# Taxonomy of some African species hitherto placed in *Stenentoma* Diakonoff, 1969 and in *Eucosmocydia* Diakonoff, 1988 (Lepidoptera, Tortricidae)

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Stenentoma Diakonoff, 1969 is synonymized with Camptrodoxa Meyrick, 1925. The following species hitherto placed in Stenentoma are transferred to Camptrodoxa; C. bisecta (Meyrick, 1918) comb. nov., C. plectocosma (Meyrick, 1921) comb. nov., C. chrysolampra (Diakonoff, 1969) comb. nov., C. onychosema (Diakonoff, 1969) comb. nov., and C. sorindeiae (Razowski & Brown, 2012) comb. nov. The new genus Afroicelita gen. nov. is established for Stenentoma pholicosta Razowski & Wojtusiak, 2012. Camptrodoxa inclyta Meyrick, 1925 is a junior synonym of Laspeyresia plectocosma Meyrick, 1921 syn. nov. Eucosmocydia monitrix (Meyrick, 1909) is transferred to the genus Namasia Diakonoff, 1983, and the valid name for the species is established as Namasia monitrix (Meyrick, 1909) comb. nov. Neonamasia gen. nov. is proposed for Neonamasia cryptica sp. n.

Key words: Lepidoptera, Tortricidae, Stenentoma, Camptrodoxa, Namasia, new genera, new species, Africa.

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# Introduction

Investigation of African Tortricidae species currently assigned to *Stenentoma* Diakonoff, 1969 and *Eucosmocydia* Diakonoff, 1988 has led to new generic combinations and synonymy. The little used generic names *Camptrodoxa* Meyrick, 1925 and *Namasia* Diakonoff, 1983 are involved. They were both described from single specimens. The moths are quite small, wingspan 9–12mm, and are recognizable by having a notch at the forewing termen just above middle where vein M3 and the curved vein CuA1 reach the edge. Initially members of this group were thought to fall into two genera, but an additional undescribed species turned out to represent a new genus. The forewing character links the three genera with the Afrotropical *Thylacogaster* Diakonoff, 1988 and the Neotropical *Eriosocia* Razowski & Brown, 2008. Razowski & Wojtusiak (2012) described *Stenentoma pholicosta* (Razowski & Wojtusiak, 2012) from females from Nigeria. After examination of additional material, including males, from several African countries, it was found that *S. pholicosta* is not closely related to other species placed in *Stenentoma*. A new genus is proposed for the species, and it is placed in the tribe Eucosmini.

# Material and methods

The material was collected during the first author's stay in Tanzania in 1991–1993, and on subsequent visits, to Malawi in 2004, Tanzania in 2005, Uganda 2007, Kenya 2008 and 2010, and Ghana 2011. The second author obtained Kenyan material in the years 1999–2010. Additional specimens were collected in Kenya by Anthony Kingston in 2010. Museum material from The Natural History Museum, London, United Kingdom (BMNH) and Zoological Museum, Natural History Museum of Denmark, Copenhagen (ZMUC) have been examined.

Specimens were captured at night by means of light. They were kept alive in glass tubes until next morning and then killed with ammonia vapor or ethyl acetate. After a few minutes they were pinned on micro pins in plastic boxes with bottom layer of plastazote or expanded polyethylene, and the wings were spread on the surface of the bottom layer. In this position they were dried and packed.

After maceration male and female genitalia were dissected under a stereoscopic microscope and embedded in euparal on glass slides. Photos of the genitalia were taken using a Leica DFC 420 digital camera. Imagines were photographed using Microptics photographic system. The digital images were manipulated with Adobe Photoshop CS3. The terminology of genitalia and morphological structures follows Horak (2006), the terminology of wing pattern elements follows Razowski (2003).

In the lists of material examined, specimen labels are cited in a standardized form rather than verbatim.

Abbreviations. **BMNH** = Natural History Museum, London, United Kingdom; **DJLA** = David Agassiz, personal collection, Westonsuper-Mare, United Kingdom; **NHMO** = Natural History Museum, University of Oslo, Norway; **ZMUC** = Zoological Museum, Natural History Museum of Denmark, Copenhagen.

# Taxonomy

# Enarmoniini

Razowski & Brown (2008) discussed the position of *Thylacogaster* and the Neotropical genus *Eriosocia* Razowski & Brown, 2008. These authors suggested a relationship between the two genera, and provisionally assigned them to the tribe Enarmoniini. We propose the addition of the genera *Camptrodoxa*, *Namasia* and *Neonamasia* gen. nov. to this group. *Thylacogaster* Diakonoff, 1988 can be distinguished from the genera treated here by the presence in males of a pencil of hairscales from the base of the hindwing underside.

# Camptrodoxa Meyrick, 1925: 3 (5): 144.

Type species: *Camptrodoxa inclyta* Meyrick, 1925 *Stenentoma* Diakonoff, 1969: 112: 94. **Syn. nov.** Type species *Stenentoma chrysolampra* Diakonoff, 1969

**Diagnosis**. In the hindwing the veins Rs and M1 are stalked, as are M3 and CuA1. Male hind tibia with scale brush. The wing pattern consists of a speculum and costal strigulae of which the two apical ones often are accentuated; there are more or less metallic transverse lines and fasciae and yellow suffusion. Male genitalia (Figures 5–7). Tegumen very high, gnathos present as slender setose lobes; valva slender, deeply emarginated before cucullus, sacculus long, cucullus short, spiny along apical edge; phallus long and slender, apically tubular.

Female genitalia (Figure 8). Ovipositor short, not telescopic; two setose lobes present posterior to ostium; ostium indistinct; ductus bursae without sclerotisations; ductus seminalis originates closer to ostium than to corpus bursae; signa horn-shaped with broad bases.

**Remarks**. The synonymy of the two genera, *Camptrodoxa* and *Stenentoma*, follows from a comparison of genitalia figures in Diakonoff's description (1969) and material of *Camptrodoxa* species available in museums or recently collected in Africa. The type species of *Stenentoma*, *S. chrysolampra* apparently is closely related to *Camptrodoxa plectocosma* (Meyrick, 1921) comb. nov. and *C. sorindeiae* (Razowski & Brown, 2012) comb. nov. A scan of the original



FIGURES 1–4. Adults of *Camptrodoxa* Meyrick, 1925. 1–2. Adults of *C. plectocosma* (Meyrick, 1921). 1. Female from Tanzania. 2. Holotype of *Camptrodoxa inclyta* Meyrick, 1925. 3. Adult of *C. sorindeiae* (Razowski & Brown, 2012) from Tanzania. 4. Labels of holotype of *C. inclyta* Meyrick, 1925.

figure of the male genitalia of S. chrysolampra is shown (Figure 5) to enable comparison with the male genitalia of C. plectocosma (Figure 6) and *C. sorindeiae* (Figure 7). The generic synonymy introduced here leads to the following new combinations of species described from Aldabra by Diakonoff (1969): Camptrodoxa chrysolampra (Diakonoff, 1969) comb. nov. and Camptrodoxa onvchosema (Diakonoff, 1969) comb. nov. The latter is rather different from the other species, and may in the future be transferred to another genus. In addition Eucosma bisecta Meyrick, 1918 is transferred to Camptrodoxa: Camptrodoxa bisecta comb. nov. The male holotype from South Africa was dissected and figured by Razowski & Krüger (2007) in the combination Stenentoma bisecta (Meyrick, 1918). The species is close to C. plectocosma in all aspects. We have not studied the holotype, and there seems not have been collected additional material since the type specimen was found.

# *Camptrodoxa plectocosma* (Meyrick, 1921) comb. nov. (Figures 1, 2, 4, 6, 8)

*Laspeyresia plectocosma* Meyrick, 1921: 8 (2): 64. *Stenentoma plectocosma*, Razowski & Krüger, 2007: 35: 132, figs., 127, 247, 248.

Camptrodoxa inclyta Meyrick, 1925: 3 (5): 144. Syn. nov.

**Material examined**. Holotype  $\mathcal{Q}$  of *Camptro*doxa inclyta Meyrick, Rep. South Africa Natal, Weenen, III.1924, leg. H.P. Thomasset., coll. BMNH; Angola, Bruco, 1 26.II.-2.III.1972, coll. BMNH; Malawi, Lilongwe District: Ntchisi, 10 11.XII.2002, leg. D.J.L. Agassiz, genitalia slide L. Aarvik 2009.033, coll. DJLA; Tanzania, Morogoro Distr. & Town,  $1^{\bigcirc}$  23.IV.1993, leg. L. Aarvik, genitalia slide L. Aarvik 2800, coll. NHMO; Tanga Reg., Pangani Distr.: Sima riverine forest, Mkwata, 1  $\bigcirc$  30.VIII.-12.IX.1991, leg. Frontier, coll. ZMUC; Marangu, 1º 28.IV.2001 leg. D.J.L. Agassiz, coll. DJLA; 19, Usa River, 4,500ft 1.VIII.2000, leg. D.J.L. Agassiz, coll. DJLA; 1♀, Uluguru Mts. Kimboza For. 7° 1' S 37" 48' 18" E, 1200 ft 11.V.2001, leg. D.J.L. Agassiz, coll. DJLA; Kenya, Central Province, Thika District, 8km SW Thika, Karamaini Estate, 1 18.X.2010, leg. A.J. Kingston, genitalia slide



FIGURES 5–8. Genitalia of *Camptrodoxa* Meyrick, 1925. 5. Male genitalia of *C. chrysolampra* (Diakonoff, 1969). Scan from Diakonoff's description (1969). 6. Male genitalia of *C. plectocosma* (Meyrick, 1921). 7. Male genitalia of *C. sorindeiae* (Razowski & Brown, 2012). 8. Female genitalia of *C. plectocosma* (Meyrick, 1921).

NHMO 2403, coll. NHMO; Nigeria, Ibadan,  $1^{\circ}$  ca. I–VI.1954, leg. H. Stenholt Claussen, coll. ZMUC.

**Diagnosis.** Wingspan 9–11mm. Externally characteristic by the black forewing with yellow markings and metallic transverse lines. *Camptrodoxa bisecta* (Meyrick, 1918) comb. nov. has less extensive yellow markings on the forewing. *C. sorindeiae* lacks the conspicuous costal strigulae present in *C. plectocosma* and *C. bisecta*. Male genitalia (Figure 6) with cluster of strong spines distally on the ventral edge of

sacculus.

**Distribution**. Angola, Kenya, Malawi, Nigeria, Republic of South Africa, Tanzania and Zimbabwe.

**Remarks**. The male holotype of *Laspeyresia* plectocosma Meyrick, 1921 comes from Umtali, Rhodesia (= Mutare, Zimbabwe). It is preserved in the Ditsong Museum (formerly Transvaal Museum), S. Africa, and was figured by Razowski & Krüger (2007).

# *Camptrodoxa sorindeiae* (Razowski & Brown, 2012) comb. nov. (Figures 4, 7)

Stenentoma sorindeiae Razowski & Brown, 2012: 3222: 22, figs. 13, 27, 77.

Material examined. Tanzania, Morogoro Distr.: Kimboza For. Res. 300m,  $1\stackrel{>}{\odot}2\stackrel{\bigcirc}{\odot}\stackrel{\bigcirc}{\odot}$ 30.X.1992, leg. L. Aarvik, genitalia slide  $\stackrel{\bigcirc}{\odot}$  L. Aarvik 2801, genitalia slide  $\stackrel{\bigcirc}{\hookrightarrow}$  L. Aarvik 2802, genitalia slide  $\stackrel{\bigcirc}{\odot}$  NHMO 2481, coll. NHMO; Morogoro Reg., Kilombero Distr.: Udzungwa Mts. Nat. Park, Mang'ula 550m,  $1\stackrel{\bigcirc}{\odot}$  20–21. XI.2005, leg. L. Aarvik, M. Fibiger, A. Kingston, coll. NHMO.

**Diagnosis**. Wingspan 9.5–10.0mm. Forewing with only slight suffusion of yellow, and the costal strigulae are inconspicuous. Thus the wing pattern is less contrasting than in the other species. In the male genitalia the ventral edge of sacculus lacks the distal cluster of strong spines which is present in *C. plectocosma* and *C. bisecta*. The female genitalia are very close to those of *C. plectocosma*, and no clear differences between the two species have been detected.

**Distribution**. Kenya (Razowski & Brown 2012) and Tanzania.

**Biology**. The species was bred from *Sorindeia* madagascariensis (Anacardiaceae) and *Strychnos* madgascariensis (Loganiaceae) (Razowski & Brown 2012).

# Namasia Diakonoff, 1983, 5: 259.

Type species: Namasia catoptrica Diakonoff, 1983

**Diagnosis**. In the hindwing the veins Rs and M1 are stalked, as are M3 and CuA1. Male hind tibia with brush of blackish brown scales. The wing pattern consists of a conspicuous speculum and costal strigulae of which only the two apical ones are distinct; ground colour dark brownish grey with indistinct, angled transverse lines. Male genitalia (Figures 11, 12). Tegumen high, gnathos present as setose lobes; valva slender, simple; phallus basally broad, tapering, apically tubular. Female genitalia (Figure 14). Ovipositor semitelescopic; two setose lobes present posterior to ostium; ostium indistinct; ductus bursae without sclerotisations; ductus seminalis originates close to ostium; signa horn-shaped with broad bases.

Remarks. Diakonoff (1983) proposed the

genus *Namasia* for *N. catoptrica* described in the same work. The species and genus was based on a female from Asir Mts., Saudi Arabia. The authors' material from Kenya and Tanzania agree both with *Namasia catoptrica* Diakonoff, 1983 from Arabia and with *Eucosma monitrix* Meyrick, 1909 from South Africa. Razowski & Krüger (2007) transferred *E. monitrix* to *Eucosmocydia* Diakonoff. We do not agree with this placement. The holotype female is the only specimen of the genus known from the Arabian peninsula. Although we see no difference between our females from East Africa and Diakonoff's figures, we hesitate to synonymize the two names before males from both areas can be compared.

# Namasia monitrix (Meyrick, 1909) comb. nov.

(Figures 9, 11, 12, 14) *Eucosma monitrix* Meyrick, 1909, 2:7, pl. 3, Figure 2. *Eucosmocydia monitrix*, Razowski & Krüger, 2007:131, Figures 124, 243, 244.

Material examined. Kenya, Eastern Prov.: Lewa Conservancy 2080m, 1<sup>o</sup> 28–30.XI.2008, leg. L. Aarvik, D. Agassiz, A. Kingston leg., coll. NHMO; same locality, 2000m,  $2 \bigcirc \bigcirc 28.XI.2011$ , leg. & coll D.J.L. Agassiz; Central Province: Naro Moru 1950m, 1♀ 1–5.XII.2008, leg. L. Aarvik, D.J.L. Agassiz, A. Kingston, coll. NHMO; Rift Valley Prov.: Turi 2500 m. 1∂ 30.X.1998, 1♀ 10.I.1999, 1♀ 26.I.1999, 1♂1♀ 2.II.1999, 1♀ 5.II.1999 18 2.IV.1999, with genitalia on slide DJLA 1173, 1º 19.i.2000, with genitalia on slide DJLA 1174, leg. & coll. D.J.L. Agassiz; Rift Valley Prov.: Naivasha 1800m, 1♀ 11.IV.2003, leg. & coll. D.J.L. Agassiz; Rift Valley Prov.: Gilgil 2000m, 1º 26.XI.2005, leg. & coll. D.J.L. Agassiz; Rift Valley Prov.: Lake Elmenteita 1900m,  $2^{\text{QQ}}$  16.XII.1999, leg. & coll. D.J.L. Agassiz; Tanzania, Morogoro Distr.: Uluguru n. For. Res., Kibwe 1300–1400m, 1♀ 2.XII.1992, leg. L. Aarvik, coll. NHMO; same locality 1Å11.I.1993, genitalia slide L. Aarvik 2776, coll. NHMO; Iringa Reg., Makete Distr.: Kitulo Plateau S 2900m, 299 30.XI.2005, leg. L. Aarvik, M. Fibiger, A. Kingston, genitalia slide L. Aarvik 2777, coll. NHMO; Iringa Reg., Mufindi Distr.: Kigogo Forest 1900m, 1♀ 23–25.XI.2005, leg. L. Aarvik, M. Fibiger, A. Kingston, coll. NHMO.



FIGURES 9–10. Adults of *Namasia monitrix* (Meyrick, 1909) and *Neonamasia cryptica* sp. n. 9. Adult of *Namasia monitrix* (Meyrick, 1909) from Tanzania. 10. Adult of *Neonamasia cryptica* sp. n. from Tanzania.

**Diagnosis**. Wingspan 11–13mm. Scaling of labial palp snow white. Externally resembling *Neonamasia cryptica* sp. n. (see below), but forewing narrower, speculum with fewer white scales and therefore contrasting less strongly with rest of wing. The genitalia of the two species show huge differences. In both sexes they are much more elaborate in *N. cryptica* sp. n.

**Remarks**. Meyrick (1909) described *Eucosma monitrix* from Pretoria in South Africa. Unlike most publications by Edward Meyrick, the descriptions in this paper were accompanied by beautiful colour illustrations performed by the collector, A.J.T. Janse. The type specimen, a male, was dissected and the genitalia figured by Razowski & Krüger (2007). The valvae in the male genitalia are strongly three-dimensional. Consequently the genitalia look different according to how they are compressed on the slide (Figures 11, 12).

#### Neonamasia Aarvik, gen. nov.

Type species: Neonamasia cryptica sp. n.

**Description**. Head. Scales on frons forming crest; scales on vertex forming two tufts; labial palp 1,5 times diameter of eye. Thorax and appendages. Thorax smoothly scaled dorsally. Male hind tibia with brush of long scales. Forewing termen notched just above middle, between vein M3 and CuA1. Venation similar to that of *Namasia monitrix* (figured by Diakonoff (1983)). Male genitalia (Figure 13): Tegumen without uncus and socii; gnathos two setose, weakly sclerotised lobes; valva with large, nearly rectangular sacculus, with group of spines between basal excavation and caudal edge; additional cluster of spines on end of distally extended sacculus; neck

of valva short, narrow; cucullus small, narrow, bent ventrally, with numerous stout spines; phallus long, at two thirds from base becoming narrower and sinuous, no cornuti. **Female genitalia** (Figure 15): Ovipositor short; apophyses anteriores longer than apophyses posteriores; two oval, weakly sclerotised lobes present posterior of ostium; two rounded sclerites on both sides of ostium, together giving the impression of the four wings of a hairstreak butterfly; ductus bursae tubular, sclerotised before ostium, slightly widened after middle, ductus seminalis arises close to ostium; corpus bursae with two horn-shaped signa with broad bases.

**Diagnosis**. *Neonamasia* gen. nov. differs from *Namasia* in the male genitalia by the broad valva with clusters of spines and small cucullus; and in the female genitalia by the presence of rounded sclerites around ostium.

# Neonamasia cryptica Aarvik sp. n.

(Figures 10, 13, 15)

**Type material**. *Holotype*,  $\Diamond$ , **Kenya**, Central Province: Thika District: 8km SW Thika Karamaini Estate, S 0,1°02'746'', E 36°59'472'', 1550m, 13.VIII.2010, leg. A.J. Kingston, genitalia slide NHMO 2398, coll. NHMO. *Paratypes*, 1 $\wp$ , same data as holotype, 2.VII.2012, genitalia slide NHMO 2399, coll. NHMO; **Kenya**, 1 $\wp$ , Rift Valley Province: Masai Lodge, 37M BU 5679 4682, 1670m, 25.XI. –8.XII.2010, leg. L. Aarvik & D.J.L. Agassiz, coll. NHMO; 1 $\wp$ , same locality, 2.XII.2010, leg. & coll. D.J.L. Agassiz; **Tanzania**, 1 $\wp$ , Arumeru Distr.: Usa River, 1170m, 10.II.1992, leg. L. Aarvik, genitalia slide NHMO 2401, coll. NHMO; 1 $\wp$ , Iringa Reg., Iringa Distr.:



FIGURES 11–15. Genitalia of *Namasia monitrix* (Meyrick, 1909) and *Neonamasia cryptica* sp. n. 11. Male genitalia of *N. monitrix* (Meyrick, 1909) with valvae moderately unfolded. 12. Male genitalia of *N. monitrix* (Meyrick, 1909) with valvae strongly bent ventrally. 13. Male genitalia of *N. cryptica* sp. n. 14. Female genitalia of *N. monitrix* (Meyrick, 1909). 15. Female genitalia of *N. cryptica* sp. n.

Itefwe, Phillip's Farm, 1550m, 22.XI.2005, leg. L. Aarvik, M. Fibiger, A. Kingston, coll. NHMO.

Description. Wingspan 11.5–12.0mm (Figure 10). Head with frons blackish brown with metallic sheen, neck tufts light brown; labial palp white, third segment grey above. Thorax smoothly scaled, dark greyish brown, with pale transverse band, tegulae with pale band in middle. Antenna greyish brown, scape black. Legs pale beige, tibia of hind leg and tibiae and tarsi of fore and mid legs with dark grey rings; male hind tibia with tuft of black scales. Forewing blackish brown, with indistinct paler transverse fasciae that are angled in middle; speculum conspicuous, white with two black dots and grey suffusion; cilia brown, white at tornus. Hindwing greyish brown, cilia line present, cilia light grey, becoming darker and browner towards apex.

Male and female genitalia. See genus description.

**Diagnosis**. Initially confused with *Namasia monitrix*. For differences, q.v.

**Distribution**. The species is known from Kenya and Tanzania.

**Ecology**. All localities are situated at altitudes above 1100m.

**Etymology**. The specific epithet indicates its similarity with *Namasia monitrix*, with which it was initially confused.

# Eucosmini

Stenentoma pholicosta Razowski & Wojtusiak, 2012 was described from Nigeria based on three females. Study of the male genitalia has shown that this species is not a member of *Camptrodoxa* (= *Stenentoma*). We place it in a new genus in the tribe Eucosmini. The new genus is associated with *Icelita* Bradley, 1957 which was placed in Eucosmini (Horak 2006).

# Afroicelita Aarvik, gen. nov.

Type species: *Stenentoma pholicosta* Razowski & Wojtusiak, 2012

**Head**. Frons below with appressed scales. In males, a group of rigid forward directed scales form a protruding crest between the bases of the antennae. In females the crest is less developed,

formed by tuft of curved scales. Labial palp of same length as diameter of eye or slightly exceeding it, third segment short, drooping. Thorax and appendages. Thorax ventrally smooth scaled. No modification of legs. Forewing with falcate apex, all veins separate, males with costal fold to 2/5from base, bent under the wing. Hindwing costa concave in apical two fifths which is edged with long hairs, dorsal edge also concave; vein M2 bent close to short stalk of M3 and CuA1; costa in males with dense cover of dark, modified scales; anal region of hindwing without modification. Male genitalia (Figure 17). Tegumen without uncus and socii; gnathos two band-like lobes; valva with rectangular sacculus, with group of strong spines on dorsal edge and along the 'neck' of the valva; cucullus rounded, spined along 'neck' and in ventral and apical part, with one strong thorn on terminal edge; phallus pistol-shaped, with four spindle shaped cornuti of different length. Female genitalia (Figure 18). Ovipositor telescopic, papillae anales fused posteriorly; sterigma with two large lateral lobes that are pointed anteriorly, ductus seminalis arising at middle of ductus bursae, ductus bursae with sclerite between this point and edge of segment 7; corpus bursae broad in posterior half, with numerous denticles and two long, curved signa.

**Diagnosis**. *Afroicelita* gen. nov. has falcate forewings, a character which is present in many genera of Enarmoniini, e.g. the widespread *Ancylis* Hübner, 1816, and in some genera of Eucosmini, e.g. *Rhopobota* Lederer, 1859. However, *Afroicelita* gen. nov. differs from them by the presence in the male of a forward directed crest on the head, and the unique forewing costal fold which is folded on the underside of the wing.

**Remarks**. At the moment only *Afroicelita pholicosta* (Razowski & Wojtusiak, 2012) comb. nov. is assigned to the genus. The female genitalia show similarities with those of species in the genus *Icelita*, but the male genitalia and sexual modifications of the male hindwing are very different; compare figures in Clarke (1976) and Horak (2006).



FIGURES 16–18. Adult and genitalia of *Afroicelita pholicosta* (Razowski & Wojtusiak, 2012). 16. Adult of *A. pholicosta* (Razowski & Wojtusiak, 2012) from Ghana. 17. Male genitalia of *A. pholicosta* (Razowski & Wojtusiak, 2012). 18. Female genitalia of *A. pholicosta* (Razowski & Wojtusiak, 2012).

# *Afroicelita pholicosta* (Razowski & Wojtusiak, 2012) comb. nov. (Figures 16–18)

Stenentoma pholicosta Razowski & Wojtusiak, 2012, 106, Figures 92, 154.

**Material examined**. **Ghana**, Volta Region: Paradise Mountain 1 $\stackrel{\circ}{\circ}$  22–24.XI.2011, leg. L. Aarvik & L.O. Hansen, genitalia slide NHMO 2475, coll. NHMO; **Malawi**, Central Region, Lilongwe District: Ntchisi Forest Reserve 1560m,  $1\stackrel{\circ}{\circ}, 1\stackrel{\circ}{\circ}$  20.II.2004, leg. L. Aarvik, genitalia slide  $\stackrel{\circ}{\circ}$  NHMO 2416, coll. NHMO; Central Region, Lilongwe District: Dzalanyama Forest Lodge 1270m, 1 $\stackrel{\circ}{\circ}$  14.II.2004, leg. L. Aarvik, coll. NHMO; **Tanzania**, Morogoro Distr. & Town 550-600m, 1 $\stackrel{\circ}{\circ}$  28.XII.1991, leg. L. Aarvik, genitalia slide NHMO 2417, coll. NHMO; same data 1 $\stackrel{\circ}{\circ}$ 26.XII.1991, 2 $\stackrel{\circ}{\circ}$   $\stackrel{\circ}{\circ}$  3.III.1992, 1 $\stackrel{\circ}{\circ}$  9.III.1992.

**Diagnosis**. Wingspan 9.0–10.5mm. (Figure 16). Forewing falcate, ground colour light

ochreous; numerous transverse striae present, dark brown median fascia angled and interrupted above middle; costal strigulae present and speculum indicated. Males are easily recognizable due to the protruding crest on the head, the costal fold on the forewing underside and the modified hindwing costa. Male genitalia (Figure 17), and female genitalia (Figure 18).

**Distribution**. A widespread species which is known from Nigeria (Razowski & Wojtusiak 2012), Ghana, Malawi and Tanzania.

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