with large free termination; transtilla with lateral thorny lobes; juxta small, constricted before bifurcate terminal part; aedeagus broad; coecum penis short; cornuti three groups of spines (cf. diagnosis).

Female not known.

Holotype male: "Ecuador, Prov. Loja, Saraguro, 24.08.2004, 3100 m, leg. J. WOJTUSIAK. GS 285 MZUJ. Paratype male, Ecuador, Prov. Loja, Saraguro, 06.09.2004, 2980 m, not dissected.

Transtillaspis zamorana sp.n.

(Figs 16, 17, 53, 69).

D i a g n o s i s. Related to Colombian *T. bebela* RAZOWSKI, 1987 and *T. hedychnium* RAZOWSKI, 1991 from Peru but easily distinguished by bifurcate uncus; shapes of sacculus and aedeagus remind those of another Colombian species, *T. baea* RAZOWSKI, 1987.

E t y m o l o g y. The specific name refers to the name of the Zamora-Chinchipe Province, Ecuador.

D e s c r i p t i o n. Wing span 18 mm. Head and thorax brownish grey; labial palpus over 2, more grey. Forewing slender, not expanding terminally; costa curved in basal third; termen fairly oblique, almost straight. Ground colour pale brownish cream, in basal area darker; suffusions and strigulation brownish, some spots brown; markings brown with some darker strigulae, ill-defined consisting of basal blotch, median fascia and subapical blotch. Cilia concolorous with ground colour with browner parts and dark brown strip at tornus. Hindwing cream with weak brownish suffusions; strigulation distinct, pale brownish. Cilia brownish white.

V a r i a t i o n. Female. Wing span 22 mm. Ground colour of forewing greyish brown, without strigulation; markings browner with sparse blackish dots.

Male genitalia (Figs 16, 17). Uncus fairly large with terminal furcation; socius rudimentary; gnathos slender; valva broad to end of sacculus; sacculus broad, angulate terminally; transtilla with two submedian dorsal lobes; processes of juxta asymmetric; aedeagus broad beyond zone, with long, pointed ventroterminal part; coecum penis slender; cornuti consisting of several slender spines of fixed proximal group.

Female genitalia (Fig 53). Sterigma broad, rather weakly sclerotized, surrounded by membranous area, accompanied by semilunar submembranous pocket; sclerite of ductus bursae broad, expanding proximally; corpus bursae without any sclerite.

Holotype male: "Ecuador, Prov. Loja, Sozoranga-Utuana, Res. El Tundo, 2400 m, 24.7.1998, leg. J. WOJTUSIAK & T. PYRCZ"; GS 302 MZUJ. Paratypes, male: Ecuador, Prov. Loja, Sozoranga-Utuana, Res. El Tundo, 2400 m, 24.7.1998, leg. J. WOJTUSIAK & T. PYRCZ; GS 321 MZUJ; female: Ecuador, Prov. Loja, Podocarpus N.P., Cajanuma, 2850 m, 15-20.VII.1998, leg. T. PYRCZ & J. WOJTUSIAK; GS 292 MZUJ.

Transtillaspis zenenaltana sp.n.

(Figs 18, 19, 70).

D i a g n o s i s. Related to *bebela* and *baea* but easily distinguished chiefly by median lobe of transtilla and broad, terminally pointed sacculus.

E t y m o l o g y. The name refers to the type locality.

D e s c r i p t i o n. Wing span 16 mm. Head brown, thorax slightly paler; labial palpus over 1,5, brownish. Ground colour cream sprinkled and strigulated brown, in form of large dorsal blotch; median part of wing strongly suffused brown, terminal area brown with weak brownish cream spots.

Otherwise brown, darker basally. Cilia brownish. Hindwing cream whiter basally, slightly tinged brownish in apical part; strigulation brownish grey; cilia concolorous with posterior peripheries.

V a r i a t i o n. In paratype forewing paler than in holotype; dorsal blotch cream, not strigulated.

Male genitalia (Figs 18, 19). Uncus and arms of gnathos slender; socius short; valva weakly tapering terminad; sacculus broad, slightly concave ventrally, with pointed ventral termination (slightly asymmetric in holotype); transtilla broad with median part strong; processes of juxta short, symmetric, pointed; aedeagus broad at zone, tapering ventroterminally; cornuti group of 5 strong spines of anterior group and single, small posterior spine.

Female not known.

Holotype male: "Ecuador, Prov. Loja, via Saraguro – Loja, Zenen Alto, 11.09.2004, 2650 m, leg. WOJTUSIAK & PYRCZ"; GS 301 MZUJ; paratype male (not dissected), same label.

Transtillaspis dromadaria sp. n.

(Figs 20, 21, 54, 71).

D i a g n o s i s. Closely related to Colombian *T. bebela* RAZOWSKI, 1987 but *dromadaria* with large dorsal lobes of transtilla, broad dorsal processes of juxta, and pointed uncus.

E t y m o l o g y. The name refers to the bilobed dorsum of median part of transtilla; Latin: dromadar – dromadar.

D e s c r i p t i o n. Wing span 16 mm; head brownish cream, with vertex and end of labial palpus (ca 2) browner. Forewing almost uniformly broad throughout, costa convex, termen fairly oblique. Ground colour brownish cream dotted brownish. Markings brownish consisting of two fasciae parallel to one another, median and subapical termination at tornus and mid-termen, respectively. Cilia worn. Hindwing cream; diffusely spotted brownish grey; cilia (remnants) whitish.

V a r i a t i o n. Female forewing rather slender with termen more strongly oblique than in male, ground colour more brownish, strigulation and edges of markings brown. Forewing cilia brownish; hindwing tinged brownish grey.

Male genitalia (Figs 20, 21). Uncus slender, moderately long; socius and arms of gnathos slender; valva simple; sacculus short, broad, almost triangular; dorsal lobes of transtilla broad, minutely spined apically; dorsolateral processes of juxta strong, slightly bent, pointed apically; aedeagus rather short, broadest medially, with long, slender ventroterminal part; coecum penis small; cornuti ca. 10 slender capitate spines and strong fixed proximal spine.

Female genitalia (Fig. 54). Sterigma submembranous except for basal portion where broad, slender spiny sclerite.

Holotype male: "Ecuador, Prov. Loja, Sozoranga-Utuana, Res. El Tundo, 1400 m, 24.7.1998, leg. J. WOJTUSIAK & T. PYRCZ"; GS 185 MZUJ. Paratype female, same label; GS 315 MZUJ.

Transtillaspis curiosissima sp.n.

(Figs 22, 23, 72)

D i a g n o s i s. Externally somewhat resembling *T. bascanion* RAZOWSKI, 1987 from Machu Picchu, Peru but closer to *T. monoseta* RAZOWSKI & PELZ, 2003; distinct from them in elongate dorsomedian lobe of transtilla; very distinct by pair of large lateral processes of basal fourth of uncus.

E t y m o l o g y. The name refers to the peculiar shapes of male genitalia; Latin: curious – most interesting.

D e s c r i p t i o n. Wing span 21 mm. Head brownish tinged grey; labial palpus ca 2,5; thorax darker than head with blackish, mainly proximal, suffusions. Forewing not expanding terminad; costa from beyond base straight; termen straight, oblique. Ground colour grey-cream sprinkled brownish grey, dotted black. Markings brownish grey consisting of three parallel fasciae extending from costa and curved subterminal fascia, all marked black near costa; basal marking rather weak.

Cilia pale brownish grey, black at tornus. Hindwing cream whiter basad, tinged brownish terminally; strigulation pale brownish grey; cilia whitish cream.

Male genitalia (Figs 22, 23). Uncus very strong, with broad posterior part terminating in a triangular tips and two lateral processes of postbasal part; socius reduced; gnathos arms slender, terminal plate small; valva rather slender; sacculus broad basally provided with one large spine and numerous long bristles; median part of transtilla slender, slightly tapering terminally; juxta small, simple; aedeagus broad medialy, with slender ventral termination and short coecum penis; cornuti a few long, fixed spines.

Female not known.

Holotype male: "Ecuador, Prov. Loja, via Saraguro – Loja, Zenen Alto, 11.09.2004, 2650 m, leg. WOJTUSIAK & PYRCZ"; GS 299 MZUJ.

Zenenata gen.n.

Type-species: *Zenenata zenena* sp.n.

D i a g n o s i s. Facies similar to that in several *Transtillaspis* but genitalia, especially the aedeagus, similar to those of *Simanica* RAZOWSKI, 1997.

E t y m o l o g y. The name refers to the type locality of the type-species.

D e s c r i p t i o n. Venation: in forewing R5 to termen beneath apex; chorda reduced to short portions extending from 1/5 R1-R2 and at base of R5; median stem reduced; base of CuA1 opposite base of chorda. In hindwing Rs-M1 short stalked; R3-CuA1 almost connate, far from base of R2.

Male genitalia. Tegumen large; uncus slender, rather short; socius base submedian; arms of gnathos simple, slender; vinculum strong, broadly connected with pedunculi; valva slender; costa well developed; sacculus simple; pulvinus ill-defined, at one/third of disc; transtilla slender, with median fold; juxta simple; aedeagus weakly sclerotized dorsally, with distinct ventral termination; caulis short.

Female not known.

Zenenata zenena sp.n.

(Figs 24, 25, 73)

D i a g n o s i s. Externally similar to some *Transtillaspis*-species (e.g. *dromadaria*, this paper); other remarks with description of the genus.

E t y m o l o g y. The specific name refers to the type locality: Zenen Alto.

D e s c r i p t i o n. Wing span 16,5 mm. Head cream brown; labial palpus over 2. Forewing curved outwards at base, then straight; termen oblique, rather straight. Ground colour brownish cream sprinkled cinnamon brown, suffused brown near base and dorsum, less so along costa. Markings brownish, ill-defined consisting of remnants of median fascia and three spots in posterior part of costa. Cilia concolorous with ground colour. Hindwing white, tinged cream near apex, with traces of grey spots terminally; cilia white.

Male genitalia (Figs 24, 25). As described for the genus.

Holotype male: "Ecuador, Prov. Loja, via Saraguro – Loja, Zenen Alto, 11.09.2004, 2650 m, leg. Wojtusiak & Pyrcz"; GS 291 MZUJ.

Intritenda gen. n.

Type-species: *Intritenda tridentina* sp. n.

D i a g n o s i s. Externally reminds *Oregocerata*-species, e.g. *O. zonalis* RAZOWSKI, 2002 but male genitalia somewhat similar to *Monochamia* RAZOWSKI, 1997. The new genus, however, differs in presence of three processes of transtilla, uncus, and costa of valva.

E t y m o l o g y. The name is an anagram of the name of type-species.

D e s c r i p t i o n. Venation: in forewing chorda and M-stem absent; R5 to termen; remnants of chorda at1/4 R1-R2; CuA1 opposite base of chorda. In hindwing Rs-M1 stalked to 1/3; M2 far from M3; base of M3 near CuA1.

Male genitalia. Uncus slender with three minute apical prominences; socius rather large, submembranous, drooping; arm of gnathos short with subterminal process; terminal plate small; vinculum strongly sclerotized, broadest subventrally; valva broad with distal half of costa slender, less sclerotized than proximal half; strong postbasal process of costa and broad median prominence present; sacculus without free termination, rather broad; a group of long spines just above sacculus postmedially; pulvinus reduced to a small area of short hair near mid-base of disc; median lobe of transtilla small, lateral lobes large; aedeagus strong, open dorsally; coecum penis short, broad; cornuti two series of minute thorns.

Female not known.

R e m a r k s. A monotypical Ecuadoran genus.

Intritenda tridentina sp. n.

(Figs 26, 27, 74)

D i a g n o s i s. Externally resembling *Oregocerata orcula* RAZOWSKI, 1988 and *O. zonalis* RAZOWSKI, 2002 but easily distinguished by genitalia (cf. with the genus).

E t y m o l o g y. The name refers to triple prominences of processes of some parts of male genitalia.

D e s c r i p t i o n. Wing span 18,5 mm. Head cream brown, frons and antenna dirty cream; labial palpus ca 2, brownish; thorax brownish, scaled brown. Forewing somewhat expanding terminally; costa rather straight; termen hardly depressed beneath apex. Ground colour leaden grey, cream grey beyond end of median cell and subterminally; dark brown suffusion from subterminal area towards tornus. Yellowish white black edged blotch at base of wing; dark grey marked black costal portion of median fascia; three dark grey spots along costa before apex, smaller spots in other parts of costa and along dorsum; a row of black spots along base of apical area. Cilia dark grey, paler at tornus. Hindwing whitish cream with some diffuse greyish spots and whitish cilia.

Male genitalia (Figs 26, 27) as described for the genus.

Holotype male: “Ecuador, Prov. Loja, Saraguro, 06.09.2004, 2980 m, leg. J. WOJTUSIAK; GS 270 MZUJ.

Subterinebrica nigrosignatana sp.n.

(Figs 30, 31, 75)

D i a g n o s i s. Facies as with *S. impolluta* RAZOWSKI, 2002 from Carchí but *nigrosignatana* with strong dorsolateral processes of transtilla.

E t y m o l o g y. The name refers to black markings of forewing; Latin: niger – black, signata – signed.

D e s c r i p t i o n. Wing span 23 mm. Head greyish white with black vertex; labial palpus ca 2, blackish with white terminal segment; thorax grey, tegula black to middle, white posteriorly. Ground colour glossy white; markings black (cf. photograph); cilia white, black at markings. Hindwing whitish with sparse greyish spots; cilia white.

Male genitalia (Figs 30, 31). Uncus broad, tapering terminad, constricted basally; socius broad; gnathos slender; sacculus spined from middle to termination; median part of transtilla convex, lateral lobes large, spiny; dorsolateral processes of juxta fairly large; ventral termination of aedeagus slender; caulis very large.

Female not known.

Holotype male: "Ecuador, Prov. Loja, Saraguro, 06.09.2004, 2980 m, leg. J. WOJTUSIAK.; GS 921 MZUJ.

Subterinebrica albitaeniana sp.n.

(Figs 30, 31, 76).

D i a g n o s i s. Closely related to all known species of this genus (e.g. *S. impolluta*) but with strongly specialized uncus with pointed laterally submedian processes; externally characterized with slender tornal markig.

D e s c r i p t i o n. Wing span ca 20 mm. Head white with black vertex; labial palpus strigulated black and grey to end of median segment; thorax black with whitish end of tegula and two posterior spots. Ground colour of forewing whitish with indistinct yellowish-greenish hue; subapical and terminal blotches well separate from one another, tornal blotch elongate. Hindwing whitish with sparse pale brownish spots in apical third.

Male genitalia (Figs 30, 31). Uncus broad, rounded apically, with elongate-triangular laterobasal lobes; posterior half of sacculus densely spined postmedially; lobes of transtilla lateral, spiny, median part large, convex dorsally; aedeagus broad.

Female not known.

Holotype male: "Ecuador, Prov. Zamora Chinchipe, Loja-Zamora, "Arcoiris" Estacion Cientifica, 12.09.2004, 2200 m, leg. WOJTUSIAK & PYRCZ; GS 109 MZUJ.

Exoletuncus c.f. ***canescens*** RAZOWSKI & PELZ, 2005

One specimen from Ecuador, Prov. Loja, via Saraguro – Loja, Zenen Alto,11.09.2004, 2650 m. This species was described from Prov. Napo (Cosanga, 2180 m). It shows a little external variation and slight genital variation. Our specimen characterizes with slender forewing.

Oregocerata zonalis RAZOWSKI & BECKER, 2002

One male from Saraguro, Loja Prov. 2980 m. Described from Loja Province, Ecuador, 2750 m.

Oregocerata orcula RAZOWSKI, 1988

M a t e r i a l e x a m i n e d. One male from Zamora-Chinchipe Province, P.N. Podocarpus, Yangana, 2480 m. Described from Bolivia (Cochabamba, Incachaca, 2100 m).

Oregocerata mediloba sp. n.

(Figs 32, 33, 77).

D i a g n o s i s. Close to *O. triangulana* RAZOWSKI & BROWN, 2005 from Colombia but *mediloba* is easily distinguished by very strong terminal processes of arms of gnathos and long terminal plate of gnathos.

E t y m o l o g y. The name refers to median lobe of dorsum of transtilla.

D e s c r i p t i o n. Wing span 23 mm. Head and thorax dirty cream; labial palpus ca 4,5, blackish brown except for dorsum and terminal segment. Forewing broad, somewhat expanding terminad; costa convex; termen weakly oblique, almost straight. Ground colour cream tinged pale brownish, whiter in basal half of wing; strigulation and dots brownish; termen and large parts of costal area brownish. Markings brownish consisting of incomplete postbasal fascia; median fascia thin at costa broad otherwise, and subapical and tornal blotches. Cilia slightly darker than ground colour, pale at tornus, with pale orange median line. Hindwing cream tinged yellowish posteriorly; strigulation pale grey; cilia white cream.

Male genitalia (Figs 32, 33). Uncus slender, moderate; socius large; terminal process of arm of gnathos as long as proximal part; terminal plate long; sacculus simple, slender; transtilla broad, well

sclerotized dorsally, with median prominence; aedeagus small, slender, with terminal broadenig; thorny lobe of anellus at base of caulis.

Female not known.

Holotype male: "Ecuador, Prov. Zamora Chinchipe, P.N. Podocarpus, Yangana, 8.09.2004, 2480 m, leg. WOJTUSIAK & PYRCZ"; GS 262 MZUJ.

Ptyongnathosia spinosa sp.n.

(Figs 34, 35, 78)

D i a g n o s i s. Closely related to *P. oxynosocia* RAZOWSKI & BECKER, 2002 from Loja Province but easily distinguished by numerous slender processes of distal part of gnathos.

Etmology. The name refers to structure of gnathos; Latin: spinosus – spiny.

D e s c r i p t i o n. Wing span 16,5 mm. Head and thorax greyish white, labial palpus over 2, tinged brown laterally. Forewing expanding terminally; costa convex; termen somewhat oblique. Ground colour greyish cream slightly tinged brownish; dots blackish; basal part of costa brown-black. Cilia cream with basal line orange to beyond mid-termen. Hindwing whitish spotted grey; cilia whitish.

Male genitalia (Figs 34, 35). Uncus slightly expanding terminally; socius large; arm of gnathos proportionally short, with several slender spine like processes; basal parts of sacculi with asymmetrical long dorsal processes; aedeagus rather small, curved postmedially, with slender posterior part terminated in ventral thorn.

Female not known.

Holotype male: "Ecuador, Prov. Loja, P.N. Podocarpus, Cerro Toledo, Yangana-Antena, 19.09.2004, 3000 m, leg. WOJTUSIAK & PYRCZ"; GS 338 MZUJ. Paratypes: two males labelled: Ecuador, Prov. Loja, Saraguro, 24.08.2004, 3100 m, leg. J. WOJTUSIAK.

Hynhamia nigropunctana RAZOWSKI & PELZ, 2007

M a t e r i a l e x a m i n e d. A male: Prov. Loja, Saraguro, 06.09.2004, 2980 m; female: Prov. Zamora Chinchipe, P.N. Podocarpus, Yangana, 08.09.2004, 2480 m. Described from Loja (N.P. Podocarpus, 2850 m).

Female not known to this date. Eighth tergite elongate; apophyses long; sterigma and antrum membranous; ductus bursae slender with ductus seminalis originating postbasally.

Seticosta chlorothicta RAZOWSKI & PELZ, 2004

M a t e r i a l e x a m i n e d. Five male specimens from Prov. Loja, via Saraguro – Loja, Zenen Alto, 11.09.2004, 2650 m., 1 male from Prov. Loja, Podocarpus N.P., Cajanuma, 2850 m, 15-20.07.1998., 1 male from Prov. Loja, Saraguro, 06.09.2004, 2980 m, 1 male from Prov. Zamora Chinchipe, P.N. Podocarus, Yangana, 08.09.2004, 2480 m.

This species was described from the Loja Province (N.P. Podocarpus, 2850 m).

Punctapinella paraconchitis sp.n.

(Figs 55, 79)

D i a g n o s i s. Very similar and close to Colombian *P. conchitis* (MEYRICK, 1912) but distinguished chiefly by lack of a sac of ductus bursae (very large in *conchitis*).

E t y m o l o g y. The name refers to similarity with *conchitis*; Latin: para- near, close.

D e s c r i p t i o n. Wing span 22 mm. Head and thorax white; labial palpus ca 4, blackish laterally and terminally (end of third joint tinged rust). Forewing as in *conchitis*; ground colour snow white with grey subterminal shades (remnants of fascia); termen yellow dotted black. Markings consist of a blotch at base of costa and subapical dot, grey with black marks, suffused yellow near

edges and medially, with black dots on yellow surfaces. White spot at costa postmedially and near end of median cell. Cilia white in apex area and at tornus, orange beneath M1, scaled blackish terminally. Hindwing cream brown tinged ochreous on periphery; strigulation brownish grey; cilia ochreous cream.

Male not known.

Female (Fig. 55). Postbasal sterigma twice loger than cup-shaped part, membranous distally; ductus bursae moderate; small sac-shaped prominence from distal third of corpus bursae; accessory bursa from subterminal part of the latter.

Holotype female: "Ecuador, Prov. Zamora Chinchipe, P.N. Podocarpus, Yangana, 8.09.2004, 2480 m, leg. WOJTUSIAK & PYRCZ"; GS 906 MZUJ.

Strophotina strophota (MEYRICK, 1926)

Material examined. One female from Prov. Loja, Sozoranga-Utuana, Res. El Tundo, 2400 m, 24.7.1998. Described from Cauca Province, Colombia; according to BROWN (1998) known also from Peru, Venezuela, and Napo Province (via Santa Barbara – La Bonita, 2400 m), Ecuador.

Archipini

Argyrotaenia onorei RAZOWSKI & PELZ, 2004

Material examined. Two males and one female from Prov. Zamora Chinchipe, Loja-Zamora "Arcoiris" Estacion Cientifica, 12.9.2004, 2200 m. Described from Province Morona-Santiago (vicinity of Macas, 1700 m, April and July).

Remarks. Our specimens are somewhat variable externally: ground colour is pale brownish, or greyish white, markings dark brown. There are also some differences in the genitalia.

Sychnovalva flavida sp. n.

(Figs 36, 37, 80)

Diagnosis. Closely related to Brazilian (from Paraná) *S. crocea* RAZOWSKI & BECKER, 2000 but *flavida* with broader base of uncus, slenderer terminal part of uncus, and paler, more cream colouration of forewing.

Etymology. The name refers to colouration of forewing; Latin: flavida – yellowish.

Description. Wing span 21 mm. Head and thorax pale cream brown; labial palpus over 2.5, concolorous with frons. Forewing hardly expanding terminally; costa curved outwards at base, then weakly so; termen slightly obliqe, rather straight. Ground colour cream with slight admixture of yellowish brown; strigulae and suffusions (mainly along dorsum and apex) brownish. Markigs brown with a few dark brown spots; basal blotch ill-defined; median fascia, straight proximally; subapical blotch short. Cilia concolorous with ground colour, brownish from beneath apex. Hindwing cream white with some pale brownish spots mainly in apex area; cilia conoclorous with wing.

Male genitalia (Figs 36, 37). Uncus rather broad in basal half, then somewhat expanding terminally, rounded apically; arm of gnathos slender, terminal plate small; valva slender, up-curved terminally with rather well sclerotised postmedian fold of disc; sacculus long, slender; transtilla simple band; juxta small, oval; aedeagus moderate with slender ventroterminal third; coecum penis short, directed ventrad; cornuti group of rather moderate spines.

Female not known.

Holotype male: "Ecuador, Prov. Loja, Saraguro, 06.09.2004, 2980 m, leg J. WOJTUSIAK"; GS: 425 MZUJ. Paratype male: Ecuador, Prov. Loja, Saraguro – Loja old road, S 03? 40´16½ W 79°15´07½, 3100 m, 25.08.2005, leg. J. WOJTUSIAK & R. GARLACZ; GS 910 MZUJ.

Clepsis terevalva sp.n.

(Figs 38, 39, 81).

D i a g n o s i s. Comparable with *C. centonata* RAZOWSKI & BECKER, 1999 from Brazil (Santa Catarina) but *terevalva* with uncus slender, and valva distinctly tapering terminad.

E t y m o l o g y. The name refers to the structure of valva; Greek: teren – delicate.

D e s c r i p t i o n. Wing span 15 mm. Head and thorax brownish; labial palpus ca 1.3. Forewig hardly expanding terminad; costa moderately convex to middle; termen straight, rather oblique. Ground colour brownish cream suffused and sprinkled brown specially at base and apex. Ground colour brownish with brown marginal lines consisting of rudimentary basal blotch, median fascia slightly concave proximally, diffuse distally, and subapical blotch extending towards tornus. Cilia similar to ground colour. Hindwing whitish slightly tinged brownish on periphery; cilia brownish cream.

Male genitalia (Figs 38, 39). Uncus large, slender, tapering terminad, rounded apically; socius reduced; gnathos simple, with long arms; valva broadest medially, strongly tapering terminad; sacculus simple, short; juxta with slender lateral lobes and weak median part; aedeagus slender, with short, pointed ventral termination; cornuti several long spines.

Female not known.

Holotype male: "Ecuador, Prov. Zamora Chinchipe, P.N. Podocarus, Yangana, 08.09.2004, 2480 m, leg, WOJTUSIAK & PYRCZ; GS 320 MZUJ.

Clepsis fraterna RAZOWSKI & PELZ, 2004

M a t e r i a l e x a m i n e d. Three male specimens from Ecuador, Prov. Loja, Sozoranga-Utuana, Res. El Tundo, 1400 m, 24.7.1998. This species was described from Prov. Morona-Santiago (Macas, 1000 m, 11-23. XII).

Atteriini

Sisurcana llaviucana RAZOWSKI & PELZ, 2007

Three male specimens from Ecuador, Prov. Loja, via Saraguro-Loja, Zenen Alto, 11.09.2004, 2650 m. Described from Azuay Prov., Ecuador.

Sisurcana rhora RAZOWSKI & BECKER, 2004

M a t e r i a l e x a m i n e d. 2 males from male from Prov. Loja, Saraguro, 6.09.2004, 2980 m. Described from Morona, Indanza, Ecuador.

Sisurcana obscura sp. n.

(Figs 40, 41, 82)

D i a g n o s i s. Comparable with *llaviucana* and *rhora* but *obscura* larger and darker, with distinct submedian dorsal prominences of transtilla, slenderer valva, and rather straight sacculus terminating in small free prominence.

E t y m o l o g y. The name refers to colouration; Latin: obscura – dark.

D e s c r i p t i o n. Wing span 30 mm. Head and thorax brownish; labial palpus ca 2, brown. Forewing weakly expanding terminad; costa somewhat convex, mainly in basal part; termen weakly oblique, worn, probably concave beneath apex. Ground colour brownish, in distal third and submedially tinged ferruginous; sparse brown dots all over the wing, the largest along distal part of costa. Markings rudimentary, diffuse blackish brown. Cilia worn. Hindwing dirty cream; transverse brownish grey strigulation present; cilia worn.

Male genitalia (Figs 40, 41). Uncus slender except for basal portion; socius elongate with short dorsal part; terminal plate of gnathos weak; valva rather uniformly broad with somewhat oblique caudal edge; sacculus tolerably straight with small terminal prominence; dorsal edge of transtilla with pair of submedian spiny prominences; aedeagus slender.

Female not known.

Holotype male: "Ecuador, Prov. Loja, P.N. Podocarpus, Cerro Toledo, Yangana-Antena, 19.09.2004, 3000 m"; GS 913 MZUJ.

Sparganothini

Amorbia spilocryptis MEYRICK, 1932

M a t e r i a l e x a m i n e d. One male from Zamora-Chinchipe Prov. (Loja Zamora, "Acroiris" EC, 2200 m,12. 09. 2004). Described from Bolivia.

Paramorbia aureocastanea RAZOWSKI & WOJTUSIAK, 2006

M a t e r i a l e x a m i n e d. A male from Prov. Zamora Chinchipe, P.N. Podocarpus, Yangana, 08.09.2004, 2480 m. This species was described from the Morona-Santiago Province (road Gualaceo – Limon, at the altitudes of 2200-2950 m, in August. The present specimen differs from the type material only in the lack of small thorn at middle of ventral edge of sacculus.

Chlidanotinae

Polyorthini

Pseudatteria bucklei DRUCE, 1901

M a t e r i a l e x a m i n e d. Two males from Ecuador, Prov. Loja, Podocarpus N.P., Cajanuma, 2850 m, 15.07.1998. Described from Ecuador (Intag and Loja).

Chlidanotini

Auratonota rubromixta sp.n.

(Figs 42, 43, 83).

D i a g n o s i s. Externally similar to *A. angustovalva* RAZOWSKI & PELZ, 2007 from Zamora-Chinchipe Province, Ecuador but *rubromixta* with more oblique dorsal fasciae of forewing and whitish basal half of hindwing; main difference in the male genitalia is short aedeagus of this new species.

E t y m o l o g y. The specific name refers to the colouration of some pattern elements; Latin: ruber – red, mixta – mixed.

D e s c r i p t i o n. Wing span 19 mm. Head ferruginous cream; thorax ferruginous brown; labial palpus 1.5, rustbrown, creamer terminally; forewing as in *angustovalva* but termen weakly sinuate. Ground colour cream preserved only along pattern elements, distinctly suffused with pale ferruginous between them. Markings consisting of usual elements, rust with reddish and brown admixtures; subterminal blotch and its medioproximal extension almost entirely dark brown. Cilia brownish with some brown divisions, ochreous towards tornus. Hindwing white cream tinged brownish in apical third, with indistinct strigulae; cilia cream, in apical part mixed brownish.

Male genitalia (Figs 42, 43). Uncus long, expanding posteriorly, rounded apically, bristled (transformed scales) in apical fourth ventrally; socius small, membranous; hamus very long, slender, curved at the end; posterior part of valva broad; sacculus simple, slender; aedeagus short, rather slender.

Female not known.

Holotype male: "Ecuador, Prov. Loja, Saraguro, 06,09.2004, 2980 m, leg. J. WOJTUSIAK"; GS 223 MZUJ.

Auratonota ovulus sp.n.

(Figs 44, 45, 84).

D i a g n o s i s. Externally similar to Brazilian (Paraná and Santa Catarina to São Palo and Rio de Janeiro) *A. auriginea* RAZOWSKI & BECKER, 1999 but closest to *A. angustovalva* RAZOWSKI & PELZ, 2007 from Zamora-Chinchipe Province, Ecuador). The new species differs from *angustovalva* in uncus gradually expanding terminally and hami long, broadening apically.

E t y m o l o g y. The name refers to the shape of pale spot at end of median cell of forewing. Latin: ovulus – small egg.

D e s c r i p t i o n. Wing span 19 mm. Head brownish cream, labial palpus ca 2, pale brownish to middle, cream posteriorly; thorax brownish. Forewing expanding posteriorly; costa slightly convex; termen moderately oblique, rather straight. Ground colour whitish preserved along edges of markings and in form of oval white blotch at end of median cell, otherwise suffused with pale ferruginous brown, weakly so along costa. Markings usual of the genus, rust brown; in dorsal half of wing subterminal and postmedian fasciae almost parallel to ill-defined submedian fascia. Cilia (worn) paler than suffusions of ground colour with some brownish divisions. Hindwing brownish, pale basally; cilia pale brownish.

Male genitalia (Figs 44, 45). Uncus rather large, gradually expanding posteriorly, hardly rounded apically; hamus long, slender, slightly broadening at the end; valva long, narrowing medially; sacculus simple, slender; saccus slender, rather long; aedeagus slender with rod like sclerite terminating in a small hook.

Female not known.

Holotype male: "Ecuador, Prov. Loja, Saraguro, 24.08.2004, 3100 m, leg. J. WOJTUSIAK"; GS 209 MZUJ.

Olethreutinae

Olethreutini

Episimus caveatus (MEYRICK, 1912)

M a t e r i a l e x a m i n e d. One male from Ecuador, Prov. Loja, Sozoranga-Utuana, Res. El Tundo, 1500 m, 24.07.1998. Described from Venezuela.

Eccopsis eltundana sp.n.

(Figs 56, 85)

D i a g n o s i s. Externally similar to Brazilian *E. ocellifera* (WALKER, 1863) but *eltudana* with distinct transverse forewing fascia. The type of *ocellifera* lack abdomen thus a more accurate comparison is impossible.

E t y m o l o g y. The name refers to the type locality.

D e s c r i p t i o n. Wing span 16 mm. Head and thorax pale cinnamon, the latter scaled rust brown. Forewing broad, weakly expanding terminad; costa slightly convex; apex short; termen not oblique, hardly concave beneath apex. Ground colour cream cinnamon, suffused cinnamon, in costal area paler, with pale edged pattern elemnts. Markings brownish cinnamon, some elements edged brown consisting of subdorsal elongate blotch at wing base; median fascia subdivided into some slender elements; incomplete subterminal fascia with characteristic two spots in tornal area. Cilia concolorous with ground colour, browner beneath apex, cream at tornus. Hindwing brownish; cilia cream.

Male not known.

Female genitalia (Fig. 55). Sterigma fused with antrum; anteostial sterigma short, postostial sterigma expanding in distal part laterally, with small median prominence; antrum swung; signum small.

Holotype female: "Ecuador, Prov. Loja, Sozoranga-Utuana, Res. El Tundo, 1400 m, 24.7.1998, leg. J. WOJTUSIAK & T. PYRCZ"; GS 382 MZUJ.

Eucosmini

Epinotia lineana sp. n.

(Figs 46, 86)

D i a g n o s i s. Externally this species is similar to *Crocidosema venata* RAZOWSKI & WOJTUSIAK, 2006 from Venezuela but may be distinguished by large area of brown sex scales of the hindwing.

D e s c r i p t i o n. Wing span 16 mm. Head pale brownish cream; thorax cream brown, tegula browner basally. Forewing slender; costa weakly convex; termen oblique, concave beneath middle. Wing yellowish brown, much browner in basal and terminal areas, with cream venation. Cilia cream tinged brownish posteriorly, with dark brown basal line. Hindwing brownish cream, brownish on periphery, with dorsobasal half dark brown; cilia cream.

Male genitalia (Fig. 46). Uncus fairly large, broadest postbasally, tapering terminally; socius large; neck of valva short but distinct; sacculus half the length of valva, convex, setose postmedially; cucullus large with broad proximal lobe, rather straight caudal edge and small dorso-posterior lobe; aedeagus slender.

Female not known.

Holotype male: "Ecuador, Prov. Loja, via Saraguro-Loja, Zenen Alto, 11.09.2004, 2650 m, leg. WOJTUSIAK & PYRCZ"; GS 437 MZUJ.

Epinotia tubuligera sp.n.

(Figs 57, 88)

D i a g n o s i s. Externally similar to *Laculataria asymmetra* RAZOWSKI & WOJTUSIAK, 2006 from Venezuela femle of which remains unknown; female genitalia of *tubuligera* differ from all known species in very long submedian lobes of subgenital sternite.

E t y m o l o g y. The name refers to long sclerite of ductus bursae; Latin: tubulus – tube.

D e s c r i p t i o n. Wing span 20 mm. Head and thorax cream brown, labial palpus brownish. Forewing weakly expanding posteriorly, costa slightly convex, termen oblique. Ground colour brownish, pale greenish to middle of wing, cream suffused brown beyond middle, both dotted blackish and brown; dorsum blackish to middle and at tornus where in form of a triangular blotch; costal strigulae and divisions weak; ocellus brownish cream. Cilia brownish, cream at tornus. Hindwing whitish, brownish in posterior half; cilia white and brownish, respectively.

Male not known.

Female genitalia (Fig. 57). Dorsal portion of subgenital sternite with very long median lobes and short lateral corners; sterigma ill-defined, in major part membranous, somewhat sclerotized laterally; antrum membranous with indistinct marginal scleriets; ductus bursae rather long, strongly sclerotized from before middle to antrum portion; signa pair – one moderate and one minute blades.

Holotype female: "Ecuador, Prov. Zamora Chinchipe, P.N. Podocarpus, Yangana, 08.09.2004, 2480 m; leg. WOJTUSIAK & PYRCZ"; GS 346 MZUJ.

Epinotia zamorlojae sp. n.

(Figs 58, 87)

D i a g n o s i s. Facies as in *Laculataria asymmetra* RAZOWSKI & WOJTUSIAK, 2006 from Venezuela and some other representatives of *Epinotia*-group (e.g. *Quebradnotia ouralia* RAZOWSKI & WOJTUSIAK, 2006) from which *zamorlojae* differs in the presence of two whitish strips before tornus.

E t y m o l o g y. The name refers to type locality: Zamora-Loja.

D e s c r i p t i o n. Wing span 12 mm. Head and thorax brownish. Forewing hardly expanding terminally, termen not oblique. Ground colour brownish; strigulations and suffusions a little darker; costal strigulae small, divisions brown. Dorsum suffused dark brown; two white strips beyond mid-dorsum followed by a triangular blotch; ocellus cream brown with darker inner markings. Cilia cream brown. Hindwing pale brown; cilia paler.

Male not known.

Female genitalia (Fig. 58). Ovipositor moderately long; apophyses long, slender; subgenital sternite deeply incised medioposteriorly, with delicate curved anterior fold; cup-shaped part of sterigma moderate, well sclerotized, posterior part of sterigma weakly sclerotized; ductus bursae with anterior sac and long sclerite of cingulum; proximal part of corpus bursae elongate; two long signa present.

Holotype: “Ecuador, Prov. Zamora Chinchipe, Loja-Zamora, ”Arcoiris" Estacion Cientifica, 12.09.2004, 2200 m, leg. WOJTUSIAK & PYRCZ“; GS 392 MZUJ.

Crocidosema impendens MEYRICK, 1917

(47, 89)

M a t e r i a l e x a m i n e d. One male from Ecuador, Prov. Loja, Sozoranga-Utuana, Res. El Tundo, 1400 m, 24.7.1998. This species was described from Alausi, Ecuador and the lectotype was illustrated by CLARKE (1958). Our specimen was determined on basis of the later work. Because the illustrations by Clarke are insufficient we provide the following diagnosis and redescription.

D i a g n o s i s. Facies as in several other species *Crocidosema* e.g. *C. plebejana* ZELLER, 1847 but uncus expanding terminally and cucullus with broadly rounded ventral lobe and small, subtriangular dorsal lobe.

D e s c r i p t i o n. Wing span 15 mm. Head and thorax brownish. Forewing slender, termen oblique, almost straight. Ground colour preserved as a large dorsal blotch followed by slightly darker, tinged brownish terminal blotch. Basal area of wing brownish, postbasal fascia diffuse browner, costal portion of median fascia concolorous, fused with the latter extending to apex of wing; costal strigulae small, cream; divisions brown. Cilia cream, in costal half tinged brownish; small, brown portion at tornus. Hindwing cream, terminal portion mixed and strigulated pale brownish, basal area slightly so with ochreous with rounded area of brown scent scales.

Male genitalia (Fig. 47). Uncus well developed, slightly broadening terminad; socius large, weakly sclerotized; basal half of valva browd, neck distinct, ventral incision rounded; cucullus broad, rounded ventrally, tapering dorsally; sacculus rounded, setose ventrocaudally; aedeagus slender, long; cornuti numerous, long spines.

Female not known.

Quebradnotia saragurae sp. n.

(Figs 48, 90)

D i a g n o s i s. Facies similar to *Q. nolckeniana* (ZELLER, 1877) described from Colombia and also known from Venezuela but *saragurae* distinguished by white frons and very long, curved ae-

deagus. This species is closely related to Venezuelan *Q. chasigrapha* RAZOWSKI & WOJTUSIAK, 2006 but is quite different externally and characterizes with long socii.

E t y m o l o g y. The name refers to the type locality.

D e s c r i p t i o n. Wing span 17 mm. Head black except for frons and vertex which are clear white; thorax white, cream proximally, with tegula and collar black. Forewing characteristic of the genus. Ground colour white in form of two dorsal blotches with triangular tips and subapical spot; ocellus white with weak greenish suffusion; similar suffusion in dorsal blotch; basal area to 1/3 of costa ochreous; brownish ochreous shade before ocellus. Cilia gray-brown, white in tornal fourth. Hindwing whitish tinged pale brown on peripheries; cilia concolorous with middle of wing.

Male genitalia (Fig. 48). Uncus small, bifid terminally; socius consisting of inner well sclerotized, broadening basally, hairy process and outer submembranous lobe; large, curved terminally submedian process may represent edges of tuba analis; valva broadest medially, tapering terminad, with atrophied neck and ventral incision; sacculus simple with subterminal group of setae; aedeagus very long, strongly curved in basal half; cornuti long; caulis long.

Female not known.

Holotype: "Ecuador, Prov. Loja, Saraguro, 06.09.2004, 2980 m, leg. J. WOJTUSIAK" ; GS 341 MZUJ.

Rhopobota tentaculana sp.n.

(Figs 49, 91)

D i a g n o s i s. Most similar to *R. unidens* RAZOWSKI, 1999 from Dominican Republic but *tentaculana* with very long processes of uncus and symmetric cucullus.

E t y m o l o g y. The specific epithet refers to long parts of uncus; Latin: tentaculum – tentacle.

D e s c r i p t i o n. Wing span 16 mm. Head and thorax brownish. Forewig not expanding terminally; costa weakly curved at base; termen distinctly concave beneath apex. Ground colour white; suffusions and strigulation pale brown; costal strigulae whitish; divisions brown; ocellus white suffused brownish medially, with indistinct inner spots. Markigs brown with dark brown strigulae and spots consisting of large basal blotch with posterior edge oblique, median fascia with dorso postmedian brown blotch and ferruginous brown terminal marking. Cilia brownish, whitish at tornus. Hindwing brownish crea, darkening on periphery; cilia much creamer.

Male genitalia (Fig. 49). Apex of tegumen with pair of sublateral prominences from which extend very long, slender arms of ucus; socius lateral, broad, weakly sclerotized; sacculus slender, slightly convex caudally; neck of valva long, bristled in ventral half; cucullus almost oval with broadly rounded lobes; aedeagus short; numerous cornuti in vesica.

Female not known.

Holotype male: "Ecuador, Prov. Loja, via Saraguro – Loja, Zenen Alto, 11.09.2004, 2650 m, leg. WOJTUSIAK & PYRCZ"; GS 407 MZUJ.

Mesochariodes micropollex sp. n.

(Figs 50, 92)

D i a g n o s i s. Closely related to *M. polytrichota* RAZOWSKI & WOJTUSIAK, 2006 from Venezuela but *micropollex* easily distinguished by a row of strong setae from postmedian part of ventral edge of valva, presence of pollex, and long aedeagus.

E t y m o l o g y. The specific name refers to presence of pollex; Greek: micro – small.

D e s c r i p t i o n. Wing span 22,5 mm (in paratype ca. 20 mm). Head and thorax cream. Forewing weakly expanding terminad; costa slightly convex; termen hardly oblique, indistinctly concave beneath apex. Ground colour cream sprinkled and dotted blackish and grey; costal strigulae fine; divisions black accompanied by paler strips mainly in basal half of wing. Markings black-

ish brown consisting of a fascia along dorsal arm of median cell, remnants of median fascia, and subtornal, tringular blotch; apical area suffused grey; pale rust suffusion at termen beneath apex. Cilia (worn) cream, divisions blackish. Hindwing cream suffused and strigulated brownish in apical third; cilia cream.

Male genitalia (Fig. 49). Tegumen large; uncus very broad forming pair of lateral, triangular lobes; socius very broad with proximal part of base extending laterally, densely hairy; some hair of proximal edge of socius and lateral parts of uncus long; proximal third of valva broad with posterior edge perpendicular to ventral edge of sacculus; neck slender; ventral incision large; cucullus elongate with proximal angle subtriangular armed with minute pollex; row of some (6- 8) strong spines along posterior edge of incision of valva and base of cucullus; aedeagus rather long, slender with base surrounded by sclerotized portion of anellus.

Female not known.

Holotype male: "Ecuador, Prov. Zamora Chinchipe, P.N. Podocarpus, Yangana, 08.09.2004, 2480 m, leg. WOJTUSIAK & PYRCZ"; GS 922 MZUJ; paratype: Ecuador, Prov. Loja, Saraguro, 24. 08. 2004, 3100 m, leg. WOJTUSIAK; GS 923 MZUJ.

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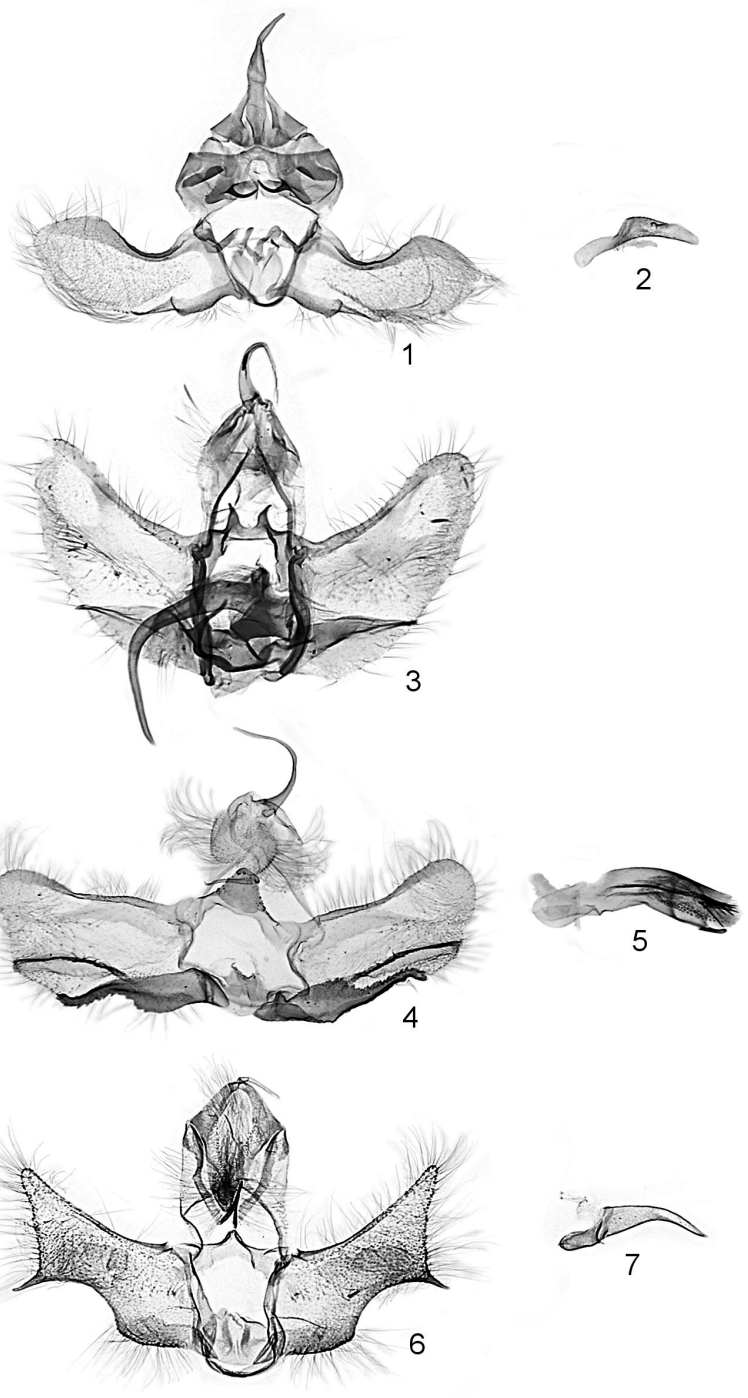
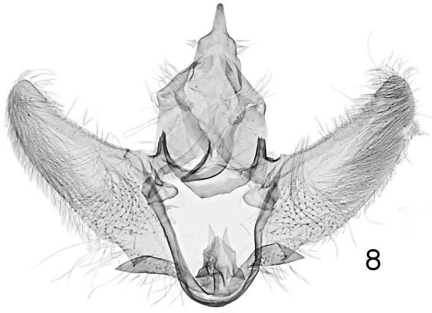
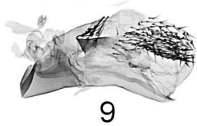
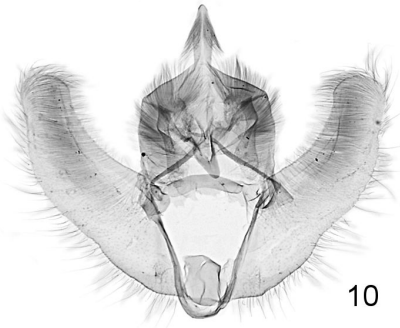
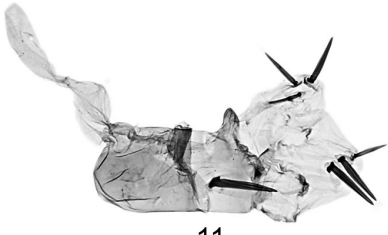


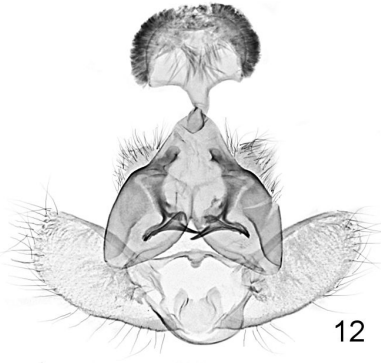
Figs 1-7. Male genitalia: 1, 2 – *Thalleulia ochreorufa* sp.n., holotype, 3 – *Netechma cajanumae* sp.n., holotype, 4, 5 – *Netechma albitermen* sp. n., holotype, 6, 7 – *Galomecalpa minutuncus* sp. n., holotype.



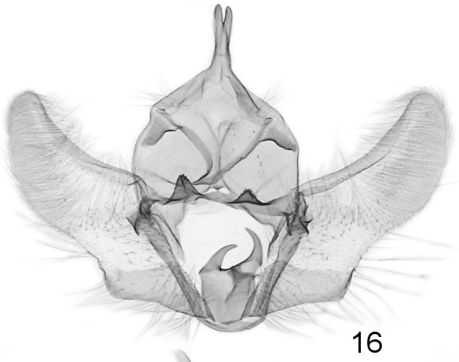


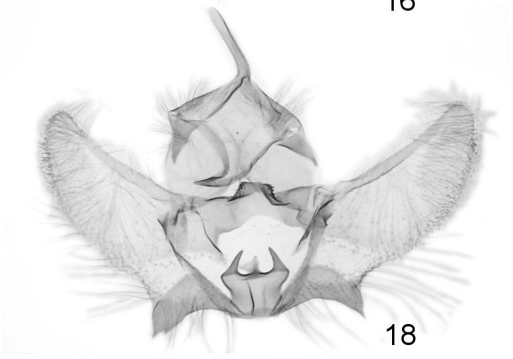


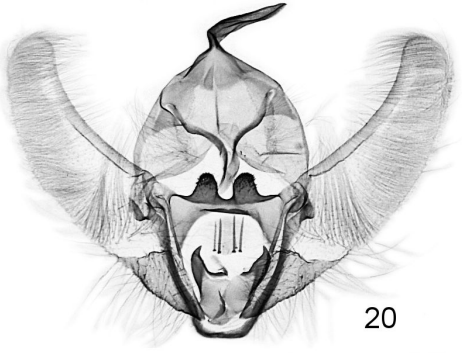


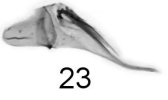


Figs 8-15. Male genitalia: 8, 9 – *Inape toledana* sp.n., holotype, 10, 11 – *Inape lojae* sp.n., holotype, 12, 13 – *Cincorunia monstruncus* sp.n., holotype, 14, 15 – *Transtillaspis saragurana* sp.n., holotype.

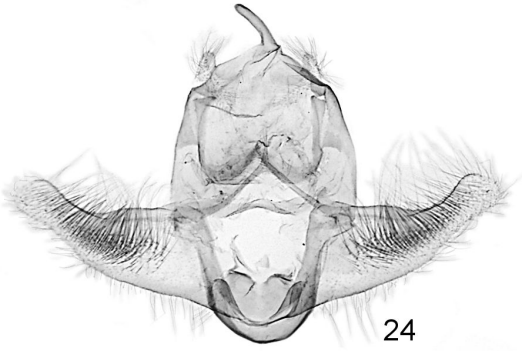


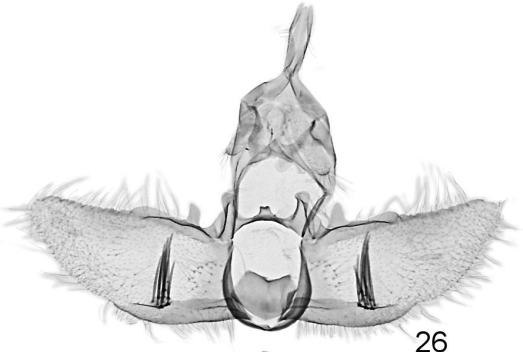


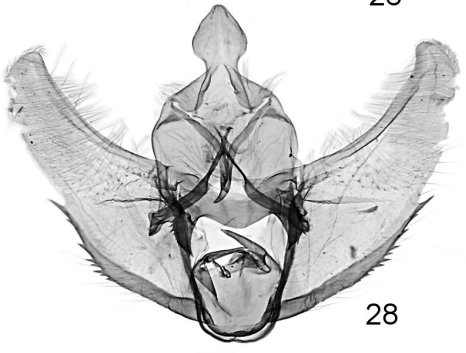


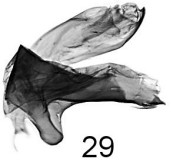


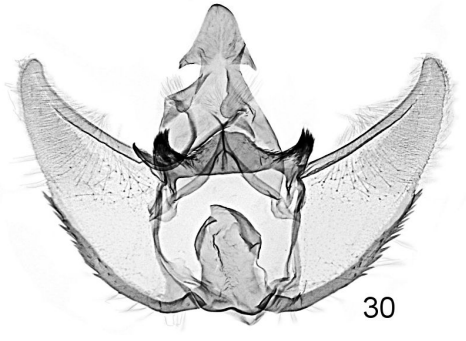
Figs 16-23. Male genitalia: 16, 17 – *Transtillaspis zamorana* sp.n., holotype, 18, 19 – *Transtillaspis zenenaltana* sp.n., holotype, 20, 21 – *Transtillaspis dromadaria* sp.n., holotype, 22, 23 – *Transtillaspis curiosissima* sp.n., holotype.



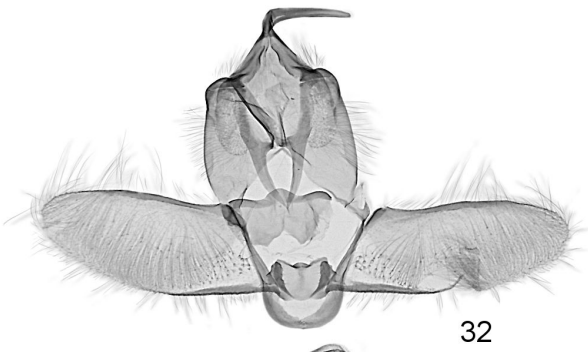


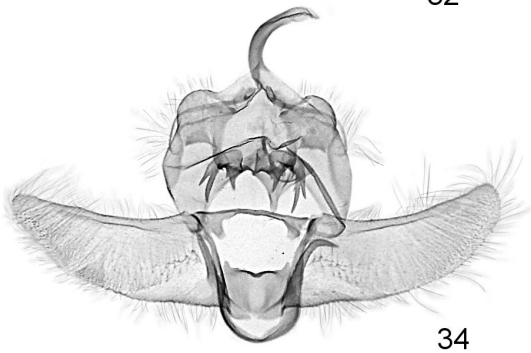


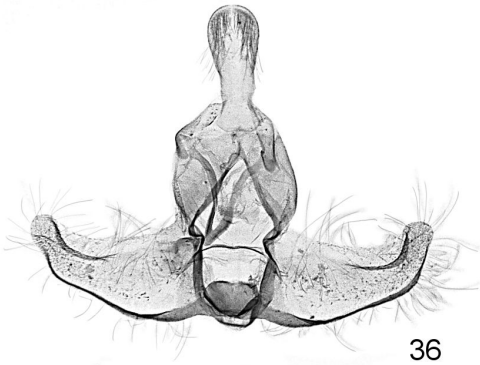


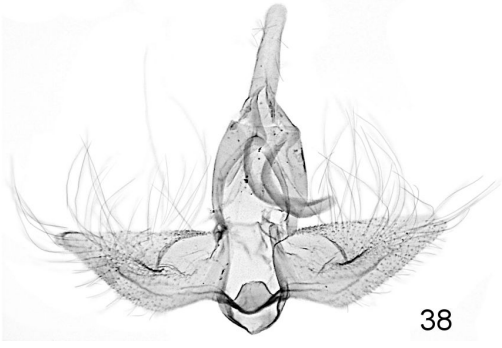


Figs 24-31. Male genitalia: 24, 25 – *Zenenata zenena* sp.n., holotype, 26, 27 – *Intritenda tridentina* sp.n., holotype, 28, 29 – *Subterinebrica nigrosignatana* sp.n., holotype, 30, 31 – *Subterinebrica albitaeniana* sp.n., holotype.

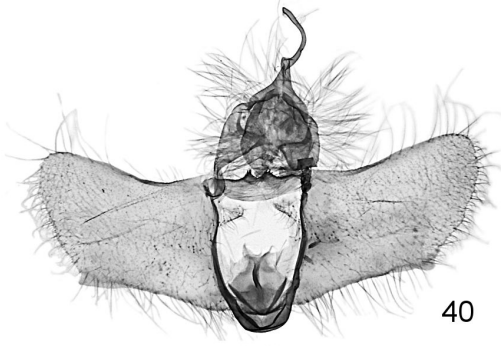


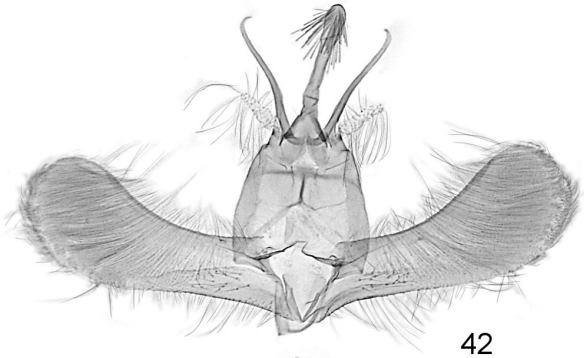


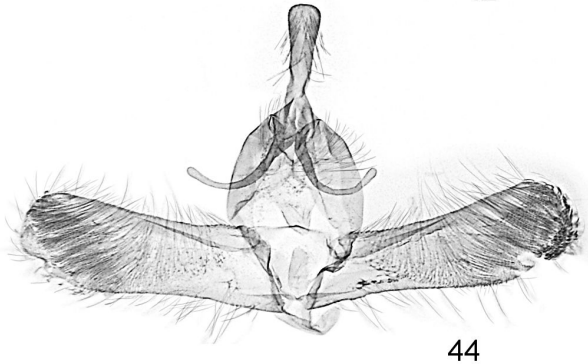


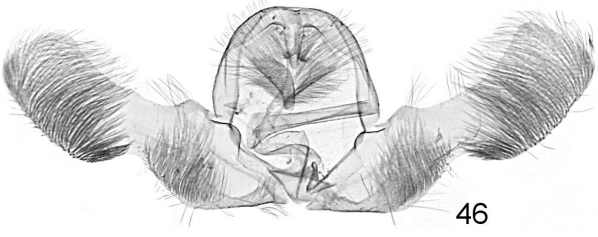


Figs 32-39. Male genitalia: 32, 33 – *Oregocerata medioloba* sp.n., holotype, 34, 35 – *Ptyongnathosia spinosa* sp.n., holotype, 36, 37 – *Sychnovalva flavida* sp. n., holotype, 38, 39 – *Clepsis terevalva* sp.n., holotype.

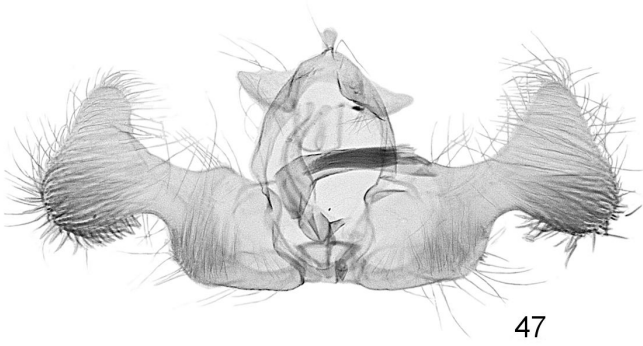


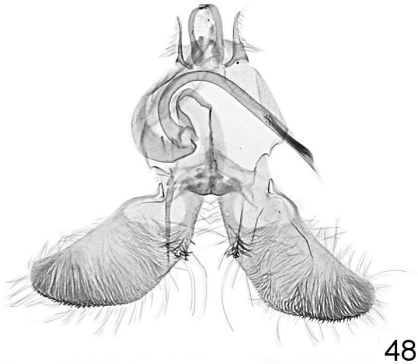




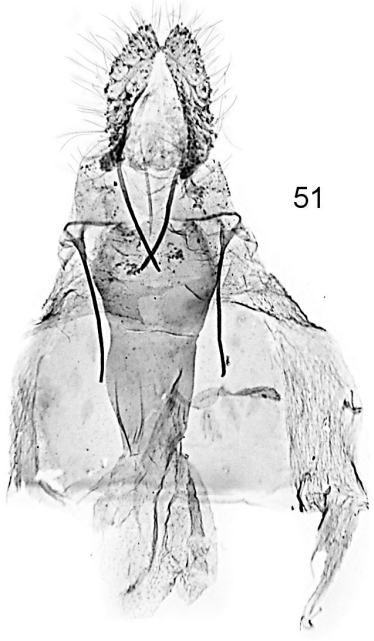


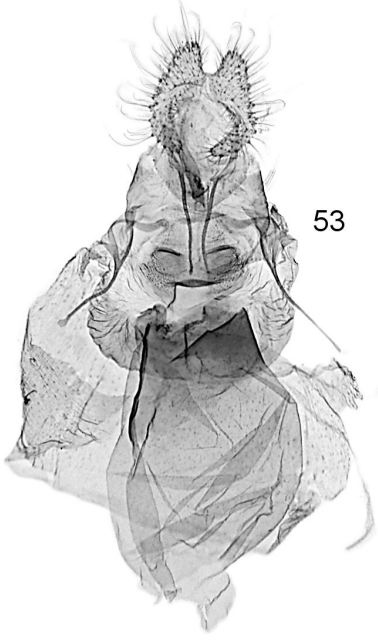
Figs 40-46. Male genitalia: 40, 41 – *Sisurcana obscura* sp.n., holotype, 42, 43 – *Auratonota rubromixta* sp.n., holotype, 44, 45 – *Auratonota ovulus* sp.n., holotype, 46 – *Epinotia lineana* sp.n., holotype.

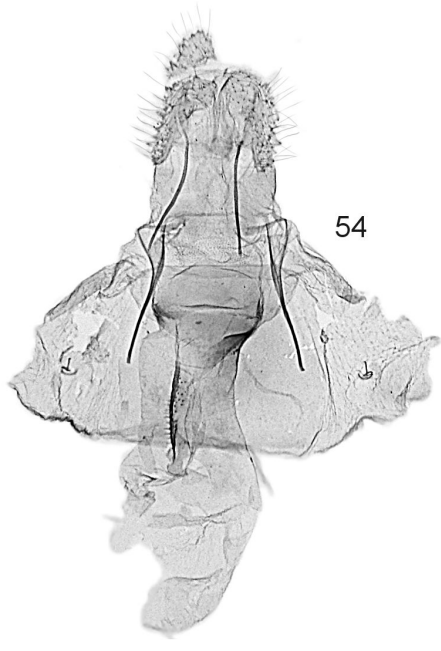




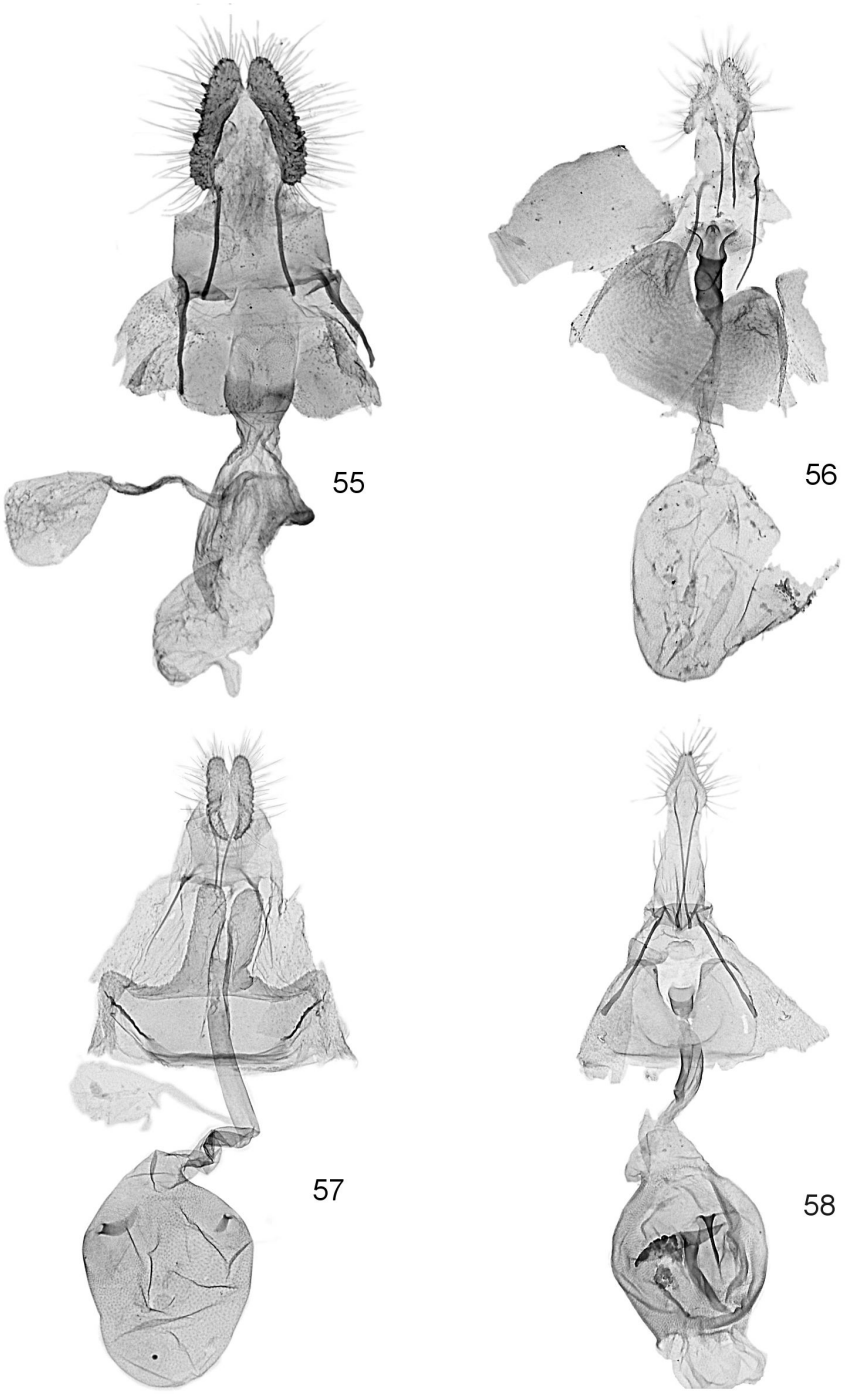
Figs 47-50. Male genitalia: 47 – *Crocidosema impendens* sp. n., 48 – *Quebradnotia saragurae* sp.n., holotype, 49 – *Rhopobota tentaculana* sp.n., holotype, 50 – *Mesochariodes micropollex* sp.n., holotype.



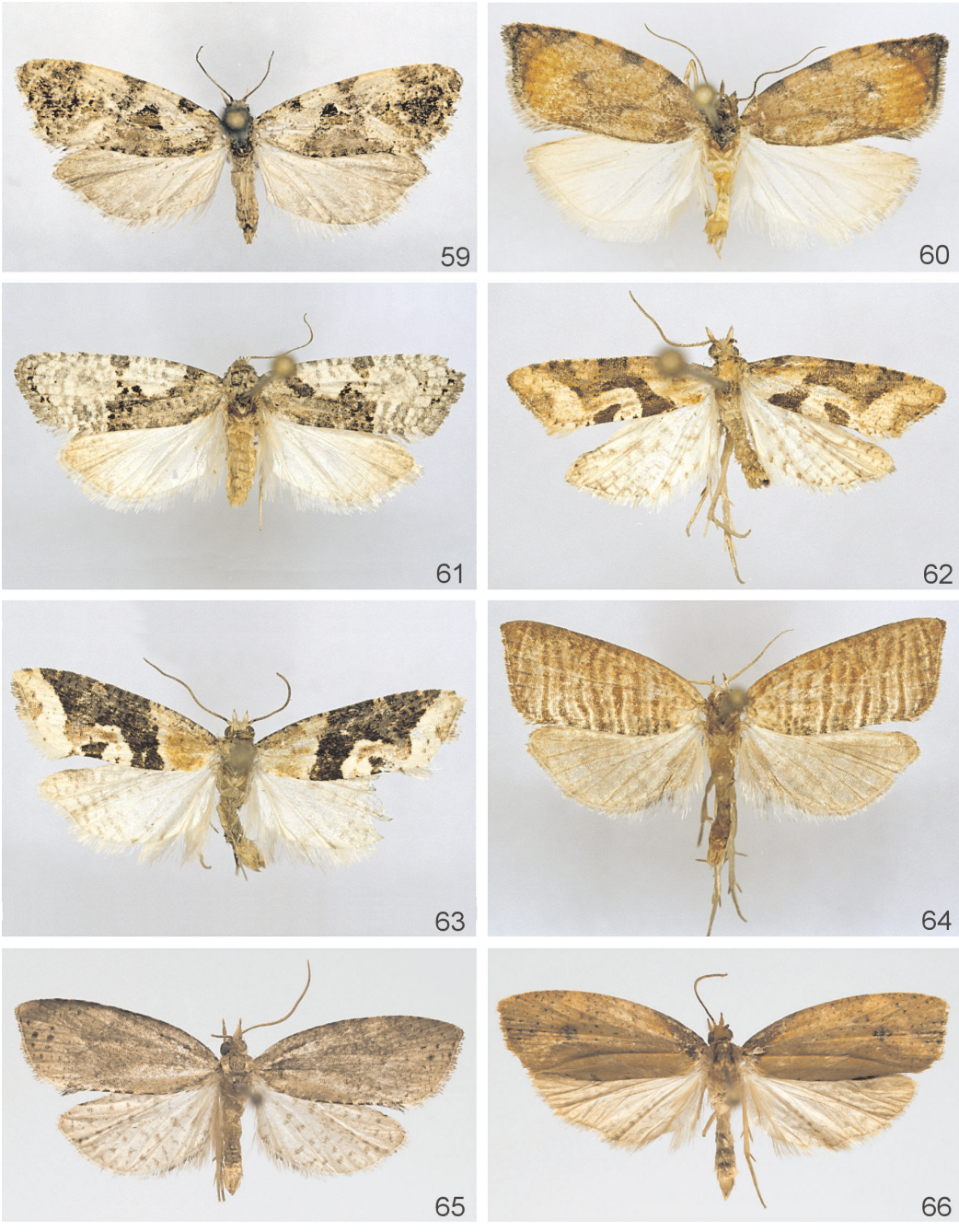




Figs 51-54. Female genitalia: 51 – *Saphenista saragurae* sp.n., holotype, 52 – *Apotomops rhampha* sp.n., holotype, 53 – *Transtillaspis zamorana* sp.n., paratype, 54 – *Transtillaspis dromadaria* sp.n., paratype.



Figs 55-58. Female genitalia: 55 – *Punctapinella paraconchitis* sp.n., holotype, 56 – *Eccopsis eltundana* sp.n., holotype, 57 – *Epinotia lineana* sp.n., holotype, 58 – *Epinotia zamorlojae* sp.n., holotype.

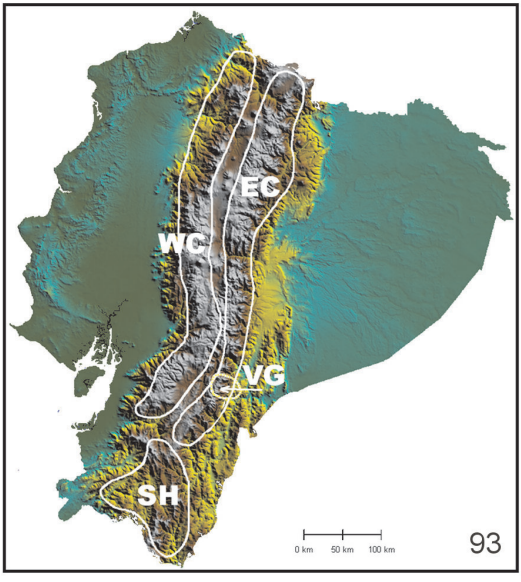


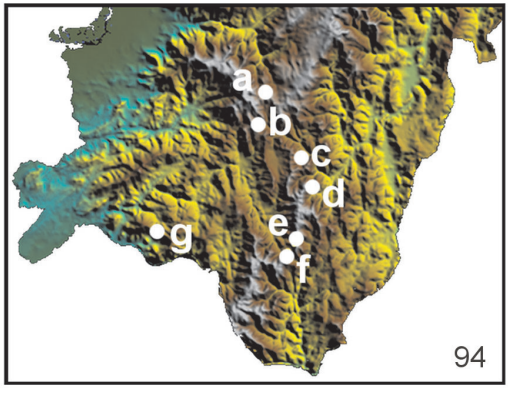
Figs 59-66. Adults: 59 – *Saphenista saragurae* sp.n., holotype, 60 – *Thalleulia ochreorufa* sp.n., holotype, 61 – *Apotomops rhampha* sp.n., holotype, 62 – *Netechma cajanumae* sp.n., holotype, 63 – *Netechma albitermen* sp.n., holotype, 64 – *Galomecalpa minutuncus* sp.n., holotype, 65 – *Inape toledana* sp.n., holotype, 66 – *Inape lojae* sp.n., holotype.

Figs 67-74. Adults: 67 – *Cincorunia monstruncus* sp.n., holotype, 68 – *Transtillaspis sarangurana* sp.n., holotype, 69 – *Transtillaspis zamorana* sp.n., holotype, 70 – *Transtillaspis zenenaltana* sp.n., holotype, 71 – *Transtillaspis dromadaria* sp.n., holotype, 72 – *Transtillaspis curiosissima* sp.n., holotype, 73 – *Zenenata zenena* sp.n., holotype, 74 – *Intritenda tridentina* sp.n., holotype.

Figs 75-82. Adults: 75 – *Subterinebrica nigrosignatana* sp.n., holotype, 76 – *Subterinebrica albitaeniana* sp.n., holotype, 77 – *Oregocerata medioloba* sp.n., holotype, 78 – *Ptyongnathosia spinosa* sp.n., holotype, 79 – *Punctapinella paraconchitis* sp.n., holotype, 80 – *Sychnovalva flavida* sp. n., holotype, 81 – *Clepsis terevalva* sp.n., holotype, 82 – *Sisurcana obscura* sp.n., holotype.

Figs 83-90. Adults: 84 – *Auratonota rubromixta* sp.n., holotype, 84 – *Auratonota ovulus* sp.n., holotype, 85 – *Eccopsis eltundana* sp.n., holotype, 86 – *Epinotia lineana* sp.n., holotype, 87 – *Epinotia zamorlojae* sp.n., holotype, 88 – *Epinotia tubuligera* sp.n., holotype, 89 – *Crocidosema impendens* sp. n., holotype, 90 – *Quebradnotia saragurae* sp.n., holotype.





Figs 91, 92. Adults: 91 – *Rhopobota tentaculana* sp.n., holotype, 92 – *Mesochariodes micropollex* sp.n., holotype.

Fig. 93. The map of Ecuador with general outline of four areas of the field work. The fauna of each area will be treated in separate paper. SH – Southern Highlands, WC – Western Cordillera, EC – Eastern Cordillera, VG – Valley of Gualaceo – (published in 2006).

Fig. 94. The area of Southern Highlands (SH) with positions of collection sites. a – Saraguro, b – Zenen, c – Quebrada San Francisco, d – Cajanuma, e – Yangana, Cerro Toledo, f – vía Vilcabamba-Valladolid, g – Sozoranga.