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Some Tortricidae from the East Cordillera in Ecuador reared from larvae in Yanayacu Biological Station in Ecuador (Insecta: Lepidoptera)

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ABSTRACT. Eight species are described from Ecuador (Napo Prov.) as new on the basis of specimens reared from their larvae. These are: *Xoser astonyx* n. sp., *Orthocomotis parandina* n. sp., *Anacrusis yanayacana* n. sp., *Anacrusis guttula* n. sp., *Sisurcana sanguinoverter* n. sp., *Sisurcana cirrhochroma* n. sp., *Sparganothina hermosa* n. sp., *Lypothora roseochraon* n. sp.

Key words: entomology, taxonomy, Lepidoptera, Tortricidae, Ecuador, new taxa, Andes

INTRODUCTION

The Tortricidae fauna (Lepidoptera) of Ecuador is relatively well studied when compared with other andean countries. The results of the research conducted in the past show that the East Cordillera of Ecuador harbors the highest number of species. Until now, all the research material of neotropical Tortricidae used for studies was obtained in the field by the method of collecting adult moths that have been attracted to the light. No specimens were obtained by rearing them from larvae, or pupae.

This paper is the first that is basing on specimens reared from their caterpillars. It adds more data to the overall knowledge of the Tortricidae of Ecuador supplementing faunistic lists of species knowing to occur in the East Cordillera (RAZOWSKI & WOJTUSIAK 2006, 2009).

The specimens were bred in Yanayacu Research Station in Ecuador as a result of the research program aimed to study larval stages of Neotropical Lepidoptera.

This paper consists of systematic part and contains a list of all identified species and descriptions new ones.

Holotypes of species described in the present paper will be deposited at the National Museum of Natural History (Smithsonian), Washington DC, USA.

MATERIAL AND METHODS

For specimens investigated, genitalia preparations were made to examine characters of their cuticular structures. The association of the externally differing sexes of some species was possible only by the use of the molecular method. DNA was extracted from two hind legs of dry specimens. The number of each examination was given on a label pinned under the specimen. We examined COI mtDNA gene (650bp) using the primer pair designated for Lepidoptera. They are universal primers used for species identification in DNA barcoding.

The method is discussed by RAZOWSKI, TARCZ & GRECZEK-STACHURA (2010) in their study on European Tortricidae.

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SYSTEMATIC PART

Tribe Euliini

Inape iantha (MEYRICK, 1912)

MATERIAL EXAMINED. One female from Napo Prov., Jatun Saoha, 01°03.058' S, 077°36.287 W, 414 m. GS 1073, N° reared: 30778.

Inape sororia RAZOWSKI & PELZ, 2006

MATERIAL EXAMINED. One male from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1056, N° reared: 18219.

***Transtillaspis multicornuta* RAZOWSKI & WOJTUSIAK, 2008**

(Fig. 11, 21)

MATERIAL EXAMINED. Three specimens, one female and two males from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1074 (female), N° reared: 10260; GS 1075 (male), N° reared: 14623; (male), N° reared: 11586 (male).

DESCRIPTION. Female genitalia (Fig. 11). Eight tergite short, with transverse folds; sterigma with broad lateral parts and short cup-shaped anteostial part; ductus bursae short, broad; corpus bursae long provided with large posterior sclerites and weak median sclerite; signum short, spiny.

REMARKS. This species was described from the Carchi Province (Res. Forest. Golondrinas, 2000 m).

***Runtunia runtunica* RAZOWSKI & WOJTUSIAK, 2008**

MATERIAL EXAMINED. One male from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1078, N° reared: 11641.

REMARKS. This species was described from a single male from Pacto at Rio Mashpi, Prov. of Pichincha where it was collected at the altitude of 1150 m.

***Paraptila ecuadora* BROWN, 1991**

(Fig. 12, 23)

MATERIAL EXAMINED. One female from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1070, N° reared: 13308.

DESCRIPTION. Female genitalia (Fig. 12). Sterigma semioval, rounded proximally, with two postmedian processes near middle of postostial sterigma; ductus bursae broad, sclerotized postmedially, with very short and longer (along middle) spines; corpus bursae with median and posterior sclerites, long spined.

REMARKS. This species was described from a male collected in the Province of Pastaza; female was unknown to date.

***Xoser astonyx* n. sp.**

(Fig. 1, 2, 24)

DIAGNOSIS

This species is similar to *Xoser exors* RAZOWSKI & PELZ, 2003 from the Morona-Santiago Province of Ecuador but *X. astonyx* with socius triangular, situated laterally on tegumen.

DESCRIPTION

Wing span 15 mm. Head and thorax greyish brown. Forewing not expanding terminad; costa curved outwards to middle; termen weakly oblique, slightly sinuate. Ground colour orange cream suffused orange, forming a large subtornal blotch termi-

nating near costa; remaining area of wing brownish grey with some darker shades and similarly edged blotch of ground colour. Cilia orange brown. Hindwing cream slightly tinged brownish at apex; cilia cream.

Male genitalia (Figs 1, 2). Uncus consisting of two sharp processes extending from a broad base; socius subtriangular, lateral; costa of valva submembranous; caudal edge rounded; sacculus slender terminating in a small claw; transtilla a slender band; juxta broad; vinculum broad slightly expanding terminally; aedeagus broad with large lobe armed with a basal thorn; coecum penis rather weakly sclerotized; cornuti numerous short spines.

Female not known.

TYPE MATERIAL

Holotype male: "Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1054, N^o reared: 26016.

REMARKS

We include this species to *Xoser* RAZOWSKI & PELZ, 2003 basing on an external similarity, shapes of uncus, valva, and aedeagus; however, there are some differences in the shape of socius which in this species is triangular, lateral and the presence of well sclerotized costa of valva with its terminal process.

ETYMOLOGY

The specific name refers to the termination of costa of valva; a- a prefix expressing negation, Greek: stonyx – a sharp process, thorn.

***Orthocomotis parandina* n. sp.**

(Figs 3, 4, 13, 25, 26)

DIAGNOSIS

This species is related with *Orthocomotis andina* RAZOWSKI, PELZ & WOJTUSIAK, 2007 from the Napo Province but externally differs in the presence of large subternal blotch of forewing, longer uncus, small ventral termination of aedeagus and longer cornuti.

DESCRIPTION

Male. Wing span 25 mm. Head and thorax pale brownish cream; labial palpus 1.5; collar and base of tegula blackish brown. Forewing typical of the genus. Ground colour suffused brownish and ferruginous brown along dorsum and termen; dotted rust brown (with admixture of green scales). Markings darker than spots consisting of several spots forming basal blotch, median fascia divided into three parts (last being the subternal blotch), and large blackish subterminal blotch extending from costa; distal edge of the latter slightly concave medially. Green scaling forming suffusions chiefly on the markings. Cilia white, divisions blackish. Hindwing brown, cilia slightly paler.

Female wing span 29 mm. Ground colour of forewing whitish, suffusions paler with some orange spots; green suffusions distinct. Markings rust brown with black-brown elements. Hindwing paler than in male.

Male genitalia (Figs 3, 4). Uncus slender, weakly expanding terminally; socius rather small; gnathos delicate; valva tapering terminad; sacculus simple, weakly convex, terminating in a small prominence; transtilla band-shaped; aedeagus short, broad, with small ventral termination weakly curved upwards; numerous small cornuti present.

Female genitalia (Fig. 13). Papilla analis rather slender, weakly expanding subterminally; sterigma large with proximal edge concave medially; sclerite of postostial sterigma broad proximally with pair of small median prominences, with long lateral sclerites; antrum sclerite weak, broad; sclerite of corpus bursae very large, longitudinal.

TYPE MATERIAL

Holotype male: "Ecuador, Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m," GS 1090, N° reared: 18097, DNA isolation Tort-024.

Paratypes, one male (GS 1082, N° reared: 1238) and three females from the same locality, two with genitalia on slides (GS 1096, N° reared: 17084, DNA isolation Tort-025) and (GS 1089, N° reared: B 411, DNA isolation Tort-023)

REMARKS

Similar to *andina* which was collected at the altitudes of 1700-2050 m. A comparison of sexes based on the molecular analysis (isolation DNA-1089-023).

ETYMOLOGY

The specific name is derived from the Greek: para – near and andina – the Andine.

***Orthocomotis yanayacu* RAZOWSKI, PELZ & WOJTUSIAK, 2007**

(Fig. 14, 27)

MATERIAL EXAMINED. A pair from "Ecuador, Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; male: GS 1097, N° reared: 27589, DNA isolation; female: GS 1092, N° reared: 12537, DNA isolation Tort-022.

DESCRIPTION. Female genitalia (Fig. 14, 27). Papilla analis rather long, uniformly broad except for posterior lobe, rounded proximally; sterigma broad, somewhat convex proximally, with large latero-median sclerites; vicinity of ostium sclerotized, short; ductus bursae short, membranous; corpus bursae with large submedian sclerite expanding posterad.

REMARKS. *Orthocomotis yanayacu* was described from a single male from the forest reserve in Cosanga from the altitude of 2150 m. Judging of these two examples we can suppose that the external variation is rather slight and concerns the density of maculation of the forewing ground colour. The female was unknown to this date and its identification was confirmed by the molecular study.

***Orthocomotis marmorobrunnea* RAZOWSKI & WOJTUSIAK, 2006**

MATERIAL EXAMINED. One male from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1091, N° reared: 1726.

REMARKS. This species was described from the Province of Morona-Santiago where it was collected at the altitudes of 2200-2950 m.

Tribe Archipini***Argyrotaenia* sp. near *artocopa* MEYRICK, 1932**

MATERIAL EXAMINED. One male from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; N° reared: 1055, two females from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m. One GS 1091, N° reared: 1053, another specimen from the same locality; N° reared: 17535.

REMARKS. More specimens are needed to decide on species identity.

Tribe Atteriini***Anacrusis erioheir* RAZOWSKI & WOJTUSIAK, 2006**

MATERIAL EXAMINED. Three females from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; one female GS 1057, N° reared: 10512, DNA isolation Tort-017; second female from the same place, GS 1058, N° reared: 28963, DNA isolation Tort-044; third female from the same place, N° reared: C208; DNA isolation Tort-018.

REMARKS. This species was described from the valley of Río Gualaceo, East Cordillera of Ecuador.

***Anacrusis yanayacana* n. sp.**

(Fig. 5, 6, 15, 28, 29)

DIAGNOSIS

This species is closely related with *Anacrusis aerobatica* (MEYRICK, 1917) from Colombia, *A. napoensis* RAZOWSKI & PELZ, 2007, and *A. guttula, yanayacana* male with brown terminal forewing blotch convex, close to termen, terminal part of uncus fairly long and dorso-subterminal prominence blunt. Female with distal edge of terminal blotch long, almost straight (in *guttula* short and concave); signum longer and slenderer and proximal edge of sterigma short, more rounded than in that species.

DESCRIPTION

Male. Wing span 28 mm. Head dark rust brown, labial palpus 2, paler; thorax pale brownish cream, rust brown proximally. Forewing weakly expanding terminad; costa convex; termen hardly concave beneath apex, not oblique. Groud colour brownish

cream sprinkled and suffused cinnamon brown, strigulated brown; costal area dark brown to middle then paler, cinnamon in distal third. Marking in form of a large rust brown subterminal blotch more convex proximally than distally, finely edged white. Cilia cinnamon brown. Hindwing brownish in distal half mixed cream ferruginous; cilia concolorous with posterior half of wing, creamer in anal area.

Female wing span (along costa) 29 mm, 32 along middle. Head dark rust brown; thorax pale brownish. Termen strongly concave beneath apex, then convex. Ground colour brownish finely strigulated brown. Markings limited to large purple brown blotch with brownish costal triangle and concave posterior edge; white edges of marking fine. Cilia darker than ground colour.

Male genitalia (Fig. 5, 6). Uncus fairly long with rounded posterior lobes and dull subterminal process; gnathos arms slender; socius large, weakly sclerotized; sacculus simple, weakly convex; transtilla with paired dorsal lobe; aedeagus slender, weakly curved; cornuti one shorter and one longer spine.

Female genitalia (Fig. 15). Papilla analis broad; sterigma rounded proximally with large median, membranous part; submedian lobes broad; signum base slender.

TYPE MATERIAL

Holotype male: "Ecuador, Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m"; GS; 1088, N° reared: 12310, DNA isolation.

Paratypes: one male and one female from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; male (N° reared: 10726); female (GS 1050, N° reared: 24855), DNA isolation Tort-014.

ETYMOLOGY

The specific name is derived from the name of the research station Yanayacu.

Anacrusis guttula n. sp.

(Fig. 7, 8, 16, 30, 31)

DIAGNOSIS

Closely related to *Anacrusis yanayacana* from which *guttula* differs in distal part of male terminal blotch of forewing well distanced from termen and female blotch short, concave; posterior edge of blotch of female short, not reaching costa. Posterior part of uncus in this species short, dorsal prominence pointed, proximal part of sterigma rounded, and base of signum broad.

DESCRIPTION

Male. Wing span 28 mm. Head and collar dark purple brown; thorax pale brownish. Forewing broad, indistinctly expanding posteriorly; termen convex at M2. Ground colour brownish finely strigulated brown, darker more ferruginous brown along costa, tinged grey terminally; two white spots at end of median cell and two weaker ones near mid-termen. Marking dark deep brown in form of subterminal blotch convex proximally towards its subcostal part, distinctly projecting before middle of posterior edge, finely

edged white. Cilia brown, paler and more rust towards tornus. Hindwing dark brown, yellower strigulated brown at apex; cilia mixed ferruginous.

Female wing span 32 mm along costa. Costa of forewing most convex basally; termen deeply concave beneath apex, then strongly convex. Ground colour creamish brown, glossy, delicately strigulated brown, with traces of two whitish spots near mid-termen but without spots in median cell. Marking dark purple brown edged white, with short posterior edge well separated from costa of wing.

Male genitalia (Figs 7, 8). Uncus as described above, other parts of genitalia similar to *yanayacana* except for more convex sacculus and shorter aedeagus.

Female genitalia (Fig. 16). Papilla analis broad; proximal edge of sterigma short, with more convex lateral parts than in *yanayacana*, signum base narrow.

TYPE MATERIAL

Holotype male: "Ecuador, Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m;" GS 1087, N° reared: 14776, DNA isolation Tort-016.

Paratype female: Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1051, N° reared: 16826, DNA isolation Tort-015.

ETYMOLOGY

The specific name is derived from the Greek: guttula – small droplet.

Anacrusis ruptimacula (DOGNIN, 1904)

EXAMINED MATERIAL. Two female specimens from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1084, N° reared: 12069 and GS 1085, N° reared: 14851; DNA isolation-Tort-012 and six female specimens from same place, N°s reared: 11676, 8222, 12357, 10701, 127. (N° reared: 11552; DNA isolation Tort-013).

REMARKS. This species was described from Cajanuma, Loja Prov., Ecuador which is also a female.

Anacrusis subruptimacula RAZOWSKI & BECKER, 2010

MATERIAL EXAMINED. One specimen from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1086, N° reared: 13950. DNA isolation Tort-011.

REMARKS. This species was discovered in Carchi, Ecuador at the altitude of 2200 m. Our specimen hardly differs from the holotype in the female genitalia but the differences in the facies are a bit larger (marking of the forewing, smaller signum).

Sisurcana topina RAZOWSKI & PELZ, 2004

(Fig. 17, 32)

MATERIAL EXAMINED. One female from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1094, N° reared: 17367, DNA isolation Tort-008; second female from same place, GS 1095, N° reared: 4658; third female from the same

place, N° reared: 857; fourth female from the same place, N° reared: 17140; one male from the same place, GS 1080, N° reared: 16113.

DESCRIPTION. Female genitalia (Fig. 17). Papilla analis fairly large; sterigma short, membranous in middle area proximally, with small median lobes; vicinity of ostium moderately sclerotized; antrum without sclerite; anterior part of ductus bursae as far as to base of ductus seminalis strongly sclerotized; basal plate of signum large, elongate, blade small.

REMARKS. This species was described from the Morona-Santiago Province, then also found in the Tungurahua Prov.; all examples collected at the altitude of 1100 m. Female genitalia comparable with *Sisurcana papallactana* RAZOWSKI & PELZ, 2007 from the Napo Province but basal plate of signum of *topina* large, antrum longer, and antrum like sclerite absent (in *papallactana*) short sclerite immediately posterior to base of ductus ejaculatorius.

***Sisurcana sanguinoverter* n. sp.**

(Figs 18, 33)

DIAGNOSIS

This species is externally very similar to *Sisurcana topina* but is easily identified by rust red forelegs and anterior part of forewing costa; in female genitalia *sanguinoverter* is distinct by much smaller signum and longer posterior (between ductus seminalis and sterigma) part of ductus bursae.

DESCRIPTION

Wing span 28 mm. Head and thorax dark brown; labial palpus ca 3, slender, brick-red with brown termination; fore femora orange red, remaining partly tinged orange; ventral side of abdomen brick-red. Forewing somewhat expanding terminally; costa strongly convex basally, then deeply concave, projecting subapically, orange to end of the convexity; apex long; termen distinctly concave beneath apex. Ground colour brown grey, tinged blackish in terminal area and dorsum, paler, more ferruginous brown subterminally; some black-brown strigule in terminal area. Cilia blackish, rust at apex. Hindwing brown slightly tinged ferruginous posteriorly, especially at apex; cilia brown-grey.

Variation. Costal and terminal part of forewing brownish, finely strigulated.

Male not known.

Female genitalia (Fig. 18). Papilla analis rather small; median lobes of sterigma broad; antrum membranous; ductus bursae fairly long, well sclerotized to base of ductus seminalis, followed by short sclerite distally to the latter; basal plate of signum small, blade well developed.

TYPE MATERIAL

Holotype female: "Ecuador, Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m;" not dissected; N° reared: 18659.

Paratypes: two females from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; one with genitalia on slide GS 1093, N° reared: 1093; second female from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m, N° reared: 26387.

ETYMOLOGY

The specific name refers to the colouration of the ventral site of abdomen. Latin: sanguis – blood and venter – stomach.

REMARKS

This species is distinct molecularly and well separated from *topina*.

Sisurcana umbellifera (MEYRICK, 1926)

MATERIAL EXAMINED. One male from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1072, N° reared: 133. DNA isolation Tort-019.

REMARKS. *S. umbellifera* was described from Colombia.

Sisurcana bifurcana RAZOWSKI & PELZ, 2007

MATERIAL EXAMINED. One male from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1079, N° reared: 18130.

REMARKS. Described from Cosanga, Napo Prov.

Sisurcana citrochyta (MEYRICK, 1926)

MATERIAL EXAMINED. Two male specimens from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; one: GS 1068, N° reared: 17313. DNA isolation Tort-004. The second: GS 1069, N° reared: 14571.

REMARKS. *S. citrochyta* was described from Pastaza, East Ecuador; RAZOWSKI & PELZ (2007) recorded it from the same province and the Tungurahua Prov. The female remains unknown.

Sisurcana cirrhochroma n. sp.

(Figs 19, 34)

DIAGNOSIS

Externally this species is similar to *Sisurcana cirrhochlaena* RAZOWSKI & PELZ, 2007 from the Napo Province (known also from Morona-Santiago Prov.) but *cirrhochroma* without oblique fascia extending from apex to tornus and brownish cream, spotted hindwing. It may be also close to *citrochyta* as having similar arrangement of the forewing markings but that species with more yellow forewing ground colour and different DNA.

DESCRIPTION

Wing span 28 mm. Head and thorax yellow, labial palpus over 3, tinged brown. Forewing broad; costa uniformly convex; termen not oblique, straight to middle. Ground colour yellow with sparse brown scales and some costal dots. Markings brown, weak, consisting of incomplete median fascia marked with black scaling at tornus, trace of subterminal fascia and terminal suffusion. Cilia brown, yellow at tornus. Hindwing pale brownish cream, spotted brownish; cilia concolorous with middle of wing.

Variation. Paratype with almost entirely atrophied markings except for brown terminal fascia extending from apex to mid-termen.

Male not known.

Female genitalia (Fig. 19). Papilla analis broadening in proximal part; apophyses long, slender; sterigma rather short with small sublateral sclerites, broad membranous area of ostium bursae, and very large median lobes; sclerite of antrum fairly long; blade of signum moderate, base broad.

TYPE MATERIAL

Holotype female: "Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m"; GS 1059, N° reared: 25348. DNA isolation Tort-002.

Paratype female: Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1060, N° reared: 9463. DNA isolation Tort-003.

ETYMOLOGY

The name refers to colouration of forewing; Greek: cirrhos – yellow, chroma – colour.

***Sisurcana polychondra* RAZOWSKI & BECKER, 2004**

MATERIAL EXAMINED. One male from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1077, N° reared: 12302.

REMARKS. This species was described from the Province of Morona Santiago. The examined specimen is somewhat differently patterned than the type specimens and has a bit slenderer forewing.

***Amorbia colubrana* (ZELLER, 1866)**

MATERIAL EXAMINED. Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1081, N° reared: 5207.

REMARKS. This species was described from Colombia but is more widely distributed in this area as found already in Ecuador (Provinces of Carchi and Napo) and Peru.

***Amorbia cocoa* PHILLIPS & POLWELL, 2007**

MATERIAL EXAMINED. One male from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; GS 1083, N° reared: 25218.

REMARKS. This species was described from Costa Rica and Guatemala. Our identification is based on the original publication.

Sparganothina hermosa n. sp.

(Fig. 9, 10, 20, 35, 36)

DIAGNOSIS

This species is closely related with *Sparganothina nephela* (WALSINGHAM, 1913) described from Panama and, according to LANDRY & POWELL (2001), known also from Nicaragua, Costa Rica, and Ecuador. This species is distinct by strong postmedian process of the sacculus and externally by size (30 mm against 16 mm in *nephela* males). From *Amorbia aureocastanea* RAZOWSKI & WOJTUSIAK, 2006 from the Napo Province this species differs chiefly by the presence of white spot at the end of median cell.

DESCRIPTION

Wing span 30 mm. Head yellowish rust, labial palpus 5.5, rust laterally; collar rust, remaining part of thorax cream. Forewing expanding terminad; costa weakly curved outwards with fold reaching anterior edge of median fascia; termen weakly oblique, almost straight. Ground colour golden yellow suffused orange rust along costa and termen, less distinctly so medially and terminally; strigulation concolorous. Markings rust brown in some parts rust consisting of incomplete basal blotch, median fascia connected with parallel subterminal fascia by means of a streak in the median cell, the latter accompanied by posterior white spot; subterminal fascia fused with costal triangle paler and spotted along costa. Cilia concolorous with suffusions, with brown interruptions. Hindwing creamish suffused and reticulated brownish orange except for base; cilia cream with a few brownish interruptions.

Variation. Male wing span 30-31 mm. Suffusions of forewing more or less distinct.

Male genitalia (Figs 9, 10). Uncus slender with broad base; gnathos vestigial; dorsal part of socius large, elongate, ventral parts atrophying; valva broad basally, posterior part tapering terminad; sacculus convex basally, with distinct postmedian process additionally marked with small basal lobe, and moderately large free termination; dorsal part of transtilla spined; dorsum of juxta large; aedeagus slender, with well developed ventral termination; cornuti numerous.

Female genitalia (Fig. 20). Apophyses anteriores rudimentary; anteostial sterigma very slender; postostial sterigma forming two lateral lobes tapering apically; sclerite of antrum small followed by a broadening of ductus bursae; signum in form of large transverse sclerite with pair of lateral lobes extending proximally.

TYPE MATERIAL

Holotype male: "Ecuador, Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m;" GS 1067, N° reared: 15937.

Paratypes: two males from the same place, one: GS 1065, N° reared: 24851; second: GS 1061, N° reared: 28360. DNA isolation Tort-006. Two females from the

same place, one: GS 1066, N° reared: 26823; second: GS 1064, N° reared: Y.Y. 5333. DNA isolation Tort-005.

ETYMOLOGY

The specific name refers to the colouration of wings. Greek: hermos – beautiful.

REMARKS

RAZOWSKI & WOJTUSIAK (2006) described similar female genitalia as belonging to *Paramorbia aureocastanea*. That most probably was a misidentification for this species caused by great similarity of the facies of a few species mentioned above. The present identification is supported by the molecular study.

Tribe Polyorthini

Lypothora roseochraon n. sp.

(Fig. 21, 37)

DIAGNOSIS

This species differs from its Chilean congeners: *Lypothora fernaldii* (BUTLER, 1833) and *L. walsinghami* (BUTLER, 1883) in much larger expansion of forewing (in known species 13-16 mm), white head and thorax, and one signum.

DESCRIPTION

Wing span 28 mm. Head white, labial palpus 4, white cream, thorax whitish. Forewing rather not expanding terminally; costa convex basally; termen indistinctly oblique, hardly sinuate. Ground colour white preserved in dorsal half of wing from base to tornal area, marked by some brown scales and a postmedian dot; small white spot before apex; remaining parts of wing grey suffused brownish and blackish, with elongate violet-pink subterminal suffusion; one large group of erect scales beyond median cell. Markings blackish, diffuse. Cilia pale brownish, brown basally, white at apex, tinged yellowish beneath apex. Hindwing brownish, cilia paler.

Male not known.

Female genitalia (Fig. 21). Papilla analis broadest near middle; sterigma in form of a slender proximal sclerite, membranous posteriorly and around ostium bursae; sclerite of antrum short; ductus bursae rather short; one broad pocket like signum present.

Holotype female: "Ecuador, Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m"; GS 1071, N° reared: 18305.

ETYMOLOGY

Greek: roseos – pinkish, chrao – slightly wounded.

REMARKS

This genus was known exclusively from Chile. Our specimen shows similar colouration, shape of forewing and the female genitalia as the two known species with

exception of the number of signa, which in *roseochraon* is single and in the known species double.

Tribe Olethreutini

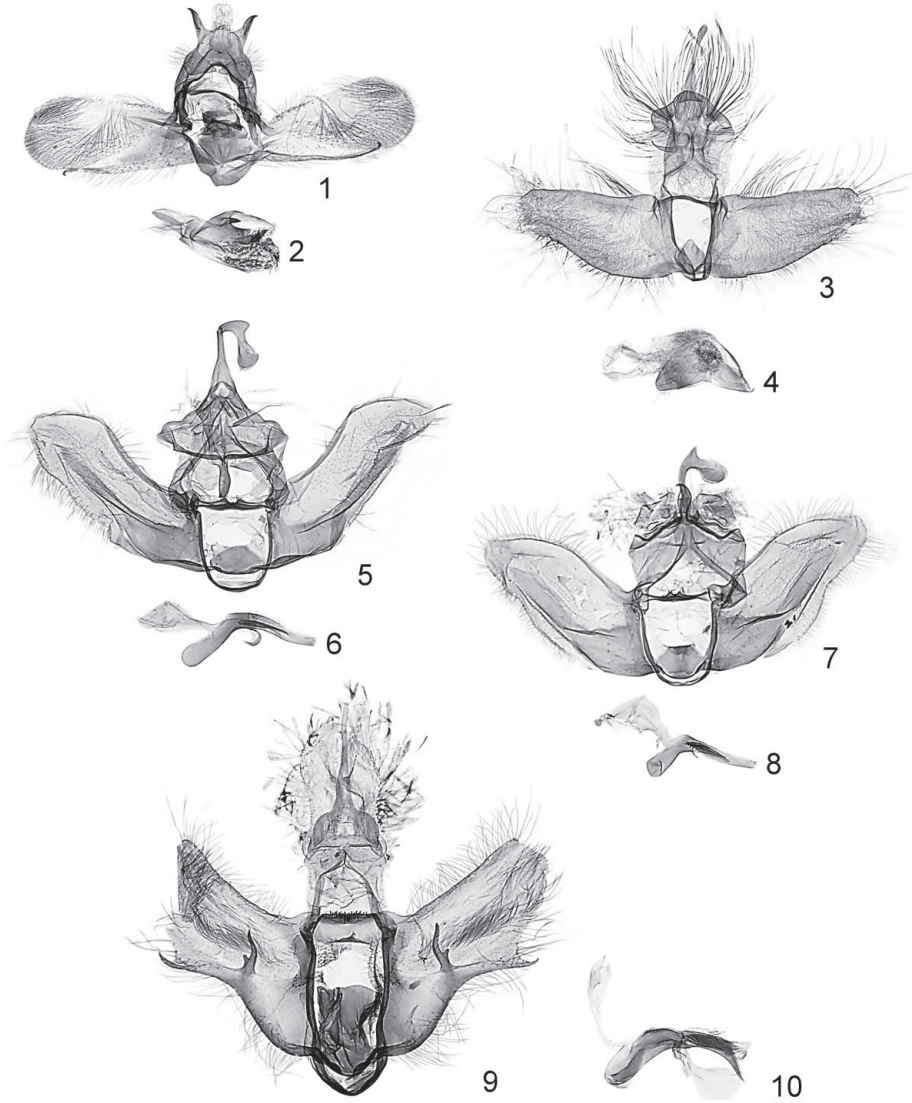
Episimus brunneomarginatus (RAZOWSKI & WOJTUSIAK, 2006)

MATERIAL EXAMINED. 3 specimens: from Napo Prov., Yanayacu Biological Station, S 00°35.9' W 77°53.4, 2163 m; one male: GS 1052, N° reared: 021, DNA isolation Tort-021; second male: N° reared: 6715 from the same place; third male: N° reared: 12543.

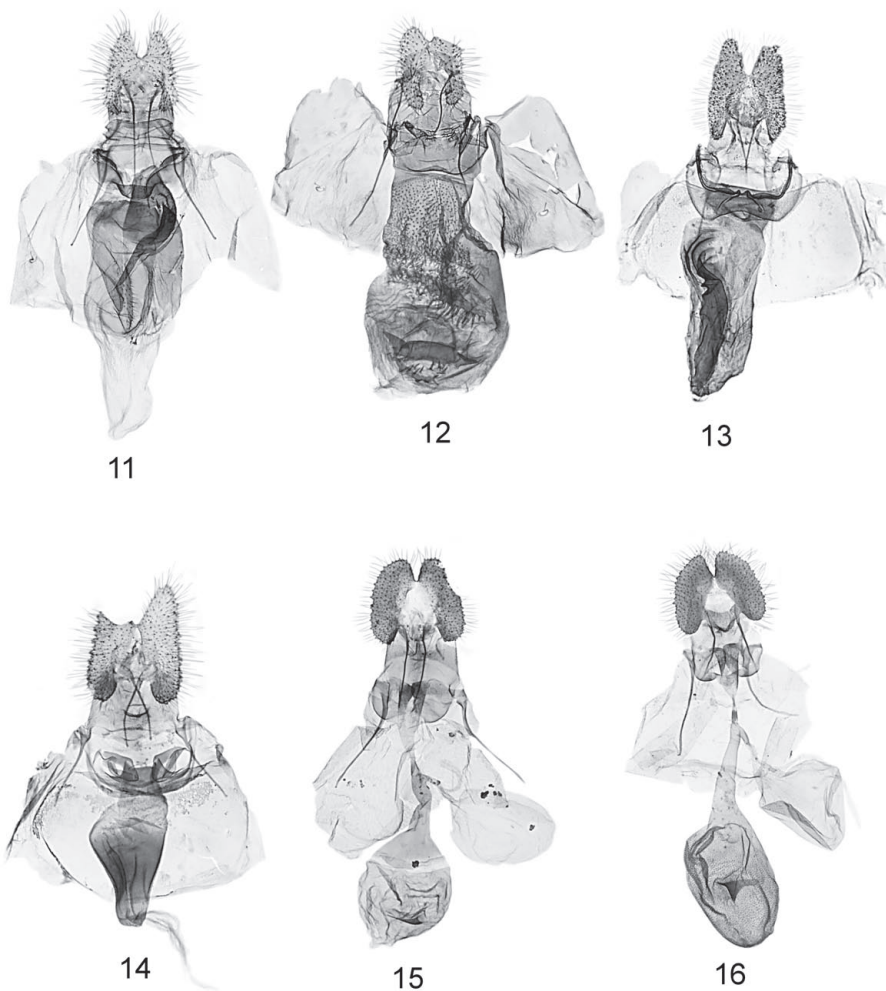
REMARKS. This species was incorrectly described in the genus *Epinotia* based on a single male from the Province of Morona-Santiago, Ecuador where it was found at the altitude of 2200 m.

REFERENCES

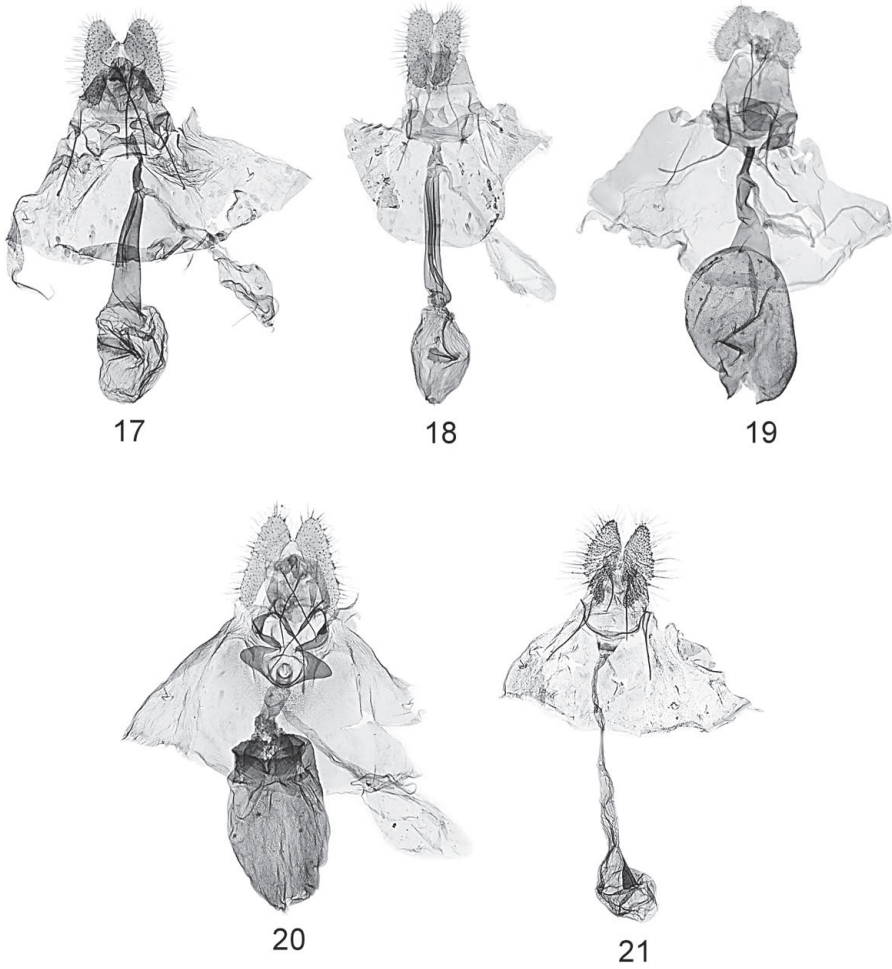
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1-10. Male genitalia: 1, 2 – *Xoser astonyx* n. sp., holotype, 3, 4 – *Orthocomotis parandina* n. sp., holotype, 5, 6 – *Anacrusis yanayacana* n. sp., holotype, 7, 8 – *Anacrusis guttula* n. sp., holotype, 9, 10 – *Sparganothina hermosa* n. sp., holotype



11-16. Female genitalia: 11 – *Transtillaspis multicornuta* RAZOWSKI & WOJTUSIAK, 2008, Yanayacu, 12 – *Paraptila ecuadora* BROWN, 1991, 13 – *Orthocomotis parandina* n. sp., paratype, 14 – *Orthocomotis yanayacu* RAZOWSKI, PELZ & WOJTUSIAK, 2007, Yanayacu, 15 – *Anacrusis yanayacana* n. sp., paratype, 16 – *Anacrusis guttula* n. sp., paratype



17-21. Female genitalia: 17 – *Sisurcana topina* RAZOWSKI & PELZ, 2004, 18 – *Sisurcana sanguiniventer* n. sp., holotype, 19 – *Sisurcana cirrhochroma* n. sp., holotype, 20 – *Sparganothina hermosa* n. sp., paratype, 21 – *Lypothora roseochraon* n. sp., holotype



22-29. Adults: 22 – *Transtillaspis multicornuta* RAZOWSKI & WOJTUSIAK, 2008, female, 23 – *Paraptila ecuadora* BROWN, 1991, female, 24 – *Xoser astonyx* n. sp., holotype, male, 25 – *Orthocomotis parandina* n. sp., holotype, male, 26 – *Orthocomotis parandina* n. sp., paratype, female, 27 – *Orthocomotis yanayacu* RAZOWSKI, PELZ & WOJTUSIAK, 2007, female, 28 – *Anacrusis yanayacana* n. sp., holotype, male, 29 – *Anacrusis yanayacana* n. sp., paratype, female



30-37. Adults: 30 – *Anacrusis guttula* n. sp., holotype, male, 31 – *Anacrusis guttula* n. sp., paratype, female, 32 – *Sisurcana topina* RAZOWSKI & PELZ, 2004, female, 33 – *Sisurcana sanguinoverter* n. sp., holotype, female, 34 – *Sisurcana cirrhochroma* n. sp., holotype, female, 35 – *Sparganothina hermosa* n. sp., holotype, male, 36 – *Sparganothina hermosa* n. sp., paratype, female, 37 – *Lypothora roseochraon* n. sp., holotype, female