



SHILAP Revista de Lepidopterología

ISSN: 0300-5267

ISSN: 2340-4078

avives@orange.es

Sociedad Hispano-Luso-Americana de Lepidopterología
España

Park, K.-T.; Koo, J.-M.; Aarvik, L.
Description of *Corymbus* Park, gen. n. with six new species
from the Afrotropical Region (Lepidoptera: Lecithoceridae)
SHILAP Revista de Lepidopterología, vol. 47, no. 188, 2019, October-, pp. 657-672
Sociedad Hispano-Luso-Americana de Lepidopterología
España

Available in: <https://www.redalyc.org/articulo.oa?id=45562243014>

- How to cite
- Complete issue
- More information about this article
- Journal's webpage in redalyc.org

redalyc.org

Scientific Information System Redalyc
Network of Scientific Journals from Latin America and the Caribbean, Spain and
Portugal

Project academic non-profit, developed under the open access initiative

Description of *Corymbus* Park, gen. n. with six new species from the Afrotropical Region (Lepidoptera: Lecithoceridae)

K.-T. Park, J.-M. Koo & L. Aarvik

Abstract

The new genus *Corymbus* Park, gen. n., including six new species from the Afrotropical Region - Kenya, Malawi, Tanzania, and Uganda - is described. The new species are: *C. deprinsi* Park & Aarvik, sp. n., *C. malmoius* Park & Aarvik, sp. n., *C. hirtitibia* Park & Aarvik, sp. n., *C. kenyaensis* Park & Aarvik, sp. n., *C. hallicis* Park & Aarvik, sp. n., and *C. nigrizosterus* Park & Aarvik, sp. n. *Corymbus crossogramma* (Meyrick, 1921), comb. n. is transferred from the genus *Eridachtha* Meyrick, 1910 to *Corymbus* Park. The venation of the type species, and adults and male genitalia of the new species are illustrated. A key to the species is provided.

KEY WORDS: Lepidoptera, Lecithoceridae, *Corymbus*, new genus, new species, Africa.

Descripción de *Corymbus* Park, gen. n. con seis nuevas especies de la región Afrotropical (Lepidoptera: Lecithoceridae)

Resumen

Se describe el nuevo género *Corymbus* Park, gen. n., incluyendo seis nuevas especies de la región Afrotropical - Kenia, Malawi, Tanzania y Uganda. Las seis nuevas especies son: *C. deprinsi* Park & Aarvik, sp. n., *C. malmoius* Park & Aarvik, sp. n., *C. hirtitibia* Park & Aarvik, sp. n., *C. kenyaensis* Park & Aarvik, sp. n., *C. hallicis* Park & Aarvik, sp. n. y *C. nigrizosterus* Park & Aarvik, sp. n. *Corymbus crossogramma* (Meyrick, 1921), comb. n. es transferido desde el género *Eridachtha* Meyrick, 1910 a *Corymbus* Park. Se ilustra la venación de la especie tipo, los adultos y la genitalia de los machos de las nuevas especies. Se proporciona una clave de las especies.

PALABRAS CLAVE: Lepidoptera, Lecithoceridae, *Corymbus*, nuevo género, nuevas especies, África.

Introduction

The fauna of Microlepidoptera in general and of the family Lecithoceridae in particular in the Afrotropical Region (= Ethiopian Region) have been poorly documented. The first known species of Lecithoceridae from the Afrotropical Region is *Idiopteryx obliquella* (Walsingham, 1881) and followed by *Lecithocera flavipalpis* Walsingham, 1891. Later JANSE (1954, 1963) treated 22 species of Lecithoceridae. VÁRI *et al.* (2002) listed 21 species of the family for the fauna of southern Africa. The taxonomic history and status of the family in the Afrotropical Region were summarized by PARK & DE PRINS (2019). In the website "www.afromoths.net" compiled by J. & W. DE PRINS (updated 25 April 2019), 133 species belonging to 22 genera of the family are listed. In the website, ten recently described species belonging to the subfamily Lecithocerinae from Cameroon by PARK (2018a), seven species of the subfamily Torodorinae and eight new species of the genus *Ptilothyris* Walsingham, 1897 described by PARK (PARK, 2018b; PARK *et al.*, 2019) are included.

The genus *Corymbus* Park, gen. n. (Lecithoceridae: Lecithocerinae) is related to *Notioseus* Park,

2018 and *Paniculata* Park, 2018, both described from Cameroon. The three genera share the ochreous forewing ground colour and the 2nd segment of labial palpus having a cluster of long hair like scales which are appressed dorsally. The characters separating *Corymbus* Park from the above two genera and other related ones are discussed under the description of the genus.

In the present paper, six new species of *Corymbus* Park are described from the Afrotropical Region, and the previously known species, *Eridachtha crossogramma* (Meyrick, 1921), is transferred to this new genus as *Corymbus crossogramma* (Meyrick, 1921), **comb. n.**

Material and methods

The present study is based partly on material preserved in the Royal Museum for Central Africa, Tervuren, Belgium (RMCA) and partly on material collected by the third author in Kenya, Malawi, and Tanzania and which is preserved in The Natural History Museum, University of Oslo, Norway (NHMO). Additional material collected by David Agassiz in East Africa will be deposited in The Natural History Museum, London, UK (NHMUK). The type specimen of *Eridachtha crossogramma* (Meyrick, 1921) preserved in the Ditsong National Museum of Natural History (formerly Transvaal Museum, Pretoria) (TMSA) was examined. Dissected genitalia were mainly stained with Chlorazol black and wings were mainly stained by Double Stain containing lignin pink, acid fuchsin, GAA, lactic acid, and phenol. Both were slide mounted in Euparal. Wingspan was measured from the apex of the left wing to the apex of the right wing. The colour standard for the descriptions of adults followed KORNERUP & WANSCHER (1978).

Taxonomy

Corymbus Park, gen. n.

Type species: *Corymbus deprinsi* Park & Aarvik, sp. n.

Corymbus Park, 2019 is superficially similar to *Notioseus* Park, 2018 and *Paniculata* Park, 2018 sharing some diagnostic characters, including the ochreous ground colour of the forewing and the labial palpus with similar long, hair like scales appressed dorsally. However, the new genus can be distinguished from *Notioseus* Park by the hindwing venation with M_2 absent, but M_3 and CuA_1 stalked, whereas *Notioseus* has M_3 and CuA_1 clearly coalescent, and its male genitalia with a distinct ring shaped plate fused with basal lobes of the uncus. *Paniculata* Park differs by the presence of a prominent black scale tuft ventrally at the basal segment of the antenna, and also by the presence of M_2 in the hindwing; M_3 and CuA_1 are coalescent. The new genus also resembles the Oriental genus *Eridachtha* Meyrick, 1910 described from S India, which has similar rough scales on the labial palpus and similar male genitalia. However, *Corymbus* Park can be distinguished from *Eridachtha* by the forewing venation with R_3 free, and CuA_1 and CuA_2 remote from M_3 , and the labial palpus which has a cluster of dorsally appressed, long, hair like scales, whereas *Eridachtha* has rough hairs, not appressed, above and beneath. This type of rough hairs on the labial palpus are also found in *Syntetarca* Gozmány, 1978 described from Malaysian Borneo, but *Syntetarca* has a well developed vein M_2 in the hindwing.

Adult: Head covered with pale orange scales dorsally. Antenna slightly longer than forewing; basal segment elongate, slightly dilated toward apex; flagellum orange white, filiform, not ciliate. Second segment of labial palpus with cluster of rough hair like, yellowish white to pale orange scales appressed dorsally; 3rd segment usually shorter than 2nd segment, pointed apically. Thorax yellowish white to pale orange. Tegula of same colour, with fuscous scales along anterior margin. Hind tibia uniformly covered with rough scales above and beneath. Forewing ground colour yellowish white to pale orange, often brownish scales scattered irregularly; fuscous discal spots weakly expressed in middle and at end, often absent; costa slightly arched; apex acute or often obtuse; termen oblique; venation (Fig. 1) with R_1 arising from about 2/5 length of cell, distance between R_2 and R_3 less than 1/3 length of that of R_2 and R_1 , R_3 free arising near from upper corner of cell, R_4 and R_5 stalked for about

basal 2/3, R_5 to termen, M_1 remote from R_{4+5} at base, nearly parallel to R_{4+5} , M_2 and M_3 free, CuA_1 and CuA_2 free, $A1+A2$ forked at base. Hindwing yellowish white to orange white; venation with Sc and M_1 stalked for about half of their length; M_2 absent; M_3 and CuA_1 stalked.

Male genitalia: Similar to those of *Lecithocera* Herrich-Schäffer, 1853 and *Eridachtha* Meyrick, 1910. Basal lobes of uncus semiovalate, usually directed distally or outwardly. Gnathos with sclerotized, broad basal plate; median process narrowed toward apex, curved downward from beyond 2/3, pointed apically. Costal bar well developed. Tegumen broad, weakly sclerotized. Valva elongate; cucullus thumb like with rounded apex; ventral margin with a small triangular process or instead slightly protruded medially. Juxta usually with slender, weakly sclerotized latero caudal lobes. Aedeagus stout, curved medially, often with apical spines on dorsal surface, no cornuti.

Etymology: The generic name is derived from Latin, *corymb* or Greek, *κόρυμβος* (= *cluster*), referring to the cluster of long hair like scales on the 2nd segment of the labial palpus.

Key to the species of the genus *Corymbus* Park (due to the missing hind wing *C. crossogramma* (Meyrick, 1921) is not included in the key)

1. Hindwing with club shaped black streak centrally or irregularly scattered with black scales2
- Hindwing without such streak or black scales3
2. Hindwing with club shaped black scales centrally; the male genitalia with a triangular, apically pointed process at lower corner of cucullus on ventral margin*C. nigrizosterus* Park & Aarvik, sp. n.
- Hindwing with black scales irregularly scattered, especially along costa, centrally, and around tornus; male genitalia with a toe like process on ventral margin of basal part of valva*C. hallicis* Park & Aarvik, sp. n.
3. Valva of male genitalia with a triangular, apically pointed process on ventral margin4
- Valva of male genitalia without such process, instead with protrusion on ventral margin*C. malmioius* Park & Aarvik, sp. n.
4. Forewing ground colour pale orange; apex obtuse*C. hirtitibia* Park & Aarvik, sp. n.
- Forewing ground colour orange white or yellowish white; apex more or less sharply produced5
5. Forewing densely covered with yellowish brown scales; male genitalia: caudal margin of basal lobes of uncus convex medially; ventral process of valva small, short, triangular*C. deprinsi* Park & Aarvik, sp. n.
- Forewing sparsely scattered with yellowish brown scales; caudal margin of basal lobes of uncus incised in V-shape medially; ventral process of valva slender, digitate*C. kenyaensis* Park & Aarvik, sp. n.

***Corymbus deprinsi* Park & Aarvik, sp. n.** (Figs 1A, 2A-F)

Holotype: ♂, KENYA, Taita Hills, (K4), Yal plantation; 13-III-1999; U. Dall'Asta leg.; Hg+ Hal; gen. slide no. CIS-7133/Park; RMCA.

Paratypes: 1 ♂; same data as holotype; wing slide no. CIS-7149/Park; 1 ♂; Taita Hills, (K4), Ngangao For. & Plantation; 6-VII-1998; U. Dall'Asta leg.; gen. slide no. CIS-7128/Park; RMCA.

Description Adult (Figs 2A, B): Male wingspan 15-17 mm. Head: Vertex covered with orange white scales. Antenna slightly longer than forewing; basal segment elongate, slightly dilated toward apex, orange white; flagellum orange white, filiform, not ciliate. Second segment of labial palpus with long, hair like orange white scales above; 3rd segment shorter than 2nd segment, strongly upturned, orange white to pale orange, pointed apically. Thorax orange white to pale orange; tegulae of same colour, with fuscous scales along anterior margin. Hind tibia densely haired, fuscous grey on outer surface. Forewing ground colour orange white, brownish scales scattered irregularly, more dense beneath costa and in distal region; a round fuscous discal spot in middle and a kidney shaped one near end of cell; costa slightly arched; apex more or less acute; termen oblique; venation (Fig. 1A) as described for the genus. Hindwing orange white; venation with M_2 absent; M_3 and CuA_1 stalked.

Abdomen yellowish brown on dorsal surface; tergites lack spinose zones; segment VII with sclerotized ridge on anterior margin (Fig. 2F).

Male genitalia (Figs 2C-E): Basal lobes of uncus semi ovate, directed outwardly, convex medially on caudal margin. Gnathos with heavily sclerotized basal plate; median process slender, curved downward beyond middle. Costal bar banded, arising from base of tegumen and reaching middle of valva, without distinctly acute median angle. Valva broad in basal 1/4, then narrowed; costa deeply concave medially; cucullus elongate, more or less thumb like with round apex, densely setose, with broad scales along apical margin; a small, triangular process near lower corner of cucullus, followed by small pegs along ventral margin towards apex; sacculus broad, terminated with round apex, shorter than 1/2 the length of basal part of valva. Juxta weakly sclerotized; latero caudal process slender, directed outwardly, slightly shorter than length of juxta; anterior margin broadly convex. Vinculum broad, with round apices; outer margin sclerotized, banded. Aedeagus thick, as long as valva, curved medially, with pair of small triangular spines subapically on dorsal margin. Female unknown.

Diagnosis: The new species is similar to the following new species, *C. malmoius* but it can be distinguished by more oblique termen of the forewing, fringes concolourous with weak median brownish band. In *C. malmoius*, the fringes are dark brown in distal half; and the valva of the male genitalia has a small, sharply acute, triangular process apically near the lower corner on ventral margin of cucullus, whereas *C. malmoius* does not have such a sharply pointed triangular process, but has a rounded protrusion on the ventral margin.

Distribution: Kenya (Central).

Etymology: The species is named in honour of Willy De Prins who gave a remarkable contribution to studies on African moths, compiling the Afromoths website.

Corymbus malmoius Park & Aarvik, sp. n. (Figs 3A-G)

Holotype: ♂, TANZANIA, Arumeru Distr., Usa River; 1170 m; 1-VIII-1991; L. Aarvik leg.; gen. slide no. CIS-7146/Park; NHMO.

Paratypes: 1 ♂, KENYA, Taita Hills, Wundanyi; 1350 m; 11-VII-1999; A. Bjørnstad leg.; gen. slide no. CIS-7171/Park, wing slide CIS-7253/Park; NHMO; 1 ♂, Eastern Prov., Lewa Conservancy; 2080 m; [UTM:] 37N CA 2838 1547; 28-30-XI-2008; L. Aarvik, D. Agassiz, A. Kingston leg.; gen. slide no. CIS-7145/Park; NHMO; 1 ♂, Taita Hills (C4), Ngangao mixed forest; 5-III-1999; U. Dall'Asta leg.; Hg+Hal; gen. slide no. CIS-7148/Park; RMCA; 1 ♂, Taita Hills (E4), Mbololo mixed for.; 7-III-1999; U. Dall'Asta leg.; Hg+Hal; gen. slide no. CIS-7152/Park; RMCA.

Description Adult (Fig. 3A, B): Male wingspan 14-16 mm. Head, vertex orange white, with orange white, (comma not needed) erect scales laterally; frons orange white. Antenna longer than forewing; basal segment orange white, slightly dilated toward apex, without pecten; flagellum filiform, orange white throughout, not ciliate. Second segment of labial palpus densely covered with long, orange white hair like scales above, ventral surface more less smooth; 3rd segment shorter than 2nd segment, upturned, orange white, pointed apically. Thorax orange white; tegulae of same colour with fuscous scales along anterior margin. Hind tibia with dense hair like scales above and beneath, orange white mixed with grey scales. Forewing ground colour pale orange, densely and irregularly scattered with brownish scales, more dense in upper part of cell and distal 2/5; a distinct round, fuscous discal spot in middle and a kidney shaped one near end of cell; costa slightly arched in basal half and beyond 2/3; apex more or less acute; termen oblique, slightly sinuate medially; fringe shining white in basal 1/3, then black beyond; venation as *C. deprinsi* sp. n. Hindwing orange white; venation as in *C. deprinsi* sp. n. Abdomen yellowish brown on dorsal surface, lacking spinose zones on tergites; segment VII with sclerotized ridge on anterior margin. (Fig. 3G).

Male genitalia (Figs 3C-F): Basal lobes of uncus semiovate, directed outwardly, emarginated in V-shape medially on caudal margin. Gnathos with heavily sclerotized basal plate; median process slender, curved downward beyond 2/3. Tegumen posteriorly deeply emarginated in V-shape. Costal bar banded, curved downward at middle, not sharply angled medially. Valva extremely broad in basal 1/4, then

abruptly narrowed; costa deeply concave medially; cucullus elongate, thumb like, densely setose, strongly convex on dorsal margin, with broad scales along apical margin; ventral margin with broad protrusion at lower corner, followed by numerous pegs along margin towards apex; sacculus broad, terminated with round apex, about 1/4 length of ventral margin of valva. Juxta with slender latero caudal processes, shorter than the length of juxta; caudal margin concave medially and anterior margin medially with triangular process. Vinculum broad, rounded apically; outer margin narrowly sclerotized. Aedeagus stout, as long as valva, strongly curved medially, with pair of small triangular processes subapically on dorsal margin.

Diagnosis: This new species is similar to the preceding new species, *C. deprinsi* sp. n. in external and genital characters, but the forewing ground colour is more yellowish brown with more distinct discal spots, and the termen is less oblique. The male genitalia can be distinguished by the more elongate cucullus, remarkably convex on dorsal margin, ventral margin protruded at lower corner of cucullus. Different from *C. deprinsi* sp. n. which has a triangular process pointing apically.

Distribution: Tanzania (North), Kenya (South-East).

Etymology: The species epithet is derived from a Korean archaic word, *malmoye*, meaning a language dictionary.

***Corymbus hirtitibia* Park & Aarvik, sp. n. (Figs 4A-H)**

Holotype: ♂, TANZANIA, Morogoro Distr., Kimboza For. Res.; 300 m; 30-X-1992; L. Aarvik leg.; gen. slide no. CIS-7147/Park; NHMO.

Paratype: 1 ♂, KENYA, Central, Thika; 6000 ft; 3-XI-1999; D. J. L. Agassiz leg.; gen. slide no. CIS-7129/Park; NHMUK.

Description Adult (Figs 4A-D): Male wingspan 11-11.5 mm. Head, vertex orange white, with pale orange erect scales laterally; frons orange white. Antenna about 1.2 times longer than forewing; basal segment orange white, slightly dilated toward apex, without pecten; flagellum filiform, orange white throughout, not ciliate. Second segment of labial palpus strongly angled, upturned, densely covered with pale orange, long hair like scales above; ventral surface yellowish white, more or less smooth; 3rd segment slightly shorter than 2nd segment, pale orange, pointed apically. Thorax orange white; tegulae of same colour, mixed with fuscous scales along anterior margin. Hind tibia with rough yellowish brown scales above and beneath. Forewing ground colour light orange or orange white, uniformly speckled with brownish scales; discal spots weakly developed, a small one in middle and a kidney shaped one near end of cell; costa slightly arched in basal 1/3, with some fuscous scales along costal margin in basal 2/5 and yellowish white scales beyond in apical 4/5; apex obtuse; termen oblique; fringe on termen concolorous in basal 1/3, with narrow orange white band medially, fuscous in apical half. Hindwing orange white; apex acute; fringes concolorous.

Male genitalia (Figs 4E-H): Basal lobes of uncus semiovalate, directed outwardly, emarginated medially on caudal margin. Gnathos with heavily sclerotized basal plate; median process slender, curved downward beyond 2/3. Tegumen posteriorly deeply emarginated in V-shape. Costal bar banded, not sharply angled medially. Valva broad in basal 1/4; costa deeply concave medially; cucullus elongate, thumb like, densely setose, slightly convex on costal margin; ventral margin apically near lower corner with sharply pointed triangular process, followed by numerous pegs along margin; sacculus more or less slender with round apex, about half the length of basal part of valva. Juxta shield shaped with protrusions medially on lateral margins; latero caudal lobes directed distally; caudal margin concave medially and anterior margin triangularly produced. Vinculum broad, rounded apically, narrowly sclerotized along outer margin. Aedeagus stout, as long as valva, strongly curved medially, with a pair of small triangular processes subapically on dorsal margin.

Diagnosis: The new species can be distinguished from the above two species by the light orange forewing ground colour, the lack of distinct fuscous discal spots, the pale yellow hindwing, and the hind tibia with rough yellowish brown scales above and beneath. The male genitalia are similar to those of *C. deprinsi* sp. n., but it can be distinguished by the longer gnathos, the larger and more apically

acute ventral process on the cucullus, and the larger juxta with latero caudal lobes directed distally, whereas they are directed outwardly in *C. deprinsi* sp. n.

Distribution: Tanzania (South), Kenya (Central).

Etymology: The species epithet is derived from Latin, *hirtus* (= hairy) and *tibia* (= leg), referring to the hairy hind tibia.

***Corymbus kenyaensis* Park & Aarvik, sp. n. (Figs 5A-E)**

Holotype: ♂, KENYA, Central, Thika; 5000 ft; 28-V-2000; D. J. L. Agassiz leg.; gen slide no. CIS-7259/Park; NHMUK.

Description Adult (Figs 5A-B): Male wingspan, 14 mm. Head, vertex yellowish white, with orange white erect scales laterally. Antenna slightly longer than forewing; basal segment orange white, dilated in distal half, without pecten; flagellum filiform, orange white, not ciliate. Second segment strongly angled, upturned, densely covered with pale orange, long, hair like scales above, smooth on ventral surface; 3rd segment slightly shorter than 2nd segment, pale orange, pointed apically. Thorax yellowish white; tegulae of same colour as thorax, fuscous along anterior margin. Hind tibia with rough yellowish brown scales above and beneath; tarsi yellowish white. Forewing ground colour yellowish white, speckled with brownish scales, more dense in upper 1/3 and in distal 2/5; discal spots weak, a small one in middle and a kidney shaped one near end of cell; costa slightly arched in basal half, with some fuscous scales along costal margin in basal 1/3; apex obtuse; termen oblique; fringe on termen concolorous in basal half and fuscous in apical half. Hindwing orange white; apex acute; fringes concolorous. Abdomen dorsally orange white, lacking spinose zones on tergites; segment VII with sclerotized ridge on anterior margin; sternite VIII broad, concave medially on caudal margin (Fig. 5E).

Male genitalia (Figs 5C-D): Basal lobes of uncus semiovalate, directed distally, emarginated in V-shape medially on caudal margin. Gnathos with heavily sclerotized basal plate; median process slender, preapically curved downward. Tegumen posteriorly deeply emarginated in V-shape. Costal bar banded, gently curved, with median angle. Valva broad in basal 1/4; costa deeply concave medially; cucullus thumb like, dilated distally, densely setose, with nearly straight costal margin; ventral process of valva not sharply pointed apically, followed by numerous pegs along ventral margin of cucullus and termen; sacculus shorter than basal part of valva, slightly dilated distally with round apex. Juxta shield shaped; latero caudal lobes very slender, as long as the length of juxta; caudal margin medially slightly concave. Vinculum broad, rounded apically, narrowly sclerotized along outer margin. Aedeagus stout, shorter than valva, curved medially; apical triangular processes very small.

Diagnosis: The male genitalia of *C. kenyaensis* sp. n. are similar to those of *C. hirtitibia* sp. n., but the basal lobes of the uncus are more deeply incised on the caudal margin; the cucullus is more dilated distally, with a ventral process slightly longer but not sharply pointed apically; the latero caudal lobes of the juxta directed outwardly; and the aedeagus with minute processes subapically. However, it is easily distinguished from *C. hirtitibia* sp. n. by the yellowish white ground colour of both wings.

Distribution: Kenya (Central).

Etymology: The species epithet is derived from the type locality.

***Corymbus hallicis* Park & Aarvik, sp. n. (Figs 6A-F)**

Holotype: ♂, MALAWI, Ntchisi; 13° 22'S 34° 00'E; 1500 m; 11-XII-2002; D. J. L. Agassiz leg.; gen. slide no. CIS-7130/Park; NHMUK.

Description Adult, (Figs 6A-C, F): Male wingspan 18 mm. Head, vertex pale greyish orange, laterally with yellowish brown erect scales. Antenna slightly longer than forewing; basal segment dark brown in basal 3/5 on external surface, slightly dilated in apical 1/3, without pecten; flagellum filiform, pale orange becoming orange white towards apex, not ciliate. First segment of labial palpus dark brown externally; second segment strongly angled, arched, upturned, densely covered with pale orange, long, hair like scales above, smooth on ventral surface; 3rd segment shorter than 2nd segment, pale orange,

pointed apically. Thorax covered with brownish scales dorsally; tegulae of same colour as thorax, fuscous along anterior margin. Hind tibia with rough orange white hair like scales above and beneath; tarsi orange white. Forewing ground colour orange white, irregularly speckled with dark brown scales; a round, small dark brown discal spot in middle and a kidney shaped, dark brown oblique one near end of cell; costa slightly arched in basal half, nearly straight beyond; apex obtuse; termen oblique; fringe on termen pale orange grey. Hindwing ground colour orange white; a row of erect scales running from base along lower margin of cell; a row of black scales centrally from base to termen, around tornus, and along termen; apex acute; fringes concolorous. Abdominal segments lacking spinose zones on tergites; sternite VIII concave on caudal margin medially (Fig. 6F).

Male genitalia (Figs 6D-E): Basal lobes of uncus semiovalate, directed outwardly emarginated medially on caudal margin. Basal plate of gnathos sclerotized latero caudally with triangular acute processes; median process slender, curved downward preapically. Tegumen posteriorly deeply emarginated in V-shape. Costal bar slender, gently curved, without median angle. Valva broad basally, with a great toe like process on the ventral margin of basal part; costa gently concave medially; cucullus thumb like, densely setose, with slightly convex costal margin, with numerous pegs along ventral margin; sacculus shorter than basal part of valva, nearly parallel sided, slightly oblique near apex. Juxta slender latero caudal lobes as long as the length of juxta; caudal margin medially deeply concave. Vinculum broad, rounded apically, with narrowly sclerotized band along outer margin. Aedeagus stout, shorter than valva, curved medially; with pair of large triangular processes apically on dorsal margin.

Diagnosis: The new species can be distinguished from its congeners by the more fuscous forewing and the hindwing with blackish scales in central part, around tornus, and along termen. The male genitalia have more easily distinguishable diagnostic characters with a great toe like process on the basal part of the valva, not on cucullus, and the aedeagus has a pair of large triangular processes on ventral margin basally.

Distribution: Malawi (Central).

Etymology: The species epithet is derived from Latin, *hallex* (= great toe, hallux) referring to the toe like process on the ventral margin of the valva.

***Corymbus nigrizosterus* Park & Aarvik, sp. n. (Figs 7A-G)**

Holotype: ♂, TANZANIA, Muheza Distr., Amani; 900-950 m; 12-XII-1992; L. Aarvik leg.; gen. slide no. CIS-7134/Park; NHMO.

Paratypes: 1 ♂, TANZANIA, Tanga, E. Usambaras, Sigi River; 2000 ft; 17-VIII-2000; D. J. L. Agassiz leg.; NHMUK; 1 ♂, UGANDA, Budongo Forest, 3000 ft, 19-VII-2000; D. J. L. Agassiz leg.; gen. slide no. CIS-7257/Park; NHMUK.

Description Adult (Figs 7A-C, G): Male wingspan 14-14.5 mm. Head vertex orange white, laterally with orange white erect scales. Antenna about 1.2 times longer than forewing length; basal segment yellowish white, without pecten; flagellum filiform, yellowish white, not ciliate. Second segment of labial palpus nearly straight in basal 1/3, then bent at right angle, upturned, densely covered with orange white, long hair like scales appressed above, nearly smooth on ventral surface; 3rd segment much shorter than 2nd segment, orange white, pointed apically. Thorax and tegulae orange white. Hind tibia with rough orange white hair like scales above and beneath; tarsi yellowish white. Forewing ground colour yellowish white, scattered with pale orange scales in basal 1/3; discal spots weak, one smaller in middle and a kidney shaped one near end of cell; costa slightly arched beyond 2/3; apex obtuse; termen oblique; fringes on termen concolorous in basal half and fuscous in apical half. Hindwing orange white, with a black, club shaped streak arising from middle of cell to near termen; apex more or less obtuse; fringes concolorous. Abdomen orange white dorsally, lacking spinose zones on tergites; segment VII with sclerotized ridge on anterior margin; sternite VIII broad, concave medially on caudal margin. (Fig. 7G).

Male genitalia (Figs 7D-F): Basal lobes of uncus large, broad, with more or less dentate caudal

margin medially; the median process of the gnathos relatively short; posterior margins of tegumen with distinct oblique, V-shape ridges; ventral process at the lower corner of the cucullus triangular with broader base; cucullus apically nearly forming a right angle; juxta with thick latero caudal lobes, directed caudally. Aedeagus stout, broader in basal 1/3, strongly curved medially, with pair of apical triangular processes on dorsal surface.

Diagnosis: The new species can be distinguished from all congeners by the presence of a black, club shaped streak in the hindwing, running from near middle to near termen. The male genitalia are similar to those of *C. kenyaensis* sp. n., but can be distinguished by the large, broad basal lobes of the uncus, which are more or less dentate medially on the caudal margin; the shorter median process of the gnathos; the tegumen with distinct V-shaped, oblique ridges on posterior margin; triangular process with broader base at the lower corner of the cucullus; and the latero caudal lobes of the juxta thicker.

Distribution: Tanzania (East: Tanga region), Uganda.

Etymology: The species name is derived from Latin, *niger* (= *black*), referring to the conspicuous black streak in the hindwing.

Corymbus crossogramma (Meyrick, 1921) **comb. n.** (Fig. 1B)

Corthyntis crossogramma Meyrick, 1921: 87.

Eridachtha crossogramma; Meyrick, 1925: 220; Janse, 1954: 367; Park & De Prins, 2019: 67.

Material examined: && (holotype), ZIMBABWE, Rhodesia, Victoria Falls; Jan.; A. J. T. Janse leg.; *Corthyntis crossogramma* M., Type no. 576; gen. slide no. 3739; TMSA.

Adult (Fig. 3C): Wing venation and labial palpus were illustrated by JANSE (1954, pl. 161, figs 8 & 9), and the adult on pl. 157, fig. 3. Wingspan 14 mm.

Male genitalia: see JANSE (1954, pl. 153, fig. 1- photo; pl. 161, fig. 10- line drawing).

Remarks: The forewing veins CuA_1 and CuA_2 of *crossogramma* are remote from each other, differing from those of *Eridachtha* in which they are stalked. It is assumed that MEYRICK (1925) placed *crossogramma* in *Eridachtha* due to a miss interpretation of CuA_1 and CuA_2 , which are shortly stalked in the forewing, and JANSE (1954) followed it. Also the expansible tuft of hairs on the 2nd segment of the labial palpus in *crossogramma* differs from that of *Eridachtha*, forming a cluster of long hair like scales. Consequently, *crossogramma* is transferred to *Corymbus* Park. The species can be distinguished from the new species described above by the external appearance as figured in figure 1B.

Distribution: Zimbabwe.

Acknowledgements

The authors thank David J. L. Agassiz, UK, who kindly checked the English of the manuscript, and made his recently collected material from Africa available for the present study. We are grateful to Jurate and Willy De Prins, Royal Belgian Institute of Natural Sciences, Brussels, Belgium, for arranging the loan of valuable specimens from the Royal Museum of Central Africa, Tervuren and supplying valuable references. We thank Martin Krüger, Ditsong National Museum of Natural History (= former Transvaal Museum), Pretoria, South Africa, for providing access to the collection and loan of material of Lecithoceridae during the first author's visit in November 2018. We thank the referees for comments that improved the manuscript substantially. This research was supported by Basic Science Research Program through the National Research Foundation of Korea (NRF) funded by the Ministry of Education (2018042503).

BIBLIOGRAPHY

DE PRINS, J. & DE PRINS, W., 2019.– *Afromoths*, online database of Afrotropical moth species (Lepidoptera). Available from <http://www.afromoths.net> (accessed April 2019)

- JANSE, A. J. T., 1954, 1963.– Gelechiidae. In A. J. T. JANSE (ed.). *The Moths of South Africa*, **5**(4)(1954): 332-349, 362-363, 366-370, 377-384; **6**(1963): 271.
- KORNERUP, A. & WANSCHER, J. H., 1978.– *Methuen Handbook of Colour*: 252 pp. 3rd ed. Eyre Methuen, London.
- MEYRICK, E., 1921.– Descriptions of South African Microlepidoptera.– *Annals of the Transvaal Museum*, **8**(2): 49-148.
- MEYRICK, E., 1925.– Lepidoptera Heterocera. Gelechiidae. In P. WYTSMAN. *Genera Insectorum*, **184**: 1-290, 5 pls.
- PARK, K.-T., 2018a.– Three new genera and ten new species of the subfamily Lecithocerinae (Lepidoptera, Lecithoceridae) from Cameroon, Africa, based on material collected in 1913-18.– *Zootaxa*, **4415**: 561-579. <https://doi.org/10.11646/zootaxa.4415.3.9>
- PARK, K.-T., 2018b.– A new genus *Thubdora* Park, sp. nov. and seven new species of the subfamily Torodorinae (Lepidoptera, Lecithoceridae) from Africa.– *Journal of Asia-Pacific Entomology*, **21**: 1085-1093. <https://doi.org/10.1016/j.aspen.2018.07.018>
- PARK, K.-T. & DE PRINS, W., 2019.– A review of the Lecithoceridae (Lepidoptera: Gelechioidea) of southern Africa, based on type specimens deposited in the Ditsong National Museum of Natural History (TMSA), with descriptions of three new species.– *Zootaxa*, **4623**: 61-89. <https://doi.org/10.11646/zootaxa.4623.1.5>
- PARK, K.-T., MEY, W., KOO, J. M., DE PRINS, J. & CHO, S. W., 2019.– Revision of the genus *Ptilothyris* Walsingham, 1897 (Lepidoptera: Gelechioidea: Lecithoceridae), with descriptions of eight new species from Africa.– *Zootaxa* **4567**: 201-235. <https://doi.org/10.11646/zootaxa.4567.2.1>.
- VÁRI, L., KROON, D. M. & KRÜGER, M., 2002.– *Classification and Checklist of the species of Lepidoptera recorded in Southern Africa*: xxi + 384 pp. Simple Solutions, Chatswood.
- WALSINGHAM, L., 1881.– On the Tortricidae, Tineidae and Pterophoridae of South Africa.– *Transactions of the Entomological Society of London*, **1881**: 219-288.
- WALSINGHAM, L., 1891.– African Micro-Lepidoptera.– *Transactions of the Entomological Society of London*, **1891**: 63-132, pls. III-VII.
- WALSINGHAM, L., 1897.– Western Equatorial African Micro-Lepidoptera.– *Transactions of the Entomological Society of London*, **1897**: 33-67, pls. II-II.

K. T. P.
Bioresource and Environmental Center
Incheon National University
Incheon, 22012
COREA DEL SUR / REPUBLIC OF KOREA
E-mail: ktpark02@gmail.com

J. M. K.
Department of Plant Medicine
Chungbuk National University
Cheongju, CB, 28644
COREA DEL SUR / REPUBLIC OF KOREA
E-mail: taran9539@gmail.com

*L. A.
Natural History Museum
University of Oslo
P. O. Box 1172 Blindern
NO-0318 Oslo
NORUEGA / NORWAY
E-mail: leif.aarvik@nhm.uio.no

*Autor para la correspondencia / *Corresponding author*

(Recibido para publicación / *Received for publication* 16-VII-2019)

(Revisado y aceptado / *Revised and accepted* 16-VIII-2019)

(Publicado / *Published* 30-XII-2019)

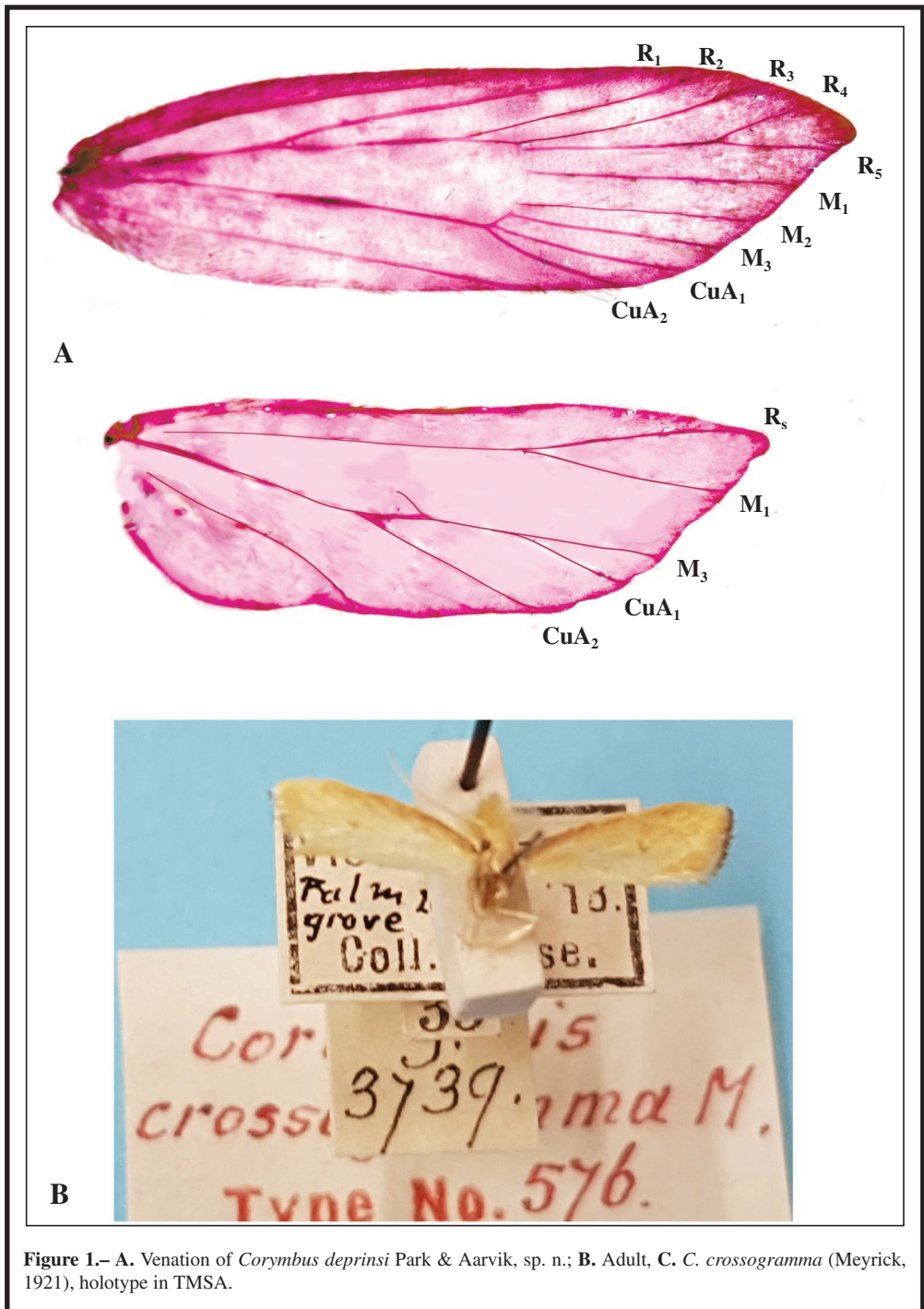


Figure 1.– A. Venation of *Corymbus deprinsi* Park & Aarvik, sp. n.; B. Adult, *C. C. crossogramma* (Meyrick, 1921), holotype in TMSA.

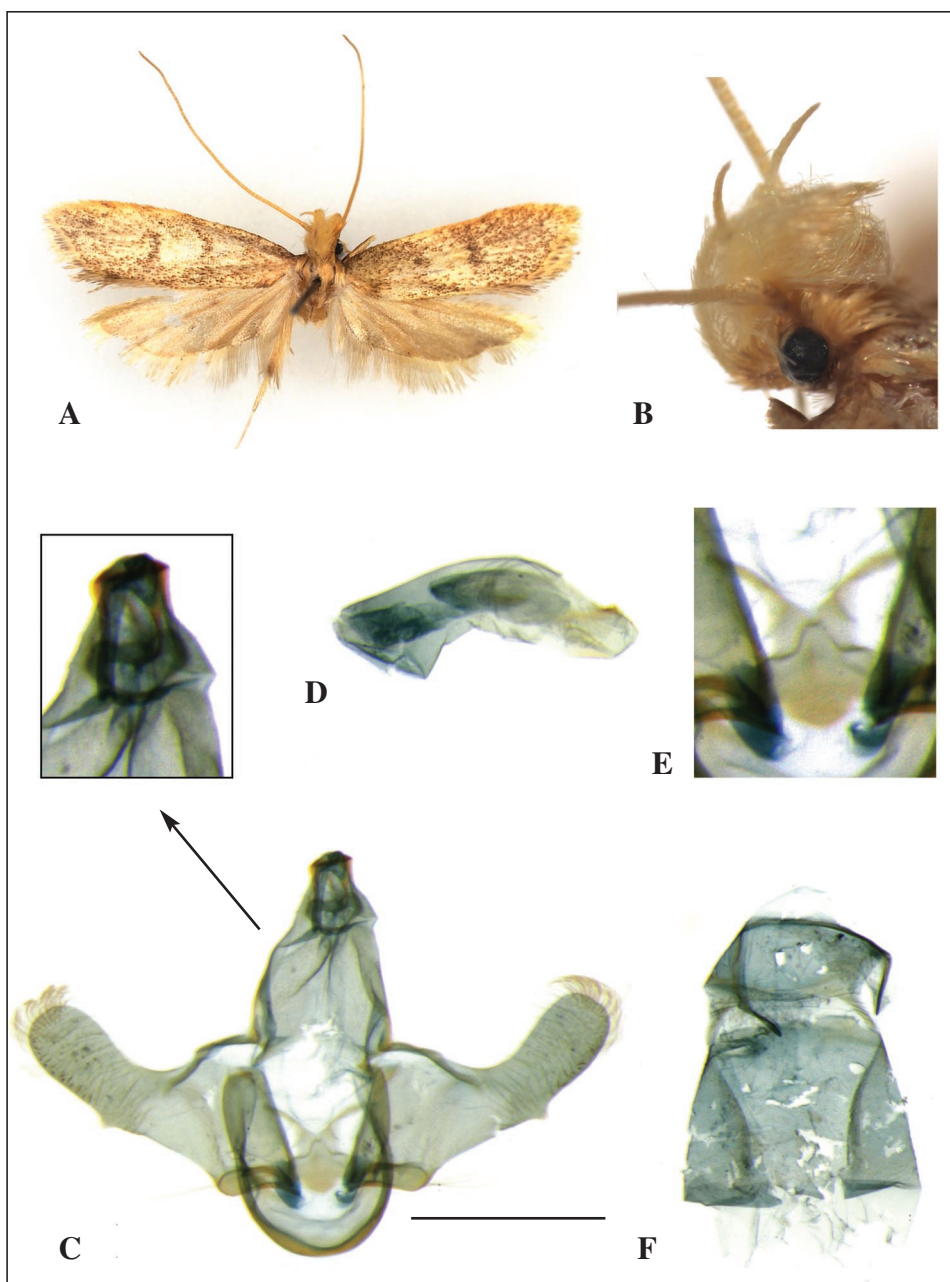
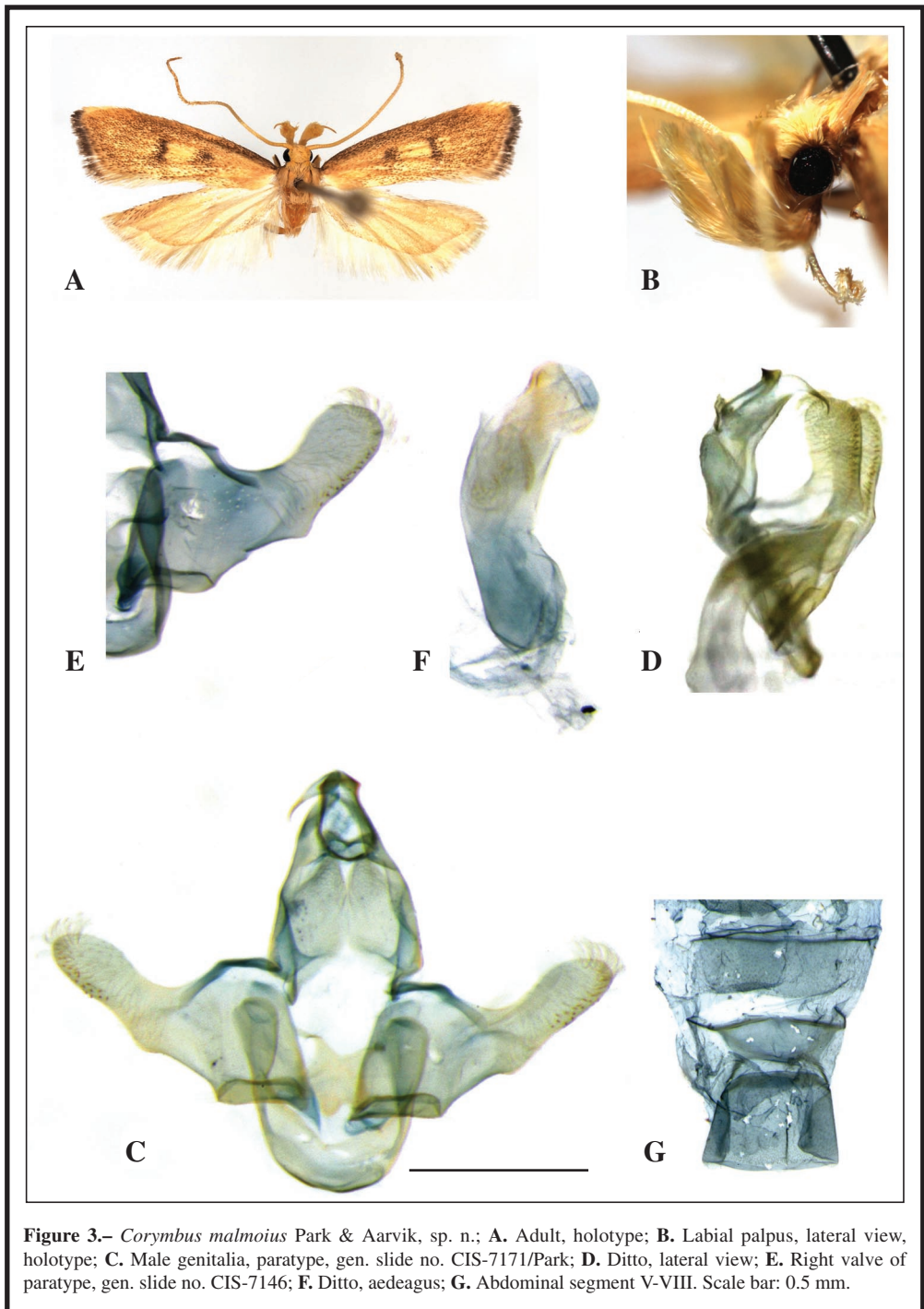


Figure 2.– *Corymbus deprinsi* Park & Aarvik, sp. n.; **A.** Adult, holotype; **B.** Labial palpus, lateral view; **C.** Male genitalia, paratype, gen. slide no. CIS-7133/Park; **D.** Ditto, aedeagus; **E.** Close up juxta; **F.** Abdominal segment VII-VIII. Scale bar: 0.5 mm.



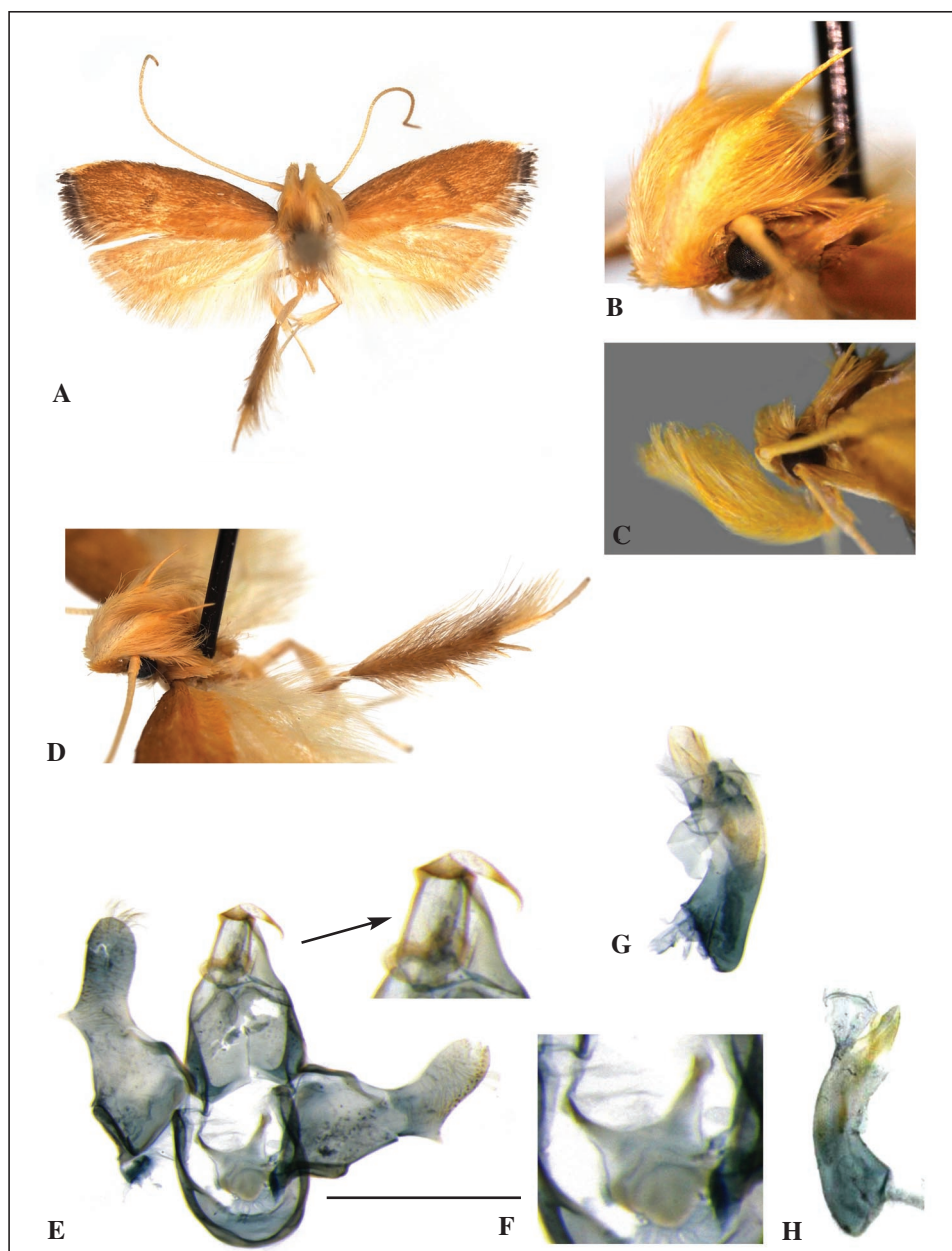
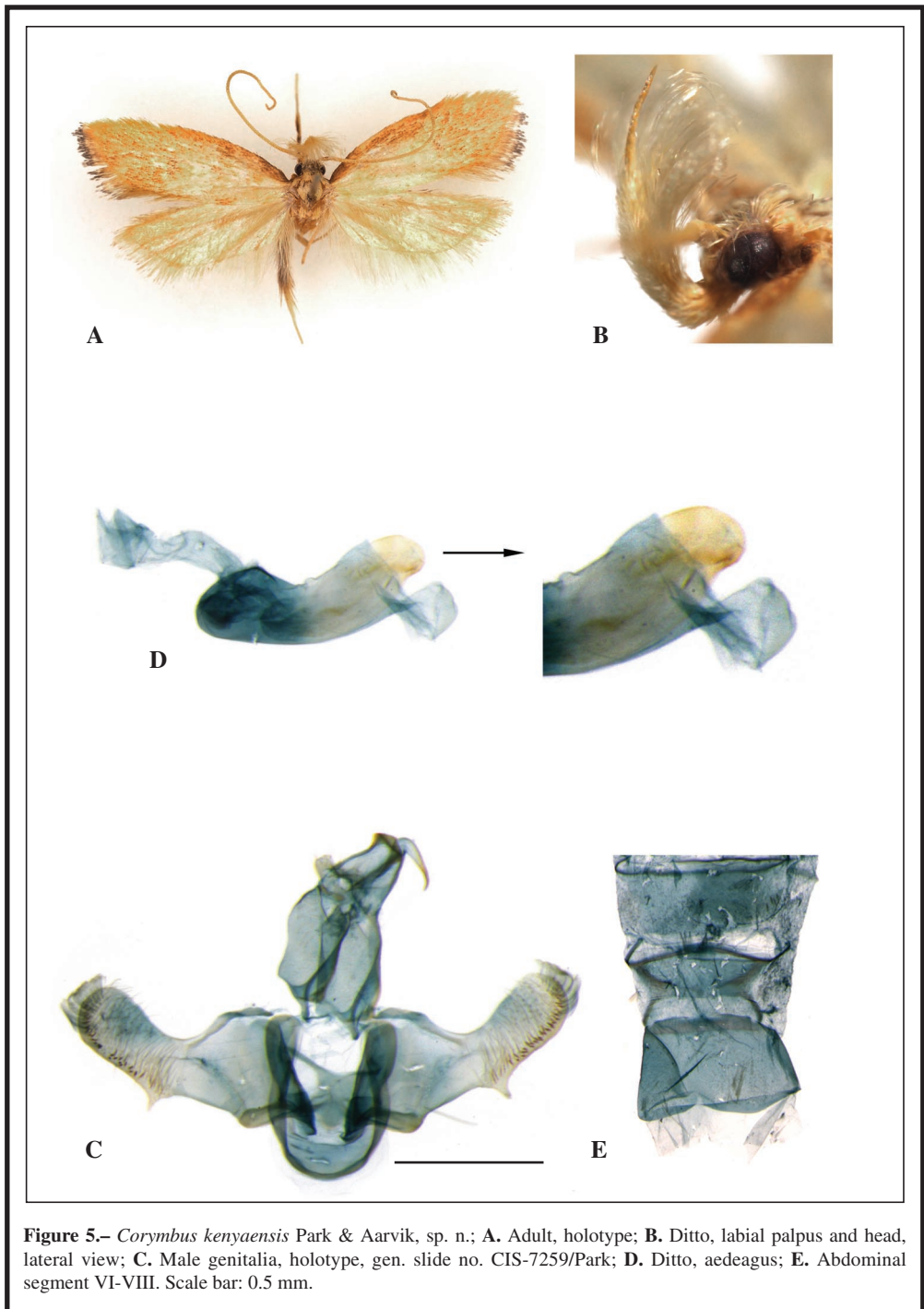


Figure 4.– *Corymbus hirtitibia* Park & Aarvik, sp. n.; **A.** Adult, holotype; **B.** Ditto, labial palpus; **C.** Labial palpus of a paratype, lateral view; **D.** Head and tibia, holotype; **E.** Male genitalia, holotype, gen. slide no. CIS-7147/Park; **F.** Ditto, close-up juxta; **G.** Ditto, aedeagus; **H.** Aedeagus of a paratype, gen. slide no. CIS-7129/Park. Scale bar: 0.5 mm.



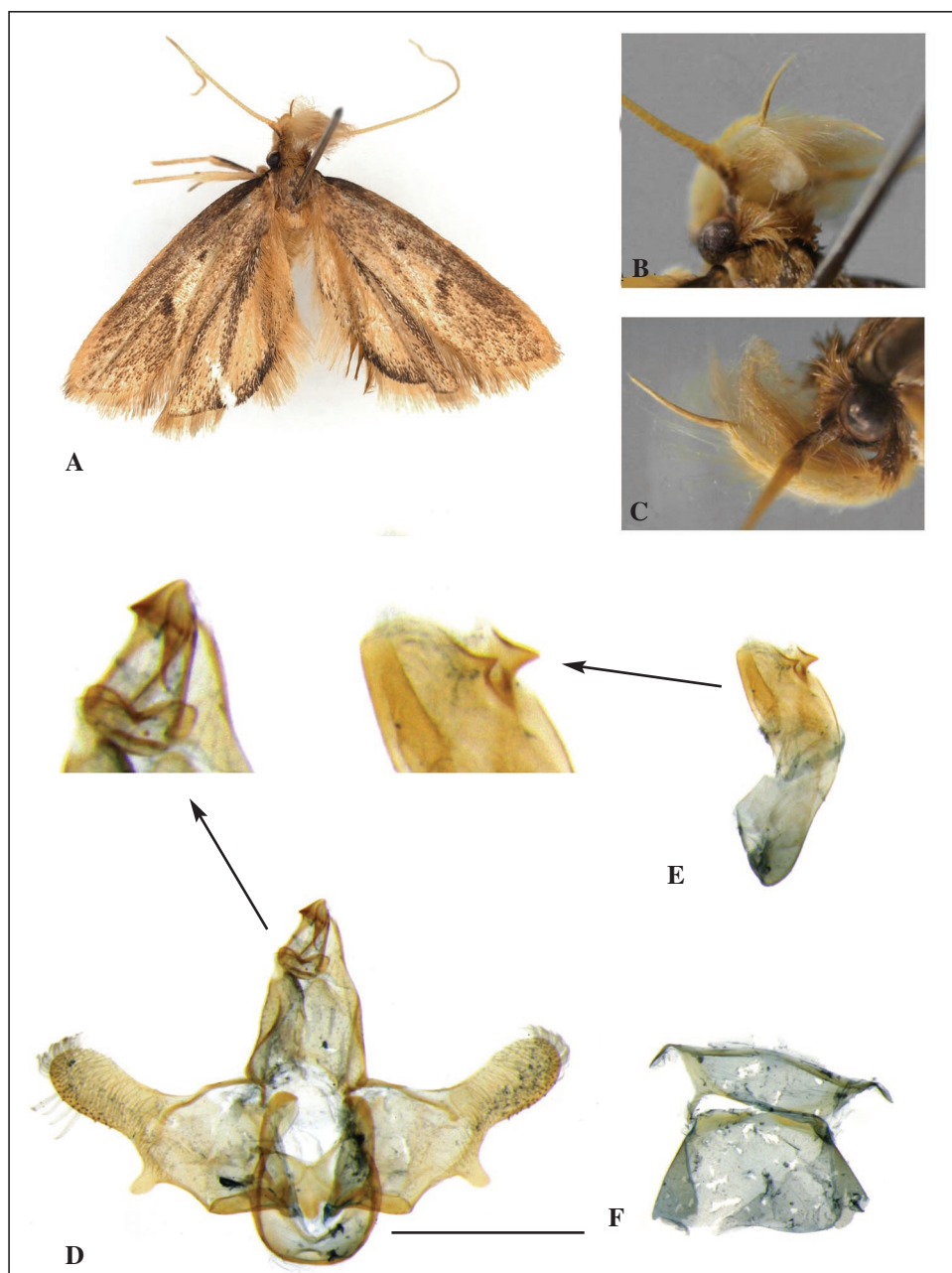


Figure 6.– *Corymbus hallicis* Park & Aarvik, sp. n.; **A.** Adult, holotype; **B.** Head, dorsal view; **C.** Labial palpus, lateral view; **D.** Male genitalia, holotype, gen. slide no. CIS-7130/Park; **E.** Ditto, aedeagus; **F.** Abdominal segment VII-VIII. Scale bar: 0.5 mm.

