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Tortricidae from Ethiopia, 4 (Insecta: Lepidoptera)

J. Razowski, M. Colacci & P. Trematerra

Abstract

Forty species of Tortricidae from North-Western Ethiopia are recorded of which fifteen species are described as new (*Eugnosta amharana* Razowski & Trematerra, sp. n.; *Procrica sinuata* Razowski & Trematerra, sp. n.; *Metamesia flava* Razowski & Trematerra, sp. n.; *Clepsis paragongyla* Razowski & Trematerra, sp. n.; *Epichoristodes fekensae* Razowski & Trematerra, sp. n.; *Thiopeia chokeana* Razowski & Trematerra, sp. n.; *Thiodia africana* Razowski & Trematerra, sp. n.; *Megaherpystis wofwasha* Razowski & Trematerra, sp. n.; *Megaherpystis valvalobata* Razowski & Trematerra, sp. n.; *Cosmetra triangularis* Razowski & Trematerra, sp. n.; *Protancylis secundus* Razowski & Trematerra, sp. n.; *Thylacandra delimana* Razowski & Trematerra, sp. n.; *Dracontogena bradiana* Razowski & Trematerra, sp. n.; *Thaumatotibia parimitans* Razowski & Trematerra, sp. n., and *Thaumatotibia machakelana* Razowski & Trematerra, sp. n.). Moreover, the new genus *Thiopeia* Razowski & Trematerra is described and a new combination of *Syntozyga alatheta* (Razowski & Trematerra, 2010) comb. n. are reported. Females of *Procrica ophiograpta* (Meyrick, 1933), *Lobesia semosa* Diakonoff, 1992, *Eccopsis brunneopostica* Razowski & Trematerra, 2010, and *Parabactra addisalema* Razowski & Trematerra, 2018, are described.
KEY WORDS: Insecta, Lepidoptera, Tortricidae, faunistics, new taxa, Ethiopia.

Tortricidae de Etiopía, 4
(Insecta: Lepidoptera)

Resumen

Del noroeste de Etiopía se registran 40 especies, de las cuales quince se describen como nuevas (*Eugnosta amharana* Razowski & Trematerra, sp. n.; *Procrica sinuata* Razowski & Trematerra, sp. n.; *Metamesia flava* Razowski & Trematerra, sp. n.; *Clepsis paragongyla* Razowski & Trematerra, sp. n.; *Epichoristodes fekensae* Razowski & Trematerra, sp. n.; *Thiopeia chokeana* Razowski & Trematerra, sp. n.; *Thiodia africana* Razowski & Trematerra, sp. n.; *Megaherpystis wofwasha* Razowski & Trematerra, sp. n.; *Megaherpystis valvalobata* Razowski & Trematerra, sp. n.; *Cosmetra triangularis* Razowski & Trematerra, sp. n.; *Protancylis secundus* Razowski & Trematerra, sp. n.; *Thylacandra delimana* Razowski & Trematerra, sp. n.; *Dracontogena bradiana* Razowski & Trematerra, sp. n.; *Thaumatotibia parimitans* Razowski & Trematerra, sp. n. y *Thaumatotibia machakelana* Razowski & Trematerra, sp. n.). Además, se describe un nuevo género *Thiopeia* Razowski & Trematerra y se aporta una nueva combinación *Syntozyga alatheta* (Razowski & Trematerra, 2010) comb. n. Se describen las hembras de *Procrica ophiograpta* (Meyrick, 1933), *Lobesia semosa* Diakonoff, 1992, *Eccopsis brunneopostica* Razowski & Trematerra, 2010 y *Parabactra addisalema* Razowski & Trematerra, 2018.
PALABRAS CLAVE: Insecta, Lepidoptera, Tortricidae, faunística, nuevas taxas, Etiopía.

Introduction

Tortricidae of Ethiopia are still very little known and since the MEYRICK (1932) publication of the results of an expedition to Abyssinia (Ethiopia) in the years 1926-1927 only the collecting trips discussed below were made. The history of the entomological expeditions of the University of Molise

(Italy) to southeast Ethiopia in the years 2009 and 2010 were described by RAZOWSKI & TREMATERRA (2010). The two expeditions to the Oromia Region by the entomologists of the University of Molise and University of Milano were mentioned by same authors (RAZOWSKI & TREMATERRA, 2012). Results of an expedition made in February-March 2017 by the entomologists of the University of Molise to Amhara Region and Oromia Region in Central-Northeast Ethiopia were published by RAZOWSKI *et al*. (2018).

The material of the present study comes from new expeditions made in North-Western Ethiopia from August 2017 to July 2018 by Dr Tesfu Fekensa Tujuba (University of Molise, Campobasso, Italy and the Ethiopian Biodiversity Institute, Addis Ababa, Ethiopia). The itinerary of the expeditions visited five sites of Amhara Region (Amber, Bradi, Choke Mts, Delima and Wof-Washa).

The characteristics of the collection sites are as follows.

Amber (Figure 1): Amber is located at 30 km south of the city of Debre Markos. The collections site is situated at an elevation of 2460 m on adjacent to the main road's north side (latitudes 10º15'15"N and longitudes 37º51'35"E). Despite the latitude, the higher parts of these regions tend to share characteristics with oceanic climates, though it also tends to be noticeably drier during the "low-sun" season, with mild summers and noticeably cooler winters. The locality receives a mean annual rainfall of 1300-1380 mm and the temperature ranges between 15ºC and 22ºC. It has a very small remaining of natural forest with evergreen shrub and tree savannah, which is often both shrubs and acacia bushes. The study area has high diversity of the medicinal plant species of the families Lamiaceae, Solanaceae and Asteraceae.

Bradi (Figure 2): Bradi natural forest is located at Guangua district, Awi Zone in North-Western Ethiopia. It is part of the Gojam Floristic Region, western Ethiopian highlands. This natural forest was categorized as Dry Evergreen Afromontane vegetation present in the territory of Blue Nile basin. The forest patch is situated between latitudes 10º51'4.35"N and longitudes 36º37'15.86"E. The altitudinal range lies between 1830 m and 2182 m and the area encompasses 458 hectares of land. The vegetation of the area is dominated by *Rothmania urcelliformis* (Hiern) Bullock, *Vepris dainellii* (Pic. Serm.), *Rytigynia neglecta* (Hiern) Robyns, *Albizia schimperiana* (Prota) and *Croton macrostachyus* Hochst. ex Delite. The sites of collections are at 1830 m/a.s.l. and at 2182 m/a.s.l.

Choke Mts (Figures 3-4): The forest patch is situated between latitudes 10º51'4.35"N and longitudes 36º37'15.86"E. This area have quite a few springs. Most of them emerge from nowhere, creating little muddy streams with flattened yellow flowers. But there are also buzu sheep grazing at this high altitude, so most of the muddy streams became trampled with little sheep hooves and started to resemble wallowing areas. Agricultural activity is extensive, with cultivation up to 3000 m/a.s.l. In the sites were rocks and lichens. The major natural habitats are moist moorland with giant *Lobelia* sp., *Alchemilla* sp., sedges and tussocks of *Festuca* sp. and other grasses, montane grasslands and meadows, cliffs and rocky areas. Woody plants, *Erica* sp., *Hypericum revolutum* (Forssk.) Vah and *Arundinaria alpina* K. Schum. are only found in patches. The collections sites are in a mosaic environment at: 2510 m/a.s.l., 2530 m/a.s.l., and 2590 m/a.s.l..

Delima (Figure 5): It is a dry evergreen montane forest in Machakel Woreda, East Gojjam Zone. The Machakel Woreda has an area of 79556 hectares with 23 rural kebeles in the administrative center of Amanuel. The study site is situated between three Kebeles of the Woreda (latitudes 10º37'26"N and longitudes 37º40'50"E). The average annual rain fall and temperature of the Woreda is between 900 mm to 1800 mm and 18ºC and 25ºC, respectively. Machakel region is experiencing high levels of environmental degradation. Deforestation rates are as high, and only 7% of degraded forest fragments remain. Forest fragments are dominated by few species, mainly *Acacia abyssinica* Hochst. ex Benth. and *Croton macrostachyus* Hochst. ex Delile. Forest cover is observed to be low and shrub and bush cover dominate. The collections site is at 2377 m/a.s.l.

Wof-Washa (Figure 6): Natural forest covers an area of 54000 hectares. The area has a mean annual rainfall and temperature of about 1200 mm and 15.5ºC, respectively. The altitude of the area ranges between 1500 m and 3100 m. Wof-Washa Forest is located in North Shewa Administrative Zone (latitudes 8º58'18"N and longitudes 38º32'20"E), central highlands of Ethiopia. The forest is under

steady human and livestock pressures which is believed to reduce the area of the Wof-Washa Forest as time goes on. Some of the common woody species in Wof-Washa Forest include *Juniperus procera* Hochst. ex Endl, *Afrocarpus falcatus* Thunberg, *Polyscias fulva* (Hiern) Harms, *Hypericum revolutum* Vahl, *Ekebergia capensis* Sparrm., *Bersama abyssinica* Fresen., *Olea hochstetteri* Bak., *Celtis africana* Burm., *Hagenia abyssinica* (Bruce) Gmel., and *Prunus africana* (Hook.) Kalkm. The collections site is at 2900 m/a.s.l. (BEKELE, 1994; TEKETAY & BEKELE, 1995).

During the expeditions 40 Tortricidae species were collected, 15 species of which are new to science. The new genus *Thiopeia* is described, and *Syntozyga alatheta* (Razowski & Trematerra, 2010) is a comb. n. Females of *Procrica ophiograpta* (Meyrick, 1933), *Lobesia semosa* Diakonoff, 1992, *Eccopsis brunneopostica* Razowski & Trematerra, 2010, and *Parabactra addisalema* Razowski & Trematerra, 2018 are also described. Twenty-three species were repeatedly found: *Procrica ophiograpta* (Meyrick 1932); *Lozotaenia sciarrettae* Razowski & Trematerra, 2010; *Lozotaenia karchana* Razowski & Trematerra, 2010; *Metamesia physetoma* (Meyrick, 1932); *Metamesia episema* Diakonoff, 1960; *Metamesia designata* (Meyrick, 1921); *Lobesia semosa* Diakonoff, 1992; *Lobesia talyana* Razowski & Trematerra, 2012; *Eccopsis wahlbergiana* Zeller, 1852; *Eccopsis brunneopostica* Razowski & Trematerra, 2010; *Pareccopsis addis* Agassiz & Aarvik, 2014; *Afroploce karsholti* Aarvik, 2004; *Aterpia niphoclasma* Diakonoff 1992; *Bactra helgei* Aarvik, 2008; *Parabactra addisalema* Razowski & Trematerra, 2010; *Syntozyga alatheta* (Razowski & Trematerra, 2010); *Endothenia ethiopica* Razowski & Trematerra, 2010; *Endothenia albapex* Razowski & Trematerra, 2010; *Epinotia latiloba* Razowski & Trematerra, 2010; *Gypsonoma paradelta* (Meyrick, 1925); *Eucosmocydia zegiana* Razowski & Trematerra, 2018; *Cydia tytthaspis* Razowski & Trematerra, 2010; *Thaumatotibia batrachopa* (Meyrick, 1908).

Material and methods

Adults were collected during the night using UV-LED light traps and from a white sheet placed behind the same light. Genitalia were prepared using standard methods, the abdomen was macerated in 10% KOH and dissected under a stereoscopic microscope, the genitalia were separated and mounted in euparal on a glass slide. Adults and slides are housed in P. Trematerra Collection, Campobasso (Italy).

Systematic part

COCHYLINI

***Eugnosta amharana* Razowski & Trematerra, sp. n.** (Figure 7)

Material examined: Choke Mts, Holotype ♂, 2590 m, 16-V-2018 (GS 3138PT); paratypes: Choke Mts, 2510 m, 1 ♂, 7-IV-2018 (GS 3163PT). 2590 m, 1 ♂, 21-IX-2017 (GS 3164PT).

Description: Male, wing span 18 mm. Head and thorax yellow. Forewing almost uniformly broad; costa weakly convex; termen straight, slightly oblique. Ground colour yellow, basal fourth of costa and base of dorsum suffused brown, remaining part of latter spotted brown, suffused brownish-grey, browner at tornus; concolous darker suffusion from before tornus to costal half of median fascia. Markings brown extending from mid-dorsum to beyond mid-costa, oblique from median cell to latter. Cilia damaged, remnants yellowish. Hindwing cream distinctly strigulated greyish brown; cilia damaged.

Male genitalia (Figure 32): Socii long, very slender; valva tapering terminad with costa slightly curved posteriorly; sacculus simple, tapering terminad; median part of transtilla broad, deeply concave apically; juxta small; aedeagus longer than valva with short ventral termination and broad, rounded coecum penis; cornuti, two long slender, capitate spines.

Female unknown.

Dignosis: *E. amharana* is related to *E. marginana* Aarvik, 2010 from Uganda but the socius of latter is short and the median part of transtilla without terminal incision.

Etymology: The name refers to the Amhara Region (Ethiopia).

ARCHIPINI

Procrica ophiograpta (Meyrick, 1933) (Figure 8)

Material examined: Amber, 2460 m, 1 ♂, 19-VIII-2017; 1 ♀, 19-VIII-2017 (GS 3139PT). Choke Mts, 2510 m, 1 ♂, 20-IX-2017. 2530 m, 1 ♂, 11-X-2017; 1 ♂, 15-XII-2017. 2590 m, 1 ♂, 23-VIII-2017; 2 ♂♂, 23-IX-2017; 3 ♂♂, 10-X-2017; 2 ♂♂, 16-V-2018; 1 ♀, 4-VII-2018. Delima, 2377 m, 1 ♂ and 1 ♀, 20-XII-2017. Wof-Washa, 2900 m, 3 ♂♂ and 1 ♀, 18-X-2017; 1 ♂, 19-X-2017; 1 ♂, 20-X-2017; 1 ♂, 14-IX-2017; 1 ♂, 15-IX-2017; 3 ♂♂, 16-IX-2017.

Description: Female wing span 24 mm. Facies identical with the male.

Female genitalia (Figure 33): Lateral arms of sterigma broad, triangular; anteostial sterigma cup-shaped, slightly tapering proximally; sclerite of antrum small; ductus bursae long; cestum absent; capitulum of signum large, blade long, slender.

Remarks: *P. ophiograpta* was recorded from the Harenna Forest, Ilubabor Zoone and the Suba Forest (RAZOWSKI & TREMATERRA, 2010 and 2012; RAZOWSKI *et al*., 2018).

***Procrica sinuata* Razowski & Trematerra, sp. n.** (Figure 9)

Material examined: Wof-Washa, Holotype ♂, 2900 m, 14-VIII-2017 (GS 3140PT); paratype, Wof-Washa, 2900 m, 1 ♂, 13-VIII-2017.

Description: Male, wing span 21 mm. Head and thorax yellow mixed brownish; labial palpus brownish. Forewing slightly expanding terminally; costa weakly convex to middle, then straight; apex pointed; termen slightly concave toward middle, moderately oblique. Ground colour pale brownish yellow, strigulated and dotted yellow-brown; markings darker than strigulation marked brown: remnants of basal blotch at dorsum, median fascia interrupted near middle; subapical blotch small. Cilia paler than ground colour. Hindwing yellowish, greyish at wing base, strigulated grey; cilia yellowsih cream.

Male genitalia (Figure 34): Uncus broad expanding postmedially, broadest at 2/3, tapering toward end; socius large, rounded terminally; gnathos short; valva rounded caudally; sacculus concave near base, with sharp free termination; transtilla slender; aedeagus narrowing postmedially.

Female unknown.

Diagnosis: *P. sinuata* is related to *P. parisii* Razowski & Trematerra, 2010 from Bale Mountains, RAZOWSKI & TREMATERRA (2010) illustrated this species but the male genitalia were originally mistakenly numbered (RAZOWSKI *et al.*, 2018). From *P. parisii* this species differs in colouration and the shape of the uncus.

Etymology: The name refers to sinuate termen of forewing.

Lozotaenia sciarettae Razowski & Trematerra, 2010

Material examined: Choke Mts, 2510 m, 3 ♂♂, 21-VIII-2017; 1 ♂ and 1 ♀, 20-IX-2017; 2 ♀♀, 14-X-2017; 1 ♀, 15-XI-2017. 2530 m, 1 ♀, 11-X-2017; 4 ♂♂, 16-XI-2017; 1 ♀, 19-V-2018. 2590 m, 2 ♂♂, 23-VIII-2017; 1 ♀, 21-IX-2017; 2 ♂♂ and 1 ♀, 23-IX-2017; 1 ♀, 10-X-2017; 4 ♂♂, 17-XI-2017; 2 ♂♂, 10-I-2018; 1 ♀, 16-V-2018. Delima, 2377 m, 3 ♂♂ and 1 ♀, 19-XI-2017; 1 ♀, 16-I-2018; 1 ♂, 17-I-2018. Wof-Washa, 2900 m, 3 ♂♂, 14-VIII-2017; 2 ♀♀, 14-IX-2017; 2 ♀♀, 15-IX-2017; 5 ♂♂ and 5 ♀♀, 16-IX-2017; 3 ♂♂ and 2 ♀♀, 18-X-2017; 4 ♂♂ and 5 ♀♀, 19-X-2017; 1 ♂ and 6 ♀♀, 20-X-2017.

Remarks: *L. sciarettae* was described from the Harenna Forest, then recorded from Oromia (RAZOWSKI & TREMATERRA, 2010; RAZOWSKI *et al*., 2018).

Lozotaenia karchana Razowski & Trematerra, 2010

Material examined: Choke Mts, 2510 m, 1 ♂, 7-IV-2018. 2530 m, 1 ♂, 22-IX-2017. 2590 m, 1 ♂, 20-X-2017; 1 ♂, 13-XII-2017; 1 ♂, 5-III-2018.

Remarks: This species is known from the Harenna Forest RAZOWSKI & TREMATERRA (2010) and the Suba Forest (RAZOWSKI *et al*., 2018).

Metamesia physetopa (Meyrick, 1932)

Material examined: Choke Mts, 2510: 1 ♂, 20-IX-2017; 1 ♂, 14-XII-2017; 1 ♀, 18-II-2018. 2590 m, 2 ♀♀, 21-IX-2017; 1 ♂, 14-XI-2017; 1 ♀, 13-XII-2017; 1 ♀, 16-V-2018. Wof-Washa, 2900 m, 1 ♀, 18-X-2017.

Remarks: Recorded by RAZOWSKI & TREMATERRA (2010) from the Harenna Forest.

Metamesia episema Diakonoff, 1960

Material examined: Choke Mts, 2510: 1 ♂, 20-IX-2017. 2530 m, 1 ♂, 16-XI-2017. 2590 m, 1 ♂, 23-VIII-2017; 2 ♂♂, 21-IX-2017; 1 ♂, 10-X-2017. Delima, 2377 m, 2 ♂♂, 18-XI-2017. Wof-Washa, 2900 m, 1 ♂, 14-VIII-2017.

Remarks: Recorded in the Harenna Forest (RAZOWSKI & TREMATERRA, 2010).

Metamesia designata (Meyrick, 1921)

Material examined: Bradi, 2182 m, 1 ♂, 13-VI-2018; 1 ♂, 14-VI-2018. Choke Mts, 2510 m, 2 ♂♂, 21-VIII-2017; 1 ♂, 20-IX-2017; 1 ♂, 7-IV-2018. 2530 m, 1 ♂, 20-VIII-2017. 2590 m, 1 ♂, 23-VIII-2017; 1 ♂, 21-IX-2017. Delima, 2377 m, 1 ♂, 19-XII-2017; 2 ♂♂, 20-XII-2017; 1 ♂, 16-I-2018; 2 ♂♂, 17-I-2018. Wof-Washa, 2900 m, 3 ♂♂, 18-X-2017; 7 ♂♂ and 1 ♀, 19-X-2017; 3 ♂♂ and 1 ♀, 20-X-2017.

Remarks: This species was described from South Africa, RAZOWSKI & KRÜGER (2007) illustrated the type. Our specimes differs from the holotype of *M. designata* in the colouration of the forewing which in letter is yellow spotted black.

Metamesia flava **Razowski & Trematerra, sp. n.** (Figure 10)

Material examined: Choke Mts, Holotype ♂, 2590 m, 23-VIII-2017 (GS 3141PT); paratypes, Choke Mts, 2510 m, 1 ♂, 21-VIII-2017; 1 ♂, 14-X-2017 (GS 3168PT). 2530 m, 1 ♂, 20-VIII-2017; 1 ♂, 16-XI-2017 (GS 3165PT). Delima, 2377 m, 1 ♂, 18-XI-2017 (GS 3166PT). Wof-Washa, 2900 m, 1 ♂, 15-IX-2017 (GS 3169PT); 1 ♂, 19-X-2017 (GS 3167PT); 3 ♂♂, 20-X-2017.

Description: Male, wing span 11 mm. Head and thorax brownish yellow; front yellowish; labial palpus yellowish. Forewing expanding terminad; costa almost uniformly curved; termen straight, oblique. Wing yellow, basal part of costa brown. Cilia gray-yellowish slightly paler than wing. Hindwing cream with light brown venation, distal line clearer; cilia light yellow.

Male genitalia (Figure 35): Uncus broad, bilobed terminally; socii reduced; valva elongate subtriangular; sacculus slightly slender in distal part; lateral parts of transtilla thorny, median part slender; aedeagus uniformly elongate; coecum penis moderate; cornuti long.

Female unknown.

Diagnosis: *M. flava*, in facies is similar to *M. incepta* (Meyrick, 1912) but differs from it by a lack of black forewing dots on a dark yellow ground colour. The male genitalia are similar to those of *M. designata* (Meyrick, 1912) but distal lobes of uncus slenderer. The forewing markings are in form of brown remnants of the typical *Metamesia* pattern. The two mentioned species are South African (RAZOWSKI & KRÜGER, 2007).

Etymology: The name *flava* refers to the yellow uniform wing colour.

Clepsis paragongyla **Razowski & Trematerra, sp. n.** (Figure 11)

Material examined: Choke Mts, Holotype ♂, 2590 m, 19-VIII-2017 (GS 3142PT); paratypes, Amber, 2460 m, 1 ♀, 19-VIII-2017 (GS 3143PT). Wof-Washa, 2900 m, 1 ♂, 15-IX-2017 (GS 3170PT).

Additional material: Bradi, 1830 m, 1 ♂ and 1 ♀, 23-V-2018; 2 ♂♂, 13-VI-2018; 4 ♂♂ and 3 ♀♀, 14-VI-2018; 3 ♂♂ and 1 ♀, 15-VI-2018. Choke Mts, 2510 m, 1 ♂, 21-VIII-2017; 4 ♂♂, 14-X-2017; 2 ♂♂, 18-II-2018; 1 ♂, 7-III-2018; 2 ♂♂ and 1 ♀, 7-IV-2018; 7 ♂♂ and 2 ♀♀, 17-V-2018; 5 ♂♂ and 1 ♀, 9-VI-2018; 1 ♂, 5-VII-2018. 2530 m, 4 ♂♂ and 1 ♀, 20-VIII-2017; 22 ♂♂ and 4 ♀♀, 22-IX-

2017; 11 ♂♂ and 1 ♀, 11-X-2017; 1 ♂, 16-XI-2017. 2590 m, 2 ♂♂ and 1 ♀, 19-VIII-2017; 3 ♂♂ and 1 ♀, 23-VIII-2017; 2 ♂♂ and 1 ♀, 21-IX-2017; 2 ♂♂, 10-X-2017; 2 ♂♂, 13-X-2017; 1 ♂, 14-XI-2017; 1 ♂, 16-II-2018; 2 ♂♂, 6-IV-2018; 22 ♂♂, 16-V-2018; 10 ♂♂, 8-VI-2018; 3 ♂♂, 4-VII-2018. Delima, 2377 m, 1 ♂, 19-XI-2017; 1 ♂, 19-XII-2017; 2 ♂♂, 20-XII-2017; 1 ♂ and 2 ♀♀, 15-I-2018; 3 ♂♂, 16-I-2018; 5 ♂♂, 17-I-2018; 2 ♂♂, 21-II-2018; 1 ♂, 23-II-2018. Wof-Washa, 2900 m, 1 ♂, 14-IX-2017; 3 ♂♂ and 3 ♀♀, 15-IX-2017; 14 ♂♂, 16-IX-2017; 5 ♂♂, 18-X-2017; 1 ♂, 19-X-2017; 2 ♂♂, 20-X-2017.

Description: Male, wing span 16 mm. Head orange yellow, labial palpus orange yellow; thorax brown. Forewing not expanding terminad; costa weakly convex; termen slightly oblique, tolerably straight. Ground colour brownish orange strongly suffused rust brown, yellow along termen. Markings dark rust brown, diffuse, consisting of median fascia and subapical blotch. Cilia orange yellow. Hindwing brownish grey, in apical part yellow; cilia grey and yellowish, respectively.

Female similar to male with paler, yellower ground colour covering broad terminal area; the marking are more distinct than in the male. Hindwing grey-brown, yellowish apical area weak.

Male genitalia (Figure 36): Uncus broad, expanding towards the top, rounded apically; socii reduced; gnathos arm slender, terminal plate long; valva mostly broad, slightly tapering terminad, rounded caudally; sacculus slender, bent at mid-valva then directed dorsal; labides strong, bent, expanding terminally; juxta small; aedeagus long, slender, arched postbasally, armed with dorsoposterior process, ventroterminal part slender. Arms of vinculum large, broad in median part, tapering terminally.

Female genitalia (Figure 37): Distal part of papilla analis very short, proximal part tapering apically; sterigma fairly short with broad, rounded proximal parts; antrum sclerite long, colliculum short, membranous; ductus bursae long, slender; capitulum of signum reduced, blade serrate.

Diagnosis: *C. paragongyla* is related to *C. gongyla* Razowski, 2014 from Congo but is distinct by having the slender markings, broad uncus, short aedeagus, short processes of transtilla, and short arms of vinculum.

Etymology: The name refers to similarity with *C. gongyla* Razowski.

Epichoristodes fekensae **Razowski & Trematerra, sp. n.** (Figures 12-13)

Material examined: Choke Mts, Holotype ♂, 2590 m, 21-IX-2017 (GS 3144PT); paratypes, Choke Mts, 2510 m, 1 ♂, 21-VIII-2017 (GS 3171PT); 7 ♂♂, 21-VIII-2017. 2590 m, 1 ♀, 21-IX-2017 (GS 3145PT).

Additional material: Choke Mts, 2510 m, 8 ♂♂, 20-IX-2017; 2 ♂♂, 14-X-2017; 1 ♂, 15-XI-2017; 1 ♂, 14-XII-2017; 4 ♂♂, 18-II-2018; 1 ♀, 5-III-2018; 4 ♂♂, 7-III-2018; 1 ♂ and 1 ♀, 7-IV-2018. 2530 m, 1 ♂, 20-VIII-2017; 11 ♂♂, 22-IX-2017; 9 ♂♂ and 2 ♀♀, 11-X-2017; 6 ♂♂, 16-XI-2017. 2590 m, 1 ♂, 19-VIII-2017; 2 ♂♂ and 1 ♀, 23-VIII-2017; 7 ♂♂, 21-IX-2017; 1 ♂, 23-IX-2017; 1 ♂, 13-X-2017; 4 ♂♂, 17-XI-2017; 1 ♂, 12-XII-2017; 8 ♂♂, 8-VI-2018; 2 ♂♂, 4-VII-2018. Delima, 2377 m, 1 ♂, 18-XI-2017; 1 ♂, 20-XII-2017; 1 ♂, 18-XI-2017. Wof-Washa, 2900 m, 2 ♂♂, 19-X-2017; 1 ♂, 20-X-2017; 6 ♂♂ and 1 ♀, 15-IX-2017; 11 ♂♂, 16-IX-2017.

Description: Male, wing span 19 mm. Head and thorax yellow brownish; labial palpus brownish. Forewing not expanding terminad; costa almost uniformly broad; termen straight, oblique. Wing yellow, basal part of costa brown. Numerous black dots over the wing except for costa and dorsum, agglomerate at costal half of termen. Cilia slightly paler than wing. Hindwing grey, yellowish in apical part; cilia yellowish.

Variation: Paratype forewing weakly dotted; larger spot at end of median cell.

Female, wing span 20 mm. Similar to male with black dots over the wing except for costa and basal part, agglomerate at subterminal bloth.

Male genitalia (Figure 38): Uncus slender, long, pointed apically; socii broad, rounded apically; gnathos arms slender with proportionally short terminal plate; valva ovate, membranous dorsally, sacculus long, slender armed with small ventropostbasal thorn and weak median and postmedian

serration; transtilla slender, interrupted medially with broad lateral parts expanding and thorny dorsally; juxta small; vinculum arms slender; aedeagus broad, tapering in distal half, with pointed ventral termination and subterminal, ventral thorn.

Female genitalia (Figure 39): Papilla analis and apophyses reduced; sterigma with lateral sclerotized rounded corners; proximal part of antrum weakly sclerotized; ductus bursae large, without sclerites; corpus bursae elongate; signum a rounded sclerite without blade.

Diagnosis: *E. fekensae* is similar to *E. imbriculata* (Meyrick, 1936) from Zaire but *E. fekensae* has a weakly convex base of the forewing costa and slenderer, subterminally thorny aedeagus; from *E. intensa* (Meyrick, 1921), from Natal, South Africa this species differs also by the shape of the aedeagus, sacculus and uncus.

Etymology: The name refers to the collector Dr Tesfu Fekensa Tujuba, Ethiopian Biodiversity Institute, Addis Ababa, Ethiopia.

Thiopeia Razowski & Trematerra, gen. n.

Type species: *Thiopeia chokeana* Razowski & Trematerra, sp. n.

Description: Venation of wings (Figure 14), in forewing all veins separate. R_5 to termen beneath apex. In hindwing Rs-M_1 and M_2-M_3 stalked basally.

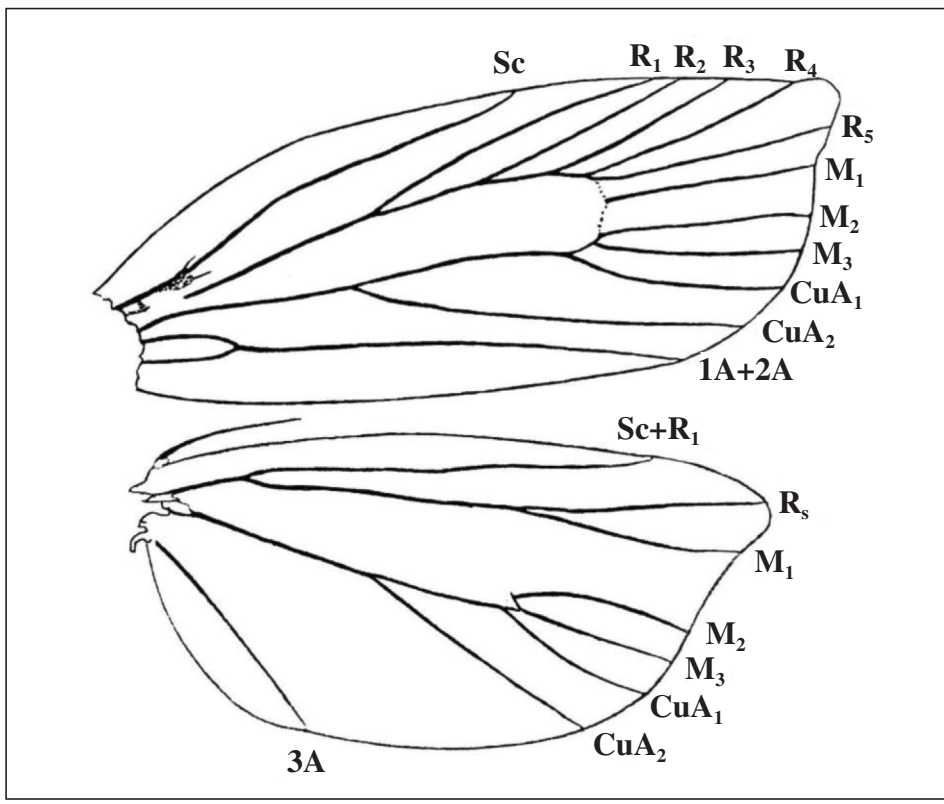

Figure 14.– *Thiopeia chokeana* Razowski & Trematerra, sp. n.: venation of wings.

Male genitalia (Figure 40): Uncus club-shaped; socius large; gnathos moderately large with fairly short arms; vinculum arms slender; valva broad basally distinctly tapering terminad; costa of valva completely reduced; sacculus longer than valva with small free termination and densely setose posterior half of ventral edge; transtilla constricted medially; juxta small, simple; aedeagus moderately large, bent, with three dorsoterminal thorns and sharp ventral termination; cornuti missing; caulis minute. Subgenital sternite large, strongly sclerotized with pair of lateral, rounded proximal lobes.

Female genitalia (Figure 41): Papilla analis slender; apophyses thin, apophyses anteriores twice longer than apophyses posteriores; sterigma short with large, triangular, lateroproximal lobes; sclerite of antrum large, incised posteriorly, tapering proximally; ductus bursae broad; corpus bursae proportionally slender; signum a small plate with short blade.

Diagnosis: *Thiopeia* is related and in male genitalia similar to *Choristoneura* Lederer, 1859 and *Mabilleodes* Diakonoff, 1960, but differs from the former by a very small caulis, the setose sacculus, presence of sterigma lobes, broad ductus bursae, absence of cestum, minute blade of signum and large, strongly sclerotized subgenital sternite. It is also similar to the Madagascan *Cornusaccula* Diakonoff, 1968 but this genus haracterizes by short sacculus armed with long setae.

Etymology: The generic name is an anagram of the country name Ethiopia, from which the type-species of the genus comes.

***Thiopeia chokeana* Razowski & Trematerra, sp. n.** (Figures 15-16)

Material examined: Choke Mts, Holotype ♂, 2510 m, 21-VIII-2017 (GS 3146PT); paratypes, Choke Mts, 2530 m, 1 ♀, 20-VIII-2017 (GS 3147PT). 2590 m, 1 ♂, 23-VIII-2017. Wof-Washa, 2900 m, 1 ♀, 16-IX-2017 (GS 3172PT).

Additional material: Bradi, 2182 m, 1 ♂ and 2 ♀♀, 14-VI-2018. Choke Mts, 2510 m, 1 ♀, 21-VIII-2017; 1 ♂, 20-IX-2017. 2530 m, 2 ♂♂, 22-IX-2017; 1 ♂, 8-III-2018. 2590 m, 1 ♂, 21-IX-2017; 1 ♂, 5-III-2018. Delima, 2377 m, 1 ♀, 19-XII-2017; 2 ♂♂ and 2 ♀♀, 20-XII-2017; 2 ♀♀, 17-I-2018. Wof-Washa, 2900 m, 2 ♂♂, 15-IX-2017; 1 ♂, 18-X-2017; 1 ♂, 19-X-2017; 1 ♂, 20-X-2017.

Description: Male, wing span 19 mm. Head yellow cream, labial palpus yellow cream; thorax brownish. Forewing not expanding terminad, broadest submedially; costa convex basally; apex pointed; termen straight, slightly oblique. Ground colour yellow cream delicately strigulated brownish, mixed brown along costa and dorsum, slightly so terminally. Markings brownish with brown dots or strigulae: basal blotch ill-defined, median fascia interrupted near middle, atrophying at dorsum, with dark brown blotch before dorsum; subapical blotch elongate triangular reaching apex of wing; elongate mark at vein M_2 subterminally; cilia yellow. Hindwing greyish brown, yellowish at apex where sparsely spotted brownish; cilia yellowish.

Female, wing span 15-22 mm, similar to male but forewing ground colour much paler, venation in tornal area brownish, basal blotch ill-defined; median fascia brownish yellow, twice interrupted; brownish grey area of hindwing more or less reduced. In one example forewing markings are weakly developed while suffusions dark, distinct.

Male genitalia (Figure 40) and female genitalia (Figure 41) as described with the genus.

Diagnosis: *T. chokeana* is the only representative of the genus; it can be compared with *Tortrix diametrica* Meyrick, 1932 from Madagascar but the latter has a broad valva and a thorn from the end of the sacculus. From *Cornusaccula periopa* Diakonoff, 1960 this species differs chiefly by having a short sacculus and a simple aedeagus.

Etymology: The name refers to Choke territory where the species was collected.

OLETHREUTINI

Lobesia semosa Diakonoff, 1992 (Figure 17)

Material examined: Choke, 2510 m, 1 ♀, 20-IX-2017; 1 ♀, 18-II-2018. 2530 m, 1 ♂, 15-XII-2017. 2590 m, 1 ♂, 21-IX-2017. Delima, 2377 m, 1 ♀, 19-XI-2017 (GS 3148PT).

Description: Female genitalia (Figure 42). Sterigma a slender terminally tapering tube; subgenital sternite with slender posterior part; ductus bursae slender, long; two signa, unequally long bande weakly sclerotized.

Remarks: This species was already mentioned from Oromia (RAZOWSKI *et al.* 2018).

Lobesia talyana Razowski & Trematerra, 2012

Material examined: Choke Mts, 2510 m, 1 ♂, 5-VII-2018.

Remarks: *L. talyana* was described from Congo and also is known from Nigeria. RAZOWSKI & TREMATERRA (2012) recorded it from the Wellega Zone at the Didessa River.

Eccopsis wahlbergiana Zeller, 1852

Material examined: Choke Mts, 2590 m, 1 ♂, 5-III-2018.

Remarks: *E. wahlbergiana* is widely distributed in Tropical Africa, from South Africa to Saudi Arabia and Nigeria.

Eccopsis brunneopostica Razowski & Trematerra, 2010 (Figure 18)

Material examined: Choke Mts, 2510 m, 1 ♀, 21-VIII-2017 (GS 3149PT).

Description: Female wing span 18 mm. Facies similar to the male, more pale.

Female genitalia (Figure 43): Sterigma sclerotized, collar-shaped; distal part of antrum broad, posterior edge incised; sclerite present in posterior half of ductus bursae. Antrum sclerite strongly sclerotized followed by distinct membranous broadening; signum with large median process accompanied by a few small thorns.

Pareccopsis addis Agassiz & Aarvik, 2014

Material examined: Choke Mts, 2510 m, 1 ♂, 14-X-2017. 2530 m, 1 ♂ and 1 ♀, 22-IX-2017; 1 ♀, 11-X-2017; 1 ♂, 16-XI-2017. 2590 m, 1 ♀, 21-IX-2017; 1 ♂, 23-IX-2017; 1 ♀, 17-XI-2017; 1 ♀, 4-VII-2018. Wof-Washa, 2900 m, 1 ♂, 14-IX-2017; 1 ♂, 15-IX-2017; 1 ♀, 16-IX-2017; 3 ♂♂, 18-X-2017; 1 ♀, 20-X-2017.

Remarks: *P. addis* was described from Addis Ababa.

Afroploce karsholti Aarvik, 2004

Material examined: Choke Mts, 2590 m, 1 ♂, 10-X-2017.

Remarks: *A. karsholti* was described from Tanzania.

Aterpia niphoclasma Diakonoff, 1992

Material examined: Choke Mts, 2590 m, 2 ♂♂, 23-IX-2017.

Remarks: *A. niphoclasma* was described from Madagascar.

BACTRINI

Bactra helgei Aarvik, 2008

Material examined: Choke Mts, 2510 m, 1 ♂, 17-V-2018. Bradi, 2182 m, 1 ♂, 14-VI-2018.

Remarks: *B. helgei* was described from Tanzania.

Parabactra addisalema Razowski & Trematerra, 2018 (Figure 19)

Material examined: Choke Mts, 2590 m, 1 ♂, 13-X-2017. Delima, 2377 m, 1 ♀, 17-I-2018 (GS 3150PT).

Description: Female, wing span 17 mm. The specimen is damaged thus the wing markings are impossible to be described accurately.

Female genitalia (Figure 44): Sterigma and colliculum weakly sclerotized; colliculum funnel

like; ductus bursae elongate and enlarged proximally; corpus bursae weakly differentiated; signum thorny, fairly large.

Remarks: *P. addisalema* was described from the Ambo Park, Addis Alema in Oromia from one male (RAZOWSKI *et al.*, 2018).

Syntozyga alatheta (Razowski & Trematerra, 2010), **comb. n.** (Figure 20)

Material examined: Wof-Washa, 2900 m, 2 ♂♂, 14-VIII-2017.

Remarks: This species was described from the Harenna Forest, Bale Mountains. It was collected in late September on the altitude of 2350 m. We illustrate the present specimen as it is better preserved than the holotype. *S. alatheta* was described in *Bubonoxena* Diakonoff, 1968 which proved a synonym of *Syntozyga* Lower, 1901 and placed in Olethreutini.

Endothenia ethiopica Razowski & Trematerra, 2010

Material examined: Amber, 2460 m, 1 ♂, 19-VIII-2017. Bradi, 2182 m, 1 ♂, 23-V-2018; 1 ♂, 4-VI-2018; 1 ♂, 14-VI-2018. Choke Mts, 2510 m, 3 ♂♂, 21-VIII-2017; 2 ♂♂, 20-IX-2017; 4 ♂♂, 14-X-2017; 1 ♂, 15-XI-2017; 1 ♂ and 1 ♀, 18-II-2018; 1 ♂, 7-IV-2018; 1 ♂, 17-V-2018; 1 ♂, 9-VI-2018; 1 ♂ and 1 ♀, 5-VII-2018. 2530 m, 1 ♂, 20-VIII-2017; 1 ♂, 22-IX-2017; 3 ♂♂, 16-XI-2017. 2590 m, 1 ♂, 21-IX-2017; 2 ♂♂ and 1 ♀, 23-IX-2017; 2 ♂♂, 10-X-2017; 1 ♂, 13-XII-2017; 1 ♀, 10-I-2018; 1 ♂, 16-V-2018; 1 ♂, 4-VII-2018. Delima: 1 ♂, 2377 m, 18-XII-2017; 1 ♂, 21-II-2018; 2 ♂♂, 22-II-2018; 1 ♂, 23-II-2018. Wof-Washa, 2900 m, 2 ♂♂ and 1 ♀, 14-IX-2017; 4 ♂♂, 15-IX-2017; 11 ♂♂ and 1 ♀, 16-IX-2017; 1 ♂, 18-X-2017; 5 ♂♂, 19-X-2017; 6 ♂♂, 20-X-2017.

Remarks: *E. ethiopica* was described from the Harenna Forest, Bale Mts and then recorded from Amhara (RAZOWSKI *et al.,* 2018).

Endothenia albapex Razowski & Trematerra, 2010

Material examined: Choke Mts, 2510 m, 2 ♂♂, 14-X-2017; 1 ♀, 15-XI-2017; 4 ♂♂ and 1 ♀, 18-II-2018; 1 ♂, 7-IV-2018; 1 ♂, 17-V-2018; 2 ♂♂, 5-VII-2018. 2590 m, 1 ♂, 12-XII-2017; 1 ♂, 13-XII-2017; 1 ♂, 11-I-2018. Delima, 2377 m, 1 ♂, 18-XI-2017; 1 ♂, 19-XI-2017. Wof-Washa, 2900 m, 1 ♂, 20-X-2017; 1 ♀, 18-X-2017.

Remarks: *E. albapex* was described from the Harenna Forest, Bale Mts from an altitude of 2170 m.

EUCOSMINI

Thiodia africana Razowski & Trematerra, sp. n. (Figure 21)

Material examined: Choke Mts, Holotype ♂, 2590 m, 10-X-2017 (GS 3151PT); paratypes, Choke Mts, 2590 m, 1 ♀, 23-VIII-2017 (GS 3173PT); 1 ♂, 10-X-2017; 1 ♀, 12-XII-2017 (GS 3177PT); 1 ♀, 13-XII-20172 (GS 3175PT); 1 ♀, 13-XII-2017 (GS 3176PT); 2 ♀♀, 13-XII-2017. 2510 m, 2 ♂♂, 14-X-2017; 1 ♀, 15-XI-2017 (GS 3174PT); 1 ♀, 18-II-2018 (GS 3178PT); 1 ♀, 18-II-2018 (GS 3179PT).

Additional material: Amber, 2460 m, 1 ♂, 19-VIII-2017.

Description: Male, wing span 15 mm. Head and thorax brown, also front and labial palpus. Forewing not exanding terminad, costa weakly convex; apex elongate, sharp; termen moderately olique, slightly sinuate beneath apex. Ground colour pale brownish, strongly suffused brown, costal strigulae innumerous, brownish cream. Markings brown, diffuse, median fascia preserved at costa. Cilia rubbed, remnants creamish. Hindwing brown, cilia similar.

Variation: Female forewing span 12-13 mm., apex somewhat longer and termen more sinuate than in male. Forewing almost unicolorous dark brown, hindwing paler.

Male genitalia (Figure 45): Uncus well sclerotized, broad basally, slightly expanding terminally; socii moderately broad, drooping, broadest medially; median part of gnathos preserved; valva slightly

tapering towards middle; cucullus small, oval; sacculus slender, concave near middle, followed by small, spined convexity and ventropostmedian spined area; aedeagus slender, somewhat longer than uncus.

Female genitalia (Figure 46): Ovipositor short; papillae anales elongate; sterigma moderately long, incised in middle posteriorly, situated in deep incision of posterior part of subgenital sternite, followed by a pair of sublateral convexities; anteostial sterigma well developed; ostium bursae large; ductus bursae slender; cingulum long, less sclerotized; signum an elongate rib.

Diagnosis: *T. africana* is distinct by its genitalia; in male genitalia it resembles the Palaearctic *T. irinae* Budashkin, 1990 but *T. irinae* has small, slender uncus and subdorsal row of spines in the disc of the valva. In female genitalia, the sterigma of *T. africana* resembles that of another Palaearctic species, *T. couleruana* (Duponchel, 1834) but the latter has an elongate, telescopic ovipositor and a rudimentary signum and, as *T. irinae*, white forewing ground colour.

Etymology: The name refers to Africa.

Epinotia latiloba Razowski & Trematerra, 2010

Material examined: Bradi, 2182 m, 1 ♂, 22-V-2018; 2 ♂♂, 14-VI-2018. Choke Mts, 2510 m, 1 ♂, 21-VIII-2017; 1 ♂, 20-IX-2017; 1 ♂, 18-II-2018; 7 ♂♂, 7-IV-2018; 1 ♂, 17-V-2018; 2 ♂♂, 5-VII-2018. 2530 m, 7 ♂♂, 22-IX-2017. 2590 m, 1 ♂, 21-IX-2017; 3 ♂♂, 23-IX-2017; 1 ♂, 6-III-2018; 12 ♂♂, 16-V-2018; 1 ♂, 4-VII-2018. Delima, 2377 m, 1 ♂, 17-I-2018. Wof-Washa, 2900 m, 1 ♂, 12-VIII-2017; 2 ♂♂, 14-IX-2017; 2 ♂♂, 15-IX-2017; 11 ♂♂, 16-IX-2017; 2 ♂♂, 19-X-2017; 5 ♂♂, 20-X-2017.

Remarks: *E. latiloba* was described from the Harenna Forest, the Bale Mountains where it was collected in September at the altitude of 2350 m. The present specimens are taken in July and October at altitudes from 2182 m to 2900 m.

Megaherpystis wofwasha **Razowski & Trematerra, sp. n.** (Figure 22)

Material examined: Choke Mts, Holotype ♂, 2590 m, 23-VIII-2017 (GS 3153PT); paratypes, Choke Mts, 2510 m, 1 ♂, 7-IV-2018 (GS 3180PT); 2 ♂♂, 7-IV-2018. Wof-Washa, 2900 m, 1 ♂, 20-X-2017 (GS 3181PT); 1 ♂, 20-X-2017 (GS 3182PT); 3 ♂♂, 20-X-2017.

Description: Wing span 18 mm. Head and thorax brown. Forewing slightly expanding terminally; costa weakly, uniformly broad throughout; termen sinuate beneath apex. Ground colour cream brown in form of slender interfascia, suffused brown. Markings broad, diffuse, dark brown; costa and termen concolorous. White line from beneath apex to mid-termen. Cilia brown. Hindwing greyish brown, cilia brownish cream.

Male genitalia (Figure 47): Uncus short, mostly slender basally, expanding, bifid terminally; base of socius armed with a thorn, median part broad, tapering toward the tip; valva fairly slender, neck moderately long, ventral incision shallow; cucullus upcurved, convex caudally; patch of short spines extending from ventral lobe; aedeagus short, tapering terminad.

Female unknown.

Diagnosis: *M. wofwasha* differs from *M. maficana* (Razowski, 2015), *M. calliarma* (Meyrick, 1909), *M. nereidopa* (Meyrick, 1927) and some related species chiefly in the shapes of the uncus (the lateral lobes of the latter are small), socii and sacculus.

Etymology: The name refers to the locality of Wof-Washa were the new species was collected.

Megaherpystis valvalobata **Razowski & Trematerra, sp. n.** (Figure 23)

Material examined: Wof-Washa, Holotype ♂, 2900 m, 18-X-2017 (GS 3154PT); paratypes, Choke Mts, 2510: 1 ♂, 7-IV-2018 (GS 3183PT); 1 ♂, 7-IV-2018 (GS 3184PT); 1 ♂, 7-IV-2018 (GS 3185PT); 1 ♂, 7-IV-2018 (GS 3186PT). 2590 m, 1 ♂, 8-VI-2018 (GS 3187PT); 1 ♂, 8-VI-2018 (GS 3188PT). Wof-Washa, 2900 m, 1 ♂, 19-X-2017.

Description: Male, wing span 15 mm. Head yellow-brown, also palpus yellow-brown; thorax brown. Forewing not expanding terminad; costa slightly convex; termen moderately oblique, concave beneath apex. Ground colour brownish yellow with browner suffusions and dots; costal strigulae small, yellowish cream, divisions brown. Markings brown: basal blotch subdivided into diffuse parts with some dark brown strigulae and spots; median fascia marked brown medially; subapical blotch brown, also with brown marks. Cilia damaged, remnant brown and yellowish. Hindwing brown, paler basally; cilia similar.

Male genitalia (Figure 48): Uncus short, bifurcate in distal third; socius with broad, oval dorsal half and finger-like terminal part; valva broad with weak ventral incision; cucullus with rounded ventral lobe and large upwards curved dorsal lobe, convex caudally; sacculus slightly convex subterminally; medioterminal part of basal cavity slender; aedeagus fairly broad; cornuti long.

Female unknown.

Diagnosis: *M. valvalobata* is related to the South African (Natal) *M. calliarma* (Meyrick, 1909) and *M. nereidopa* (Meyrick, 1927) from Kenya differing from them chiefly in the shape of the cucullus.

Etymology: The name *valvalobata* refers to shape of valva.

***Cosmetra triangularis* Razowski & Trematerra, sp. n.** (Figures 24-25)

Material examined: Choke Mts, Holotype ♂, 2590 m, 21-IX-2017 (GS 3155PT); paratypes, Choke Mts, 2510 m, 1 ♂, 12-I-2018 (GS 3190PT); 1 ♀, 12-I-2018 (GS 3189PT); 1 ♀, 18-II-2018 (GS 3156PT); 2 ♀♀, 18-II-2018. 2590 m, 1 ♀, 16-II-2018.

Additional material: Choke Mts, 2510 m, 1 ♀, 14-XII-2017; 1 ♂, 12-I-2018; 1 ♂, 18-II-2018; 2 ♂♂ and 2 ♀♀, 7-III-2018. 2530 m, 1 ♂, 16-XI-2017. 2590 m, 1 ♂, 23-IX-2017; 2 ♂♂ and 1 ♀, 13-XII-2017; 1 ♂ and 1 ♀, 10-I-2018; 1 ♂, 4-VII-2018. Delima, 2377 m, 1 ♂, 18-XII-2017. Wof-Washa, 2900 m, 1 ♂, 19-X-2017; 3 ♂♂, 20-X-2017.

Description: Male, wing span 14 mm. Head and thorax brownish, front brownish, labial palpi brownish. Forewing weakly expanding terminad; costa weakly convex; termen slightly oblique, straight. Ground colour brownish cream with pale brownish suffusions and browner strigulation; costal strigulae creamish, divisions brown. Markings brown: costal remnant of median fascia small; dorsum to middle and tornal triangular blotch brown. Cilia (damaged) concolorous with ground colour, brown beneath apex. Hindwing pale brown, cilia slightly paler.

Male genitalia (Figure 49): Uncus short, triangular; socius long, arched, long hairy; valva slender, long; sacculus gently angulate postbasally, convex at middle, hairy from angle to before cucullus; latter small, convex caudally; aedeagus moderately long and broad.

Female genitalia (Figure 50): Sterigma and ostium vicinity convex medioposteriorly; sclerite of antrum large, triangularly tapering in proximal part; membranous part of ductus bursae short; two proportionally short sigma present.

Diagnosis: *C. triangularis* is similar and closely related to the South African *C. tumulata* (Meyrick, 1908) but differs from it in having a very short, subtriangular uncus, strongly curved, long socii, a convex caudal edge of the cucullus, and a long, slender valva. In *C. tumulata* the most importand differing character is a slender uncus. The female of this species has a longer sclerite antrum and a shorter subgenital sternite than *C. tumulata.*

Etymology: The name refers to the tornal triangular blotch of the forewings.

***Protancylis secundus* Razowski & Trematerra, sp. n.** (Figure 26)

Material examined: Choke Mts, Holotype ♂, 2510 m, 7-III-2018 (GS 3157PT).

Description: Male, wing span 10 mm. Head and thorax brownish, front cream, labial palpus cream with distal part brownish. Forewing slightly expading terminad; costa almost straight; apex pointed; termen somewhat oblique, gently concave beneath apex. Ground colour brownish, partly tinged whitish, suffuded brown. Markings rubbed, remnants dark brown in form of costal part of median fascia and submedian remnant of a blotch or dorsobasal marking. Cilia damaged. Hindwing dark brown, cilia paler.

Male genitalia (Figure 51): Tegumen slightly tapering terminad, rounded apically; socii broad, lateral, rounded terminaly; gnathos membranous; valva broad to middle with distinct, short neck and ventral concavity; sacculus angulate, marked by large group of dense hairs at the angle; cucullus elongate, slender; aedeagus short, broad; cornuti long.

Female unknown.

Diagnosis: *P. secundus* is closely related to *P. amseli* Diakonoff, 1983 from Saudi Arabia but *P. amseli* has slender forewing, distinctly oblique termen, edged white; in male genitalia a longer neck and shallow, ventral incision of valva, and short cucullus.

Remarks: *P. amseli,* the first species of the genus was described from the Asir Mountains, Saudi Arabia. Originally (DIAKONOFF, 1983b), it was compared to *Eucosma, Epiblema*, *Epinotia* and *Ancylis*. The female genitalia of *Protancylis* Diakonoff, 1983 are similar to *Epiblema* but the socii are typical of *Gypsonoma*

Etymology: The name means that this species is the second in the genus *Protancylis*.

Gypsonoma paradelta (Meyrick, 1925)

Material examined: Amber, 2460 m, 1 ♂, 19-VIII-2017. Choke Mts, 2590 m, 1 ♀, 19-VIII-2017; 1 ♂ and 1 ♀, 10-X-2017; 2 ♀♀, 10-I-2018. Wof-Washa, 2900 m, 1 ♂, 18-X-2017; 2 ♂♂, 20-X-2017.

Remarks: *G. paradelta* was recorded by RAZOWSKI *et al.* (2018) from the Suba Forest, Oromia, Ethiopia. Its synonym, *Eucosma picrodelta* Meyrick, 1932 was described from Djem-Djem Forest, Ethiopia.

GRAPHOLITNI

Eucosmocydia zegieana Razowski & Trematerra, 2018

Material examined: Choke Mts, 2530 m, 1 ♀, 22-IX-2017. 2590 m, 1 ♂, 21-IX-2017; 1 ♂, 23-IX-2017; 1 ♀, 13-X-2017. Wof-Washa, 2900 m, 1 ♀, 16-IX-2017.

Remarks: *E. zegieana* was described from Amhara, the Zegie Peninsula. *E. zegieana* differs from *E. pharangodes* (Meyrick, 1920) by having a slender, long cucullus and a slender, almost straight terminal part of aedeagus while in *E. pharangodes* the cucullus is broad, short, the terminal part of aedeagus is short. The ductus bursae of *E. pharangodes* is slender as is exactly figured by AGASSIZ & AARVIK (2014) while that of *E. zegieana* it is broad in the proximal third. In RAZOWSKI *et al*. (2018) the female (Figure 35) named *zegieana* may prove *E. pharangodes*.

Eucosmocydia pharangodes (Meyrick, 1920)

Material examined: Wof-Washa, 2900 m, 1 ♀, 16-IX-2017; 1 ♂, 18-X-2017; 2 ♀♀, 20-X-2017.

Remarks: For differences to *E. zegieana*, see the remarks of the latter.

Coniostola stereoma (Meyrick, 1912)

Material examined: Choke Mts, 2590 m, 1 ♂, 13-X-2017; 1 ♀, 17-XI-2017.

Remarks: *C. stereoma* was described from Pusa, Bengal in India. AGASSIZ & AARVIK (2014) recorded its distribution in Africa and Oriental Region.

Cydia tytthaspis Razowski & Trematerra, 2010

Material examined: Choke Mts, 2510 m, 1 ♂, 5-VII-2018.

Remarks: *C. tytthaspis* was described from the Bale Mountains from one male. The female remains unknown.

***Thylacandra delimana* Razowski & Trematerra, sp. n.** (Figures 27-28)

Material examined: Choke Mts, Holotype ♂, 2590 m, 10-I-2018 (GS 3158PT); paratype, Choke Mts, 2590 m, 1 ♀, 10-I-2018 (GS 3159PT).

Additional material: Choke Mts, 2510 m, 2 ♂♂, 14-X-2017; 41 ♂♂ and 1 ♀, 15-XI-2017; 29 ♂♂, 18-II-2018; 4 ♂♂, 7-III-2018. 2530 m, 2 ♂♂, 20-VIII-2017; 3 ♂♂, 16-XI-2017; 1 ♂, 10-VI-2018. 2590 m, 1 ♂, 20-IX-2017; 18 ♂♂, 21-IX-2017; 5 ♂♂, 22-IX-2017; 3 ♂♂, 13-X-2017; 1 ♂, 12-XII-2017; 1 ♂, 13-XII-2017; 1 ♂, 6-III-2018; 1 ♂, 8-III-2018. Delima, 2377 m, 6 ♂♂, 19-XI-2017; 1 ♂, 20-XI-2017; 2 ♂♂, 18-XII-2017; 1 ♂, 20-XII-2017; 1 ♂, 23-II-2018. Wof-Washa, 2900 m, 2 ♂♂, 14-IX-2017; 1 ♂, 15-IX-2017; 2 ♂♂, 16-IX-2017; 1 ♂, 15-IX-2017; 2 ♂♂, 16-IX-2017; 1 ♂, 18-X-2017; 1 ♂, 19-X-2017; 1 ♂, 20-X-2017.

Description: Male, wing span 19 mm, female 18 mm. Head rust brown, labial palpus cream with distal part brown; thorax brown, yellow-brown laterally. Forewing slender; costa hardy curved outwards, termen oblique, tolerably straight. Ground colour brownish yellow with brown suffusions and venation; costal strigulae absent; costa to before apex and a fascia from apex to end of median cell brown, the latter followed by paler suffusion. Cilia damaged. Hindwing brown, paler basally; remnants of cilia yellowish.

Male genitalia (Figure 52): Tegumen delicate with slender pedunculi; socii reduced to groups of long hairs; gnathos submembranous; valva almost uniformly broad; sacculus slender with small angle; neck broad, armed with large ventral extension near middle; cucullus short, with ventral angle; long seta at posterior base of latter; bristled area of cucullus small; aedeagus slender, tapering postmedially.

Female genitalia (Figure 53): Ovipositor and apophyses short; sterigma short, slightly convex posteriorly, distinctly so anteriorly; ductus bursae membranous; signum slender.

Diagnosis: *T. delimana* is related to *T. sycophyes* Diakonoff, 1970 from Madagascar and *Cryptophlebia hemon* Diakonoff, 1983 from the Comoro Islands but the mentioned species differ from *T. delimana* chiefly by having a broad forewings and elongate cuculli.

Etymology: The species is named after Delima, one of the type localities.

***Dracontogena bradiana* Razowski & Trematerra, sp. n.** (Figure 29)

Material examined: Bradi, Holotype ♂, 2182 m, 22-V-2018 (GS 3160PT).

Description: Male, wing span 17 mm. Head dark brown, front dark brown, labial palpus brown; thorax whitish with brown collar and posterior part yellowish. Foreing slightly expanding terminad; termen hardly concave beneath apex, indistinctly oblique. Ground colour along dorsum white forming two confluent blotches, otherwise blackish brown, costal strigulae white. Markings invisible. Cilia white from beneath apex to middle, otherwise blackish brown. Hindwing brown, paler basally; cilia brownish.

Male genitalia (Figure 54): Socii absent; proximal haf of valva fairly slender, slightly expanding posteriorly; neck small; cucullus large, broad, rounded caudally, oblique in dorsal third; aedeagus broad to middle, distinctly tapering toward the end, slender terminally.

Female unknown.

Diagnosis: *D. bradiana* should be similar to *D. sundi* Aarvik & Karisch, 2012 from Uganda and *D. metamorphica* (Meyrick, 1928) from the Sao Thome Island from which it differs by its slender forewing and dark coloured posterior half, slender posterior part of aedeagus, and a shallow ventral incision of the valva. From *D. sundi* this species differs in the brown, not pale, greyish hindwing, a shape of the cucullus, and in the number of cornuti which in *D. sundi* is ca 20 and in *D. bradiana* is ca 30.

Etymology: The name refers to the locality of Bradi where the new species was collected.

Thaumatotibia batrachopa (Meyrick, 1908)

Material examined: Choke Mts, 2590 m, 1 ♂, 17-II-2018; 1 ♂, 16-V-2018. Wof-Washa, 2900 m, 1 ♂, 18-X-2017.

Remarks: RAZOWSKI & TREMATERRA (2010) recorded this species from the Harenna Forest, the Bale Mountains.

***Thaumatotibia parimitans* Razowski & Trematerra, sp. n.** (Figure 30)

Material examined: Wof-Washa, Holotype ♂, 2900 m, 18-X-2017 (GS 3161PT); paratype, Choke Mts, 2530 m, 1 ♂, 8-III-2018 (GS 3152PT).

Description: Male wing span 21 mm. Head and thorax yellow-brown; palpi yellow browns. Forewing slightly expanding terminad; costa weakly bent; termen moderately oblique. Ground colour brownish yellow dotted and strigulated brown; costal strigulae yellowish cream, divisions brownish. Markings rubbed, ill-defined, brown; basal blotch and median fascia rudimentary; subterminal fascia slender. Cilia damaged. Hindwing brownish, in apical part more yellow; strigulation or spots brownish; cilia damaged.

Male genitalia (Figure 55): Top of tegumen rounded; socii absent; valva almost uniformly broad; neck atrophied, sacculus to beyond 1/3 of latter, straight; angle small; slender fold beneath end part of basal cavity; cucullus elongate, rounded caudally; row of spines from before mid-length of valva, ventrally; aedeagus broad with ventroterminal process, with minute dorsal thorn; nests of cornuti numerous.

Female unknown.

Diagnosis: In facies, *T. parimitans* is similar to *Cryptoschesis imitans* Diakonoff, 1988 from Madagascar but differs from it chiefly in having a short, broad aedeagus.

Etymology: The species is named after *C. imitans*.

***Thaumatotibia machakelana* Razowski & Trematerra, sp. n.** (Figure 31)

Material examined: Bradi, Holotype ♂, 2182 m, 14-VI-2018 (GS 3162PT); paratypes, Bradi, 2182 m, 2 ♂♂, 14-VI-2018. Delima, 2377 m, 1 ♂, 21-II-2018 (GS 3191PT).

Description: Male, wing span 14 mm. Head and proximal part of thorax orange cream, front orange; remaining parts of thorax brownish, palpi orange cream. Forewing expanding terminad; termen straight, moderately oblique. Ground colour creamish more or less suffused brownish and ferruginous, strigulated and reticulated brown. Markings: dorsobasal blotch edged rust brown followed by brown suffusion; median fascia rudimentary in costal part brownish; subterminal fascia indistinct parallelly edged, reaching posterior part of termen. Cilia brownish cream. Hindwing grey cream with brownish grey suffusions and similar cilia.

Male genitalia (Figure 56): Socii rudimentary; proximal half of vava uniformly broad, neck absent; sacculus straight; cucullus large with rounded ventral lobe, tapering apically; aedeagus moderately broad, slightly tapering terminally; cornuti fairly long.

Female unknown.

Diagnosis: In facies, *T. machakelana* is similar to *T. batrachopa* but differs from it by having an ill-defined subterminal fascia; in genitalia, it resembles *T. leucotreta* Meyrick, 1913 from which it differs chiefly by longer cucullus and ventroterminal part of the aedeagus. *T. machakelana* differs from the two mentioned species chiefly by having a thorn-like process of the neck of valva.

Etymology: The name refers to the territory of Machakel Woreda where the new species was collected.

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J. R.
Institute of Systematics and Evolution of Animals
Polish Academy of Sciences
Slawkowska, 17
PL-31-016 Kraków
POLONIA / *POLAND*
E-mail: Razowski@isez.pan.krakow.pl
https://orcid.org/0000-0002-2924-6624

M.C.,*P. T.
Department of Agricultural, Environmental and Food Sciences
University of Molise
Via de Sanctis
I-86100 Campobasso
ITALIA / *ITALY*
E-mail: colacci@unimol.it
https://orcid.org/0000-0002-9068-3049
*E-mail: trema@unimol.it
https://orcid.org/0000-0001-8584-0882

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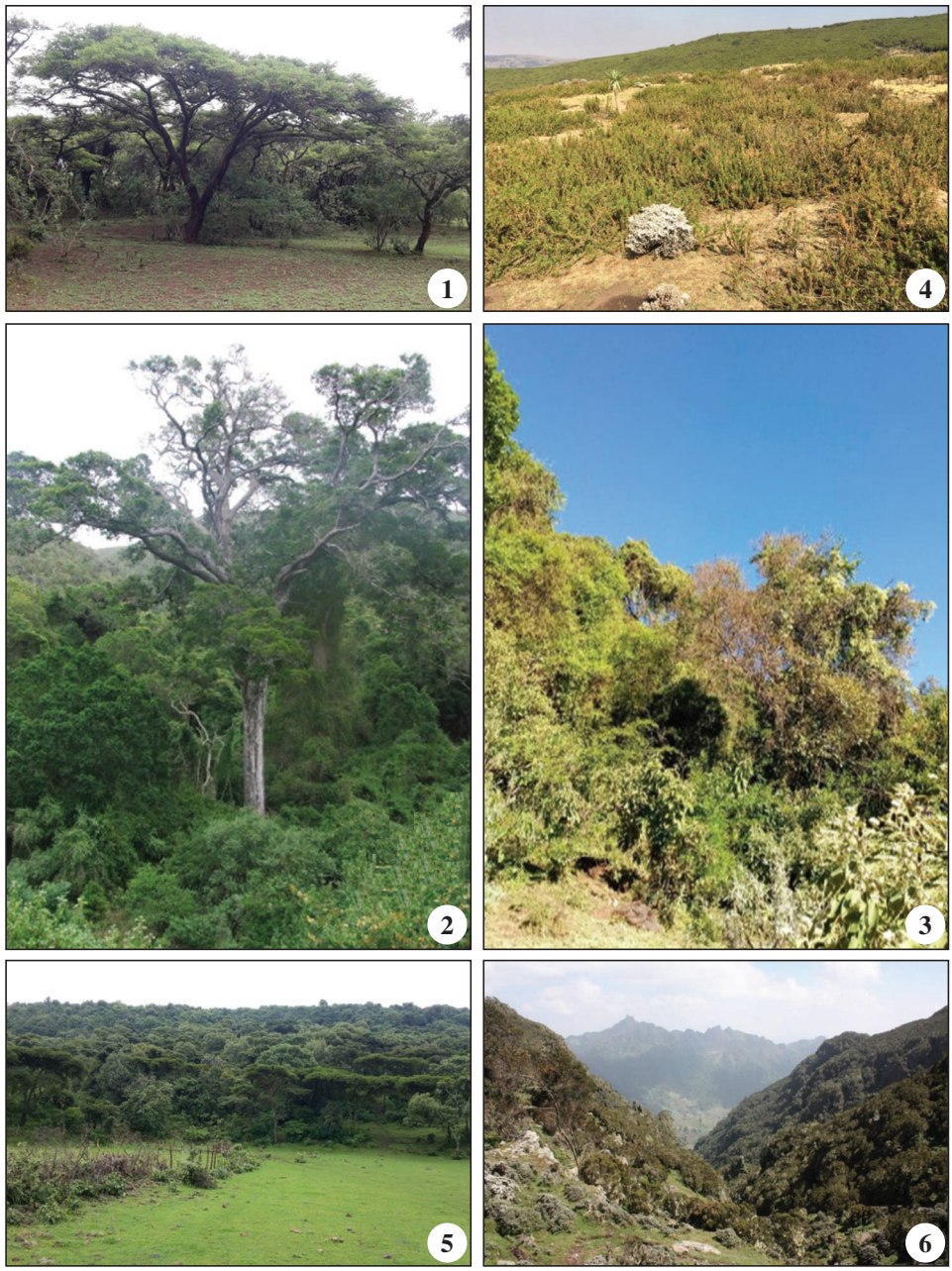

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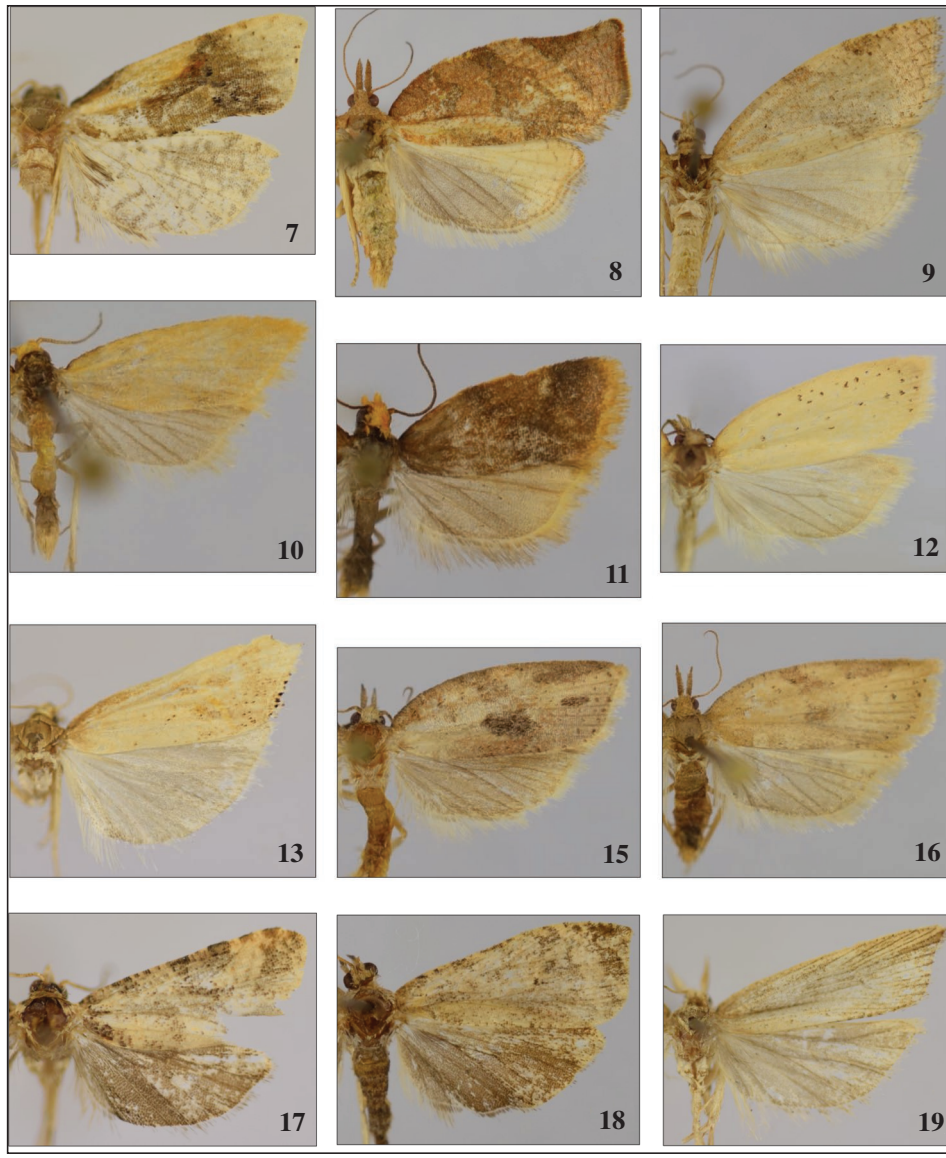

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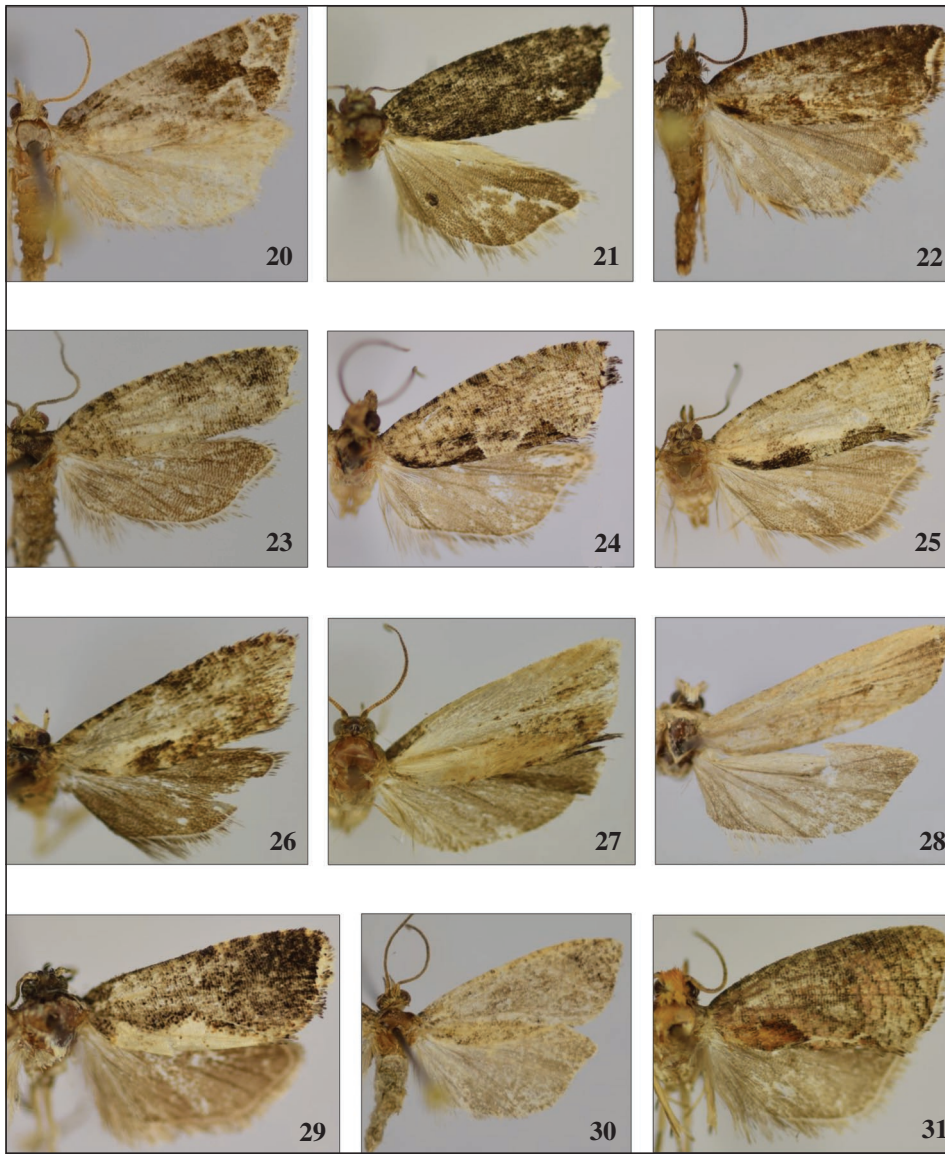

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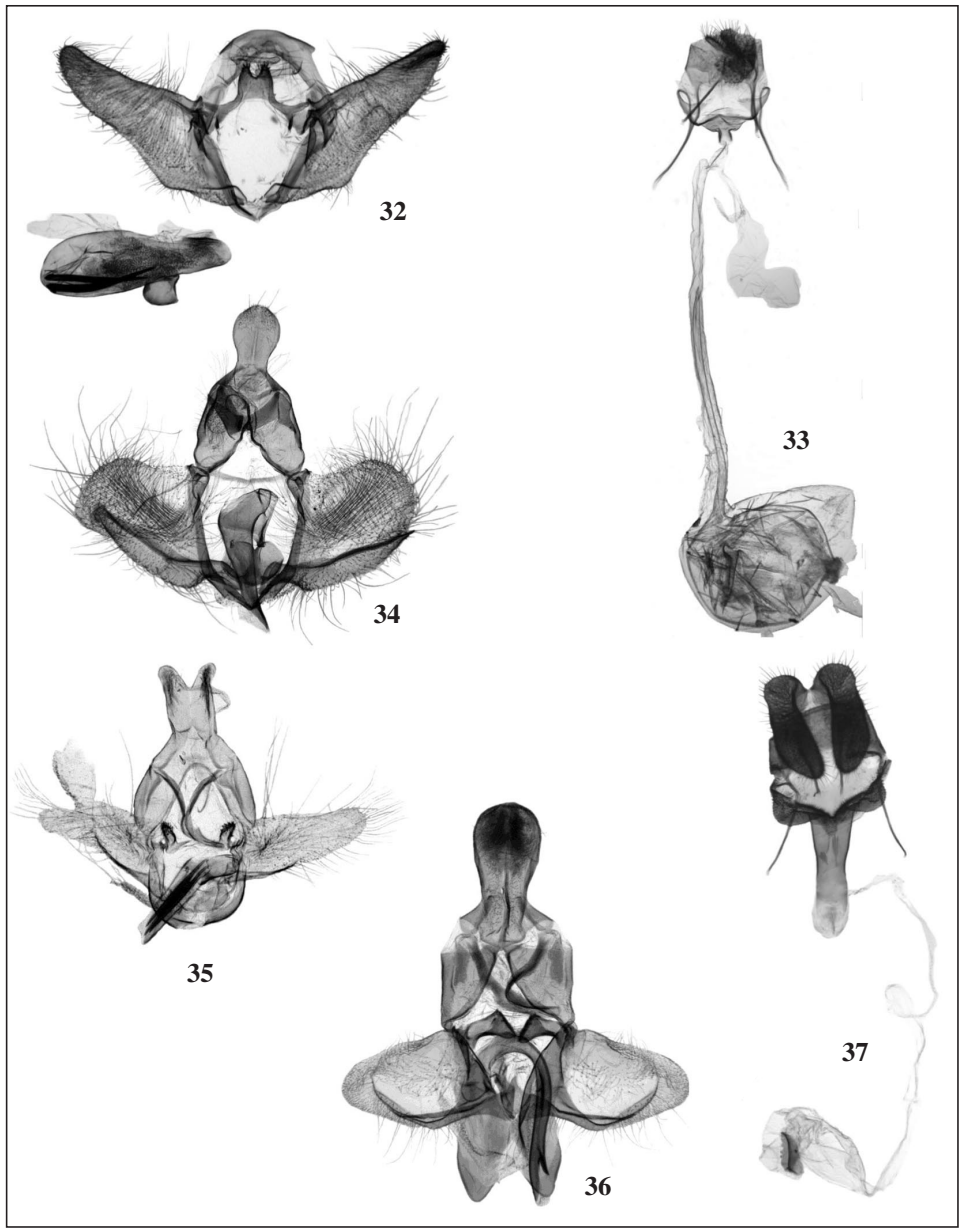

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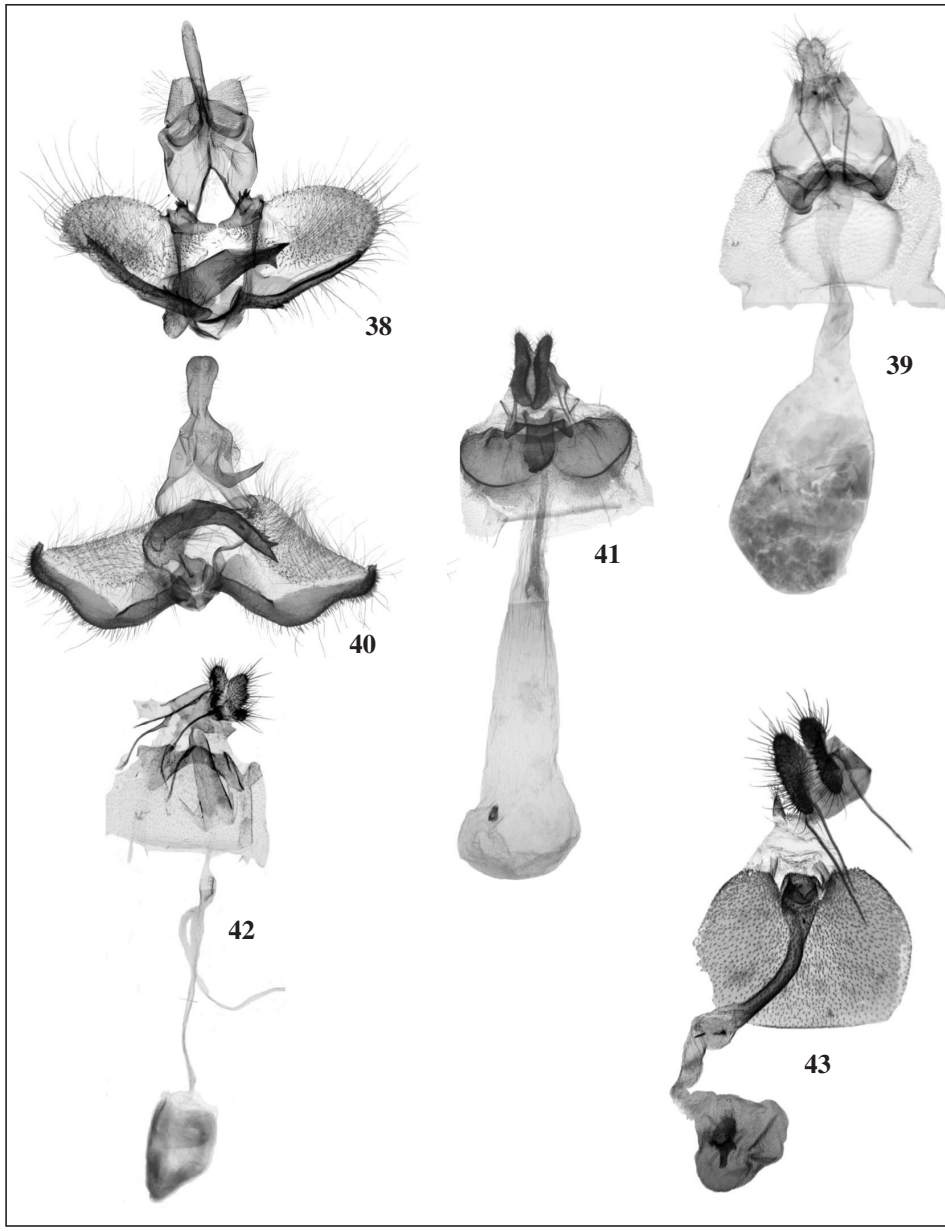

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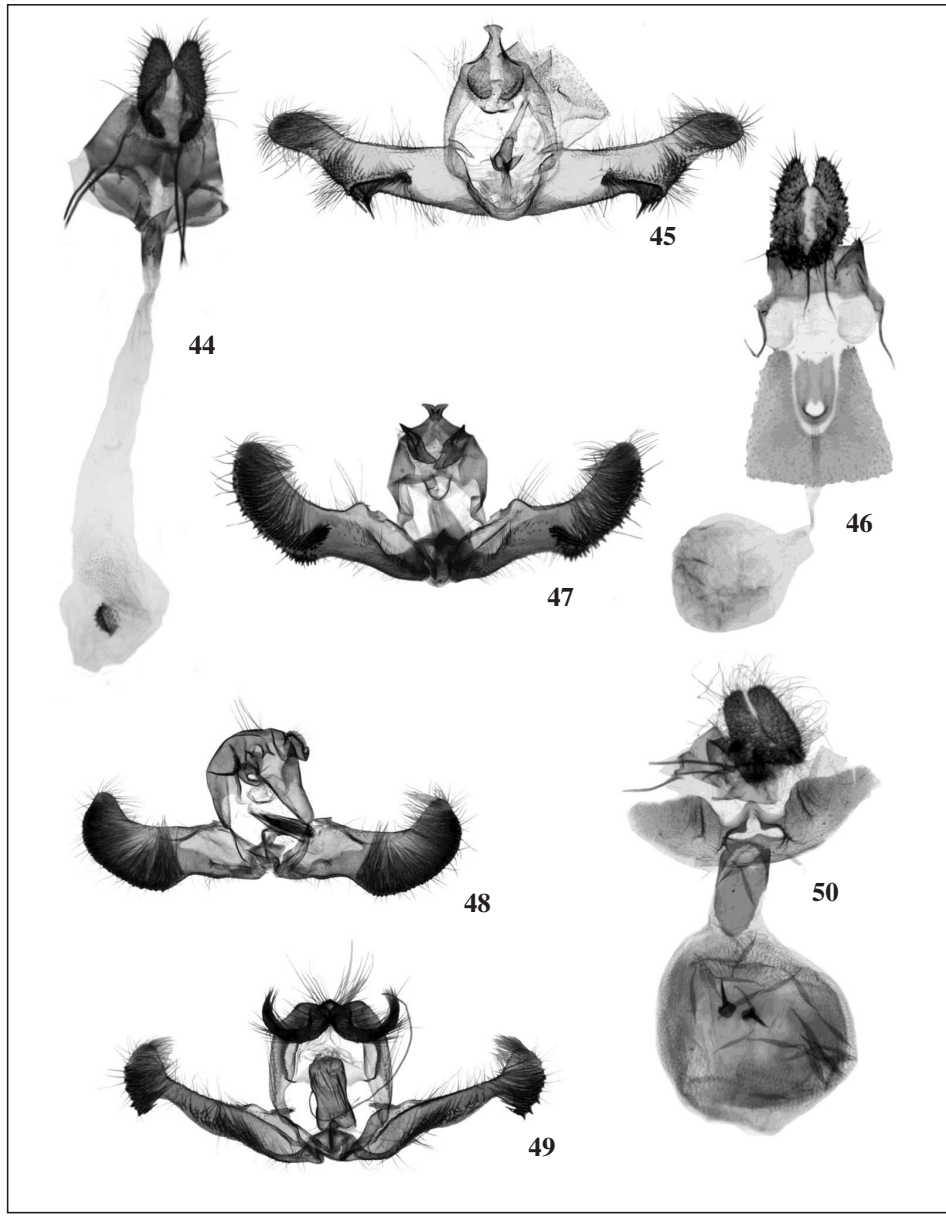

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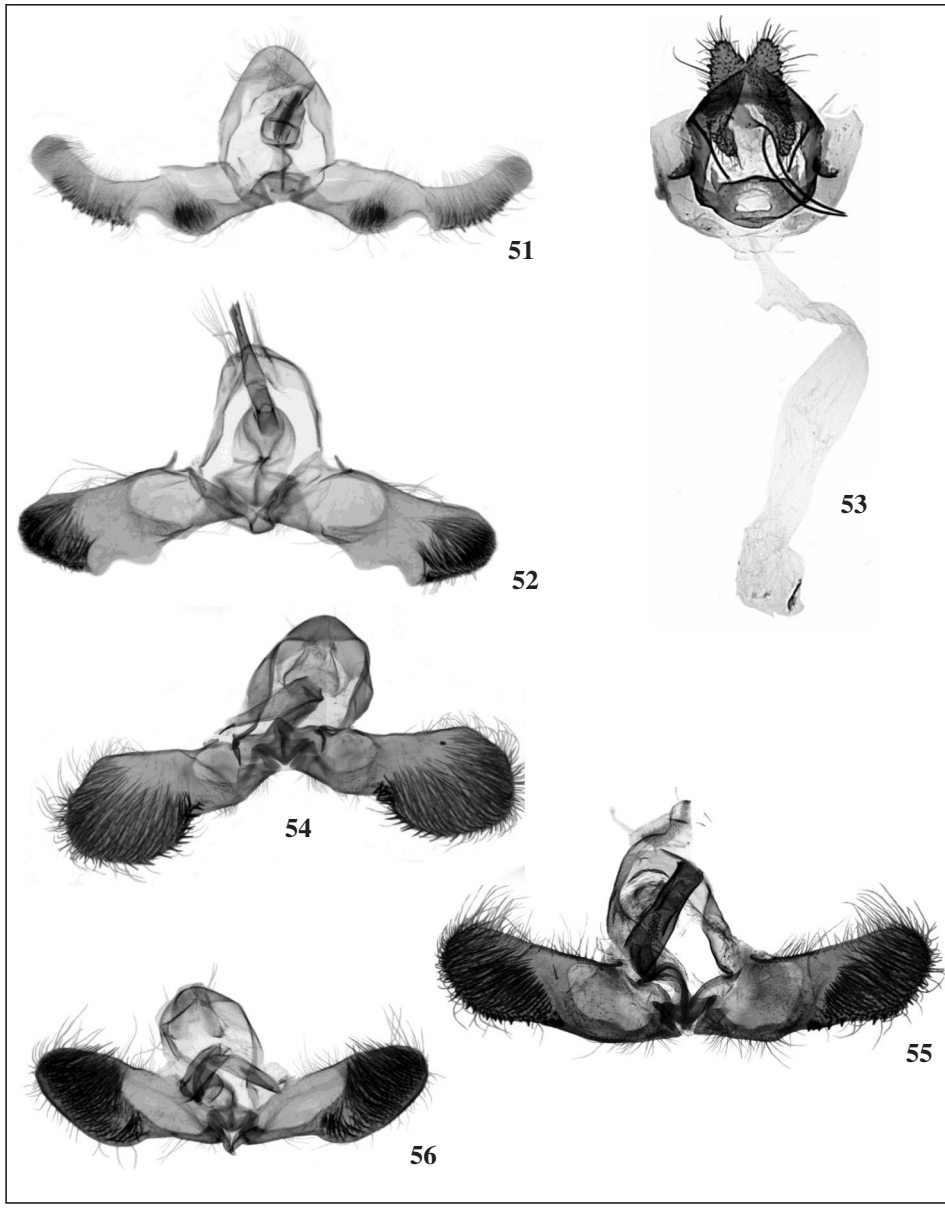

Figures 51-56.– Genitalia. **51.** *Protancylis secundus* Razowski & Trematerra, sp. n., ♂, holotype, GS 3157PT. **52.** *Thylacandra delimana* Razowski & Trematerra, sp. n., ♂, holotype, GS 3158PT. **53.** *Thylacandra delimana* Razowski & Trematerra, sp. n., ♀, paratype, GS 3159PT. **54**. *Dracontogena bradiana* Razowski & Trematerra, sp. n., ♂, holotype, GS 3160PT. **55**. *Thaumatotibia parimitans* Razowski & Trematerra, sp. n., ♂, holotype, GS 3161PT. **56**. *Thaumatotibia machakelana* Razowski & Trematerra, sp. n., ♂, holotype, GS 3162PT.