

Review of *Inape* RAZOWSKI (Lepidoptera: Tortricidae: Euliini), with descriptions of five new species

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Abstract. The South American genus *Inape* RAZOWSKI, 1988, is reviewed. As currently defined it includes 13 species, five of which are described as new: *I. auxoplaca* (MEYRICK) (TL: Colombia); *I. bicornis* RAZOWSKI (TL: Ecuador); *I. biremis* (MEYRICK) (TL: Colombia); *I. centrota*, new species (TL: Colombia); *I. circumsetae*, new species (TL: Colombia); *I. clarkeana*, new species (TL: Colombia); *I. iantha* (MEYRICK) (TL: Colombia); *I. papallactana* RAZOWSKI (TL: Ecuador); *I. penai* RAZOWSKI (TL: Bolivia); *I. reductana*, new species (TL: Peru); *I. semuncus* RAZOWSKI (TL: Peru); *I. sinuata*, new species (TL: Bolivia); and *I. xerophanes* (MEYRICK) (TL: Peru). We also present information on *Tylopeza* RAZOWSKI, the suspected sister group to *Inape*, and provide the first illustration of the female genitalia.

Keywords: Insecta, Lepidoptera, Tortricidae, Euliini, *Inape*, *Tylopeza*, new species, Neotropical, Andean.

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I. INTRODUCTION

Inape was proposed by RAZOWSKI (1988) to accommodate two South American species: *I. penai* RAZOWSKI (type species) and *I. auxoplaca* (MEYRICK). BROWN (1989) added *I. iantha* (MEYRICK), *I. xerophanes* (MEYRICK), and *I. zelotypa* (MEYRICK), and mistakenly identified *I. auxoplaca* as a new combination. *Eulia biremis* MEYRICK was transferred to the genus by POWELL et al. (1995) in the Atlas of Neotropical Lepidoptera (checklist) without comment. RAZOWSKI (1995) proposed the monotypic genus *Tylopeza* for *zelotypa*, which is likely the sister group to *Inape*. He subsequently described *I. semuncus* (RAZOWSKI, 1997), *I. bicornis* (RAZOWSKI, 1999), and *I. papallactana* (RAZOWSKI, 1999), bringing the number of described species in the genus to eight. Numerous undescribed species are present in the National Museum of Natural History, Smithsonian Institution, Washington, D.C. Unfortunately, some of these are represented by specimens

that lack abdomens; two are represented only by genitalia slides prepared by Nicolas OBRAZTSOV in 1963 for which the pinned specimens cannot be found. Most species are rare in collections, represented only by the holotypes.

While the addition of new species to *Inape* has not required significant modification of the original diagnosis because the male genitalia of all species conform well to a standard ground plan, the interpretation of some morphological characters and knowledge of their variation within the genus has changed. These changes are addressed in the redescription provided below.

The purposes of this paper are to review the described species of *Inape* and present descriptions of 5 new species for which adequate material exists for descriptive and diagnostic purposes.

A c k n o w l e d g m e n t s. We thank Mr. Marek KOPEĆ for taking the photographs and Mr. Krzysztof FIOLEK for digital arrangement of drawings.

Institutional abbreviations are as follows:

BMNH – The Natural History Museum, London, United Kingdom;

CMNH – Carnegie Museum of Natural History, Pittsburgh, Pennsylvania, USA;

USNM – National Museum of Natural History, Washington, DC, USA.

ZMUC – Zoological Museum, University of Copenhagen, Denmark.

II. SYSTEMATICS

Inape RAZOWSKI, 1988

Inape RAZOWSKI, 1988: 394; BROWN 1989: 314; POWELL et al. 1995: 144.

Type species: *Inape penai* RAZOWSKI, 1988.

D i a g n o s i s. Adults of *Inape* are moderately large (forewing length 9.0-15.0 mm); forewing pattern frequently is quite different among species. Males of all species have a well developed foreleg hairpencil, supporting assignment of the genus to Euliini (BROWN, 1990). Variation in the shape and development of the sacculus is highly useful for separating species. The most convincing autapomorphies for the genus are the paired submedian, lobe-like processes of the transtilla, which differ in size and position among species; and the paired signa of the female genitalia, one or both of which are usually highly spined or dentate.

The strong, dorsal, median process of the transtilla of *Tylopeza zelotypa* (MEYRICK) is similar to the paired processes of *Inape*; however, it apparently functions in a slightly different manner, i.e., the attachment of the muscles is different from that in *Inape*. In addition to the foreleg hairpencil, males of *T. zelotypa* possess a hairpencil of elongate, cream colored scales concealing a patch of short black scales along the subcosta of the hindwing. The female genitalia of *T. zelotypa* are extremely similar to those of *Inape*, with a large, strongly sclerotized, longitudinal, band-shaped signum, bearing an irregular row of long spines. Based on similarities of forewing pattern, shape of the aedeagus and transtillar processes in the male genitalia, and the shape and arrangement of the signa in the female genitalia, we suspect that *Tylopeza* is the sister genus to *Inape*. Alternatively, *zelotypa* may represent a highly derived species within *Inape*.

R e d e s c r i p t i o n. Adult. Head: Antenna slightly flattened, weakly serrate in male, with cilia ca. 0.35-0.40 times flagellomere diameter. Labial palpus elongate, porrect or weakly upturned; II segment expanded distally by scaling to ca. 1.25 times its basal diameter; III segment ca 0.25 as long as II. Maxillary palpus rudimentary. Frons scaling sparse, appressed; scaling on vertex suberect. Ocelli present. Chaetosema present. Thorax: Foreleg hairpencil present. Forewing length 2.5-2.6 times width; length of DC 0.5-0.6 times FW length; width of DC 0.15-0.20 its length; CuA₂ originates ca 0.55 along length of DC; chorda present; M-stem a trace; CuP present. Hindwing with Sc+R and Rs separate; Rs and M₁ separate, connate, or short-stalked; M₂ and M₃ separate; M₃ and CuA₁ separate, connate, or short-stalked. Abdomen: Dorsal pits absent. Male genitalia with uncus

well developed, variable in size and shape from short and slender to long and strong. Socii moderately uniform among species, long, somewhat digitate (except for *penai*), densely hairy, attached basally. Gnathos simple, V-shaped, usually slender, with a rather delicate terminal plate. Transtilla with a pair of variable, submedial, usually elongate, slightly distally-lobed, digitate processes (exceptionally long in *I. bicornis*, short in *I. papallactana*). Valva simple, elongate, usually upturned, covered with fine setae, apex broadly rounded; costa moderately sclerotized; sacculus variably developed, simple, with or without free distal tip (distal end specialized in some species, bearing a terminal plate or process, and transverse ribs on its inner surface in a few species). Aedeagus broad, blunt, nearly straight, with rounded, slightly attenuate phallobase; vesica with 0-4 cornuti and/or microspines. Female genitalia with papillae anales bearing setae from narrow, upraised, nipple-like bases. Sterigma simple, broad, mostly weakly sclerotized, except for proximal part which is short and rather well sclerotized; usually with a weakly developed cup-like process mesally; provided with posterolateral arms; often with a series of sclerotized transverse ridges arising from base of apophyses anteriores. Ductus bursae extremely short, broad, unsclerotized. Corpus bursae stout, length ca. 3 times width; usually two signa: a narrow, longitudinal band bearing numerous long spines, and a sclerotized plate with dentate or spiny perimeter; signa variously developed; some species with sclerotized, irregular band at junction of ductus and corpus bursae, extending into corpus. Ductus seminalis from posterior end of corpus bursae.

B i o l o g y a n d d i s t r i b u t i o n. The early stages of *Inape* are unknown. All species have been collected at high elevations – 2000-4000 m. The genus probably is restricted to the mountains of the western part of South America – we record it from Colombia, Ecuador, Peru, and Bolivia.

Inape penai RAZOWSKI, 1988

Inape penai RAZOWSKI, 1988: 395, figs. 26-30 (male genitalia); BROWN 1989: 315; POWELL et al. 1995: 144 (checklist).

Inape penai and *I. auxoplaca* have a similar, slender aedeagus with a terminal, curved fold; a strong, curved uncus; broad socii; and large dorsal processes of the transtilla. *Inape penai* can be distinguished by its smaller forewing length (9.0 mm vs. 12.0 mm), more slender valva, and more specialized, short, bristled sacculus.

Holotype ♂, Bolivia, Cochabamba, Incachaca, 2100 m, tropical cloud forest area, 27 Aug-5 Sep 1956, L. Peña, USNM.

Paratype (♂). Same data as holotype (USNM).

Inape auxoplaca (MEYRICK, 1926)

Eulia auxoplaca MEYRICK, 1926: 255; CLARKE 1958: 119, pl. 59, figs. 2, 2a, 2b (adult, male genitalia of lectotype).

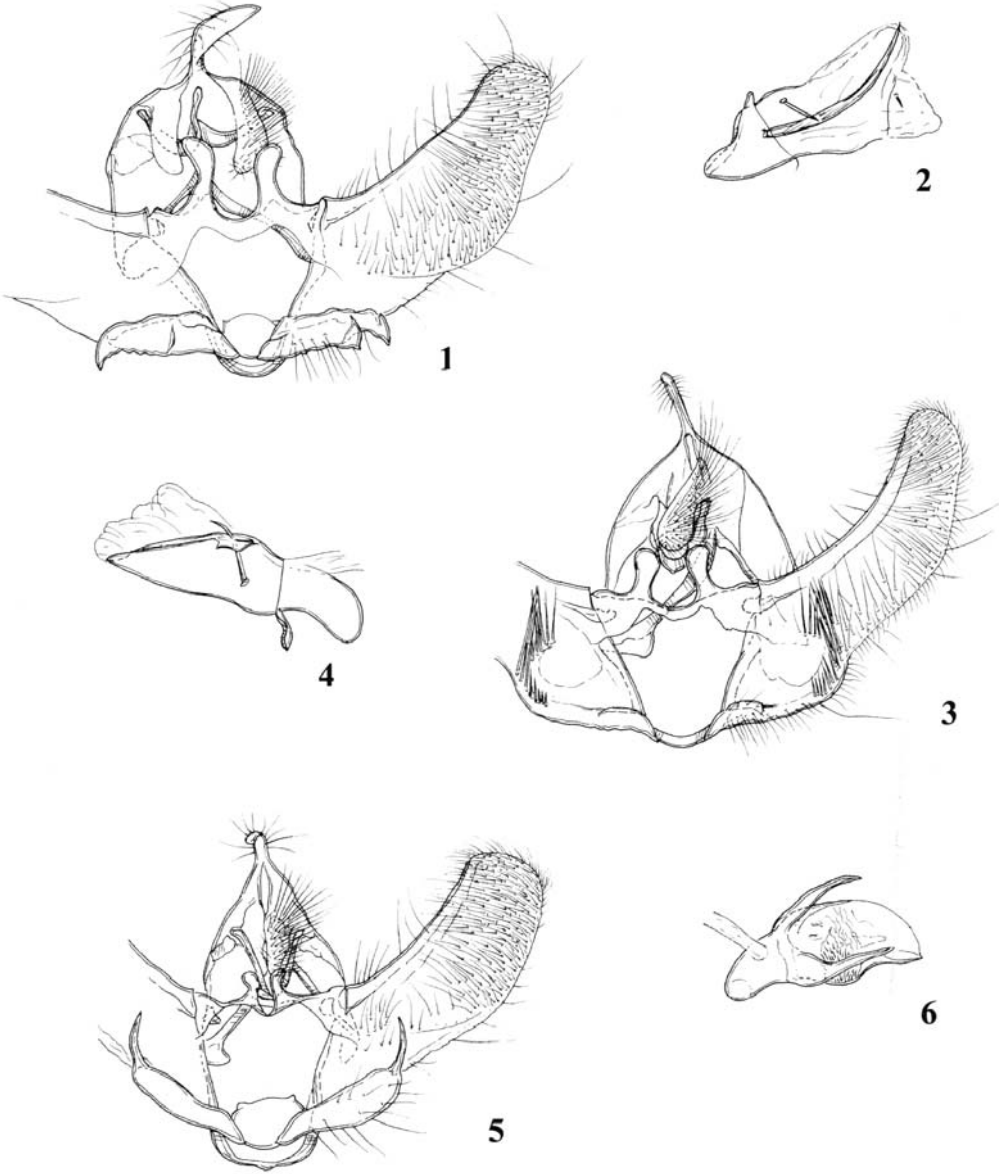
Inape auxoplaca: RAZOWSKI, 1988: 395 (transferred to *Inape*); BROWN 1989: 316; POWELL et al. 1995: 144 (checklist).

Inape auxoplaca is superficially similar to *I. penai* and *I. biremis*; the structure of the aedeagus probably represents a synapomorphy for *auxoplaca* and *penai*. *Inape auxoplaca* is characterized by a strong but rather short uncus and a broad valva with a long sacculus lacking a free termination.

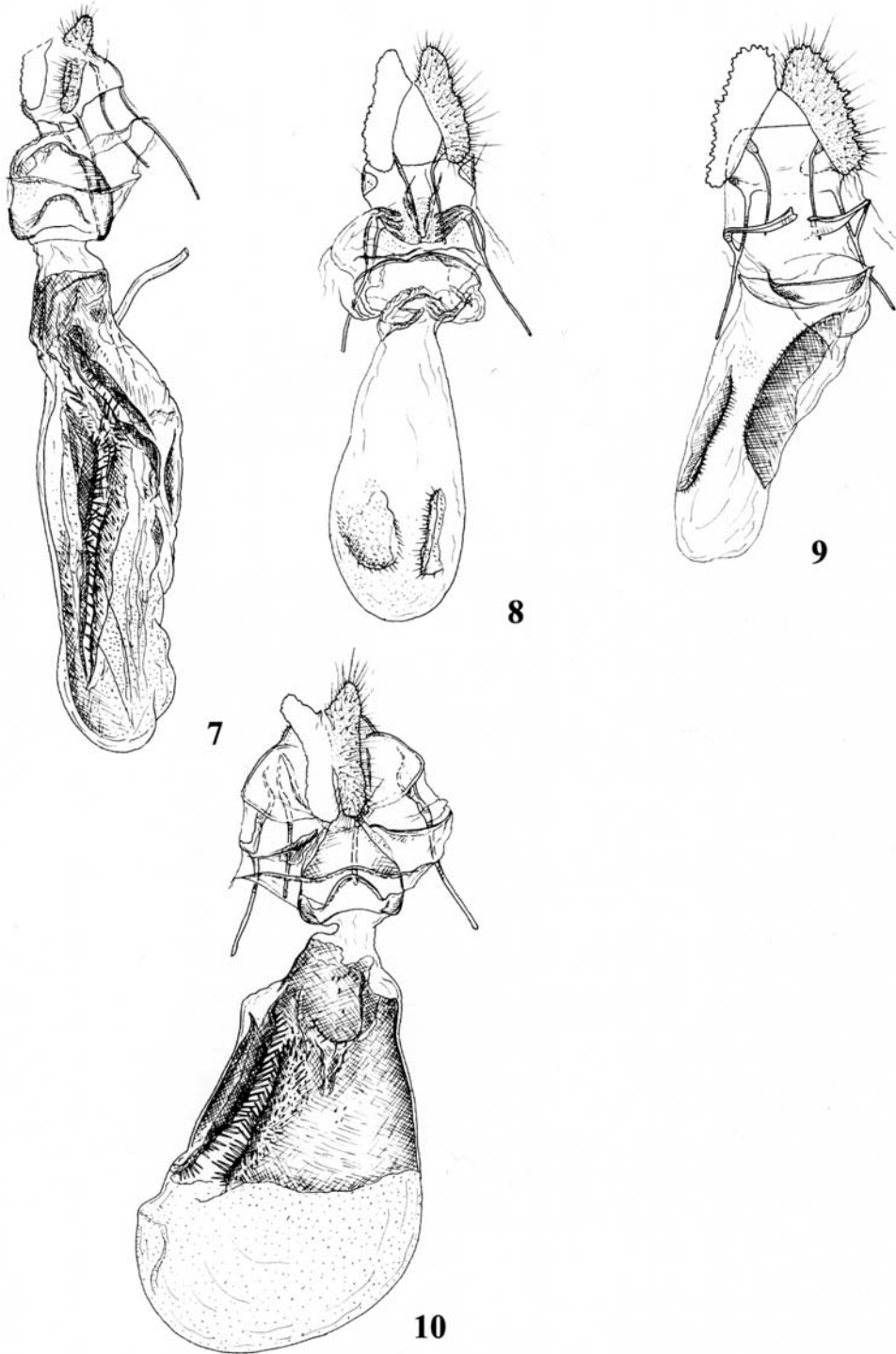
Lectotype ♂ (designated by CLARKE, 1958), Colombia, Mt. Tolima, 10,500', Sep 1920, BMNH.

Paralectotypes. Colombia, Mt. Socorro, Cordilleras, 12,500', 1920 (1♂, no abd.) (BMNH); Colombia, Monte del Eden, 9,500', Oct 1920 (1♂) (USNM).

In his description of *Eulia auxoplaca*, MEYRICK (1926) listed three different mountains in Colombia (Mt. Tolima, Mt. Socorro, and Monte del Eden) as the source of the specimens. He also indicated that he examined seven specimens (i.e., "7 ex."), and remarked that the species "Varies considerably." We were able to locate only 3 specimens (listed above), and we suspect that each



Figs 1-6. Male genitalia of *Inape* RAZOWSKI: 1,2 - *I. clarkeana* sp.n., holotype; 3,4 - *I. circumsetae* sp.n., holotype; 5,6 - *I. centrota* sp.n., holotype.



Figs 7-10. Female genitalia of *Inape* RAZOWSKI and *Tylopeza* RAZOWSKI: 7 – *I. xerophanes* (MEYRICK), Peru, Carabaya; 8 – *I. reductana* sp.n., holotype; 9 – *I. sinuata* sp.n., holotype; 10 – *T. zelotypa* (MEYRICK), Colombia, San Antonio.

represents a different species – the specimen from Monte del Eden may not represent *Inape*, and the specimen from Mt. Socorro lacks the abdomen.

***Inape biremis* (MEYRICK, 1926)**

Eulia biremis MEYRICK, 1926: 256; CLARKE 1958: 119, pl. 59, figs. 3, 3a, 3b (adult, female genitalia of holotype). *Inape biremis*: POWELL et al. 1995: 144 (checklist).

The forewing pattern of *I. biremis* is most similar to that of *I. auxoplaca*, and it is possible that the two represent the opposite sex of the same species – *I. biremis* is known only from the female holotype and *I. auxoplaca* only from males.

Holotype ♀, Colombia, Mt. Tolima, 10,500', Oct, BMNH.

***Inape papallactana* RAZOWSKI, 1999**

Inape papallactana RAZOWSKI, 1999: 327, figs. 23, 24 (male genitalia).

Inape papallactana shares a similar valva, sacculus, and aedeagus with *I. auxoplaca*. It can be distinguished from the latter by its more slender socii, its smaller dorsal processes of the transtilla, and its larger terminal part of the gnathos.

Holotype ♂, Ecuador, Pichincha, 12 km NW of Papallacta, west slope, subparamo mixed grass/woodland, 3840 m, 11-12 Oct 1987, C. YOUNG, R. DAVIDSON & J. RAWLINS, CMNH.

***Inape bicornis* RAZOWSKI, 1999**

Inape bicornis RAZOWSKI, 1999: 327, figs. 21, 22 (male genitalia).

The complex valva and sacculus of *I. bicornis* are similar to those of *I. papallactana* and *I. semuncus*. *Inape bicornis* can be distinguished easily from those species by the longer dorsal processes of the transtilla, shorter terminal part of the gnathos, and short cornuti in the vesica of the aedeagus. The comparatively strong uncus of *I. bicornis* is shorter than that of *I. semuncus*, and the aedeagus is rather slender but has a distinct ventroterminal process.

Holotype ♂, Ecuador, Azuay, 13 km NE Nieves, 3220 m, 25 Oct 1987, R. DAVIDSON, J. RAWLINS & C. YOUNG, CMNH.

***Inape semuncus* RAZOWSKI, 1997**

(Fig. 11)

Inape semuncus RAZOWSKI, 1997: 91, figs. 40, 41 (male genitalia).

Inape semuncus can be distinguished superficially from its congeners by the pale yellow forewing with rust markings and suffusion. It is characterized by a long uncus, rather slender dorsal processes of the transtilla, and a broad sacculus provided with a few transverse ribs terminally. The aedeagus is fairly broad, and the vesica bears a group of four long capitate cornuti, each of which is longer than the phallobase.

Holotype ♂, Peru, Dept. Ancash, Cerro Chahuish, 35 km SE Huaraz, Quebrada Pucavado, 4100 m, 15-18 Feb 1987, O. KARSHOLT, ZMUC.

***Inape clarkeana* new species**

Fig. 12

Diagnosis. *Inape clarkeana* is similar to *I. semuncus* and *I. bicornis* in the general shape of the uncus and valva. The aedeagus also is similar to these species but is more specialized, with a short phallobase and a submembranous distal part. It can be distinguished from its congeners by the distinctive strong terminal process of the sacculus and the shape and configuration of the cornuti: a large cornutus accompanied by two very small ones.

D e s c r i p t i o n. Head: Frons pale yellow mixed with beige; vertex beige-gray; labial palpus white, light brown laterally. Thorax: Dorsum copper mixed with white. Forewing (Fig. 8) length 11.0 mm (n=1); pale yellow beige; distal 0.5 of wing with pale brown patch covering entire region from costa ca. 0.4 distance from base to apex, and from dorsum ca. 0.8 distance from base to tornus; darker patch at wing base from costa ca. 0.2 distance from base to apex, to dorsum ca. 0.1 distance from base to tornus; a faint arched line through apical region originating from tornus and from costa ca. 0.75 distance from base to apex; darker patch near middle of discal cell. Hindwing pale yellow with sparse beige marbling, particularly dense in apical region. Abdomen: Male genitalia (Figs 1, 2; drawn from USNM slide 68481; n=1) with uncus strong; gnathos unmodified, terminal part slender; socius rather slender; tegumen with short, pointed process dorsally at junction of two halves; transtilla with a pair of large digitate appendages submedially; valva simple, broad; sacculus strong, restricted to basal 0.3, with a strong, free terminal and subterminal processes (reduced in left sacculus). Aedeagus simple, broad, with small phallobase, weakly sclerotized distally; vesica with one large, long, curved cornutus, one short slender cornutus, and one tiny spine-like cornutus distally. Female unknown.

Holotype ♂, Colombia, Narino, Volcan Galeras, 3000 m, 14 Jan 1959, J. F. G. CLARKE, USNM.

Inape circumsetae new species

Fig. 13

D i a g n o s i s. On the basis of the shape of valva, the processes from the transtilla, and the cornuti, *I. circumsetae* is most similar to *I. clarkeana*. The shape of the aedeagus is most similar to that of *I. semuncus*. *Inape circumsetae* is easily distinguished from all congeners by the presence of a semicircular row of setae at the end of sacculus extending dorsally to about the middle of the valva, which represents an autapomorphy for the species.

D e s c r i p t i o n. Head: Frons pale yellow below mid-eye, brown mixed with copper below; vertex with gray-brown scales tipped with white; labial palpus pale yellow, brown and copper laterally. Thorax: Dorsum brown mixed with copper. Forewing length 9.5 mm (n=1); pattern complicated, a dark brown region in basal 0.1 bordered by an irregular transverse region to basal 0.45, pinkish gray with small patches of pale yellow, brown, and beige; apical region gray irregularly mixed with copper and dark brown scaling; a poorly defined, circular, white-gray spot at apex of discal cell, extending faintly toward tornus; tornus with sparse pinkish-gray overscaling. Fringe pinkish gray, mixed with dark brown apically. Hindwing white with irregular light gray-brown marbling. Abdomen: Male genitalia (Figs 3,4; drawn from USNM slide 68484; n=1) with uncus very slender; socii large, pendant, broadened distally, densely hairy; gnathos with terminal part reduced; transtilla with a pair of stout, distally lobed appendages submedially from dorsum; valva upcurved, broad at base, narrowing abruptly at ca. 0.3 distance from base to apex; sacculus weak with a narrow ridge in basal 0.3 without free distal tip; semicircular row of elongate, piliform setae in ventrobasal 0.33 of valva. Phallus simple, large, tapering terminally; vesica with one long, slender, weakly curved cornutus and one short cornutus. Female unknown.

Holotype ♂, Colombia, Bogotá, Chico, 25 Jan 1959, J. F. G. CLARKE, USNM.

Inape xerophanes (MEYRICK, 1909)

Tortrix xerophanes MEYRICK, 1909: 15. *Eulia xerophanes*; CLARKE 1958: 143, figs. 4, 4a, 4b (adult and male genitalia of holotype). *Inape xerophanes*; BROWN 1989: 316; POWELL et al. 1995: 115 (checklist); RAZOWSKI 1997: 92.

Superficially, *I. xerophanes* resembles *I. auxoplaca* and *I. penai*, but it has a slightly greater forewing length (14.0 mm). The male genitalia are distinct in having a submedian convexity of the sacculus followed by a small ventral process. The aedeagus is stout, with two large, capitate cornuti in the vesica.

In the female genitalia (Fig. 7) the sterigma is rather small with an elongate postostial part and a large, proximally rounded anteostial portion marked with ventral arche and fold medially; the distal part of the ductus bursae is short and membranous; and the corpus bursae is elongate with two large, spiny, longitudinal sclerites with some weaker sclerites and microspines. The female genitalia that we illustrate are assumed to represent those of *I. xerophanes*, but the association of the sexes is equivocal.

Holotype ♂, Peru, Aqualani, 9000', Dec 1905, BMNH.

Additional Specimen Examined. Peru, Oconeque, Carabaya, 7000', Feb 1905, G. OCKENDEN (USNM).

Inape centrota, new species

Fig. 14

D i a g n o s i s. The shape of the valva of *I. centrota* resembles that of several other species, and the simple, slender uncus is reminiscent of that of *I. xerophanes*. *Inape centrota* is easily distinguished from its congeners by a slender, pointed process at the distal end of the sacculus and the two elongate processes at the junction of the phallobase and the aedeagus.

D e s c r i p t i o n. Head: Frons brownish, labial palpus whitish grey suffused brownish. Thorax brownish; tegula brownish creamy, browner anteriorly. Forewing (length 9 mm) similar to that in *circumsetae*. Ground colour pale brownish creamy suffused and sprinkled with brownish; some brown dots between veins in distal third of wing. Markings dark brown in form of strongly reduced basal blotch and costal half of median fascia followed by much paler suffusion extending to beyond median cell. Cilia worn, remnants concolorous with ground colour. Hindwing creamy brownish, browner on periphery, with weak pale brownish strigulation. Cilia dirty creamy (worn). Abdomen: Male genitalia (Figs 5,6; drawn from USNM slide 68498; n =1) with uncus slender, comparatively short; socius pendant, densely hairy, broadest medially; gnathos slender with small terminal part; transtilla with a pair of elongate lobes submedially; sacculus well defined, rather broad, armed with a slender, weakly curved, pointed, dorsoterminal process. Phallus with two ventrolateral arms at junction of phallobase and aedeagus; numerous minute spines in vesica.

Holotype ♂, Colombia, Dept. Valle San Antonio, 1900 m, 7939'W, 331' S, 16 Jan 1992, J. B. SULLIVAN, USNM.

Inape reductana, new species

Fig. 15

D i a g n o s i s. The forewing pattern distinguishes *I. reductana* from its congeners. The sterigma of the female genitalia, with three parallel lateral ridges, is unique in the genus. The female genitalia are similar to those of *I. biremis* but are easily distinguished by the short sclerites of the corpus bursae.

D e s c r i p t i o n. Head: Frons gray white; labial palpus gray. Thorax: Dorsum with white-tipped gray scales. Forewing length 9.2 mm (n =1); pale yellow with an irregular, slightly sinuate, pale brown fascia from costa ca. 0.5 distance from base to apex, extending to dorsum ca. 0.7 distance from base to tornus; a small concolorous streak along costa ca. 0.65-0.85 distance from base to apex; subterminal region pale brown; an arched row of minute black dots in outer 0.66 from tornus; two larger black dots in subterminal region between veins. Hindwing white with sparse gray marbling. Abdomen: Male unknown. Female genitalia (Fig. 8; drawn from USNM slide 68482; n =1) with sterigma narrow, elongate, with three parallel lateral ridges curving anterad and interrupted medially; an irregularly sclerotized region at antrum. Corpus bursae with two small but distinct signa, both at anterior end of corpus; one a narrow rectangular sclerite bearing numerous long, thin spines; the other an irregularly circular, weakly sclerotized patch with a few weak spines on perimeter.

Holotype ♀, Peru, Cuzco, Machu Picchu, 2700 m, 6 Feb 1959, J. F. G. CLARKE, USNM.

Inape sinuata, new species

Fig. 15

D i a g n o s i s. *Inape sinuata* can be distinguished superficially from other species in the genus by the sinuate dark band extending from near mid-costa to the subapical region of the termen in the forewing (Fig. 12). The female genitalia have two characteristic signa.

D e s c r i p t i o n. Head: Frons light pale yellow; vertex concolorous with frons; labial palpus pale yellowish mixed with brown laterally. Thorax: Dorsum concolorous with head. Forewing length 9.5 mm (n = 3); pale beige with distinct dark band from near mid-costa extending toward tornus, arching apically near apex of discal cell, expanding and intersecting termen in subapical region; a small black dot at base on dorsum. Fringe gray. Hindwing dull white. Abdomen: Male unknown. Female genitalia (Fig. 9); drawn from USNM slide 68582; n = 1) with sterigma bearing a sclerotized ridge posteriorly, originating at bases of apophyses anteriores; a shallow cup mesally at ostium. Corpus bursae with two distinct signa: a long, narrow sclerite bearing numerous spines, and a broad flattened sclerite more posterad, with a row of nearly evenly spaced teeth.

Holotype ♀, Bolivia, Cochabamba, Incachaca, tropical cloud area, 2100 m, 27 Aug-5 Sep 1956, Jan 1959, L. PEÑA, USNM.

Paratypes. Bolivia, Cochabamba, Incachaca, tropical cloud area, 2100 m, 27 Aug-5 Sep 1956, Jan 1959 (2 ♂♂, both lacking abdomen), L. PEÑA (USNM).

Inape iantha (MEYRICK)

Cnephasia iantha MEYRICK, 1926: 255.

Eulia iantha; CLARKE 1958: 131, figs. 1, 1a, 1b, 1c (adult and female genitalia of holotype).

Inape iantha; BROWN 1989: 316 (transferred to *Inape*); POWELL et al. 1995: 144 (checklist).

Inape iantha is superficially distinct from its congeners, with a rather mottled, dark forewing pattern and a few scattered tiny, slightly iridescent blue specks in the distal one-third. The female genitalia are characteristic of *Inape*, with a longitudinal signum bearing elongate, slender spines, and a second shorter signum comprised of a patch of long spines.

Holotype ♀, Colombia, San Antonio, 5800', Nov 1907, BMNH.

Additional Specimen Examined. Colombia, San Antonio, 5800', Nov 1907 (1 ♀, no abdomen) (USNM).

Tylopeza RAZOWSKI, 1995

Tylopeza RAZOWSKI, 1995: 279. Type species: *Eulia zelotypa* MEYRICK, 1912.

D i a g n o s i s. As currently defined, *Tylopeza* is monotypic, accommodating the single species *T. zelotypa* (MEYRICK). Adults are moderately large (forewing length 12.0-18.0 mm). Males have a well developed foreleg hairpencil, supporting the assignment of the genus to Euliini (BROWN, 1990), but also possesses a hairpencil of elongate, cream colored scales concealing a patch of short black scales along the subcosta of the hindwing. The strong median process of the transtilla is similar to the paired processes of *Inape* and may represent a secondary modification of that structure. It is the most conspicuous autapomorphy for *T. zelotypa*. The female genitalia of *T. zelotypa* are extremely similar to those of *Inape*, with two signa consisting of large, strongly sclerotized, longitudinal bands, densely covered by long spines. As indicated above, it is possible that *ze-lotypa* is a highly modified species of *Inape* rather than the sister-group to that genus.

R e d e s c r i p t i o n. Adult. Head: Antenna slightly flattened, weakly serrate in male, with cilia ca 0.35-0.40 times flagellar segment diameter. Labial palpus elongate, mostly correct; II segment expanded distally by scaling to ca 1.25 times its basal diameter; III segment ca 0.25 as long

as II. Maxillary palpus rudimentary. Frons scaling sparse, appressed; scaling on vertex suberect. Ocelli present. Chaetosema present. Thorax: Foreleg hairpencil present. Forewing length ca. 2.5 times width; length of DC ca. 0.5 times FW length; width of DC ca. 0.2 its length; CuA₂ originates ca. 0.5 along length of DC; chorda present; M-stem a trace; CuP present. Hindwing with Sc+R and Rs separate; Rs and M₁ separate; M₂ and M₃ separate; M₃ and CuA₁ short-stalked; male with fascicle of elongate cream scales along subcosta concealing a dense patch of small black sex scales. Abdomen: Dorsal pits absent. Male genitalia with uncus extremely broad in basal 0.5, abruptly narrowed near middle, parallel-sided in distal 0.5, convex apically. Socii moderately large, densely hairy, attached basally. Gnathos simple, V-shaped, with comparatively long, attenuate, terminal plate. Transtilla with a pair of extremely elongate, slightly distally-lobed, digitate processes confluent at basal attachment to transtilla. Valva simple, elongate, nearly parallel-sided throughout, clothed in dense, fine setae, apex broadly rounded; costa moderately sclerotized; sacculus ill-defined, without free distal tip. Aedeagus broad, blunt, nearly straight, with rounded phallobase; vesica with one large and one short cornutus. Female genitalia with papillae anales bearing setae from narrow, upraised, tubercle-like bases. Sterigma simple, broad, similar to that of *I. xerophanes* with posterior part tapering apically, mostly weakly sclerotized except for proximal part which bears a well sclerotized, inverted heart-shaped region surrounding ostium; an inverted subtriangular process mesally; a pair of posterolateral arms originating at base of apophyses anteriores. Ductus bursae extremely short, broad, unsclerotized. Corpus bursae stout, length ca. 3 times width, most of wall of distal 0.6 sclerotized, with two longitudinal U-shaped bands armed with distinct long spines, an irregularly rounded region near ductus seminalis with several spines around perimeter, and various less defined regions of spiculae and spines; anterior portion of corpus bursae membranous. Ductus seminalis from posterior end of corpus bursae.

Biology and Distribution. *Tylopeza zelotypa* is known only from the type series collected in San Antonio, Colombia, at about 1850 m.

Tylopeza zelotypa (MEYRICK)

Fig. 10

Eulia zelotypa MEYRICK, 1912: 679; CLARKE, 1958: 143, figs. 4, 4a, 4b (adult and male genitalia of lectotype).

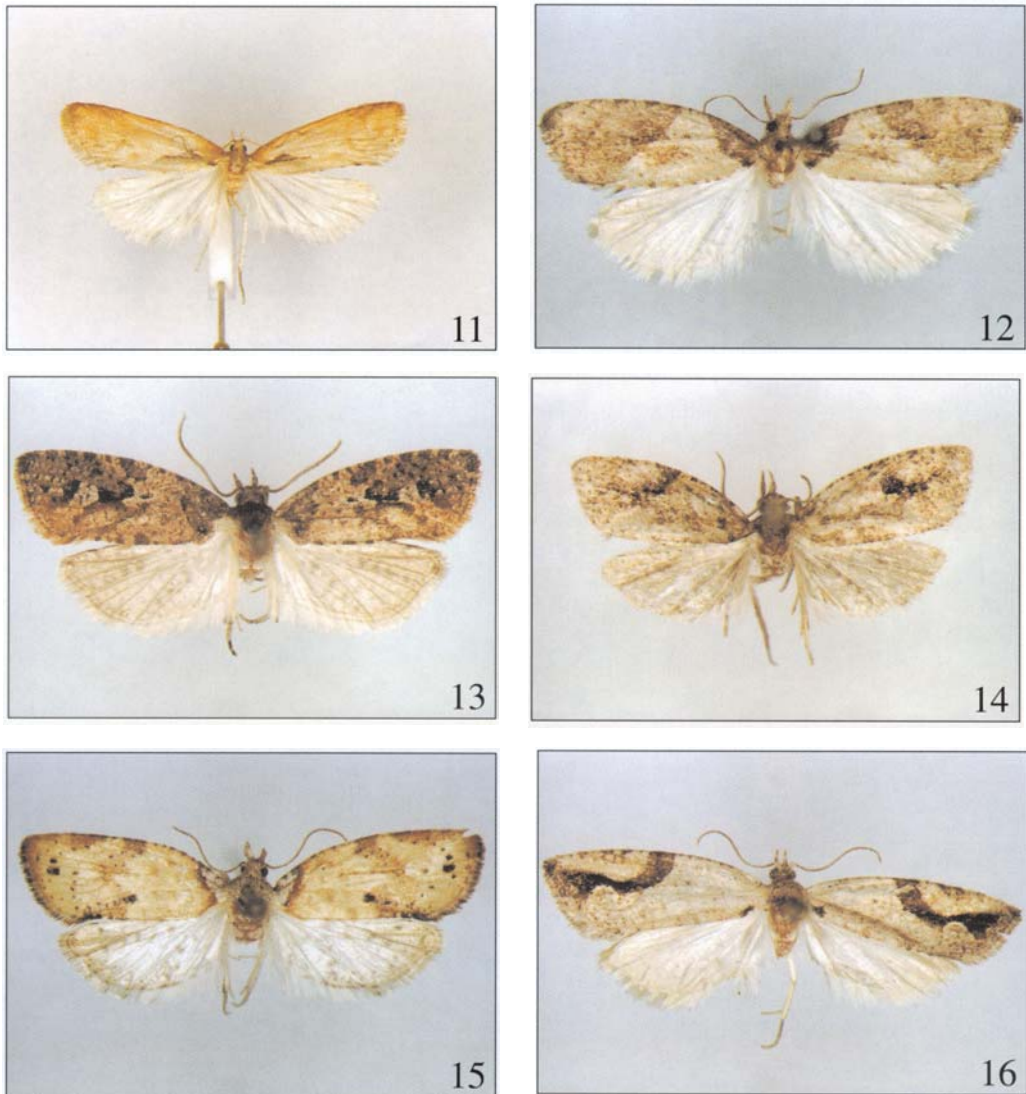
Tylopeza zelotypa; RAZOWSKI, 1995: 279.

As discussed above, *Tylopeza zelotypa* is similar to *Inape* in many features. It can be distinguished by the more squarish apex of the forewing, the presence of a distinctive hairpencil along the subcosta of the hindwing in the male, and the unique medial process of the transtilla of the male genitalia. All of these characters easily separate *zelotypa* from all known species of *Inape*. Female genitalia (Fig. 10, drawn from USNM slide 68854) have the eight tergite narrowing distally, sterigma rather small, rounded proximally, extending and tapering posteriorly; ductus bursae short, membranous; corpus bursae with large posterior sclerite forming two ventral folds armed with numerous spines.

Lectotype ♂ (designated by CLARKE, 1958), Colombia, San Antonio, 5800', Nov 1907, BMNH.

Paralectotypes. Colombia: San Antonio, 5800', Nov and Dec 1907 (7♂♂, 13 ♀♀) (BMNH, USNM).

R e m a r k s. MEYRICK (1912) described *zeloptypa* from 15 specimens (13 ♂♂, 2 ♀♀). Of the specimens we examined, 4 ♂♂ and 1 ♀ at BMNH and 3 ♂♂ and 1 ♀ at USNM are conspecific with the lectotype. The other five specimens are either lost or are represented by different, undescribed species.



Figs 11-16. Adults of *Inape* RAZOWSKI: 11 – *I. semuncus* RAZOWSKI, holotype; 12 – *I. clarkeana* sp.n., holotype; 13 – *I. circumsetae* sp.n., holotype; 14 – *I. centrota* sp.n., holotype; 15 – *I. reductana* sp.n., holotype; 16 – *I. sinuata* sp.n., holotype.

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