

PARC NATIONAL DE L'UPEMBA
I. MISSION G. F. DE WITTE
en collaboration avec
W. ADAM, A. JANSSENS, L. VAN MEEL
et R. VERHEYEN (1946-1949).
Fascicule 32 (5)

NATIONAAL UPEMBA PARK
I. ZENDING G. F. DE WITTE
met medewerking van
W. ADAM, A. JANSSENS, L. VAN MEEL
en R. VERHEYEN (1946-1949).
Afllevering 32 (5)

GEOMETRIDÆ

BY

DAVID S. FLETCHER (London)

The *Geometridæ* collected in the Upemba National Park by the G. F. DE WITTE Expedition consist of 111 specimens representing 35 species. The greater part of the material, 92 specimens representing 22 species, was collected at an elevation of over 1.400 m; only 9 specimens representing 5 species were collected from below an elevation of 1.000 m. As only five of the localities, out of more than one hundred with an elevation of over 1.400 m visited by members of the expedition, appear to have been worked for this family of moths, it is reasonable to assume that this small collection represents but a fraction of the Geometrid fauna of the park. A small number of the specimens are in a ragged condition and it has been possible to refer them to genera only.

I should like to express my thanks to Prof. V. VAN STRAELEN for the privilege of studying this most interesting collection.

All the localities between [] are without the Park's boundaries.

ÆNOCHROMINÆ.

CONOLOPHIA WARREN, 1894.

Conolophia conscitaria conscitaria (WALKER).

Panagra conscitaria WALKER, 1861, List Lep. Ins. B. M., 23 : 986.

Panagra smilodontaria SNELLEN, 1872, Tijdschr. Ent., 15 : 83, pl. 7 : 1-3.

Conolophia maculata BASTELBERGER, 1908, Int. ent. Ztg., 2 : 98.

Conolophia maculata ab. *rubrifusa* BASTELBERGER, 1909, Int. ent. Ztg., 2 : 282.

1 ♂, Kanonga, 695 m., 13-27.IX.1947.

The specimen has a large fuscous spot between veins *Cu2* and *A1* distad of the postmedial fascia; the name *maculata* BASTELBERGER is available for this aberration.

Distribution : West, Central and East Africa, Transvaal, Natal.

CARTALETIS WARREN, 1894.

Cartaletis libyssa libyssa (HOPFFER).

Aletis libyssa HOPFFER, 1857, Monatsb. Akad. Wiss. Berlin, 1857 : 422.

2 ♂, Kaswabilenga, riv. Lufira, 700 m, 15.IX-6.XI.1947.

2 ♀, Kilwezi, 750 m, 26-31.VII.1948.

1 ♀, Kilwezi, 750 m, 2-7.VIII.1948.

GEOMETRINÆ.

PRASINOCYMA WARREN, 1897.

Prasinocyma angolica PROUT.

Prasinocyma simiaria angolica PROUT, 1930, in SEITZ, Gross-schmett. Erde, 16 : 22.

1 ♂, Kaziba, affl. g. Senze et sous-affl. dr. Lufira, 1.140 m, 4-12.II.1948.

P. angolica, as Mr. PROUT suspected when describing it as a race of *simiaria* GUENÉE, is in fact a distinct species. The posterior edge of the eighth sternum in the male of *simiaria* is shallowly concave and bears two short, truncate processes, which are themselves sometimes slightly concave. In the male of *angolica* the posterior edge of the eighth sternum is deeply and broadly cleft and bears two stout, strongly sclerotized processes, which are curved dorsad and rounded apically.

Distribution : Angola, Uganda, Kenya, Tanganyika.

CHLORISSA STEPHENS, 1831.

Chlorissa albistrigulata (WARREN).

Hemithea albistrigulata WARREN, 1897, Novit. zool., 4 : 39.

1 ♂, Kankunda, affl. g. Lupiala et sous-affl. dr. Lufira, 1.300 m, 14-20.XI.1947.

Distribution : Sao Thomé, W. Africa, Kivu, Uganda, S. Sudan, Kenya to Cape.

Chlorissa articulicornis (PROUT).

Nemoria articulicornis PROUT, 1916, Ann. Transvaal Mus., 5 : 153, pl. 25 : 41.

Nemoria articulicornis ab. *ruficristata* PROUT, loc. cit., p. 154.

3 ♂, Lusunga, 1.760 m, 10.IV.1947.

Distribution : Transvaal, Natal.

NEMORIA HÜBNER, 1818.

[*Nemoria* sp.]

1 ♂ [Masombwe, riv. Kanakakasi, 1.100 m], 4-16.X.1948.

COLLESIS WARREN, 1897.

Collesis mimica WARREN.

Collesis mimica WARREN, 1897, Novit. zool., 4 : 37.

1 ♀, Kankunda, affl. g. Lupiala et sous-affl. dr. Lufira, 1.300 m, 14-20.XI.1947.

1 ♀, Buye-Bala, affl. g. Muye et sous-affl. dr. Lufira, 1.750 m, 24-31.III.1948.

Distribution : Kenya, Uganda, Nyasaland, N. and S. Rhodesia.

COSMOSTOLOPSIS WARREN, 1902.

Cosmostolopsis stillata (FELDER).

Nemoria stillata FELDER, 1875, Reise Novara, Zool., Lep. Het., pl. 127 : 17.

Eucrostis rufostellata MABILLE, 1900, Ann. Soc. ent. Fr., 68 : 740.

Eucrostis rufocellata MABILLE, 1900, Ann. Soc. ent. Fr., 68 : 741. *Syn. nov.*

Eucrostis mirabiliaria OBERTHÜR, 1916, Etudes Lep. comp., 12 : 88, pl. 385 : 3233.

Cosmostolopsis stillata phylarcha PROUT, 1920, Novit. zool., 27 : 267.

1 ♀, Mabwe, rive Est du lac Upemba, 585 m, 15.VIII.1947.

Distribution : Sao Thomé, W. Africa, Seychelles, Somaliland, N.E. Congo, Kenya to Cape, Madagascar.

STERRHINÆ.

ISOPLANIA WARREN, 1897.**Isopenia trisinuata** WARREN.

Isopenia trisinuata WARREN, 1897, Novit. zool., 4 : 56.

1 ♂, Kaziba, affl. g. Senze et sous-affl. dr. Lufira, 1.140 m, 5-20.II.1948.
Distribution : W. Africa, Angola, Nyasaland to Cape.

SCOPULA SCHRANK, 1802.**Scopula cinnamomata** n. sp.

(Figs. 5, 6, 10, 12, 13.)

♂ 21 mm; ♀ 24 mm. Male. Antennæ ciliate; palpi equal in length to the diameter of the eye. Palpus and face fuscous black; a bar of white between the antennæ; collar fuscous. Thorax and abdomen white, lightly irrorate with cinnamon. Fore-coxæ fuscous; other legs white, irrorate with cinnamon. Upperside of wings white lightly irrorate with cinnamon and a few fuscous scales. Pattern, as shewn in the figure, marked with a mixture of cinnamon and fuscous. The underside is similarly patterned and coloured, though the forewing is deeply suffused with fuscous basad. The head of the only female is missing; the pattern in similar but more strongly marked.

Genitalia. Male. Socii short, rounded apically; valve deeply bifurcate, the costal portion slender and membranous, the distal portion sclerotized and tapered. Anellus lobes sclerotized and broadly rounded. Aedeagus longer than the remainder of the structure, pointed at the apex; vesica with one short cornutus, equal in length to the width of the aedeagus. Mappa broadly rounded posteriorly, without cerata.

Female. Genital plate elliptical; ductus bursæ short; bursa copulatrix ovate, the inner surface minutely toothed as shewn in the figure.

Holotype ♂ and allotype ♀ : riv. Mubale, 1.480 m, 14.V.1947, in the « Institut des Parcs Nationaux du Congo Belge ».

Scopula fimbrilineata (WARREN).

Craspedia fimbrilineata WARREN, 1902, Novit. zool., 9 : 499.

Craspedia immaculata WARREN, 1905, Novit. zool., 12 : 388.

Craspedia protuberans WARREN, 1909, Novit. zool., 16 : 113.

Idæa niobe FAWCETT, 1916, Proc. zool. Soc. Lond., 1916 : 730.

1 ♀, Kabwe, sur la rive dr. Muye, affl. dr. Lufira, 1.320 m, 11.V.1948.
Distribution : W. Africa, Angola, Kivu, Kenya to Cape, Madagascar.

Scopula sp.

1 ♂, Kankunda, affl. g. Lupiala et sous-affl. dr. Lufira, 1.300 m,
22-28.XI.1947.

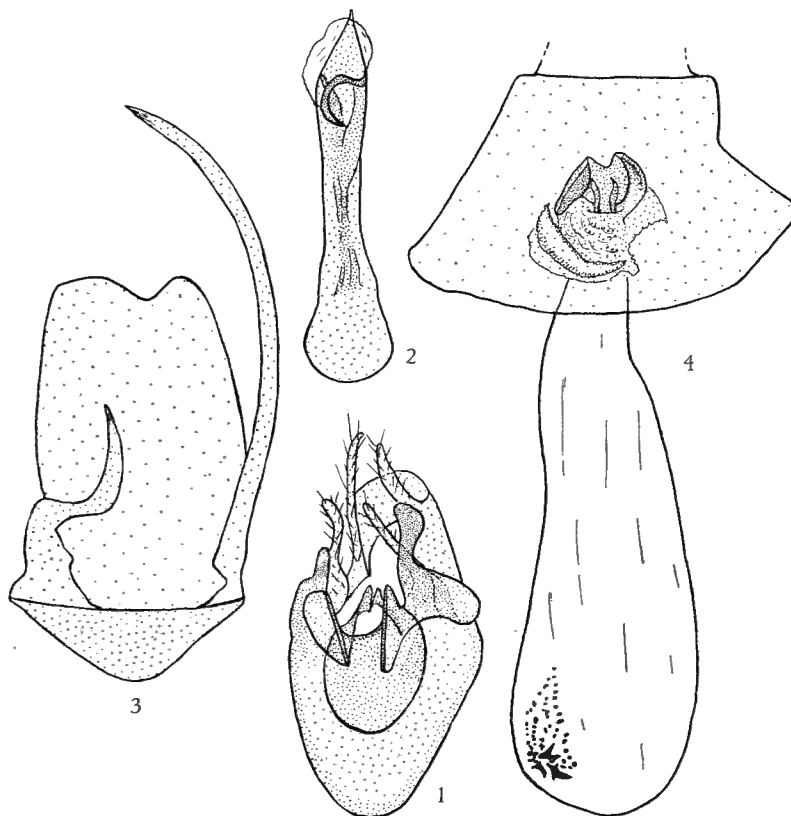
*Scopula subobliquata* (PROUT).

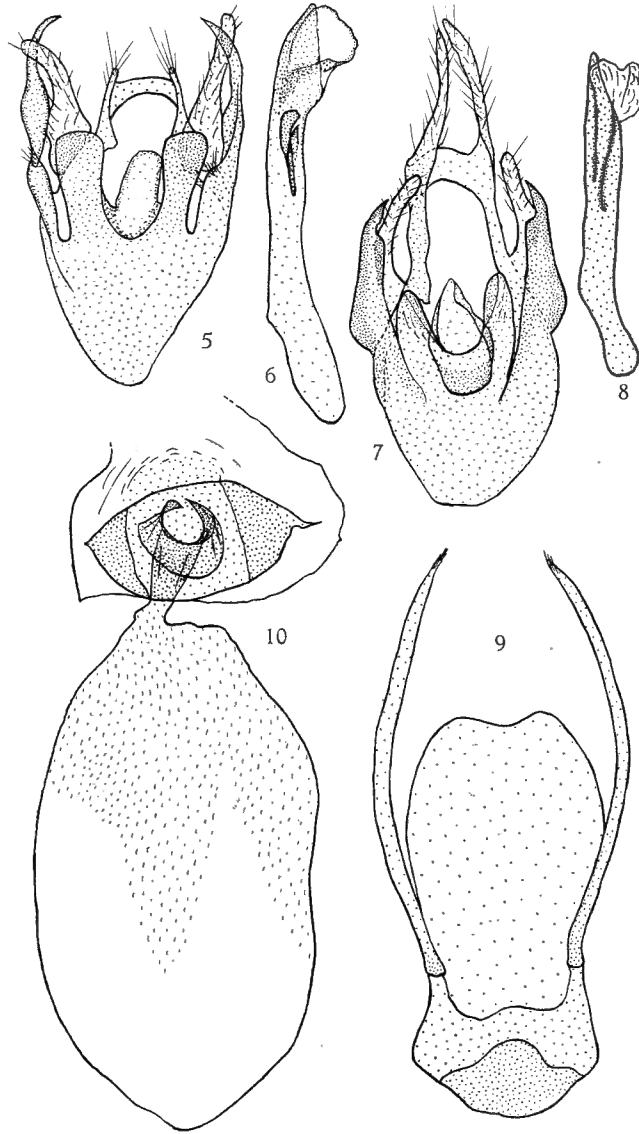
FIG. 1 : Valves. — FIG. 2 : Aedeagus. — FIG. 3 : Mappa and cerata.
FIG. 4 : Female genitalia.

Scopula serena PROUT.

Scopula serena PROUT, 1920, Novit. zool., 27 : 296.

1 ♀, riv. Mubale, 1.480 m, 1-20.V.1947.

Distribution : W. Africa, Kivu, Kenya to Cape, Madagascar.



Scopula cinnamomata n. sp.

FIG. 5: Valves. — FIG. 6: Aedeagus. — FIG. 10: Female genitalia.

Scopula nipa n. sp.

FIG. 7: Valves. — FIG. 8: Aedeagus. — FIG. 9: Mappa and cerata.

Scopula subobliquata (PROUT).

(Figs. 1-4.)

Pylarge subobliquata PROUT, 1913, Ann. Transvaal Mus., 3 : 198, pl. 12 : 5.

1 ♂, Kankunda, affl. g. Lupiala et sous-affl. dr. Lufira, 1.300 m, 14-20.XI.1947.

22 ♂, 7 ♀, Lusinga, 1.760 m, 15.III-26.IV.1947.

A fine series of 23 ♂ and 7 ♀ has established the identity of the male of this species, for long a matter of uncertainty. Specimens in the British Museum from Nyasaland (Mt. Mlanje), referred to Mr. PROUT in his description of *Scopula promethes* (1928, Bull. Soc. Lép. Genève, 6 : 22), belong to *subobliquata*. A preparation of the genitalia of a Mt. Mlanje female was compared with a preparation of the genitalia of the female holotype of *subobliquata* and the two were found to be identical. A Mt. Mlanje male was also dissected and both sexes match the series from Upemba.

It is evident from this material that JANSE's conception of the male of *subobliquata* (1934, Moths of S. Africa, 2, (2) : 179, figs. 59, 62) is erroneous; below is a description of the male genitalia made from a Mt. Mlanje specimen.

Socii tapered; valve bifurcate, the costal half membranous and equal in length to the socii; the distal half is sclerotized and rounded, that of the right valve being twice as long as that of the left. Aedeagus broadly rounded at the base, pointed at the apex; vesica with a single sickle-shaped cornutus, equal in length to the width of the aedeagus. Mappa and cerata as shewn in the figure.

Female : Genital plate round; ostium bursæ strongly sclerotized, shaped as shewn in the figure; bursa copulatrix almost cylindrical, somewhat broadened anteriorly; signum, consisting of several sclerotized spots, pyriform.

Distribution : Nyasaland, Tanganyika, Transvaal, Natal.

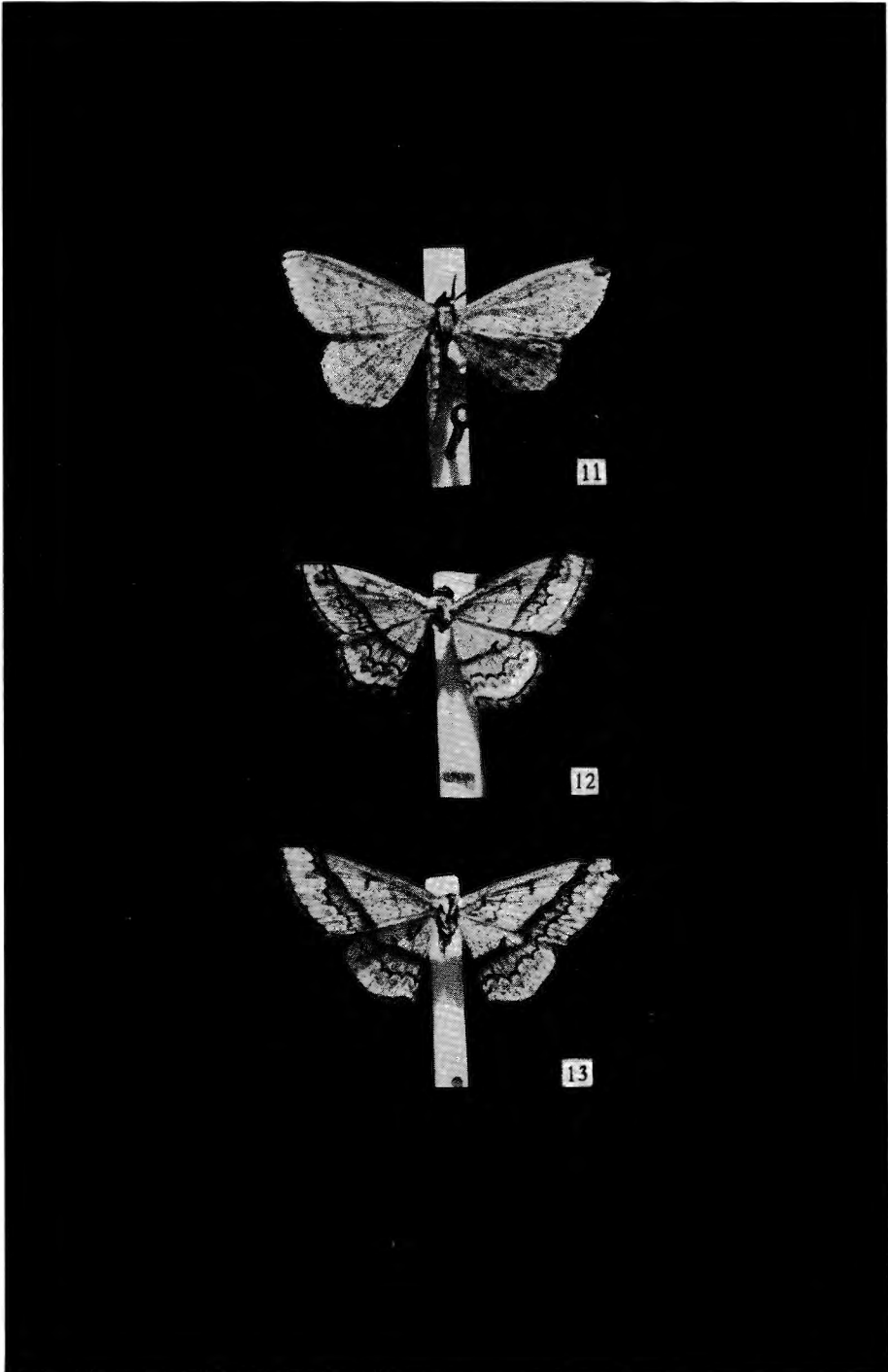
Scopula sp.

1 ♂, Lusinga, 1.760 m, 15.III.1947.

Scopula nipha n. sp.

(Figs. 7, 8, 9, 11.)

♂ 21-23 mm. Antennæ ciliate, the cilia equal in length to the diameter of the shaft. Palpi one-and-one-quarter times as long as the diameter of the eye. Hindtibia one-and-one-third times as long as the hindtarsus, dilate



with a strong hair-pencil. Face fuscous black except for a few white scales just above the base of the tongue. Shaft of antenna and collar white. Palpus, thorax and abdomen white with a few scattered fuscous scales. Upperside of wings white, lightly irrorate with fuscous. On each wing there are four buff-coloured transverse fasciæ, lunulate, relatively broad and ill-defined; one is proximad and three are distad of the black cell spot; terminal row of spots between the veins black. The underside of the forewing is strongly suffused with fuscous basad.

Genitalia. Socii long and slender; valve deeply bifurcate, the costal part slender and membranous and as long as the socii, the distal part strongly sclerotized and tapered apically, the inner edge just slightly serrate; anellus lobes broad-based and rounded narrowly at the apex, strongly sclerotized. Aedeagus tapered apically; vesica without cornuti, but with two longitudinal sclerotized ribs. Mappa and cerata as shown in figure.

Holotype ♂ in the « Institut des Parcs Nationaux du Congo Belge », 1 ♂ Paratype in the British Museum : Lusinga, 1.760 m, 17.III.1947.

Closely related to *Scopula coniargyris* PROUT (1932, Novit. zool., 37 : 241), of which the female type from Mweru is still unmatched.

STERRHA HÜBNER, 1825.

Sterrha circumsticta (WARREN).

Ptychopoda circumsticta WARREN, 1904, Novit. zool., 11 : 468.

4 ♂, 2 ♀, riv. Mubale, 1.480 m, 1-20.V.1947.

4 ♂, Lusinga, 1.760 m, 10-14.IV.1947.

Previously known only from the type series of two females from Angola.

Sterrha sp.

1 ♀, Kaswabilenga, 700 m, 3-4.XI.1947.

Sterrha mathetica PROUT.

Sterrha mathetica PROUT, 1934, Rev. Zool. Bot. Africaine, 26 : 83.

3 ♂, riv. Mubale, 1.480 m, 14.V.1947.

Previously known only from the type series of two males from Elisabethville in Belgian Congo.

EXPLANATIONS OF FIG. 11-13.

FIG. 11. — *Scopula nipha* n. sp. (holotype ♂).

FIG. 12. — *S. cinnamomata* n. sp. (holotype ♂).

FIG. 13. — *S. cinnamomata* n. sp. (allotype ♀).

(Scale : 1/1.)

***Sterrhæ exquisita* (WARREN).**

Eois exquisita WARREN, 1897, Novit. zool., 4 : 219, pl. 5 : 10.

2 ♀, Kankunda, affl. g. Lupiala et sous-affl. dr. Lufira, 1.300 m, 14-20.XI.1947.

Distribution : Angola, Nyasaland, Tanganyika, N.E. Rhodesia.

LARENTIINÆ.**XANTHORHÆ HÜBNER, 1825.*****Xanthorhæ exorista* PROUT.**

Xanthorhæ exorista PROUT, 1922, Novit. zool., 29 : 351.

3 ♂, Lusinga, 1.760 m, 17.III-10.IV.1947.

Distribution : Abyssinia, Uganda, Kivu, Kenya to Cape.

***Xanthorhæ* sp.**

1 ♂, Kilolomatembo, affl. Lusinga et sous-affl. dr. Lufwa, 1.750 m, 17.VI.1945.

LARENTIA TREITSCHKE, 1825.***Larentia megalaria* (GUENÉE).**

Eubolia megalaria GUENÉE, 1858, Hist. nat. Ins., Spec. Gen. Lép., 10 : 489.

8 ♂, 10 ♀, Lusinga, 1.760 m, 15.III-10.IV.1947.

Distribution : Angola, Uganda, Kenya to Cape.

MIMOCLYSTIA WARREN, 1901.***Mimoclystia pudicata multilinearia* (SWINHOE).**

Plerocymia pudicata multilinearia SWINHOE, 1904, Trans. ent. Soc. Lond., 37 : 567.

1 ♂, Lusinga, 1.760 m, 15.III.1947.

Distribution : Kenya.

EUPITHECIA CURTIS, 1825.**Eupithecia semipallida** JANSE.

Eupithecia semipallida JANSE, 1933, Moths S. Africa, 2 : 46, pl. 4 : 25.

2 ♂ [Dipidi, affl. dr. Lufwa et sous-affl. dr. Lufira, 1.700 m],
22.IV.1947.

1 ♀, Lusinga, 1.760 m, 26.IV.1947.

Eupithecia sp.

1 ♀, Lusinga, 1.760 m, 11.IV.1947.

Eupithecia kibatiata DEBAUCHE.

Eupithecia kibatiata DEBAUCHE, 1938, Expl. Parc Nat. Albert, Miss. G. F. DE
WITTE, 20 : 32, pl. 1 : 13.

1 ♀, Lusinga, 1.760 m, 17.III.1947.

The Upemba specimen is rather darker and of a more unicolorous brown than the male type from Kivu, which is the only other specimen known of this species, but until more material is available for study the precise significance of these slight differences cannot be determined.

Eupithecia sp.

1 ♂, Lusinga, 1.760 m, 17.III.1947.

Eupithecia rediviva PROUT.

Eupithecia rediviva PROUT, 1917, Ann. S. Afr. Mus., 17 : 54.

3 ♂, 2 ♀, Lusinga, 1.760 m, 10-26.IV.1947.

Distribution : Kenya, Tanganyika, Transvaal, Natal.

TRIMETOPIA GUENÉE, 1857.**Trimetopia ætheraria** GUENÉE.

Trimetopia ætheraria GUENÉE, 1857, Hist. nat. Ins., Spec. Gen. Lép., 9 : 352,
pl. 5 : 9.

1 ♂, Kaziba, affl. g. Senze et sous-affl. dr. Lufira, 1.140 m, 5-20.II.1948.

Distribution : Abyssinia, Central and East Africa, S. Rhodesia.

ENNOMINÆ.

SEMIOTHISA HÜBNER, 1818.**Semiothisa rhabdophora** (HOLLAND).

Gonodela rhabdophora HOLLAND, 1892, Entomologist, 25, Suppl., 95.

Gonodela interlineata WARREN, 1904, Novit. zool., 11 : 478.

1 ♂, Lusinga, 1.760 m, 17.III.1947.

Distribution : Angola, Kivu, Uganda, Kenya, Tanganyika, N. and S. Rhodesia.

Semiothisa trirecurva confusata WARREN. New combination.

Semiothisa confusata WARREN, 1899, Novit. zool., 6 : 308.

1 ♂, Lusinga, 1.760 m, 15.III.1947.

Rather smokier in appearance than typical *trirecurva* SAALMÜLLER from Madagascar, but identical in the structure of the genitalia.

Distribution : Kenya, Uganda.

Semiothisa sp.

1 ♂, Lusinga, 1.760 m, 15.III.1947.

OMPHALUCHA WARREN, 1905.**Omphalucha brunnea** (WARREN).

Calicha brunnea WARREN, 1899, Novit. zool., 6 : 305.

Calamodes lignaria WARREN, 1903, Novit. zool., 10 : 275.

Aphilopota ambusta WARREN, 1904, Novit. zool., 11 : 472.

Omphalucha brunnea immoda PROUT, 1938, in SEITZ, Gross-schmett. Erde, 16 : 149.

1 ♂, Kaswabilenga, 700 m, 13-24.IX.1947.

Distribution : Nigeria, Angola, Uganda, Kenya, N. Rhodesia.

RHODOPHTHITUS BUTLER, 1880.**Rhodophthitus thapsinus** PROUT.

Rhodophthitus thapsinus PROUT, 1931, Novit. zool., 36 : 173.

1 ♂, 1 ♀, Lusinga, 1.760 m, 22.X.1948.

Distribution : Angola.

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