
REVISED CATALOGUE OF THE AFRICAN SPHINGIDAE (LEPIDOPTERA)

with

Descriptions of the East African species

by

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INTRODUCTION

The present catalogue consists of a taxonomic revision of the Sphingid fauna of the Ethiopian Region, with descriptions of a number of new genera, species and subspecies as well as detailed descriptions and records of all the species known to occur in Ethiopia, Somalia, Socotra, the Sudan, Kenya, Uganda and Tanzania. For reasons of economy the genitalia and early stages have only been described and figured if previously undescribed, or if of special importance. Illustrations of all adult moths belonging to new species or subspecies and of all species not previously figured have been appended, as well as of many others of special interest. Details of illustrations of African Sphingids in other publications are given in the index. A more natural classification than any available hitherto has been proposed, based mainly on a more complete knowledge and understanding of the genital armatures of both sexes and on the early stages.

CLASSIFICATION AND NOMENCLATURE

In 1903, when Rothschild and Jordan published their classical revision of the world Sphingidae, they recognised a total of 722 species, 180 of which were African.

35 years later the family had risen to over 1,000 known species and in the present work 260 African species are recognised, 160 of which are known to occur in eastern Africa.

The majority of the Sphingidae are tropical insects, comparatively few occurring in the temperate regions; in North America the rather poor resident fauna is boosted by many species of migrants from tropical America; in the Old World only a few species migrate regularly from the tropics, owing to the presence of formidable east-west barriers such as the Sahara, the Mediterranean and the Himalayas.

Before 1903 the classification of the Sphingidae had been based on purely superficial characters with the result that many unrelated species were lumped together and many closely related species were placed in widely separated genera.

Rothschild and Jordan were the first to adopt a natural, phylogenetic classification in their monumental revision of the family. They used such characters as structure of

the antennae, spination of the legs and abdomen, structure of the palpi, pilifer and feet, and examined the genitalia of a large number of species.

Earlier classification had been based mainly on wing venation and shape, which are characters of very little value in the Sphingidae.

Rothschild and Jordan's classification of 1903 has been accepted, with a few minor changes, by all subsequent authors and is followed in this work. Rothschild and Jordan were pioneers in the practice of dissecting and examining the genital armatures and their rather crude methods (dry preparation, which is particularly unsatisfactory with the females), did not enable them to take these structures into sufficient account when defining genera and following up their relationships. In the Philampelini and Choerocampini this did not matter much as the genital structure of these insects is extremely uniform, but it did lead to a number of misconceptions in the more advanced Ambulicini. It has been one of the aims of this work to elaborate and perfect the classification of Rothschild and Jordan and to render it more compatible with a critical assessment of the genital armatures of both sexes.

The names proposed by R. & J. for supra-generic taxa have been adopted in this work, although older and more appropriate names are available in some cases; however, R. & J's. names have been in use for over 60 years and it would serve no useful purpose to change them. The only names which have had to be rejected are Sesiinae and Sesiicae, because the type genus of these groups (*Sesia* Fabricius) is not a Sphingid.

The other groups have been given the terminations recommended in the "International Code of Zoological Nomenclature" (1961). Rothschild and Jordan split the family into two "Divisions", three subfamilies and seven tribes. As the term "Division" has no status in nomenclature, it has not been used in this work, the term "subfamily", which is the next in rank after family, being used instead; all subsequent taxa above the rank of genus have been demoted by one step. Thus R. & J's. "tribes" become subtribes, a taxon which is not recognised by the Code of Zoological Nomenclature, but which is nevertheless useful. The alternative would have been to raise the two so-called "divisions" to family rank, a procedure which cannot be justified in view of the great compactness and isolation of the Sphingidae.

Family SPHINGIDAE Samouelle, 1819

Type species (designated by R. & J., 1903): *Smerinthus ocellatus* (L.)

Subfamily ASEMANOPHORINAE (R. & J.) 1903

Division ASEMANOPHORAE R. & J.

Subfamily ASEMANOPHORAE Janse 1932

No type species or genus has ever been designated for this Subfamily, but since it includes the type species of the family and is therefore the typical or nominate subfamily, its type species must be *Smerinthus ocellatus* L. (Europe). The correct name of the subfamily should be Smerinthinae Butler 1877. The type species was formerly

placed in the genus *Sphinx* L.

All the species of this subfamily lack the patch of sensory hairs on the inner surface of the first palpal segment. There is a tendency for the reduction of numerous characters which are well developed in the Semanophorinae, such as the frenulum, which however, is present in all the African species, the proximal pair of tibial spurs, the pulvillus and the paronychium and the modified scales of the male genitalia. On the other hand the genital armatures of the males tend to be much more complex and varied than in the Semanophorinae, the valve being frequently bilobed and provided with a harpe of varying structure and the uncus being sometimes bilobed and even trifid.

The larvae are always cylindrical and do not have the fifth segment enlarged, as in some members of the Semanophorinae.

Tribe AMBULICINI (Butler) 1877

Subfamily *Ambulicinae* Butler 1877

Subfamily *Ambulicinae* R. & J. 1903

Tribe *Ambulicini* Janse 1932

Type species (designated by R. & J., 1903) *Protambulyx strigilis* L. (America). *Smerinthus ocellatus* L., which is the type of the family and of the subfamily is included in this tribe and should therefore be its type species. The correct name of the tribe should be Smerinthini Butler 1877.

One of the largest groups in Africa. Proboscis usually reduced, often rudimentary, never longer than abdomen. All the African species are strictly nocturnal and none are known to feed on flowers. The females are usually larger than the males, broader winged, comparatively inactive and seldom attracted by light. Antennae never hooked, terminating in a short, densely scaled segment, usually more or less fasciculate, occasionally pectinate in the males (*Ceridia*, *Xenosphingia*). Lower margin of eye frequently ciliated. Male genitalia very complex and varied, modified scales small or absent. Outline of wings irregular in many genera. Venation very uniform. Vein 6 of forewing may arise at the end of the discoidal cell, or from a short stalk common to 7 and 8. Veins 6 and 7 of the hindwing may arise at the same point, or have a common stalk of varying length.

The larvae are cylindrical, covered in small granules or tubercles, sometimes in short branching or dentate spines. (*Lophostethus*, *Acanthosphinx*, *Rhadinopasa*). Pupae generally naked and subterranean, without free proboscis case.

The world distribution of the Ambulicini is as follows: the figures for the African genera and species are based on this work, those for the exotic species and genera on Rothschild and Jordan's Revision of 1903 and are about 80% of the present figure.

This applies to the figures given for the other groups of Sphingida also.

	<i>Indo-Australian</i>	<i>Ethiopian</i>	<i>Palaearctic</i>	<i>American</i>	<i>Total</i>
Genera	20	31	9	10	60
Species	59	90	16	27	183

26 genera and 55 species occur in Eastern Africa.

Tribe ACHERONTIINI (Butler) 1877

Subfamily *Acherontiinae* Butler 1877

Subfamily *Acherontiinae* R. & J. 1903

Tribe *Acherontiini* Janse 1932

Type species *Acherontia atropos* L.

Very similar to previous tribe. Last antennal segment very long, usually hooked. Proboscis short to very long, only exceptionally rudimentary. Outline of wings always entire. Venation very uniform, as in previous tribe. Hindwing cell usually smaller. Sexual dimorphism very slight in most species. Genital armature much more uniform than in previous tribe, simpler; valve always entire, harpe simple, aedeagus unarmed; cornuti present in a few species; modified scales larger, more conspicuous when present. Most species dull coloured, highly cryptic in appearance; hw not visible when at rest. Females more active and more readily collected than in the *Ambulicini*. Some species are migratory and very widely distributed. Larvae cylindrical, smooth or granulose, sometimes pubescent, with round heads. Pupae very often with proboscis case prominent, or separated from body. 5 larval instars.

Subtribe ACHERONTIAE

Tribe *Acherontiicae* R. & J. 1903

Type species *Acherontia atropos* L.

This group is characterised by having a hollow protected by a dorsal hair tuft on the inner surface of the second palpal segment.

WORLD DISTRIBUTION OF THE ACHERONTIAE.

	<i>Indo-Australian</i>	<i>Ethiopian</i>	<i>Palaearctic</i>	<i>American</i>	<i>Total</i>
Genera	3	4	2	1	5
Species	7	6	2	1	13

There are three widely distributed and one endemic species in Eastern Africa, two of which (*Herse convolvuli* L. and *Acherontia atropos* L.) are not confined to Africa.

Subtribe SPHINGES

Tribe *Sphingini* Grote & Robison 1865

Tribe *Sphingicae* R. & J. 1903

Type species *Sphinx ligustris* L., Europe.

This group includes all the other African species of this tribe. The inner surface of the second palpal segment is not hollowed and there is no hair tuft. Antennae hooked.

WORLD DISTRIBUTION OF THE SPHINGES.

	<i>Indo-Australian</i>	<i>Ethiopian</i>	<i>Palaearctic</i>	<i>American</i>	<i>Total</i>
Genera	7	13	2	16	36
Species	10	24	9	85	127

9 genera and 16 species occur in Eastern Africa.

Subtribe SPHINGULI

Tribe *Sphingulicae* R. & J. 1903

Type species *Sphingulus mus* Standinger, Siberia.

A small group of species which link the Acherontiini with the Ambulicini. The second palpal segment is not hollowed, the antennae are not hooked, the proboscis is short, but not rudimentary. The early stages are similar to those of the Ambulicini.

All the species are Asiatic or Australian and R. & J. list 7 genera and 11 species.

Subfamily SEMANOPHORINAE Janse 1932

Division SEMANOPHORAE R. & J. 1903

Type species *Pholus satellitia* Drury, America

This subfamily may be readily separated from the Asemanophorinae by the presence of a patch of sensory hairs at the base of the inner surface of the first palpal segment. Generally speaking, this group is more primitive and uniform than the previous subfamily and the tendency towards structural reduction and loss less evident.

All the species appear to feed on flowers and all have a well developed proboscis, though never of excessive length as in some species of the Acherontiini. The male genital armature is of a simple and very uniform pattern in all the Chaerocampini and in most of the Philampelini, consisting of an undivided uncus and gnathos, entire valve and ventro-proximal harpe, usually with a few large modified scales on the outer surface of the valve. The only exceptions to this rule are the genus *Sphingonaepiopsis* which, although Philampeline in general appearance and structure, has a genital armature which recalls that of the Semanophorinae and the tribe Dilophonotini which has symmetrically divided uncus and gnathos in the more primitive American species, becoming asymmetrical by reduction of the right hand lobes and valves in some of the more advanced genera such as *Cephonodes*. The larvae of the Semanophorinae are seldom granular or pilose and never spiny, and have round heads. In the Philampelini and in the Choerocampini the head is often small and the 5th segment enlarged.

The pupa usually has a projecting, keeled proboscis case in the Choerocampini and Philampelini, but not in the Dilophonotini. The separation of the three tribes which constitute the subfamily Semanophorinae is not clear cut and there are several genera which share characters common to two or more tribes. *Sphingonaepiopsis* has already been discussed and should perhaps be placed near the junction of the Asemanophorinae and Semanophorinae. *Macroglossum* and *Leucostrophus*, although treated as an extreme development of the Philampelini by R. & J. (1903) and thus widely separated from *Cephonodes* and from the American *Aellopos*, the Holarctic *Haemorrhagia* and the Oriental *Sataspes* share many characters with these genera.

It is possible that some of the characters shared by these widely separated genera are related to the needs of a diurnal existence and have evolved independently in the two tribes.

Tribe DILOPHONOTINI Burmeister 1875

Subfamily *Sesiinae* R. & J. 1903

Tribe *Sesiini* Janse 1932

Type species: *Haemorrhagia* (formerly *Sesia*) *tityus* L. Europe designated by R. & J. 1903.

Mainly an American group which may be separated from the other tribes of the Sesiinophorinae by the structure of the male genitalia, which usually have divided uncus and gnathos, or are asymmetrical owing to the loss or reduction of one lobe of the uncus and gnathos and of one valve. All the more primitive species which have symmetrical genitalia and approach the Asemanophorinae in several respects were included by R. & J. (1903) in the subtribe Dilophonotae. Many of the more advanced species are diurnal and some are generalised mimics of such bees as *Bombus* and *Xylocopa*; these latter species belong mainly to the Holarctic genus *Haemorrhagia* and to the Old World genera *Cephonodes* and *Sataspes*, in which the majority of the scales are discarded after emergence, leaving a hyaline wing membrane. As seen earlier, these day flying Dilophonotini have a great number of characters in common with several diurnal genera of Philampelini with which they may be more closely related than R. & J.'s arrangement would suggest.

Subtribe DILOPHONOTAE

Tribe *Dilophonoticae* R. & J. 1903

Type species *Erinnis ello* L., America.

A group of primitive species with crested head, double crested thorax, uniseriate abdominal spines and symmetrical genitalia. These insects have some characters in common with the Acherontiini, and can in fact be regarded as a link between the two subfamilies of the Sphingidae. There are 4 genera and 19 species, all American.

Subtribe AELLOPODES

Tribe *Sesiicae* R. & J. 1903

Type species *Haemorrhagia* (formerly *Sesia*) *tityus* L. (Europe.)

Although the type species is not in *Sesia* Fabricius 1775, the tribe was named by R. & J. after that name which was regarded as the oldest generic name in the group. Since then *Sesia* has been applied to a genus in the family Sesiidae (formerly Aegeridae) and can no longer be used in the Sphingidae. The next available name for *Sesia* (Sphingidae) is *Aellopos* Hübner 1822, and the name of the subtribe has been derived from it. An alternative name would have been *Haemorrhagiae*, but this has not been used, as there are doubts about the validity of *Haemorrhagia* Grote & Robinson 1865, *Haemaris* Dalman 1816 having been rejected by Grote & Robinson and later by Rothschild and Jordan on rather dubious grounds.

All the more advanced species of the tribe including the highly aberrant day-flying genera with strongly asymmetrical genitalia were placed in this subtribe by

R. & J. They share a number of characters with the Philampelini and are in some respects intermediate between them and the Dilophonotae and Acherontiini.

WORLD DISTRIBUTION OF THE AELLOPODES					
	<i>Indo-Australian</i>	<i>Ethiopian</i>	<i>Palaearctic</i>	<i>American</i>	<i>Total</i>
Genera	3	1	1	18	20
Species	14	5	9	76	101

There is only one species in Eastern Africa.

Tribe PHILAMPELINI Janse 1932

Family *Philampelidae* Burmeister 1878

Subfamily *Philampelinae* R. & J. 1903

Type species: *Pholus satellitia* Drury, America.

A very variable and ill-defined group. Most of its characters have been described under the heading *Semanophorinae*. The Philampelini may be readily separated from the Dilophonotini by the undivided uncus and gnathos and by the palpi, which are never laterally angular. The genitalia are never asymmetrical and resemble in most species those of the Choerocampini. The antennae are very variable and so is the spination of tergites and legs. All the species have frenula and retinacula and there is little reduction of the paronychial and pulvilli. The larvae usually taper towards the head which is small and round, but the enlargement of the 5th segment, so typical of the Choerocampini is not so conspicuous. The Philampelini may be readily separated from the Choerocampini by the structure of the bristly appendage (pilifer) at the base of the proboscis, which is single-lobed, never bilobed as in the Choerocampini. The scaleless area at the inner surface of the palpi is absent or reduced, never as large as in the Choerocampini. All the species are believed to feed on flowers; some are strictly crepuscular and seldom attracted to light. Others are diurnal (*Macroglossum* and allied genera) and have a number of important structural characters in common with the Dilophonotini.

Subtribe PHILAMPELI

Tribe *Philampelicae* R. & J. 1903

Type species *Pholus satellitia* Drury, America.

This subtribe comprises the more primitive species of the group. Apical segment of antenna long; abdominal spines in single series; modified scales small and numerous. There is one American genus with 19 species and a second genus with a single species from Hawaii.

Subtribe NEPHELES

Tribe *Nephelicae* R. & J. 1903

Type species: *Nephele funebris* Fabricius, Africa.

A large group, very varied in appearance, with numerous rather specialised side branches. The diurnal genera bear a striking resemblance to the more specialised Aellopodes. Genitalia of simple structure, very uniform in both sexes and of the same structure as those of the Choerocampini. Modified scales present in most genera, large and few. The genus *Sphingonaepiopsis* is rather aberrant and its male genitalia resemble those of the Asemanophorinae.

WORLD DISTRIBUTION OF THE NEPHELES.

	<i>Indo-Australian</i>	<i>Ethiopian</i>	<i>Palearctic</i>	<i>American</i>	<i>Total</i>
Genera	18	15	9	9	40
Species	106	91	12	16	221

10 genera and 61 species have been recorded from Eastern Africa.

Tribe CHOEROCAMPINI Grote & Robinson 1865

Subfamily *Choerocampinae* R. & J. 1903

Type species: *Pergesa elpenor* L. Europe

A compact, homogeneous group, very closely related to the Philampelini from which they can be separated by the structure of the pilifer and of the palpi.

Pilifer bilobed, the apical part bearing short or vestigial bristles, the proximal part, long bristles. Inner surface and second palpal segment usually naked. Antennae stout, straight, terminally hooked; last segment more or less elongated, armed with 6 or more bristles and dorsally scaleless. Proboscis always well developed. Eyes large, ciliated in some species. Wings elongated, usually with acuminate apices and regular margins. Retinacula and frenula always present. Tibiae always unarmed, paronychial and pulvilli always present. Abdomen elongated and conical. Abdominal spines usually in more than one series at the posterior margin of each somite. Venation uniform and similar to that of the Philampelini. Male genitalia extremely uniform, of the same pattern as in *Nephele*, with large modified scales nearly always present on the external surface of the valve. Female genitalia as in *Nephele*, always with a single elongated longitudinal signum and colliculum.

Larva similar to that of the Philampelini, but anterior tapering more pronounced, 4th and 5th segments more enlarged, horn occasionally lacking in final instar. The larvae are usually decorated with large eye spots, especially on the fifth segment. When they are alarmed they withdraw the head and anterior part of the thorax into the enlarged segments and display the prominent eye spots; they thus acquire a remarkable resemblance to a small snake, an attitude which must be very effective in deterring predators.

Pupa with a compressed or keeled proboscis case. Medium to large, fast flying, streamlined moths, many of which are crepuscular. The majority of the species feed on flowers and have a wide distribution. Many species have strong migratory tendencies. The more unspecialised species of the group are American.

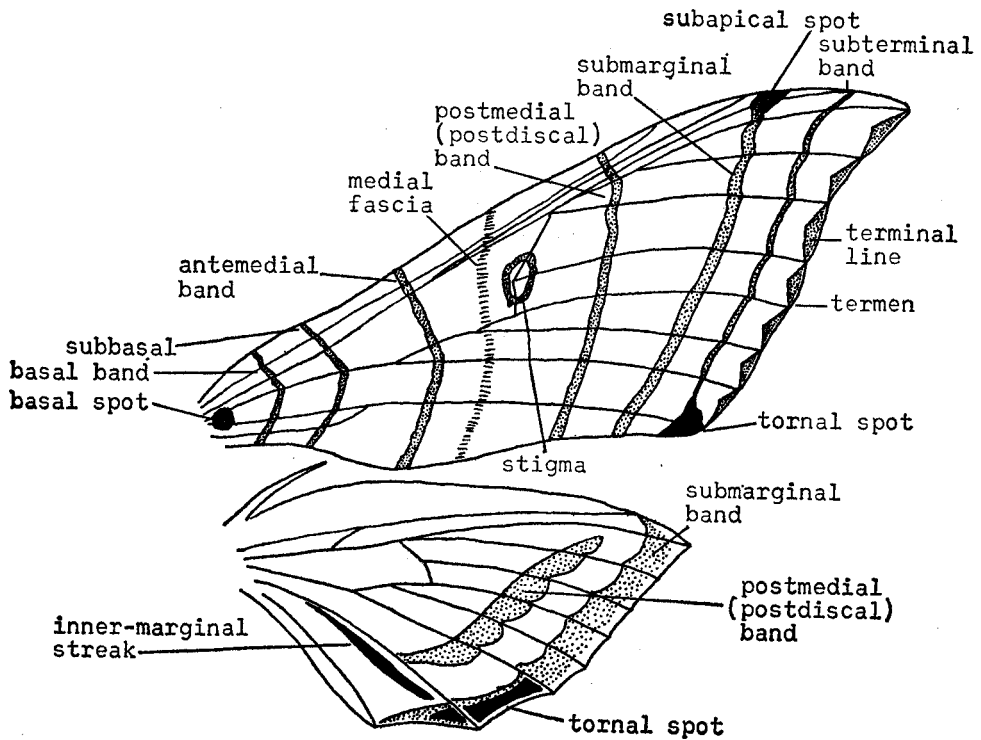
WORLD DISTRIBUTION OF THE CHOEROCAMPINI.

	<i>Indo-Australian</i>	<i>Ethiopian</i>	<i>Palearctic</i>	<i>American</i>	<i>Total</i>
Genera	7	9	6	3	14
Species	52	43	18	56	157

In Eastern Africa there are 8 genera and 30 species.

In the following revision the more advanced genera within each tribe are treated first, followed by decreasingly specialised species and ending with the most generalised.

Family trees showing the relationship of the genera within each tribe would be desirable, but cannot be attempted without detailed study of all the world genera.



Wing pattern of a Sphingid

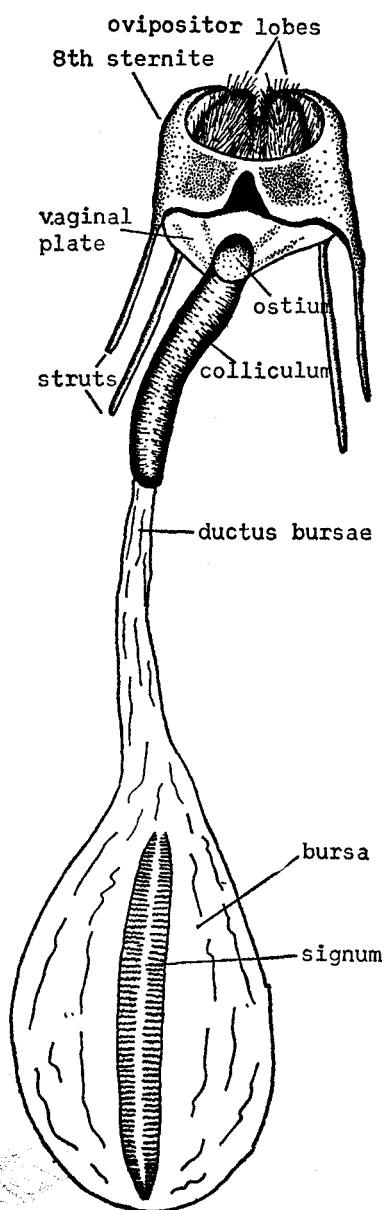
Abbreviations used in the following text

Abbreviations of periodicals and of other publications according to the World List (Third Edition, 1900–1950); abbreviations of works published before 1900 according to Rothschild & Jordan, "A Revision of the family *Sphingidae*", *Novit.zool.* 9 suppl.; 1903.

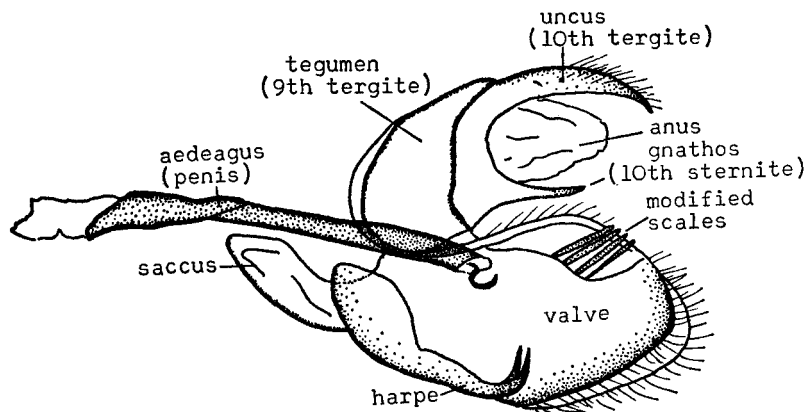
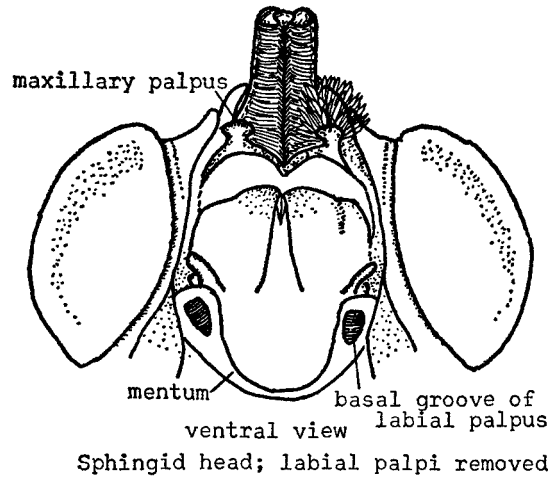
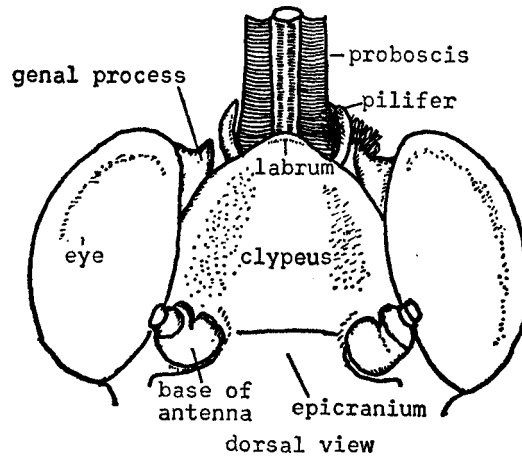
Other abbreviations

B	=	K. Brown collection (Uganda).
BE	=	Berio collection, Genoa, Italy.
BM	=	British Museum collection.
CM	=	Carnegie Museum, Pittsburgh.
comb. nov.	=	new combination.
D.C.	=	discoidal cell.
ESB	=	E.S. Brown collection, Muguga, Kenya.
Fw	=	forewing.
gen. nov.	=	new genus.
GM	=	Museo Civico di Storia Naturale, Genoa, Italy.
H	=	according to Hering in Seitz, "Macrolepidoptera of the World" 14, 1930.
Ho	=	C. Howard collection, Rhodesia.
Hw	=	hindwing.
K	=	Kawanda Research Station collection, Uganda.
L.	=	Linnaeus.
L	=	Lock collection, Queen Elizabeth National Park, Uganda.
MB	=	Berlin Museum collection.
MC	=	McCleery collection, Lindi, Tanzania.
NM	=	National Museum collection, Nairobi.
nom. nov.	=	new name.
P	=	according to Pinhey in "Hawk Moths of Central and Southern Africa", 1962.
PM	=	Paris Museum collection.
R	=	Robertson collection, Ilonga, Tanzania.
RJ	=	according to Rothschild & Jordan, 1903.
R. & J.	=	Rothschild & Jordan.
S	=	Sevastopulo collection.
SM	=	Stoneham Museum collection, Kitale.
sp. nov.	=	new species.
ssp. nov.	=	new subspecies.
stat. nov.	=	new status.
syn. nov.	=	new synonym.

NOTE The colours mentioned in the descriptions of new species are according to Ridgway, "Color Standards and Color Nomenclature", Washington, 1912.



Female genitalia of Nephela
Ventral view



Subfamily ASEMANOPHORINAE

Tribe AMBULICINI

ACANTHOSPHINX Aurivillius 1891

Ent. Tidskr. 12: 228; type species *Ambulyx guessfeldti* Dewitz, 1879.

Head wide, proboscis short, antennae very thick in ♂. Differs from *Polyptychus* in the absence of spines on the hindtibia and in the much longer tibial spurs.

ACANTHOSPHINX GUESSFELDTI (Dewitz) 1879. (1; 2)

Ambulyx guessfeldti Dewitz *Mitt. munch. ent. Ver.* 3: 27 (Chinchoxo, Angola, ♂).

1891 *Acanthosphinx guessfeldti* var. *gigas* Aurivillius *Ent. Tidskr.* 12: 229 (Cameroons, ♂ ♀) syn. nov.

1930 *Acanthosphinx guessfeldti cothina* Tams *Ann. Mag. nat. Hist.* (10) 6: 167 (N. Rhodesia, ♂) syn. nov.

The Type is an abnormally small specimen and var. *gigas* Aur. is really the normal form. *Cothina* Tams is based on an aberration.

♂: fw, 57–65 mm; apex acute, margin entire, slightly concave, costa convex near apex. Ground colour of wings and body dark purplish grey. Vertex and dorsum of thorax blackish. Two blackish spots before base of abdomen. A small blackish spot on first 3–4 abdominal tergites. Fw with numerous irregular dark lines, and an olive green distal margin. Hw. darker than fw, outer margin olive green. The olive green margins fade to ochreous yellow in old specimens.

♀: larger, wings more rounded. Fw: 70 mm.

HABITAT AND RANGE

Forests from Sierra Leone to the Congo, Angola, Zambia, Malawi, Tanzania and Uganda.

EAST AFRICAN RECORDS

UGANDA	NM :	Kampala
	B :	Nakawa
	K :	Kawanda
	BM :	Jinja
TANZANIA	NM :	Bukoba, Kigoma
	BM :	Uluguru, Ukami
	R :	Mbimba, near Mbeya
	Ho :	Amani

LYCOSPHINGIA R. & J. 1903

Novit. zool. 9, suppl. : 264; type species *Smerinthus hamatus* Dewitz 1879.

Differs from *Polyptychus* in having a single pair of hindtibial spurs, a very weak proboscis and a strongly produced apex to the fw. Genitalia as in *Polyptychus*.

LYCOSPHINGIA HAMATA (Dewitz) 1879. (1; 1)

Smerinthus hanatus Dewitz *Mitt. munch. ent. Ver.* 3: 28 (Chinchoxo, Angola, ♂).

♂: fw. narrow and long, apex very strongly produced, 29–31 mm. Ground colour pale brown with darker wavy transverse lines and a regularly curved, prominent postmedial line. A dark brown spot at base and another at inner margin near tornus. Some paler mottling at costa near apex. Hw. strongly produced at tornus, darker, with a straight dark medial line and a darker marginal area at tornus.

♀: larger and darker.

GENITALIA: 8th tergite broadly sclerotised, with a median sinus at posterior margin. Post-vaginal plate consisting of two slender, pointed lateral processes meeting mesially, originating from base of anterior struts. Ostium wide, funnel-shaped, with a conical process on either side. Colliculum long, sinuous. Ductus short, wide and saccate, sclerotised, constricted at base of bursa. Bursa rather small and rounded, without signa.

HABITAT AND RANGE

Forests from Liberia and Ghana to Angola, the Congo and Uganda.

EAST AFRICAN RECORDS

UGANDA **BM** : Bwamba (1 ♀ taken by T.H.E. Jackson)
 NM : Kibale forest
 K : Kawanda
 B : Nakawa

LYCOSPHINGIA HOLLANDI Clark 1916.

Proc. New Engl. zool. Cl. 6: 64 (Cameroons, ♂) Cameroons, Gabon, Congo, Liberia.

POLYPTYCHUS Hübner 1822

Verz. beck. Schmett.: 141; type species: *Sphinx dentatus* Cramer, 1777, India.

As defined and conceived by Rothschild and Jordan (*Novit. Zool. 9 suppl.*, 1903) and by Hering in Seitz (*Macrolepidoptera of the World*, 14, 1930), the genus was a heterogeneous group of some 50 Ethiopian and 2 Asiatic species. The characters given by Rothschild and Jordan are as follows: all tibiae spinose, 2 pairs of hindtibial spurs and presence of pulvilli, paronychia, frenula and retinacula. Rothschild and Jordan saw that it would eventually be necessary to split this large group into several smaller genera, but refrained from doing so because of inadequate knowledge of the group at the time. However, it is felt that enough is known at present to attempt a re-classification of *Polyptychus*; all the known East African species and some others have been studied and compared with the type species—only those that agree closely with *P. dentatus* (Cramer) have been retained in *Polyptychus sensu stricto*, as defined below. *Polyptychus sensu lato* is temporarily retained for the following species which do not occur in Eastern Africa and which have not been available for study; a few other species will be found elsewhere, placed in the genera in which they most probably belong.

POLYPTYCHUS ENODIUS (Holland) 1889.

Basiana enodia Holland *Trans. Amer. ent. Soc.* 16: 66 (Kangwe, Ogowe, ♀).

1903 *Polyptychus enodia* R. & J. *Novit. zool. 9 suppl.*: 247 Gabon and Congo Republic (Brazzaville).

POLYPTYCHUS KINDUNUS Strand 1918.

Int. ent. Z. Guben 12: 115 (Kindu, east Congo).

Known from the Type only.

The only names available for this group, other than *Polyptychus* Hübner, are *Andriasa* Walker for *contrarius* (Walker) *Pseudoclanis* Rothschild for *postica* (Walker) and related species and *Gynoeryx* Guenée for *meander* Guenée and for four other Madagascar species. *Pseudosmerinthus* Butler and *Dewitzia* Holland cannot be used as they are synonyms of *Andriasa*.

All the species of this group which have been studied in the early stages have larvae with a granular skin; the head may be square or triangular, sometimes prolonged dorso-anteriorly; there are usually 6, occasionally 7 larval instars, the first feeding exclusively on the egg-shell.

POLYPTYCHUS (*Sensu stricto*)

Large to medium sized species, very variable in appearance, some being similar to *Polyptychoides*, others to *Neopolyptychus*, to *Andriasa* and to *Afroclanis*.

Proboscis more or less well developed, rudimentary in *hollandi* and in *paupercula* only. Tibial spurs strong or very strong, never spinose. Antennae fairly slender in both sexes. Uncus acute, blunt, or bilobed. Gnathos always present. Valve single lobed; harpe well developed; aedeagus unarmed, terminating in a reflexed, slender, flexible hook-like process; vesica unarmed, even near base. Bursa of ♀ without signa, except in one specimen from the Congo, which may be the ♀ of *P. nigriplagus* R. & J. and in *P. orthographus* R. & J.

POLYPTYCHUS TRISECTUS Aurivillius 1901. (I; 4)

Ent. Tidskr. 22: 119 (Congo ♂).

♂ fw. 42–45 mm. strongly acuminate. Light brown, costal area dark brown. Antemedial, postmedial and submarginal lines dark brown, straight. No basal spot; other lines faint and wavy. Stigma prominent, pinkish. Hw brown, paler near tornus. A dark median streak on head and thorax. Proboscis strong and long, tibial spines very long. Underside of body and hw reddish. No black spots or streaks on hw.

FEMALE AND EARLY STAGES: unknown.

HABITAT AND RANGE

Lowland forest from Liberia and Ghana to the Congo and western Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Bwamba.

POLYPTYCHUS ORTHOGRAPHUS R. & J. 1903. (I; 3)

Novit. zool. 9 suppl. : 224 (Bopoto, Congo, ♂)

♂: fw. 33–36 mm. Very similar to *P. trisectus* Aur. but smaller, much paler (more ochreous), apex of fw acute, but not produced. Proboscis well developed, tibial spurs normal.

♀: one ♀ in BM., larger, darker and broader winged than ♂.

GENITALIA: post-vaginal plate broad and irregular, fused with lateral arms of ante-vaginal plate, which is part of a very sharply tapering, terminally wide, funnel-like colliculum. Apertures of ostium narrow, shaped like an irregular Y with very wide curving arms. Ductus short and narrow, membranous anteriorly, forming a long sclerotised tube posteriorly. Bursa elongated, pleated, armed with a rather long longitudinal signum before apex. Signum consisting of 2 parallel spinose ridges which meet in a point towards apex of bursa.

HABITAT AND RANGE

Lowland forest from Sierra Leone to the Congo, Angola and Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Bwamba

B : Mpanga forest

K : Kawanda

POLYPTYCHUS BERNARDII Rougeot 1966.

Bull. I.F.A.N. 28, A.3: 1226 (Gabon, ♂).

Known from Gabon, the Congo (Kinshasa) and from the Central African Republic.

POLYPTYCHUS CARTERI (Butler) 1882. (I; 5,6)

Pseudosmerinthus carteri Butler *Ann. Mag. nat. Hist.* (5) 10: 435 (Aburi, Gold Coast, ♂).

1903 *Polyptychus carteri* R. & J. *Novit. zool.* 9 suppl. : 244 (Sierra Leon ♀).

1906 *Polyptychus poliades* R. & J. *Novit. zool.* 13: 406 (Ashanti, ♂) syn. nov.

Differs from other species of the group in having a strongly bilobed uncus.

♂: fw. 33–35 mm. Proboscis well developed. Head and body pale greyish brown with a dark median streak on head and thorax. Fw. pale greyish brown; subbasal line well curved distad. post-medial almost straight; other transverse lines very faint and wavy; stigma very small; a very large chocolate coloured spot at base, and another at inner margin, near tornus. Hw. a little darker with two chocolate spots near tornus and sometimes a dark streak near inner margin. In the form *poliades* R. & J., which occurs throughout the range of the species, the ground colour is darker and the dark spots paler, rendering them almost invisible.

♀: larger, darker and broader winged.

RANGE AND HABITAT

Lowland forest from Sierra Leone to the Congo and Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Bwamba, Kibale forest, Budongo forest.

BM : Entebbe

B : Mpanga forest

K : Kawanda.

POLYPTYCHUS CORYNDONI R. & J. 1903. (I; 7)

Novit. zool. 9 suppl. : 251 (Kazungula, Zambesi ♂).

1911 *Polyptychus reussi* Strand *Dtsch. ent. Z.* 1911: 650.

♂: fw. 34–38 mm. Antennae thicker than in other species of the group. Proboscis well developed, tibial spurs normal. Apex acute; a prominent emargination below apex, remainder of termen convex. Fw grey with rather faint dark transverse lines. A blackish spot near tornus and occasionally traces of basal spots. Hw, brick red, edged with black, except at tornus which is grey. Two black spots near tornus and traces of the inner marginal black streak. Body grey.

♀: fw. 39–43 mm. Wings broader, more rounded than in ♂. Fw and body more brownish than in ♂, sometimes almost cinnamon; antennae more slender.

GENITALIA: vaginal plate not well defined. 8th tergite very narrow, broadening laterally into two plates, each of which gives rise to a very long anterior strut. Operculum trilobed. Ductus short, sclerotised. Bursa spherical, membranous.

HABITAT AND RANGE

Brachystegia woodland from Rhodesia to Malawi, Zambia, Katanga and Tanzania. There is a single record from Northern Nigeria.

EAST AFRICAN RECORDS

TANZANIA NM : Ukerewe, Dar es Salaam

RJ : Usaramo

BM : Pemba

R : Mbeya, Mbimba

MC : Lindi, Songea

ZAMBIA NM : Abercorn

POLYPTYCHUS ANDOSUS (Walker) 1856.

Panacra andosa Walker *List Lep. Het. B.M.* 8: 159 (Sierra Leone, ♂).

Ssp. andosus

Forests from Sierra Leone to Nigeria.

Ssp. tiro Kernbach 1957. (P. XI; 2)

Rev. zool. Bot. afr. 55: 197 (Belgian Congo ♂)

♂: differs from the nominate race in the shape of the harpe, which has one lobe instead of two.

Fw. 26–29 mm. Proboscis shorter than in previous species of *Polpytychus*. Tibial spurs short. Very similar to *coryndoni*, but smaller, termen of fw more regular, body and fw more brownish, transverse lines fainter, more wavy; one or two small basal dots always present. Hw coppery, not as bright as in *coryndoni*. Veins outlined by darker scales, blackish inner marginal streak and tornal spots always present. Antennae more slender than in *P. coryndoni*.

♀: fw. 30 mm., broader, with more convex termen. Body and fw cinnamon brown, markings indistinct. Hw as in ♂, but darker.

RANGE AND HABITAT

Forests from the Congo to Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Fort Portal, Kalinzu, Sango Bay.

Ssp. amaniensis nov. (IX; 9 – XI; 1)

♂: superficially identical with *P. andosus tiro*, but genitalia differ as follows:— process of gnathos shorter and blunter; blades of anellus very much shorter, with toothed inner margins; saccus shorter, tapering suddenly, not spatulate; marginal spine of valve broader, process of harpe narrower.

FEMALE AND EARLY STAGES: unknown.

HOLOTYPE ♂: Amani, E. Usambara, Tanzania, XI–1965, R. H. Carcasson, to be deposited in the British Museum (Natural History).

♂ PARATYPES 5, also from Amani, in National Museum, Nairobi.

POLYPTYCHUS ANOCHUS R. & J. 1906.

Novit. zool. 13: 179 (Sierra Leone).

Sierra Leone to Nigeria and the Congo.

POLYPTYCHUS LAPIDATUS Joicey & Kaye 1917.

Ann. nat. Hist. 20: 230 (Coomassie, Gold Coast, ♂).

Liberia to Ghana and Gabon.

POLYPTYCHUS MURINUS Rothschild 1904.

Novit. zool. 11: 435 (Congo ♂).

Liberia, Nigeria and Cameroons to the Congo and Angola.

POLYPTYCHUS AFFINIS R. & J. 1903. (I; 11)

Novit. zool. 9 suppl. : 247 (Lolodorf, Cameroons. ♀).

1907 *Polyptychus retusus* R. & J. *Novit. zool.* 15: 259 (Sierra Leone. ♂).

♂: fw 28–30 mm. Antennae slender, proboscis rather weak, tibial spurs short. Apex strongly falcate, wing narrow, termen entire, somewhat concave. Fw grey with a prominent black basal spot, and wavy transverse dark lines; termen darker. Body grey with median blackish streak on head and thorax. Hw grey with a black streak near inner margin and one or two black spots near tornus, which is strongly produced.

♀: larger than ♂. Fw purplish chocolate, mottled with lighter brown. Stigma pinkish, transverse lines very faint, basal spot prominent. Dark median streak on head and thorax present. Hw darker than fw, black inner marginal streak and tornal spots present.

HABITAT AND RANGE

Forest up to 6,000 ft. from Sierra Leone to the Congo, Uganda and west Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kakamega.

UGANDA NM : Bwamba, Kibale forest, Mubende, Budongo forest, Kayonza.

POLYPTYCHUS BAXTERI R. & J. 1907.

Novit. zool. 15: 259 (Mpwapwa, Tanganyika, ♂).

Ssp. baxteri. (I; 8)

♂: fw 26 mm. Proboscis rather weak, antennae slender, tibial spurs normal. Apex of fw not acute, termen evenly curved, tornus of hw somewhat produced. Body and fw greyish vinaceous purple. A dark median streak on head and thorax. A dark streak from costa near base to tornus, widening at tornus; a dark spot at costa at 3/5 from base, narrowing at base of vein 6, then continued to termen as a streak below vein 6; a small dark stigma and basal spot sometimes present. Hw pinker, specially near base. Inner marginal streak and tornal spots variable, sometimes almost absent.

♀: larger.

HABITAT AND RANGE

Brachystegia savanna and woodland in Tanzania and Zambia.

EAST AFRICAN RECORDS

TANZANIA NM : Mikumi.

R : Ilonga, Mbimba.

BM : Mamboya, Mpwapwa. (Type, BM).

Ssp. jansei Clark 1936.

Polyptychus baxteri jansei Clark *Proc. New Engl. zool. Cl.* 15: 76 (Queque, S. Rhodesia, ♂). Rhodesia and western Mozambique.

POLYPTYCHUS FERROSEUS Gehlen 1950.

Ent. Z. 60: 67 (Elisabethville, Congo, ♂).

Not examined; very probably a synonym of *P. baxteri* R. & J.

POLYPTYCHUS NIGRIPLAGUS R. & J. 1903. (I; 9–IX; 6–XIII; 4)

Novit. zool. 9 suppl. : 259 (Lolodorf, Cameroons, ♂).

1926 *Polyptychus nigriplaga kivui* Clark *Proc. New Engl. zool. Cl.* 9: 48 (west Kivu, Congo, ♂) syn. nov.

1926 *Polyptychus barnsi* Clark *l.c.* 9: 49 (west Kivu, ♂) syn. nov.

♂: fw 29–36 mm. Antennae slender. Proboscis short and rather weak. Fw not falcate; apex acute, termen entire, slightly, but uniformly convex. Fw and body pale cinnamon to creamy clay. A dark mesial streak on head and thorax. A dark dot at base of fw and one at costa, near apex; wavy transverse lines of fw very variable in intensity, some specimens being almost unmarked (form *barnsi* Clark), others being very heavily marked (form *kivui* Clark). Hw, paler, but darker at tornus. Inner marginal black streak and tornal spots present but variable.

The following is the description of a female in the National Museum taken at Lake Tumba, Kundu, Congo, which may belong to this species, or possibly to an undescribed male.

Fw 33 mm.; apex and tornus more acute than in ♂; a slight emargination below apex, giving remainder of termen greater convexity. Groundcolour russet, darker towards termen. Wavy transverse lines and stigma faint, subapical dot faint, basal dot absent. Hw uniformly russet with dark tornal spots and inner marginal streak present but faint.

GENITALIA: 8th tergite a broad sclerotised arc with a median suture of more membranous tissue. Sternite broad and wide, with slight median sinus at ostium—Ductus broad and funnel shaped tapering to a membranous constriction followed by a narrow sclerotised tube. Bursa fairly large, spherical, membranous. One large transverse signum consisting of 2 long parallel serrated ridges and a small signum consisting of a single pear shaped serrated plate.

HABITAT AND RANGE

Lowland forest from Liberia and the Ivory Coast to the Congo and Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Bwamba, Budongo.

POLYPTYCHUS ROUGEOTI sp. nov. (IX; 8—XI; 3)

Closely allied to *P. nigriplagus* R. & J.

♂: antennae very pale greyish brown. Head olive-ocher, palpi isabella colour. Proboscis moderately well developed. Tegulae very pale greyish brown, dorsum of thorax olive-ocher. Dorsum of abdomen very pale greyish brown, with a diffuse ochreous transverse band on second tergite, and olive-ocher tip. Underside of thorax and abdomen wood brown without trace of olive. Femora wood brown, tibiae and tarsi tinged with olive. A whitish spot at the base of the tibiae.

UPPERSIDE

FOREWING: long and narrow, apex acute, outer margin oblique, very slightly concave, 35 mm from base to apex. Ground colour wood brown, mottled with olive yellow at costa, inner margin and in the subapical area. A large dark olive basal spot, and a paler olive spot at inner margin $\frac{1}{3}$ from base, and a triangular olive spot at costa, before apex. Subbasal, antemedial and postmedial olive, irregular and strongly crenulated. A small bright orange stigma at end of cell. Terminal area very pale greyish brown, submarginal line indicated by a double series of dark dots at the veins, except near tornus where it becomes a short double dark olive line. Termen and cilia wood brown.

HINDWING: wood brown, paler at tornus, where there is a dark brown spot. A long brown streak parallel to inner margin. Cilia very pale grey, darker at the veins. Tornus somewhat produced.

UNDERSIDE

FOREWING: wood brown, much paler towards outer margin. Submarginal double, regularly crenulated, subterginal consisting of a straight, complete series of double dots at the veins; Termen and cilia darker.

HINDWING: similar to fw, but with a dark, regularly crenulated median line.

GENITALIA: uncus moderately long, only slightly downcurved, slightly spatulate, terminating in two sharp points separated by a median sinus. Gnathos very long, slender, apically pointed. Saccus narrow,

pointed. Valve rather narrow, apically rounded. Ventro-apical arm of harpe abruptly truncated; upper arm of harpe a smooth concave, apically rounded process directed upwards and to the rear. Aedeagus short, fairly straight and slender. Hook-like process curved laterad, with a small basal emargination and a very small rounded subapical lobe immediately before the sharply curved apical spine. Base of aedeagus dilated and terminating in a long sharply tapering lobe. Ventral aspect armed apically with numerous small but prominent tubercles.

♀ and early stages unknown.

HOLOTYPE ♂: Lastourville, Gabon, P. C. Rougeot, 1–1958, to be deposited in the Muséum National d'Histoire Naturelle, Paris.

PARATYPES: 3 ♂♂, same data as Holotype, one in the National Museum, Nairobi, one in the Muséum National, Paris and one in the British Museum (Natural History).

This species is dedicated to its discoverer, Dr. P. C. Rougeot, of the Muséum National d'Histoire Naturelle, Paris.

POLYPTYCHUS PAUPERCULUS (Holland) 1889. (I; 10)

Dewitzia paupercula Holland *Trans. Amer. ent. Soc.* 16: 65 (Kangwe, Ogowe River).

1912 *Polyptychus inconspicuus* Strand *Arch. Naturgesch.* 78: A: 151 (Cameroons ♀).

♂: fw 27–31 mm. Proboscis very weak. Antennae slender. Wings broader, less acuminate than other species, very similar in shape and markings to *Andriasa contraria* Walker. Fw pale greyish-brown, with numerous crenulate darker transverse lines, more or less parallel. A darker spot near apex and another at inner margin, near tornus. A large rounded orange brown basal dot. Hw pale greyish-brown, margin darker, especially near tornus, with traces of an inner marginal streak.

♀: larger, darker, broader winged than ♂.

HABITAT AND RANGE

Forest from Liberia to Uganda.

EAST AFRICAN RECORDS

UGANDA BM : Entebbe.

POLYPTYCHUS HOLLANDI R. & J. 1903.

Novit. zool. 9 suppl.: 261 (Warri, Nigeria, ♂).

Almost identical with *P. pauperculus* Holland, but the genital armature differs.

Forests from Nigeria to the Congo.

NEOPOLYPTYCHUS gen. nov.

A small compact group of species which differ from *Polyptychus* mainly in the structure of the male genitalia.

Antennae slender. Proboscis reduced, but not rudimentary. Tibial spurs normal, not spiny. Apex of aedeagus armed with a whorl of spines, but without hook-like process; a small sclerotised plate near base of vesica. Gnathos absent, saccus small, harpe absent. Valve with dorsal margin produced into a prominent and well sclerotised lobe. Bursa of female without signa.

Males grey to pinkish-grey, apices acute, wing margins never scalloped or dentate. Females larger, broader winged, dark brown to cinnamon. The species of this group are very similar and confusing; all of them have a basal dot on fw, a black streak near inner margin of hw and one or two black spots at tornus. They cannot be determined with certainty without dissection of the genitalia.*

TYPE SPECIES: *Polyptychus convexus* R. & J. 1903.

NEOPOLYPTYCHUS PYGARGUS (Karsch) 1891 comb. nov.*Dewitzia pygarga* Karsch *Ent. Nachr.* **17**: 295 (Barombi, Cameroons, ♀).1903 *Polyptychus pygarga* R. & J. *Novit. zool.* **9** suppl.: 245.1929 *Polyptychus pygarga pygarga* Jordan *Novit. zool.* **35**: 188 (Victoria, Cameroons, ♂).*Ssp. pygargus.*

Forest in Cameroons and Nigeria.

Ssp. spurrelli (R. & J.) 1912.*Polyptychus spurrelli* R. & J. *Novit. zool.* **19**: 128 (Bibianaha, Gold Coast, ♂).1929 *Polyptychus pygarga spurrelli* Jordan *Novit. zool.* **35**: 188.

Of doubtful validity, as it only differs from the nominate race in minor genitalial characters of uncertain stability.

Ghana to Sierra Leone.

NEOPOLYPTYCHUS SERRATOR (Jordan) 1929, comb. nov.*Polyptychus serrator* Jordan *Novit. zool.* **35**: 188 (Cameroons, ♂).*Ssp. serrator.*

Only known from Cameroon.

*For further details about this group see: "On *Polyptychus pygarga* and some allied species" by K. Jordan, *Novit. zool.* **35**: 187, 1929.*Ss. commodus* (Jordan) 1930. (I; 12—IX; 7—XI; 4—XII; 7)*Polyptychus serrator commodus* Jordan *Novit. zool.* **36**: 1 (Bugalla, Sesse Islands, Uganda, ♂).

♂: fw 34–36 mm., grey, with faint irregular wavy dark lines, a prominent black dot at base and a round pinkish stigma, paler at apex. Termen darker. Hw grey with a black streak near inner margin and one or two black spots near tornus which is strongly produced—Antennae grey.

♀: (not previously described.)

Head and body purple-brown, antennae paler, palpi and legs darker. Fw. 38 mm, more falcate than in ♂. Groundcolour purple-brown, with very faint wavy transverse lines and pinkish mottling. A dark brown wedge at costa, just before apex. A broad subtriangular paler patch with base resting on termen from apex to vein 2. Pinkish stigma very prominent. Cilia dark brown. Hw pinkish-brown at inner margin and tornus, remainder brown, darker than fw. Black streak and tornal spots present, but inconspicuous. Cilia pinkish except near tornus, where they are black.

UNDERSIDE: Fw. dark cinnamon brown with faint transverse lines. Submarginal area of fw paler, termen and cilia of fw dark brown. Hw brighter with a diffuse dark area and blackish cilia at tornus.**GENITALIA:** vaginal plate well sclerotised; anterior margin with two lateral, reflexed triangular processes. 8th tergite with deep median sinus at posterior margin. Ductus fairly long, funnel-shaped, well sclerotised. Bursa ovoid, thick, but membranous.**NEALLOTYPE** ♀ Uganda, Mpanga R/P 392 20-VI-60K. W. Brown, bred ex *Maesopsis emini* Engl.

(Rhamnaceae) B1226, to be deposited in British Museum (Natural History).

EARLY STAGES: (after D. G. Sevastopulo).**MATURE LARVA:** head triangular, green, speckled with white. A bright green dorsal stripe with raised

white spots broadening from a point behind head to the 10th somite, then tapering to base of horn. A double white dorsal line. Green dorsal stripe edged laterally with white. Lateral areas below dorsal stripe pale lilac then pale blue-green. A series of oblique whitish lines from 4th to 11th somites. Legs pinkish. Venter and prolegs blue-green, a median white ventral line. Horn slightly downcurved, blue-green with a few minute ventral tubercles.

PUPA: subterranean in cell formed by pressure only, without silk threads. Bright chestnut, cremaster a blunt triangle.

FOOD PLANT: *Maesopsis eminii* Engl. (Rhamnaceae)

HABITAT AND RANGE

Forests from the Congo to Uganda and W. Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kakamega.

UGANDA NM : Fort Portal, Kalinzu, Makerere, Budongo.

BM : Jinja.

B : Mpanga, Nyabyeya.

K : Kampala, Kawanda.

TANZANIA BM : Bukoba.

NOTE: the females of *P. pygargus* and *P. serrator* are identical and it is therefore possible that Jordan associated the wrong ♂ with the ♀ type of *pygargus*; the males can only be separated by the presence of a lobe with spiny margins at the dorsal margin of the valve, which is replaced in *serrator* by a smooth gradual bulge.

NEOPOLYPTYCHUS CONVEXUS (R. & J.) 1903 comb. nov. (I; 15,16—XI; 5)

Polyptychus pygarga convexus R. & J. *Novit. zool.* 9 suppl. : 246 (M'pala, Tanganyika, ♀).

1934 *Polyptychus pygarga convexus* Gehlen *Ent. Z.* 48: 59 (♂).

1936 *Polyptychus springerae* Clark *Proc. New Engl. zool. Cl.* 15: 78 (Likasi, Congo, ♂) syn. nov.

♂: fw. 26–34 mm., less falcate than in *serrator*, termen slightly convex. Very similar to *serrator* and *pygargus*, but pinker, more heavily marked and with a larger, much more prominent stigma.

♀: (not examined). Very similar to the ♀ of *serrator*, but paler, more pinkish, with a much more convex margin (after R. & J. 1903, 346 and Pl.1, fig. 8).

HABITAT AND GENERAL DISTRIBUTION

Brachystegia woodland in Katanga, Zambia and west Tanzania.

EAST AFRICAN RECORDS

ZAMBIA NM : Abercorn.

BM : Kalambo Falls.

TANZANIA NM : Mukuyu (Kigoma).

R : Tabora.

NEOPOLYPTYCHUS CONSIMILIS (R. & J.) 1903, comb. nov.

Polyptychus consimilis R. & J. *Novit. zool.* 9 suppl. : 250 (Atbara, Sudan, ♂).

1927 *Polyptychus consimilis belgica* Clark *Proc. New Engl. zool. Cl.* 9: 46 (French Congo, ♂).

1927 *Polyptychus sudanensis* Clark *l.c.* : 100 (Tembura, Bahr el Ghazal, Sudan, ♂).

Ssp. consimilis. (I; 13)

♂: fw 30 mm. Apex of fw much more falcate than in other species of this genus. Body and wings pale pinkish-brown with faint transverse bands and stigma. Underside pinkish.

FEMALE AND EARLY STAGES: unknown.

RANGE AND HABITAT

Savanna from the southern Sudan to the Congo.

EAST AFRICAN RECORDS

SUDAN BM : Atbara River (Type).

CM : Tembura, Bahr el Ghazal, Sudan (Type of *sudanensis* Clark).

Ssp. ancylus R. & J. 1916.

Novit. zool. 23: 258 (Gambaja, Gold Coast, ♂).

Nigeria to the Ivory Coast and Guinea.

NEOPOLYPTYCHUS PRIONITES (R. & J.) 1916, comb. nov. (I; 14—XI; 7)

Polyptychus prionites R. & J. *Novit. zool.* 23: 258 ("Upper Shari", ♂).

1917 *Polyptychus roseola* Clark *Proc. New Engl. zool. Cl.* 6: 63 (French Congo, ♂).

♂: fw 30 mm. Similar to *N. consimilis*, but fw less falcate, groundcolour darker, more vinaceous on both surfaces. Form *roseola* Clark is a pale pinkish dry form.

♀: similar to ♂, but darker, wings more rounded.

RANGE AND HABITAT

Lowland forest and heavy woodland from Spanish Guinea to the Congo and western Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Budongo, Nyabyeya.

NEOPOLYPTYCHUS COMPAR (R. & J.) 1903 comb. nov.

Polyptychus compar R. & J. *Novit. zool.* 9 suppl. : 251 (Mashonaland, Rhodesia, ♂).

Ssp. compar. (I; 17,18—XI; 6)

A variable race, some specimens much pinker than others.

♂: can be separated from *N. convexus* R. & J. by the antennae which are consistently whitish, not grey or pinkish as in *convexus* and by the structure of the genitalia.

♀: similar to that of *convexus*, but possibly paler; fw cinnamon with very faint darker lines and a pale stigma; basal spot absent. Hw much paler.

RANGE AND HABITAT

Brachystegia woodland from Rhodesia to Mozambique, Zambia, Malawi and south-east Tanzania.

EAST AFRICAN RECORDS

TANZANIA MC : Lindi.

NM : Mbimba.

Ssp. septentrionalis, nov. (IX; 5)

♂: differs from the nominate race in being consistently greyer (never pinkish), in the more acuminate fw and in having a slightly broader and shorter uncus. Very similar superficially to *N. serrator*, but slightly smaller, more heavily marked and with whitish, not grey antennae.

FEMALE AND EARLY STAGES: unknown.

RANGE: coastal areas of Kenya and north Tanzania.

EAST AFRICAN RECORDS

KENYA NM : Kilifi, Shimba Hills, Shimo la tewa.

TANZANIA NM : Amani.

R : Ilonga, Mlingano.

HOLOTYPE ♂: Amani, E. Usambara, Tanzania, XI-1965, R. H. Carcasson, to be deposited in the British Museum (Natural History).

♂ PARATYPES: 3, same data as *Holotype*.

3, locality as *Holotype*, VII-1966, A. Duff-Mackay and A. Forbes-Watson.

4, Shimba Hills, Kenya Coast, XII-1961, R. H. Carcasson.

PARATYPES: in National Museum, Nairobi.

POLYPTYCHOPSIS gen. nov.

Proboscis rudimentary. Antennae slender. Tibial spurs spinose. Wings broad, apex not falcate, margin entire. Genitalia as in *Polyptychus*, but hook-like process of aedeagus absent.

TYPE SPECIES: *Polyptychus marshalli* R. & J., 1903.

POLYPTYCHOPSIS MARSHALLI (R. & J.) 1903, comb. nov.

Polyptychus marshalli R. & J. *Novit. zool.* 9 suppl. : 253 (Salisbury, Rhodesia, ♂).

Ssp. *marshalli*. (II; 1—XII; 10)

♂: fw 26–30 mm. Fw brownish pink, with a number of rather faint, fairly straight darker transverse lines. In some specimens a large, diffuse orange spot at base. Hw darker, unmarked: darker at the termen. Fw broad, as in previous species.

♀: larger; termen of fw slightly produced at veins 5 and 6.

HABITAT AND RANGE

Brachystegia woodland from Rhodesia to Malawi and south-east Tanzania.

EAST AFRICAN RECORDS

TANZANIA NM : Tunduma.

Ssp. *auriguttata* (Gehlen) 1934, comb. nov. (XI; 10)

Polyptychus auriguttatus Gehlen, *Ent. Z.* 48: 59 (Elisabethville, Katanga).

Differs from the nominate race in being darker, more vinaceous.

RANGE

Katanga, south-west Tanzania and probably eastern Angola.

EAST AFRICAN RECORDS

ZAMBIA NM : Abercorn.

POLYPTYCHOIDES gen. nov.

Proboscis rudimentary. Antennae very thick in the males. Wing margin deeply scalloped. Tergites spiny. Tibial spurs unarmed. Valve entire, harpe present; gnathos present. Aedeagus unarmed.

TYPE SPECIES: *Smerinthus grayi* Walker 1856.

POLYPTYCHOIDES GRAYI (Walker) 1856, comb. nov.

Smerinthus grayi Walker *List Lep. Het. B.M.* 8: 249 (Natal).

1903 *Polyptychus grayi* R. & J. *Novit. zool.* 9 suppl. : 241.

Common and widespread in dry bush and savanna from South Africa to Ethiopia and the Sudan.

Ssp. grayi. (XI; 8)

Natal to Rhodesia.

Ssp. assimilis (R. & J.) 1903.

Polyptychus grayi assimilis R. & J. *Novit. zool.* 9 suppl. : 242 (Rietfontein, S. W. Africa, ♀).

Cape to S.W. Africa and Botswana.

Ssp. niloticus (Jordan) 1920.

Polyptychus grayi niloticus Jordan *Novit. zool.* 28: 277 (White Nile, ♀). (II; 2,3—XIII; 1)

1935 *Polyptychus unilineata* Clark *Proc. New Engl. zool. Cl.* 15: 20 (Karunga, Kisumu, Kenya, ♂) syn. nov.

This race is subject to considerable seasonal and climatic variation. Extreme dry season specimens and specimens from arid areas are very small, sandy, with all markings faint or obsolete and more regular wing margins. Specimens from moister areas, or taken in the wet season are consistently larger, darker grey, more heavily marked and have scalloped wing margins. Both forms may occur in the same areas, have identical genital armatures and are linked by complete transitional series.

♂: fw 28–43 mm., falcate and scalloped in wet season form (*unilineata*). Antennae pale yellowish, very thick. Ground colour grey with a black basal dot in fw. Antemedial, postmedial and submarginal lines of fw straight and clearly defined; medial faint and wavy; a further faint and wavy line between postmedial and submarginal lines; a dark grey marginal area from apex to vein 2 and a very small stigma. Hw grey, darker near inner margin, with postmedial and submarginal lines regular, but faint. In the extreme dry form (*nilotica*) the ground colour is pale sandy; only the antemedial, postmedial and submarginal lines of fw are visible and the dark marginal area very slightly indicated; basal spots absent or very faint.

GENITALIA: uncus short, broad, rounded apically. Gnathos consisting of two long, narrow, pointed processes. Anellus also armed with two long pointed blades. Saccus very small. Valve triangular, membranous. Harpe ventro-distal, terminating in a sharp stout hook directed inwards; there is a stout triangular process at margin of harpe, before terminal hook; in the nominate race this subterminal process is consistently lacking; aedeagus long and very slender.

♀: larger and more rounded than ♂, otherwise similar in both forms. Fw, 34–52 mm.

RANGE: Zambia to the Sudan, Ethiopia and Somalia.

EAST AFRICAN RECORDS

KENYA NM : Tiwi (Mombasa), Makueni, Mtito Andei, Melka Murri (Mandera), Merti (NFD), Isiolo, Lokichoggio (NFD), Loiongalani (L. Rudolf), Kibwezi, Thomson's Falls, Nakuru.

CM : Karunga (Type of *Polyptychus unilineata* Clark).

TANZANIA NM : Lyamungu.

BM : Amani, Tabora, Shinyanga.

ESB : Manyara.

R : Dar es Salaam, Ilonga, Mlingano, Ukiriguru.

ETHIOPIA NM : Dire Dawa, Bongozi (Omo River).

BM : Harar.

SUDAN BM : White Nile (Type).

SOMALIA NM : Mogadishu.

POLYPTYCHOIDES DIGITATUS (Karsch) 1891 comb. nov. (II; 4)

Polyptychus digitatus Karsch *Ent. Nachr.* 17: 14 (Chinchoxo, Angola).

1879 *Smerinthus dentatus* Dewitz Mitt. munch. ent. Ver. 1: 27 (preoccupied by *Sphinx dentatus* Cramer, 1777, India).

NOTE: *dentatus* Dewitz 1879 could be re-instated under *Polyptychoides*, but as *digitatus* Karsch has been in use since 1891, it is not advisable to do so.

♂: fw. 39–41 mm. Very similar to *L. grayi*, but consistently darker; basal spot of fw replaced by a short transverse streak.

GENITALIA: uncus short, broad, bilobed. Gnathos consisting of two pointed arms. Saccus moderate, rounded. Valve large, rounded. Harpe triangular, extended by a long apical process which reaches apex of valve; dorsal margin of harpe armed with a large basal hook and two blunt spines near middle. Aedeagus slender, slightly curved.

♀: similar to ♂, but larger, with broader wings.

GENITALIA: vaginal plate armed with two subtriangular processes with multi-grooved distal edges. (After Kernbach. Rev. Zool. Bot. afr. 55: 18).

HABITAT AND RANGE

Heavy forest up to 8,000ft., from Liberia and Angola to Uganda and west Kenya.

EAST AFRICAN RECORDS

KENYA NM : Elgon, Kakamega.

UGANDA NM : Bwamba, Kalinzu forest, Kibale forest, Budongo.

K : Kawanda.

POLYPTYCHOIDES EROSUS (Jordan) 1923 comb. nov. (II; 5)

Polyptychus erosus Jordan Ent. Mill. 12: 54 (Mt. Meru, Tanganyika, ♂).

Very similar to *P. digitatus* Karsch, but slightly paler and broader winged.

♂: fw. 35–41 mm.

GENITALIA: similar to *P. digitatus*, but harpe longer and more slender, unarmed; a comb of dense minute teeth along the entire dorsal margin of the harpe.

♀: fw. 53 mm.; similar to ♂, but wings broader, margins less crenulated.

GENITALIA: 8th tergite broadly sclerotised, posterior margin with irregular median sinus. Ante-vaginal plate transverse, narrow and irregular in outline. Post-vaginal plate membranous. Ostium large, irregularly rounded. Colliculum absent, ductus fairly long, without sclerotised collar. Bursa small, rounded, very thin and unarmed.

HABITAT AND RANGE

Highland forest in Kenya and Tanzania, east of the Rift Valley.

EAST AFRICAN RECORDS

KENYA NM : Nairobi, Muguga.

TANZANIA NM : Arusha, Mbimba.

BM : Amani, Mt. Meru (Type).

NOTE: *P. erosus* is very closely related to *P. digitatus* and occupies the same habitat as that species; the two species are allopatric, and have therefore been treated as subspecies by some authors. However, the genitalial differences of the males are such that one is compelled to treat these two insects as distinct, though very closely related species.

GYNOERYX Guenée 1865

in Vins., Voy. Madag. : 30; type species *Gynoeryx meander* Guenée, 1865.

Very closely allied to the Oriental and Palaearctic genus *Marumba* Moore, but differs in having two pairs of tibial spurs. Antennae thick in ♂. Proboscis rudimentary. Tibial spurs short, not spinose. Wings broad, margins crenulated, apices blunt. Markings as in *Marumba*. Uncus bifid. Harpe large, with an articulated terminal flap armed with sharp spines. Aedeagus unarmed, but vesica with a large sclerotised plate. The genus is only known from Madagascar.

GYNOERYX MEANDER Guenée 1865. (XI; 11)

in Vins. *Voy. Madag.* : 30; (nomen nudum).

1875 *Smerinthus meander* Boisduval *Spec. Gen. Lep. Het.* 1: 22 (Madagascar, ♀).

1903 *Polyptychus meander* R. & J. *Novit. zool.* 9 suppl. : 262.

GYNOERYX BREVIS (Oberthür) 1909 comb. nov.

Polyptychus brevis Oberthür *Bull. Soc. ent. Fr.* : 233 (Madagascar, ♂).

GYNOERYX BILINEATUS (Griveaud) 1958 comb. nov.

Polyptychus bilineatus Griveaud *Nat. Malgache* 10: 77 (Madagascar, ♂).

GYNOERYX PAULIANI (Viette) 1956 comb. nov.

Polyptychus pauliani Viette *Lambillionea* 56, 78: 59 (Madagascar, ♂).

GYNOERYX INTEGER (Viette) 1956 comb. nov.

Polyptychus integer Viette *Lambillionea* 56, 78: 59 (Madagascar, ♂).

PSEUDOCLANIS Rothschild 1894

Novit. zool. 1: 96; type species: *Basiana postica* Walker 1856.

1954 *Larunda* Kernbach *Rev. zool. Bot. afr.* 50: 218; type species: *L. sororia* Kernbach 1954.

Antennae fasciculate, tapering, slender. Palpi protruding very slightly beyond frons. Proboscis very short. Tibiae spinose, hindtibiae armed with two pairs of spurs. Fw somewhat falcate, termen entire. ♂ genitalia without modified scales. Aedeagus unarmed. Larva with 6 instars.

PSEUDOCLANIS GRANDIDIERI (Mabille) 1879.

Ambulyx grandidieri Mabille *Bull. Soc. philom. Paris* 3: 135 (S.E. Madagascar).

1884 *Ambulyx watersi* Butler *Ann. Mag. nat. Hist.* 14: 407 (Betsileo, Madagascar).

1900 *Psedosmerinthus semnus* Karsch *Ent. Nachr.* 26: 370 (West Madagascar).

Ssp. grandidieri.

Madagascar.

Ssp. comorana R. & J. 1916 *Nov. zool.* 23: 254.

Comoro Islands.

PSEUDOCLANIS POSTICA (Walker) 1856. (II; 6)

Basiana postica Walker *List. Lep. Ins. B.M.* 8: 237 (Natal).

Common in most habitats throughout Africa south of the Sahara.

Ssp. postica.

1857 *Smerinthus abyssinicus* Lucas *Ann. Soc. ent. Fr.* : 606 (Khartoum, ♀).

1883 *Smerinthus bianchii* Oberthür *Ann. Mus. Stor. nat. Genova* 18: 734 (Shoa, Abyssinia, ♀).

1903 *Pseudoclanis postica abyssinicus* R. & J. *Novit. zool.* 9 suppl. : 222 syn. nov.

1928 *Pseudoclanis grandidieri kenyae* Clark *Proc. New Engl. zool. Cl.* 10: 45 (Kibwezi, Kenya, ♂)
syn. nov.

♂: fw fairly broad, 40–45 mm. from base to apex, very pale greenish to yellowish brown, faintly marked and mottled with darker brown. Hw ochreous yellow with a large black spot at base and a series of submarginal black spots sometimes confluent and forming a continuous black band.

♀: larger, wings more rounded, fw darker, often reddish.

EAST AFRICAN RECORDS

KENYA NM : Kitale, Nairobi, Makueni, Nyeri, Kilifi.

S : Istsare.

DGS : Mombasa.

UGANDA B : Jinja, Nakawa, Nyabyeya.

K : Kawanda.

TANZANIA NM : Amani, Mufindi, Ukerewe.

R : Ilonga, Mbeya, Mlingano.

MC : Lindi, Songea.

SUDAN BM : Didinga.

RJ : Khartoum.

ETHIOPIA NM : Dire Dawa, Bongozi (Omo River).

RJ : Shoa.

BM : Harar.

SOMALIA GM : "Somalia".

NOTE: East African specimens and particularly those from Uganda, are transitional to *ssp. occidentalis* R. & J., which should be regarded as the western extreme of a cline rather than as a good subspecies.

Ssp. occidentalis R. & J. 1903.

Pseudoclanis postica occidentalis R. & J. *Nov. zool.* 9: 222 (Sierra Leone, ♂).

In the ♂ the margin is straight, not convex; harpe processes more heavily sclerotised and more strongly developed. (See note above). Sierra Leone to the Congo.

Ssp. diana (Gehlen) 1922.

Pseudoclanis diana Gehlen *Int. ent. Zeitschr.* 16: 104 (Windhuk, ♀)

Based on minor characters of the genitalia. South West-Africa.

Ssp. evestigata Kernbach 1955.

Rev. Zool. Bot. afr. 51: 30 (Elisabethville, ♂)

Based on minor characters of the male genitalia. Katanga (Congo).

PSEUDOCLANIS BOISDUVALI (Aurivillius) 1897 comb. nov.

Temnora boisduvali Aurivillius *Ent. Tidskr.* 18: 152 (Sierra Leone).

1903 *Polyptychus boisduvali* R. & J. *Novit. zool.* 9 suppl. : 249.

1920 *Polyptychus senegalensis* Clark *Proc. New Engl. zool. Cl.* 7: 69 (Senegal).

Dry bush from Senegal to northern Nigeria.

PSEUDOCLANIS RHADAMISTUS (Fabricius) 1781 comb. nov. (II; 8)

Sphinx rhadamistus Fabricius *Mant. Ins.* 2: 93 (Sierra Leone).

Polyptychus rhadamistus R. & J. 1903 *Novit. zool.* 9 suppl. : 248.

♂: fw. 27–30 mm. Thorax silvery grey with a prominent blackish median line. 1st abdominal segment blackish, remainder of abdomen mottled grey. A black dot near tip of abdomen. Fw narrow, apex acute, termen entire, silvery grey, greenish in some specimens. A black basal dot and a dark grey spot at apex. A straight thick black line from inner margin near base to middle of vein 5, thence bending proximad to costa at $\frac{1}{3}$ from apex. Area between straight line and inner margin dark grey as far as middle of vein 5 and tornus. A few dark dots in submarginal area and a black spot at inner margin. Hw strongly produced at tornus, dark greyish brown; a blackish patch near inner margin and a crenulate black submarginal line surmounted by a pale fascia from inner margin to just beyond vein 2.

♀: differs in having a larger apical spot on fw.

GENITALIA: 8th tergite sclerotised, with posterior margin evenly rounded. Post-vaginal plate consisting of a short, narrow transverse projecting plate, flanked on either side by a deep irregular sinus followed by a similar latero-ventral plate. Ostium produced into a very short, narrow operculum. Antevaginal plate consisting of a narrow, antero-posteriorly compressed ring, open anteriorly, where there is a small tongue-shaped median plate. Colliculum absent, but replaced by the slightly sclerotised posterior portion of the ductus which is at a sharp angle to the ostium and to the remainder of the ductus. Ductus fairly long and slender. Bursa small rounded, minutely pitted, unarmed.

HABITAT AND RANGE

Lowland forest and heavy woodland from Senegal to Angola, the Congo and western Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Bwamba.

PSEUDOCCLANIS MOLITRIX (R. & J.) 1917 comb. nov.

Polyptychus molitor R. & J. *Novit. zool.* 19: 132 (Benue, Nigeria ♀).

1954 *Larunda sororia* Kernbach *Rev. Zool. Bot. afr.* 50: 218. (Congo ♀)

RANGE AND HABITAT

Open savanna and arid areas throughout tropical Africa.

Ssp. molitrix. (II; 7)

♂: fw. 30–32 mm. Apex and tornus acute, outer margin straight. Very pale creamy buff with four straight darker lines, the antemedial parallel to the subbasal and the postmedial to the submarginal—No stigma. Hw produced at tornus, pale creamy buff with traces of 2 straight transverse lines. A darker dorsal line on thorax.

♀: larger, more rounded, not examined.

RANGE

Senegal to the Sudan and Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Bwamba.

SUDAN BM : Darfur.

Ssp. subviridis (Joicey & Talbot) 1932.

Polyptychus molitor subviridis Joicey & Talbot *Bull. Hill Museum* 4: 178. (Burao, British Somaliland ♀).

Larger and more greenish than the nominate race; doubtfully distinct from the following race. Somalia and Arabia.

Ssp. lauta (Jordan) 1920.

Polyptychus molitor lautus Jordan *Novit. zool.* 27: 167 (Barberton, Transvaal, ♀).

Larger and more heavily marked than typical race. Genitalia of ♂ as in typical race.

RANGE

Tanzania to Rhodesia and the Transvaal.

EAST AFRICAN RECORDS

TANZANIA NM : Ukiruguru.

MC : Lindi, Songea.

MICROCLANIS gen. nov.

Proboscis vestigial. Antennae very thick in male. Abdominal tergites spiny. Tibial spurs not spiny. Aedeagus and vesica unarmed. Valve entire, harpe vestigial. Vein 6 of fw arises beyond cell, on a common stalk with 7 and 8. Veins 6 and 7 of hw on a long stalk.

TYPE SPECIES: *Polyptychus erlangeri* R. & J. 1903.

MICROCLANIS ERLANGERI (R. & J.) 1903 comb. nov. (II; 9,10—XI; 9—XII; 11)

Polyptychus erlangeri R. & J. *Novit. zool. 9 suppl.* : 810 (Dahele, Somalia, ♂).

A small grey species.

♂: fw 23–26 mm. Apex acute, margin slightly crenulate, and convex; pale grey, darker at inner and outer margins, but not at tornus. 3 fairly regular well defined transverse lines; a minute black dot at base and 2 or 3 larger black dots at inner margin, near tornus. Hw paler, with 2 faint darker transverse lines and traces of a dark spot at tornus.

GENITALIA: uncus slender, rounded apically. Lobes of gnathos fused, forming a tongue-shaped shelf. Saccus long and slender, valve membranous, rounded. Harpe ventral, bent, bilobed at base. Vesica covered with minute tubercles at base.

♀: fw 25–30 mm. Generally larger, darker, more indistinctly marked, wings more rounded.

GENITALIA: vaginal plate consisting of an arc posterior to ostium and with 7 transverse folds at centre. Ductus very short. Bursa membranous.

EARLY STAGES: unknown.

HABITAT AND RANGE

Arid bush from central Tanzania to eastern and northern Kenya, Ethiopia and Somalia.

EAST AFRICAN RECORDS

KENYA NM : Athi River, Voi, Mtito Andei, Ijara, Kuranze, Merti (NFD), Loiyongalani (L. Rudolf), Watamu, Malindi, Wajir.

BM : Ngong escarpment, Makindu.

TANZANIA NM : Singida, L. Manyara.

ETHIOPIA BM : Gorgoru, Daroli.

SOMALIA NM : Mogadishu.

BM : Dahele (Type).

NOTE: specimens from Watamu and Malindi, on the Kenya coast are darker, with more crenulate but less convex margins and may constitute a wet season form, or possibly belong to an undescribed species. The only male available has a more slender uncus and reduced lobes at the base of the aedeagus.

CHLOROCLANIS gen. nov.

Proboscis weak. Antennae slender. Abdominal tergites spinose. Tibial spurs short, not spinose. Aedeagus armed with a subapical spine. Uncus undivided. Gnathos bilobed, harpe well developed.

TYPE SPECIES: *Pseudosmerinthus virescens* Butler, 1882.

CHLOROCLANIS VIRESCENS (Butler) 1882 comb. nov.*Pseudosmerinthus virescens* Butler *Ann. Mag. nat. Hist.* (5) **10**: 435 (Aburi, Ghana, ♂).1903 *Polyptychus virescens* R. & J. *Novit. zool.* **9** suppl. : 243.1917 *Polyptychus olivolinea* Joicey & Kaye *Ann. nat. Hist.* **20**: 308 (Bitye Ja river, Cameroons ♀)
syn. nov.1951 *Polyptychus virescens ochracea* Gehlen *Rev. Zool. Bot. afr.* **44**: 251 (Punia Lubutu, Congo, ♂)
syn. nov.**Ssp. virescens.**

♂: fw 28–30 mm. Apex acute, termen straight. Fw, head and thorax rather bright greyish green. Forewing mottled with lighter grey green and faintly marked with numerous wavy transverse lines. Antemedial straighter, darker and thicker than remainder. Subbasal spots and stigma faint or absent. Hw not produced at tornus, ground colour paler than fw, green tinge confined to marginal area. Medial and postmedial bands vaguely indicated. A dark grey suffusion from inner margin to base and to termen at vein 2. Underside yellowish green, with darker crenulate transverse bands in both wings. Abdomen paler than thorax, excepting 2nd and 3rd tergites, which are darker. A beautiful insect when fresh, but fades very quickly to a dirty pale ochreous yellow, specially if relaxed in a moist medium.

P. virescens ochracea Gehlen is merely a badly faded male from the Congo.

GENITALIA: uncus short, broad at base, tapering very suddenly to a downcurved point. Gnathos consisting of 2 long, narrow, pointed lateral blades. Anellus armed with two sharp upright spines. Saccus short, broad and rounded. Valve entire, rounded, membranous, ventro-distal margin armed with irregular tubercles. Harpe occupying basal half of valve and terminating in a large, strong, smooth, sharp, upturned ventral spine. Aedeagus short and straight, apically rounded, armed with a strong pointed subapical process directed upwards and at right angles to the axis of the aedeagus. No modified scales.

♀: (See following subspecies) Larger, longer winged, apex of fw strongly acuminate. Ground colour of both wings and body a very dark olive, markings at in the ♂.

EARLY STAGES: Unknown.**HABITAT AND RANGE**

Forest, from West Africa to Angola, the Congo, Uganda and West Kenya.

EAST AFRICAN RECORDS**KENYA** NM : Kakamega.**UGANDA** NM : Fort Portal, Katera, Kampala, Mabira, Bwamba, Budongo forest.

B : Nakawa.

Ssp. tanzanica nov. (IX; 1,2—XI; 12—XII; 3)

♂: similar to typical race, but with tegulae and pronotum very dark olive green, and 2 dark olive green spots near middle of inner margin of fw. These dark areas are so prominent that they persist even in badly faded specimens.

GENITALIA: uncus more slender than in nominate race. Lateral lobes of gnathos much shorter and more slender.

♀: as in nominate race, but more prominently marked.

GENITALIA: 8th sternite broad, with a blunt median projection distad and numerous parallel transverse folds beyond ostium. Operculum an evenly curved projecting plate. Ductus short and strongly sclerotised but not fluted. Bursa membranous, pear-shaped. Signa absent.

EARLY STAGES: unknown.

HOLOTYPE ♂: Amani, E. Usambara, Tanzania, XI-1965, R. H. Carcasson, to be deposited in British Museum (Natural History).

ALLOTYPE ♀: Locality as above. VI-1964, G. Pringle (No. P1098) Genitalia preparation SP542.

♂ PARATYPES: 2, same data as *Holotype*.

2, same locality as *Holotype* (G. Pringle and "Amani Biological Institute").

1, Moshi, Tanganyika, III-1950, N. P. Mitton.

1, Arusha, Tanganyika, VII-1958, A. Rydon.

ALLOTYPE and PARATYPES in National Museum, Nairobi.

FALCATULA gen. nov.

Antennal pectinations short in both sexes. Proboscis rudimentary. Tibial spurs spinose. Valve bilobed, or, as in *F. cymatodes* R. & J. the well sclerotised upper lobe fused with the lower lobe. Harpe absent, aedeagus unarmed, but terminating in a sharp point. Type species: *Polyptychus falcatus* R. & J. 1903.

FALCATULA CYMATODES (R. & J.) 1912 comb. nov. (II; 15)

Polyptychus cymatodes R. & J. *Novit. zool.* 19: 130 (S. NIGERIA, ♂).

♂: fw very falcate with slightly crenulate margin and sharp, angular tornus, 28–32 mm. Olive grey with indistinct, narrow, wavy transverse lines, a very small dark stigma and a very prominent blackish spot at base. Hw grey with indistinct postmedial and subterminal lines, more clearly visible at tornus. Tornus strongly produced.

♀: fw. 34–38 mm. Costa more strongly curved near apex, tornus of hw less strongly produced. Ground colour darker than in ♂, transverse lines heavier and more conspicuous.

GENITALIA: 8th Sternite consisting of a well sclerotised V-shaped plate proximal to short operculum and surmounted by 2 evenly curved lobes which converge towards operculum. Anterior struts very short and curved. Ductus short and membranous; bursa small and membranous.

EARLY STAGES: unknown.

HABITAT AND RANGE

Lowland forests from Ghana to western Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Bwamba, Kibale Forest, Budongo.

FALCATULA FALCATA (R. & J.) 1903 comb. nov. (II; 14–XII; 6)

Polyptychus falcatus R. & J. *Novit. zool.* 9 suppl. : 247 (Salisbury, Rhodesia, ♀).

♂: very similar to *P. cymatodes*, but a good deal paler, and with more regular and distinct transverse lines in both wings. 2 basal dots on each fw. smaller and paler. Shape and length of fw similar to *P. cymatodes*.

GENITALIA: uncus long, downcurved with a terminal hook. Gnathos consisting of 2 short broad plates, with upturned inner edges almost meeting. Saccus long, broad and rounded, Valve bilobed, consisting of a strongly sclerotised, very slender, long pointed upper lobe, and a broad, rounded, membranous lower lobe, sclerotised at base and ventral margin, which is armed with a single short spine. Aedeagus short, straight and pointed.

♀: larger and darker, with more strongly curved costa near apex and slight emargination below apex. Hw tornus not produced. Fw 38–42 mm.

GENITALIA: ostium flanked by a pair of very prominent projecting plates armed with 3 or 4 stout spines. 8th tergite with median sinus. Two concave oval plates immediately before ostium. Ductus very short; bursa spongy, very small, reflexed distad.

HABITAT AND RANGE

Savanna and woodland from Rhodesia to Malawi, Mozambique, Zambia, Katanga and East Africa; also recorded from Spanish Guinea. A common species.

EAST AFRICAN RECORDS

KENYA NM : Isiolo, Kitale, Ruiru, Shimba Hills, Kericho, Gazi.

BM : S. Kavirondo, Elgon, Mombasa, Rabai.

UGANDA NM : Fort Portal, Mubende, Budongo.

BM : Kampala.

B : Nakawa.

K : Kawanda.

TANZANIA NM : Kigoma, Amani, Tengeru, Ilonga.

R : Dar es Salaam, Mbeya, Mlingano, Tabora,

MC : Lindi, Songea.

Polyptychus penumbra Clark 1936. *Proc. New Engl. zool. Cl.* 15: 78, based on a ♂ from Katanga, is probably no more than a dark form of *Falcatula falcata*.

FALCATULA TAMSI sp. nov. (IX; 3—XVII; 6)

Very closely allied to *F. falcata* R. & J., but fw much less falcate, basal dots almost absent, and uncus and upper lobe of valve very much shorter. Possibly a very distinct race.

MALE

Proboscis rudimentary. Antennae, head and body uniformly pale greyish yellow. Femora pale greyish yellow, tibiae and tarsi a little darker. A prominent white spot at base of mid and hind tibiae.

UPPERSIDE

FOREWING: 33 mm from base to apex. Apex very slightly falcate, tornus angular and slightly produced, outer margin almost straight. Ground colour pale greyish-yellow, darker at termen. Two very small faint basal dots. Grey subbasal line faint. Antemedial grey, double, sharply angled distad in cell. Medial line double and well defined. Stigma small and extremely faint. A faint, very wavy postmedial line, better defined at costa. Subterminal vaguely indicated by nervular spots. Terminal area darker from apex to vein 3. A faint darker spot at tornus. Cilia a little darker than ground colour, especially at the veins and distal margin.

HINDWING: indented at the margin, slightly produced at tornus. Ground colour as in fw, marginal area darker. Median line double, well defined, much straighter than in *F. falcata*. Postmedial very wavy, subterminal indicated by nervular dots.

UNDERSIDE

Ground colour pale greyish yellow. Basal spots, subbasal and antemedial lines and stigmata absent in both wings. Four wavy, parallel dark lines from costa to inner margin beyond end of cell. A short dark streak from subterminal to apex of fw. These lines are more strongly crenulate in hw than in fw. Third line from base incomplete in hw.

GENITALIA: uncus short, broad-based tapering evenly to a down curved blunt point. Gnathos consisting of a narrow sclerotised belt with a median groove where the downcurved edges of the two lobes meet. Saccus broad and rounded, shorter than in *F. falcata*. Valve bilobed, the upper lobe long, slender, curved and pointed, not reaching beyond basal quarter of uncus. Lower lobe membranous apically, sclerotised at base and ventral margin, with a spine at ventral margin. Harpe absent. Aedeagus fairly short, terminating in a slightly downcurved point.

HOLOTYPE ♂: Abyssinia, Harar, 15-VI-39, R. E. Ellison, BM 1960-550, in British Museum (Natural History).

This species which is only known from the Holotype, is dedicated to Mr. W. H. T. Tams of the British Museum.

ANDRIASA Walker 1856

List Lep. Het. B.M. 7: 1735. Type species: *Andriasa contraria* Walker 1856.

1882 *Pseudosmerinthus* Butler.

1893 *Dewitzia* Holland.

Proboscis very short. Palpi small. Antennae slender. Tibial spurs well developed, spinose. Abdominal tergites spinose all over. Wings broad. Genital armature of male unlike any other species; aedeagus and vesica unarmed, modified scales absent. Bursa of female without signa. Only 5 larval instars.

ANDRIASA CONTRARIA Walker 1856.

List Lep. Het. B.M. 7: 1735 (Natal, ♂).

1882 *Pseudosmerinthus marginalis* Butler. Ann. Mag. nat. Hist. (5) 10: 435 (♂).

1903 *Polyptychus contraria* R. & J. Novit. zool. 9 suppl. : 257.

1911 *Trotonotus crenulata* Bethune-Baker, Ann. Mag. nat. Hist. (8) 7: 558 (Angola).

1912 *Polyptychus objectus* Strand Arch. Naturgesch. 78 (A): 151 (♂).

1935 *Polyptychus towadeus* Gehlen Ent. Z. 49: 12 (Elisabethville) syn. nov.

1950 *Polyptychus stigmaticus* Gehlen Ent. Z. 60: 67 (Nyeri, Kenya, ♂) syn. nov.

A very variable species; common in all habitats except deserts and high mountains throughout Africa south of the Sahara.

Ssp. *contraria*. (II; 11,12—XI; 15)

♂: fw 25-31 mm., short and broad, margin entire, apex acute, but not produced. Ground colour of fw and body very pale buff to yellowish grey, to reddish buff. Numerous irregular crenulate lines, almost absent in some specimens, very conspicuous in others. Two minute basal dots present in some specimens. Stigma obsolete to large and black (form *stigmatica* Gehlen). Hw rounded, usually paler than fw, often with a reddish tinge; medial and submarginal lines crenulate and usually present, sometimes a series of small subterminal black dots at the veins, joined into a short line at the tornus.

♀: larger, wings longer and narrower, apex of fw strongly acuminate. Markings similar to ♂ and just as variable, but ground colour darker, reddish buff to dark reddish brown. Hw paler, as in ♂.

RANGE

South Africa to Tanzania, East Africa and Ethiopia.

EAST AFRICAN RECORDS

KENYA NM : Nairobi, Diani, Fort Hall, Ruiru, Kapenguria.

S : Mombasa.

TANZANIA NM : Amani, Mufindi.

R : Dar es Salaam, Ilonga, Mlingano.

MC : Lindi, Songea.

ETHIOPIA NM : Neghelli.

Ssp. *submarginalis* (Walker) 1864.

Basiana submarginalis Walker, List. Lep. Het. B.M. 31: 37 (Sierra Leone, ♀).

1869 *Basiana suffusa* Walker, Proc. nat. Hist. Soc. Glasgow 1: 329 (Congo).

1875 *Smerinthus adansoniae* Boissduval, Spec. Gen. Lep. Het. 1: 27 (Senegal).

1879 *Smerinthus pechueli* Dewitz, Mitt. munch. ent. Ver. 3: 28 (Chinchoxo, Angola).

1893 *Dewitzia perpallida* Holland, Ent. News 4: 341 (Benita, Gabon).

A subspecies of doubtful validity. The ♂ is said to have a straighter termen than the nominate race; such males, however, occur amongst typical males at Amani and at the coast. The females appear to be more distinct, being smaller, darker, particularly in the hw and narrower winged. There are no structural differences.

RANGE: West Africa to the Congo, Uganda and west Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kaimosi, Mt. Elgon.

UGANDA NM : Tororo, Kagera, Kalinzu, Kibale Forest.

Bwamba, Budongo Forest, Impenetrable Forest (Kigezi).

SM : Bombo.

S : Kampala.

B : Mpanga forest, Nakawa.

Ssp, *diffusa* (R. & J.) 1910.

Novit. zool. 17: 456 (Ghinda, Eritrea, ♂).

Markings in both wings above and below almost absent in both sexes.

Known from the Type and from a female from the same locality, both in the British Museum (Natural History).

RUFOCLANIS gen. nov.

Proboscis weak, not reaching further than end of thorax. Tibial spurs spinose. Male genitalia comparatively simple; apex of aedeagus or base of vesica armed with a varying number of spines. Valve entire, harpe present. Uncus spatulate or pointed, never bifid. Outline of wings more or less crenulate. Forewing brown or grey with numerous wavy transverse lines. Hindwing pink or brown. Females similar to males, but larger. Bursa of female without signa. Type species: *Triptogon rosea* Druce 1882.

RUFOCLANIS JANSEI (Vari) 1964 comb. nov.

Polyptychus jansei Vari *Koedoe* 7: 45 (Pafuri, Transvaal ♂). Transvaal and Rhodesia.

RUFOCLANIS FULGURANS (R. & J.) 1903 comb. nov. (II; 17—XIII;2)

Polyptychus fulgurans R. & J. *Novit. zool.* 9 suppl. : 254 (Kiokwe, B.E.A. ♂).

♂: fw. 22–32 mm. Internervular indentations at the margin present, but not pronounced. Fw apex acute, slightly falcate. Fw pale pinkish brown with a well defined non-crenulate dark medial line, more or less parallel to termen. Basal, subbasal, postmedial and subterminal lines wavy and much less clearly defined. Two small dark dots at base, sometimes merging into a single elongated dot. Hw pink with two prominent dark reddish brown spots near tornus. A dark median line on vertex and dorsum of thorax.

♀: very similar to ♂, but larger. Fw 40 mm.

GENITALIA: 8th tergite consisting of a broad transverse band with irregularly sinuous posterior edge. 8th sternite consisting of a narrow straight edged sclerotised band produced laterally into two prominent lobes projecting distad. A short, narrow operculum; 1st pair of struts very short. Ductus wide, short, well sclerotised. Bursa ovoid, membranous.

HABITAT AND RANGE

Dry savanna and bush from Rhodesia to Tanzania and eastern Kenya.

EAST AFRICAN RECORDS

KENYA BM : Kiokwe. (Type)

TANZANIA NM : Ilonga.

R : Dar es Salaam, Mlingano, Ukiriguru.

BM : Pigawasi, Amani.

MC : Lindi, Songea.

RUFOCLANIS MACCLEERYI sp. nov. (IX; 4—XVII; 2)

Very closely allied to *P. fulgurans* R. & J., but differs in the more falcate, less crenulate fw, the much larger brown basal spot in fw, the reduction of the pink colour in the hw to a basal patch, and in the structure of the ♂ genitalia.

♂ **ANTENNAE**: pale pinkish-buff.

HEAD: frons and vertex pale pinkish buff, crest darker. 1st and 2nd segment of palpi sayal brown, third segment pale pinkish buff.

THORAX: light pinkish cinnamon above, with a median brown streak continued from vertex, but not reaching base of abdomen; below sayal brown, becoming paler and pinker towards base of abdomen.

ABDOMEN: light pinkish buff above and below.

LEGS: femora cinnamon, tibiae and tarsi paler internally, darker externally; a whitish external spot at base of mid and hind tibiae.

UPPERSIDE

FOREWING: more elongated than in other species of the group, 32 mm from base to apex. Apex acute and falcate, tornus strongly produced, termen only very weakly crenulate. Ground colour light pinkish cinnamon, sprinkled with brown scales, darker beyond medial line. A large, irregular warm sepia spot at base. Subbasal line brown, single, narrow, fairly straight, bending distad at cubitus. Antemedial double, enclosing slightly darker ground colour, very irregular, sharply angled distad at the anal vein, proximad at the base of vein 2, and distad at cubitus. Stigma consisting of two narrow, parallel lines close together and slightly curved proximad, from vein 3 to radius. Medial line much thicker than all others, dark brown, accompanied distally by a similar though narrower parallel line, almost straight from just beyond middle of inner margin to costa at $\frac{2}{3}$ from base. Ground colour beyond medial darker, warmer, except at costa and tornus. Three irregular, wavy more or less parallel lines from inner margin to costa, all of them bending sharply distad near apex, the subterminal with a branch from vein 6 to apex. Vein 5 and 6 outlined in warm sepia. Marginal area from apex to vein 2, brown. Cilia warm sepia, edged distally with cinnamon.

HINDWING: ground colour more reddish than fw, a large terra cotta area at base. Marginal area somewhat darker. Ternal angle which is rather produced, pale pinkish buff. Veins outlined by darker scales. 2 irregular, but sharply defined warm sepia spots near tornus, the inner one surmounted by a small brown patch with ill-defined margins. Medial line straight but faint, postmedial also faint, crenulate.

UNDERSIDE

FOREWING: groundcolour of basal half terra cotta, remainder cinnamon. Subbasal and antemedial absent, medial very faint, Postmedial, subterminal and terminal more regular and better defined than above. A dark brown triangle at apex and terminal area from apex to vein 2 light pinkish cinnamon. Cilia paler than above.

HINDWING: light pinkish cinnamon from base to medial, which is straight and well defined. Postdiscal and marginal areas cinnamon; postmedial, subterminal and terminal lines parallel, somewhat wavy, but clearly defined. Cilia brown.

GENITALIA: similar to *P. fulgurans* R. & J., but uncus very blunt, with a very slight median indentation at apex. Arms of gnathos slender but shorter. Valve longer and narrower, somewhat lobed apically and without blunt ventrodistal hook. Aedeagus very similar to *R. fulgurans*, but armed apically with two rounded lobes, not 2 blunt spines.

FEMALE: unknown.

HOLOTYPE ♂: Lindi, S.E. Tanganyika, 9-III-1965, C. H. McCleery, to be deposited in British Museum (Natural History).

This species is known from the Holotype only and is dedicated to its discoverer, Dr. C. M. McCleery.

RUFUCLANIS ROSEA (Druce) 1882 comb. nov.

Triptogon rosea Druce *Ent. mon. Mag.* 19: 17 (Cameroons ♀).

1891 *Triptogon reducta* Karsch *Ent. Nachr.* 17: 13 (Togo, ♂).

1903 *Polyptychus rosea* R. & J. *Novit. zool.* 9 suppl. : 256.

1936 *Polyptychus rosea orientalis* Clark *Proc. New. Engl. zool. Cl.* 15: 77 (Kolokani, Sudan, ♂) syn. nov.

Ssp. meloui Oberthür 1913 (*Etud. Lep. comp.* 9: 133) described from Senegal is probably an extreme dry season form.

Ssp. rosea. (II; 16)

♂: fw. 30-32 mm., margin crenulate, apex not falcate; very pale olive brown with distinct narrow dark transverse lines, a dark dot at base and one near tornus. Termen sometimes darker. Hw much brighter pink than foregoing species, with the usual dark spots at tornus. 1st and 2nd abdominal tergite dark olive brown. Antennae more prominently fasciculate than other species of group.

GENITALIA: similar to *P. fulgurans* R. & J., but arms of gnathos much shorter and broader, lobes of subscaphium larger. Ventro-distal hook not so pronounced. End of aedeagus armed with a single short, broad-based hook.

♀: slightly larger, with more rounded wings.

GENITALIA: vaginal plate consisting of a triangular central portion immediately posterior to ostium and of two bilobed lateral segments. Ductus short, well sclerotised. Bursa pear shaped.

EARLY STAGES: unknown.

HABITAT AND RANGE

Forests from Sierra Leone to the Congo, Angola and Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Entebbe, Budongo.

B : Nyabyeya.

K : Namulumba (Singo), Kolungi (Mengo).

RUFUCLANIS NUMOSAE (Wallengren) 1860 comb. nov.

Smerinthus numosae Wallengren *Wien. ent. Mon.* 4: 42 (Caffraria, ♀).

1882 *Triptogon cytis* Druce *Ent. mon. Mag.* 19: 18 (Vaal River, S. Africa, ♀).

1899 *Polyptychus consanguineus* Distant *Ann. Mag. nat. Hist.* (7) 3: 179 (Lydenburg, South Africa, ♀).

1903 *Polyptychus numosae* R. & J. *Novit. zool.* 9 suppl. : 256.

1961 *Polyptychus hesperus* R. & J. *Novit. zool.* 23: 260 (Tsumeb, S.W. Africa, ♂) syn. nov.

Ssp. numosae.

HABITAT AND RANGE

Dry bush and arid savanna from the eastern Cape to Rhodesia, Bechuanaland and South-West Africa.

There is a pale form (typical) and a darker form (*hesperus* R. & J.) similar to northern subspecies *subjecta* Walker in appearance, which occur together throughout most of the range of the subspecies; these forms are probably climatic and seasonal.

Ssp. *subjecta* (Walker) 1869 stat. nov. (II; 13)

Smerinthus subjectus Walker *Proc. nat. Hist. Soc. Glasgow* 1: 328 (Congo, ♂).

1903 *Polyptychus fumosus* R. & J. *Novit. zool. 9 suppl.* : 254 (Dar es Salaam, ♂) syn. nov.

1915 *Polyptychus fumosus pelops* Fawcett *Proc. zool. Soc. Lond.* 9: 107 (Kedai, Kenya).

Differs from the nominate race in the shape of the harpe.

♂: fw. 22–30 mm. Marginal indentations regular and pronounced in both wings. Apex acute, but not falcate. Greyish pinkish brown to light brown with an evenly curved oblique postmedial line in fw and numerous dark wavy lines in hw. A faint dark spot at base of fw and a prominent reniform stigma. Two dark spots at tornus of hw.

GENITALIA: uncus short and spoon-shaped. Gnathos armed with a median, pointed projection. Funnel of aedeagus long and pointed. Valve rounded, armed with minute tubercles at distal margin. Harpe ventro-distal, consisting of a triangular plate and a stout hook. Aedeagus short and straight terminating in a sub-globular projection covered in minute spines. In ssp. *numosae* the valve is shorter, more rounded, the marginal tubercles cover a greater area and the harpe is much smaller.

♀: fw. 34–36 mm. Similar to ♂, but darker, apex of fw slightly falcate.

GENITALIA: 8th sternite consisting of a narrow sclerotised band, strongly sinuate distad beyond ostium and of two anterior, almost circular plates, one on each side of ostium. Ostium prolonged into a short, bisinuate operculum. Ductus sclerotised, short and wide, bursa ovoid, membranous.

EARLY STAGES: not known.

RANGE

Kenya, Tanzania, Zambia, Angola, S. Congo. Habitat as above.

EAST AFRICAN RECORDS

KENYA NM : Mtito Andei, Makueni, Ruiru, Kisigau (Voi), Kilifi.
BM : Kedai.
S : Mombasa.
TANZANIA NM : Dodoma.
S : Gaita.
R : Dar es Salaam, Ilonga, Mlingano.

RUFOCLANIS ERLANGERI (R. & J.) 1903 comb. nov. (II; 18)

Odontosida erlangeri R. & J. *Novit. zool. 9 suppl.* : 811 (Webi Maki, Somalia, ♂).

Known from the type only.

Similar to *P. numosae*, but smaller and greyer, with a much better defined postdiscal band in hw.

GENITALIA: a complete description is not possible from the remaining fragments of Jordan's dry preparation. Uncus spoon-shaped, more slender than in *numosae*. Harpe similar to *numosae*, but much larger. Aedeagus similar to *numosae*, but incomplete.

EARLY STAGES: unknown.

AFROSPHINX gen. nov.

Antennae slender in both sexes. Proboscis rudimentary. Tibial spurs weak, not spinose. Margins of wings entire; vein 6 of fw not stalked; veins 6 and 7 of hw have a common origin, but are not stalked. Aedeagus with a short fixed apical hook. Uncus and gnathos undivided, harpe weak.

TYPE SPECIES: *Polyptychus amabilis* Jordan 1911.

AFROSPHINX AMABILIS (Jordan) 1911 comb. nov.

Polyptychus amabilis Jordan *Novit. zool.* 18: 135 ("Belgian Congo", probably Katanga, ♂).

Ssp. *amabilis*. (XII; 9)

♂: fw. 30–32 mm. Head, body and fw red to orange brown speckled with brown. Two curved, oblique, parallel antemedial lines. Postmedial double near costa, evenly curved before vein 2, then bending distad before reaching inner margin. Submarginal also double at costa, then single and crenulate. A diffuse ochreous orange discal patch and a similar, but smaller area at apex. Hw redder at base, more densely speckled with brown with a blackish suffusion near inner margin and tornus.

♀: much redder, with discal markings paler.

♀ GENITALIA: (typical race) Post-vaginal plate irregularly sclerotised, with a lateral triangular flap projecting on either side of ostium. Anterior margin of ostium irregularly dentate. Colliculum absent, but represented by two lightly sclerotised semicircular plates at posterior end of ductus. Ductus very long and slender. Bursa very small, rugose, unarmed.

HABITAT AND RANGE

Brachystegia woodland in Katanga, Angola and Zambia.

Ssp. *occidens* (Clark) 1927 (II; 19—XVII; 5)

Polyptychus amabilis occidens Clark *Proc. New Engl. zool. Cl.* 9: 32 (Sasahila, near Igandu station, east of Dodoma, Tanganyika, ♂).

♂: darker and more brick coloured than nominate race and with reduced pale areas.

GENITALIA: uncus long, with a short terminal hook and a slight constriction near base. Gnathos a prominent but blunt pointed plate; anellus provided with two minutely rugose rounded plates. Saccus very long and narrow, dilated into a round apical lobe. Valve elongated, with well rounded apex. Harpe a longitudinal ridge ending in a densely spinose rounded subapical lobe. Aedeagus stout and straight, terminating in a short, broad, downcurved hook. Genitalia as in nominate race.

FEMALE AND EARLY STAGES: unknown.

Known only from the *Holotype* in the Carnegie Museum, Pittsburgh and from a ♂ *Cotype* from the same locality in the British Museum (Nat. Hist), London.

PSEUDANDRIASA gen. Nov.

Antennae slender in both sexes: proboscis reduced to two very weak short lobes. Tibial spurs not spinose. Wings very rounded. Abdominal spines at posterior margins of tergites only. Uncus bilobed, gnathos crescent-shaped. Harpe absent. aedeagus short, unarmed.

TYPE SPECIES: *Lymantria? mutata* Walker 1855.

PSEUDANDRIASA MUTATA (Walker) 1855 comb. nov. (XI; 17)

Lymantria? mutata Walker *List Lep. Het. B.M.* 16: 873 (Natal)

1862 *Andriasa erubescens* Walker *Trans. ent. Soc. Lond.* (3) 1: 263 (Natal, ♂).

1903 *Polyptychus mutata* R. & J. *Novit. zool.* 9 suppl. : 262 Apparently confined to South Africa.

MALGASSOCLANIS gen. nov.

Probably related to the Oriental genus *Clanidopsis* R. & J. Antennae slender, proboscis well developed. Wings rounded. Legs very slender, tibial spurs not spinose. Uncus broad, undivided, or bifid near apex. Harpe absent. Aedeagus unarmed, or with a short, fixed, apical hook.

TYPE SPECIES: *Polyptychus delicatus* Jordan 1921. Two species, both confined to Madagascar.

MALGASSOCLANIS DELICATA (Jordan) 1921 comb. nov. (XI; 14)

Polyptychus delicatus Jordan *Novit. zool.* 28: 278 (Madagascar, ♂)

MALGASSOCLANIS SUFFUSCA (Griveaud) 1958 comb. nov.

Polyptychus suffusus Griveaud *Nat. Malgache* 10: 77 (Madagascar, ♂).

BATOCNEMA R. & J. 1903

Novit. zool. 9 suppl. : 190; type species: *Ambulyx cocquereli* Boisduval 1875.

Proboscis short, just extending beyond base of abdomen. Antennae slender, fasciculate, terminating in a tuft of scales. Foretibia armed with a stout apical thorn, otherwise tibiae spineless. Tibial spurs unequal. Paronychia bilobed. Abdominal tergites not spinose. Venation as in *Polyptychus*; apex of fw truncated; tornus of both wings strongly produced.

BATOCNEMA AFRICANA (distant) 1899. (II; 20)

Polyptychus africanus Distant *Ann. Mag. nat. Hist.* (7) 3: 179 (Lydenburg, Transvaal, ♂).

♂: fw. 30–33 mm. Head and body pale green, tegulae and first abdominal tergite dark green. Fw. pale yellowish green shot with pink and mottled with darker green and yellow. A large dark green inner marginal spot at base, a dark green wedge-shaped spot at costa at $\frac{1}{4}$ from base and a large quadrate dark green spot at apex. Hw yellow with green border and dark green spot at tornus.

♀: similar to ♂, but slightly larger; fw, 35 mm.

GENITALIA: 8th tergite very lightly sclerotised, mesially incised. 8th sternite with posterior edge narrowly sclerotised laterally, broadening into a transversally rugose broad plate before ostium. Ductus very long with a short colliculum. Bursa small, rounded, membranous. Struts long and slender.

HABITAT AND RANGE

Open woodland and savanna from South Africa to Rhodesia, Tanzania and the Kenya coast.

EAST AFRICAN RECORDS

KENYA NM : Tiwi.

TANZANIA R : Dar es Salaam, Ilonga, Mlingano.

MC : Lindi, Songea.

RJ : Ukami.

BATOCNEMA COCQUERELI (Boisduval) 1875.

Ambulyx cocquereli Boisduval *Spec. Gen. Lep. Het.* 1: 191 (Nossi-be, Madagascar).

Ssp. cocquereli.

RANGE: Madagascar.

Ssp. comorana R. & J. 1903.

Novit. zool. 9 suppl. : 191 (Comoro Islands).

Ssp. *aldabrensis* Aurivillius 1909.

Voeltzkow, Reise in Ostafrika: 2: 334 (Aldabra Island).

RHADINOPASA Druce 1880

Ent. mon. Mag. 26: 268; type species: *Rhadinopasa hornimani* Druce 1880.

1892 *Rhadinopsis* Kirby *Cat. Lep. Het.* 1: 674.

Proboscis short and weak. A tuft of long hair scales behind eye. Antennae slender, tapering, slightly fasciculate. Palpi long, but not projecting. Abdominal tergites densely spinose; terminal spine of foretibia absent; tibiae not spinose, tibial spurs unequal. Tarsi long and slender. Apex of fw truncated; veins 6 and 7 of hw on a short stalk. Male genitalia without modified scales.

Larva spinose with round head and short horn.

RHADINOPASA HORNIMANI Druce 1880.

loc. cit. (Cameroons, ♂).

1889 *Basiana hornimanni* Holland *Trans. Amer. ent. Soc.* 16: 66 (♀).

1891 *Rhadinopasa udei* Karsch *Ent. Nachr.* 17: 14 (Ashanti, ♀).

Ssp. *hornimani*.

A large species.

♂: fw 65 mm. Head and body pale orange brown. Fw pale orange brown to pale olive with a number of faint, wavy, parallel subbasal lines and a narrow dark longitudinal streak from costa at $\frac{1}{3}$ from base to proximity of outer margin. Outer margin and apex yellowish, tornal angle very obtuse and rounded. Hw pale reddish brown with faint darker wavy submarginal band near tornus.

♀: somewhat larger, darker and with more rounded wings.

♀ GENITALIA: 8th tergite evenly rounded posteriorly, with a very deep anterior sinus. Post-vaginal plate arc-shaped with a shallow median posterior emargination and a rounded lateral lobe on either side. Colliculum absent. Ductus long and slender. Bursa pear-shaped with a small irregular spinose signum halfway to apex.

HABITAT AND RANGE

Lowland forest from West Africa to the Congo and Angola.

Ssp. *tanganyikae* Clark 1938. *Proc. New Engl. zool. Cl.* 17: 41.

Supposed to be shorter winged and duller than typical specimens. Based on a single male "taken in Tanganyika" ex O. Staudinger and A. Bang-Haas.

NOTE: This species will probably be found in the Bwamba valley of western Uganda.

LOPHOSTETHUS Butler 1877

Trans. zool. Soc. Lond. 9: 585; type species *Sphinx demolini* Angas 1849.

Very large moths. Proboscis short and weak. Palpus small and slender, third segment acutely pointed. Antennae slender in both sexes. Hindtibia spinose, foretibia armed terminally with a stout spine. Two pairs of long spurs on hindtibia. Pulvilli absent, paronychial single-lobed each side. Larvae armed with branched spines. Two species.

LOPHOSTETHUS DEMOLINI (Angas) 1849. (III; 1)

Sphinx demolini Angas *Kaffr. Illustr.* P1.30, fig. 11 (Natal).

♂: fw 55–70 mm. Antennae whitish. Ground colour of wings and body light brown. Frons darker, dorsum of thorax dark chocolate. Two dark chocolate dorsal spots on last thoracic segment. Apex

of fw rather blunt, outer margin strongly crenulated; light brown with wavy paler transverse lines. Discal area, between antemedial and postmedial chocolate except near inner margin. Stigma a large arrow-shaped gleaming creamy white spot. A small round spot of the same colour, just inside arrow head. A chocolate triangle near apex and two chocolate wedges in areas 4 and 5, sometimes further wedges in 2 and 3. Hw uniformly light brown, with faint wavy transverse lines.

♀: identical, but slightly larger (fw, 70–75 mm.).

HABITAT AND RANGE

Most habitats, except desert and high mountains throughout the Ethiopian Region, excluding Madagascar and the Cape.

EAST AFRICAN RECORDS

- UGANDA NM : Tororo, Bwamba, Fort Portal.
 BM : Madi Opei.
 RJ : Bulamwezi.
 L : Mweya.
- KENYA NM : Mackinnon Road, Mtito Andei, Nairobi, Isiolo, Voi, Sigor (Suk), Thika, Makueni.
 S : Kitale, Kakamega.
 BM : Kibwezi, Kionga, Taru, Makindu,
- TANZANIA NM : Kilosa, Buhemba, Lake Manyara, Ukerewe.
 R : Dar es Salaam, Ilonga, Mbeya, Mlingano, Ukiriguru.
 BM : Arusha, Mamboia, Uluguru.
 MC : Lindi, Songea.
- ETHIOPIA NM : Gojeb, Wongi (Nazareth).

NOTE: West African specimens (ssp. *carteri* Rothschild 1894, *Novit. zool.* 1: 97, Lagos) are darker and are linked with the paler eastern and southern form by a continuous cline, Congolese and Uganda specimens being intermediate (ssp. *congoicus* Clark 1937, *Proc. New Engl. zool. Cl.* 16: 31, Katanga).

LOPHOSTETHUS NEGUS (Jordan) 1926. (III; 2—XII; 2)

Lophostethus demolini negus Jordan *Novit. zool.* 33: 380 (Kambatta, south-west Ethiopia, ♂).

1964 *Lophostethus negus* Carcasson *J.E. Afr. nat. Hist. Soc.* 24: (109): 73.

♂: similar to *L. demolini*, but smaller, margin of fw much less crenulated, ground colour much darker, more purplish. Stigmata smaller, more golden. Much less heavily marked below.

GENITALIA: very similar to *L. demolini*, but smaller, not so heavily sclerotised, aedeagus straight, not curved.

FEMALE AND EARLY STAGES: unknown.

HABITAT AND RANGE

Highland forest in Ethiopia.

RECORDS

- ETHIOPIA NM : Gara Mullata (Harar).
 BM : Kambatta (Type).

LIKOMA R. & J. 1903

Novit. zool. 9 suppl. : 265; type species *L. apicalis* R. & J. 1903.

Proboscis very short and weak, Tibial spurs very short, not spinose. Paronychia vestigial. Modified scales present on 8th tergite and on valve. Larvae granulose, with triangular head. Venation as in *Polyptychus*.

LIKOMA APICALIS R. & J. 1903. (II; 21)

Novit. zool. 9 suppl. : 265 (Likoma, Lake Nyasa, ♂).

♂: fw. long and narrow, apex acute, outer margin irregularly crenulated, 26–30 mm. Ground colour pinkish brown to olive brown. Transverse lines of fw fairly straight. Outer marginal area of fw, tornus of hw and first abdominal tergite chocolate. A chocolate spot at inner margin near tornus.

♀: larger (34 mm from base to apex), otherwise similar to ♂.

GENITALIA: 8th tergite broad, with a very deep mesial sinus at posterior margin and a smaller one at anterior margin. Vaginal plate narrower with posterior margin somewhat crenulated. Ostium very wide. Ductus short and wide, heavily sclerotised, constricted near middle. Bursa small, rounded. Struts very long.

RANGE AND HABITAT

Savanna and open woodland from Rhodesia to Tanzania and the Kenya coast.

EAST AFRICAN RECORDS

KENYA S : Mombasa.
TANZANIA NM : Ilonga, Mufindi, Tabora.
R : Mlingano, Dar es Salaam,
MC : Njombe.
BM : Pigawasi, Kondoa, Kasikase.

LIKOMA CRENATA R. & J. 1907. (II; 22)

Novit. zool. 14: 93, (Mgana, British East Africa, ♂).

♂: very similar to preceding species, but greyer, apex not so acute, margin more regularly crenulated. Transverse bands much more wavy, dark areas reduced, contrasting less with ground colour.

♀: similar to ♂, but darker.

GENITALIA: 8th tergite consisting of 2 lateral lobes joined by a narrow sept. Vaginal plate a regular broad transverse belt. Ductus short and wide, without constriction. Bursa small and rounded. Struts long and slender.

EARLY STAGES: unknown.

RANGE

Coast of East Africa.

RECORDS

KENYA NM : Mombasa, Kilifi.
BM : Simba, Arabuko, Mgana.
TANZANIA NM : Mlingano, Ilonga.
R : Dar es Salaam.
SOMALIA BM : Juba River.
BE : Belet Amin.

POLIODES R. & J. 1903

Novit. zool. 9 suppl. : 285; type species *P. roseicornis* R. & J. 1903.

Proboscis very short and weak. Palpi very small. Antennae fasciculate, slender, similar in both sexes. Tibiae spinose; only one pair of short spurs on hindtibia. Pulvillus reduced. Male genitalia without modified scales. Wings very long and narrow, with crenulated margins. Venation as in *Polyptychus*.

POLIODES ROSEICORNIS R. & J. 1903. (II; 23)

Novit. zool. 9 suppl. : 285 (Ikutha, British East Africa, ♂).

1915 *Temnora erato* Fawcett *Proc. zool. Soc. Lond.* Pt. 1: 109 (Masongaleni and Kedai, British East Africa).

♂: fw. 20–22mm. Antennae bright pink. Body grey; fw with crenulated transverse lines. Terminal area darker, with some pale grey mottling. A large irregular darker grey spot at costa, beyond middle. Hw. uniform brownish grey, darker at tornus. A faint dark submarginal line.

♀: larger and brighter (fw, 28–30 mm. from base to apex).

GENITALIA: 8th tergite well sclerotised, with slight posterior emargination. Vaginal plate broad, posterior margin sinuous. Ostium wide, ductus very short and wide. Bursa fairly large, spherical. Struts stout, but long.

HABITAT AND RANGE

Dry bush in eastern Kenya and probably in southern Somalia.

EAST AFRICAN RECORDS

KENYA NM : Diani, Voi, Mtito Andei, Melka Murri, (Mandera).

BM : Mombasa, Kedai, Masongaleni, Makindu, Kibwezi, Ikutha.

CERIDIA R. & J. 1903

Novit. zool. 9 suppl. : 286; Type species *Ceridia mira* R. & J. 1903.

Proboscis rudimentary. Abdominal tergites spinose all over. Tibiae spinose; hindtibia with a single pair of unequal spurs; foretibia with a strong terminal spine and a short tooth. Pulvilli and paronychial present, the latter without ventral lobes. Wing margins regular; discoidal cells of both wings sharply indented at origin of vein 5; vein 6 of fw arises just beyond end of cell; veins 6 and 7 of hw on a short stalk. Modified scales absent.

CERIDIA HEUGLINI (Felder) 1874. (III; 3)

Smerinthus heuglini Felder *Reis. Nov. Heteroc.* Pl. 78 (Abyssinia, ♂).

Sexes alike, fw with acute apex, 30 mm. Antennae very slender, not pectinated. Ground colour of fw and body pale pinkish brown. A chocolate narrow median stripe on head and thorax. Fw with a conspicuous chocolate marking which touches costa at $\frac{1}{4}$ from base and at $\frac{2}{3}$ from base, leaving intervening areas pinkish brown. A large rounded chocolate stigma touching lower part of chocolate marking. A rounded chocolate marking edged proximally with pale pink at apex. Several faint, sinuous dark transverse lines. Hw paler and pinker, unmarked.

♀ **GENITALIA:** vaginal plate consisting of a sub-triangular plate on either side of ostium. Colliculum very short, wider at ostium. Ductus rather short, wide, pleated. Bursa small, rounded, unarmed.

HABITAT AND RANGE

Savanna and grassland from W. Africa to Uganda, the Sudan and Ethiopia.

EAST AFRICAN RECORDS

UGANDA NM : Bwamba.

B : Masindi, Nyabyeya.

BM : Gulu.

SUDAN BM : Bahr el Ghazal.

CERIDIA MIRA R. & J. 1903. (III; 4)

Novit. zool. 9 suppl. : 287 (Ikutha, British East Africa, ♂).

♂: very similar to *C. heuglini*, but antennae strongly pectinated, forewings shorter and broader, ground colour more brownish, not so pink. Fw. 19–21 mm. from base to apex.

♀: similar to ♂, but larger, antennae not pectinated. Fw. 22–24 mm from base to apex.

HABITAT AND RANGE

Dry bush in eastern and northern Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kinna, Isiolo, Mtito Andei, Voi.

BM : Ikutha (Type), Kibwezi, Taveta, Kedai, Masongaleni.

CERIDIA NIGRICANS Griveaud 1959.

Faune Madag. 8: 71 (Madagascar).

Madagascar only.

CERIDIA STUCKENBERGI Griveaud 1959.

Faune Madag. 8: 72 (Madagascar).

Madagascar only.

XENOSPHINGIA Jordan 1920

Novit. zool. 27: 169; Type species *Xenosphingia jansei* Jordan 1920.

XENOSPHINGIA JANSEI Jordan 1920.

Novit. zool. 27: 169 (Southern Rhodesia, ♂).

Arid bush in western Rhodesia and adjoining Botswana.

PSEUDOPOLYPTYCHUS gen. nov.

Proboscis very short. Tibial spurs very short, unarmed, appressed to tibia. Retinaculum absent, frenulum very weak. Similar in appearance to *Afroclanis*. Uncus bilobed, gnathos crecent-shaped. Harpe small, basal. Aedeagus and vesica unarmed.

TYPE SPECIES: *Polyptychus foliaceus* R. & J. 1903.

PSEUDOPOLYPTYCHUS FOLIACEUS (R. & J.) 1903. (XI; 13)

Polyptychus foliaceus R. & J. *Novit. zool. 9 suppl.* : 257 (Misa Hill, Togo, ♀).

Ghana to Nigeria.

AFROCLANIS gen. nov.

Proboscis well developed. Palpi short. Antennae slender in both sexes. Abdominal tergites with spines confined to posterior margins. Tibiae spinose; two pairs of long stout spineless hindtibial spurs. Venation as in *Polyptychus*; wing margins entire, colour of hw red; facies recalls species of *Lybioclanis* R. & J. Apex of aedeagus armed, valve entire, harpe present; uncus bilobed.

TYPE SPECIES: *Polyptychus calcareus* R. & J. 1907.

AFROCLANIS CALCAREA (R. & J.) 1907 comb. nov. (III; 6—XIII; 3)

Polyptychus calcareus R. & J. Novit. zool. 14: 92 (Masasi, German East Africa, ♂).

Polyptychus aurora Clark 1936 Proc. New Engl. zool. Cl. 15: 77 (Kafakumba, Katanga) is probably an aberrant ♀ of above (not seen).

♂: fw 29–32 mm; apex acute, but not falcate; reddish brown to brownish purple, with a large dark spot at costa before apex and a small dark stigma; hw brick red, usually darker at margin.

GENITALIA: uncus very short and broad, terminating in two blunt, well sclerotised lateral spines. Gnathos consisting of an undivided median lip; saccus short and rounded. Valve oval; harpe a longitudinal toothed ridge terminating in a rounded posterior lobe surmounted by bristles; a central membranous area above ridge. Aedeagus short and stout, terminating in a funnel armed with numerous sharp teeth and a rounded structure with smaller teeth.

♀: larger, otherwise similar; fw 34–36 mm.

GENITALIA: 8th sternite a narrow, ill-defined sclerotised transverse band posterior to ostium. Ductus short, broad, well sclerotised; bursa pear-shaped, membranous, sclerotised and fluted at base.

HABITAT AND RANGE

Brachystegia woodland from Rhodesia and Mozambique to Malawi, Zambia, Katanga and Tanzania.

EAST AFRICAN RECORDS

TANZANIA BM : Masasi (Type).

R : Ilonga.

MC : Lindi, Songea.

AFROCLANIS NEAVI (Hampson) 1910 comb. nov.

Polyptychus neavi Hampson Proc. zool. Soc. Lond. : 492 (Luangwa Valley, N. Rhodesia, ♂).

1911 *Polyptychus martha* Closs Int. ent. Z. Guben 5: 50 (♂).

Ssp. *neavi*. (III; 5—XI; 16)

♂: fw. 24–28 mm., pointed but not falcate. Fw brownish purple with a dark triangle at apex and a dark band from tornus to end of cell. Hw. red with a diffuse dark area at margin near tornus. Body bright brownish purple with darker tegulae. Antennae pink, tibiae and tarsi silvery white.

GENITALIA: uncus as in *A. calcarea*, but terminal lateral spines longer and sharper, with a number of smaller spines at distal margin between the two major spines. Gnathos and saccus as in *calcarearea*. Valve as in *calcarearea*, but harpe more spinose; a dense cushion of bristles near centre of inner surface of valve. Aedeagus as in *calcarearea*, terminating in a spinose funnel, but rounded spiny structure missing.

♀: similar, but slightly larger (Fw., 28–30 mm.).

GENITALIA: almost identical with *A. calcarea*; 8th sternite broader and more regular; ductus longer and narrower; base of bursa not sclerotised.

HABITAT AND RANGE

Savanna and woodland from Rhodesia to Tanzania.

EAST AFRICAN RECORDS

TANZANIA NM : Ilonga, Ukiriguru, Amani.

BM : Kilosa.

Ssp. *burorum* (Strand) 1915.

Polyptychus neavi burorum Strand Arch. Naturgesch. 81: 131 (Transvaal, South Africa, ♀). South Africa only.

LIBYOCLANIS R. & J. 1906

Novit. zool. 13: 180; type species *Clanis bicolor* Rothschild 1984.

1906 *Typhosia* R. & J. *Novit. zool.* 13: 406; type species *Typhosia illustris* R. & J. 1906, syn. nov.

Proboscis short, not reaching beyond hind coxa. Antennae slender in both sexes. Palpi short, not protruding beyond frons. Eyes ciliated. Abdominal tergites with scattered, weak spines. Tibiae spinose, a single pair of short tibial spurs. Pulvillus present, paronuchium bilobed. Wings narrow and long, apex sometimes hooked, specially in ♀. Frenulum present. Apex of discoidal cell truncated in both wings, veins 6 and 7 of hw on a long stalk. ♂ genitalia without modified scales. Larva cylindrical, granulose, with triangular head in early instars, round in later instars.

LIBYOCLANIS BICOLOR (Rothschild) 1894.

Clanis bicolor Rothschild *Novit. zool.* 1: 96 (? patria, ♀).

1914 *Phylloxiphia formosa* Schultze *Arch. Naturgesch.* 80 A H2: 125 (Cameroons, ♀).

1915 *Libyoclanis major* R. & J. *Novit. zool.* 22: 284 (West Africa, ♂).

Forests from Sierra Leone to the Congo and Angola.

LIBYOCLANIS OWENI sp. nov. (X; 5—XII; 5)

Very closely allied to *L. vicina* R. & J., but differs in its greater size, and in having a more acuminate apex and more concave outer margin to the fw.

♂: antennae, buff-pink above; head, upperside of thorax and basal tergites of abdomen snuff-brown; remainder of abdomen and underside of thorax light pinkish cinnamon. Legs snuff-brown.

UPPERSIDE

FOREWING: base to apex 48 mm. (36 mm in *L. vicina*). Apex very acute, outer margin concave below apex, slightly convex before tornus; costa strongly curved near apex. Groundcolour shiny wood brown. Darker transverse bands as in *L. vicina* and *L. bicolor* Rothschild, but extremely faint. Apical dark spot absent, oblique streak from apex extremely faint. A dark hair pencil at base of inner margin. HINDWING: Apex acute, outer margin straight, tornus slightly produced. Groundcolour dragon's blood red; costal area cartridge buff from base to $\frac{1}{3}$ from apex; outer margin with very narrow purplish brown border becoming wider before tornus, where it shades to buff-pink; tornus buff-pink, inner margin cartridge buff; cilia cartridge buff.

UNDERSIDE

FOREWING: basal half dragon's blood red except at inner margin which is cartridge buff. Apical half shading through light pinkish cinnamon to wood brown. An evenly curved oblique dark line from apex to vein 4, presumably continued by the terminal line of the hindwing when the insect is at rest, as in other species of the genus. Termen and cilia brown.

HINDWING: light pinkish cinnamon with a broad red streak parallel to inner margin. Two faint parallel dark lines from costa at $\frac{1}{2}$ and $\frac{3}{4}$ from base to vein 4. Termen narrowly dark brown. Cilia cartridge buff.

GENITALIA: uncus very deeply bilobed, the two lobes apically rounded and sclerotised. Gnathos a subquadrate plate slightly incurved mesially, with an internal elongated sclerotised longitudinal process with truncated apices protruding well beyond lip of gnathos. A semicircular plate armed with tubercles at the margin, at the base of upper margin of each valve. Saccus short and slender. Valve very long and slender, apically pointed. Harpe terminating in a sharp up-curved spine just inside middle of ventral margin of valve. Aedeagus unarmed, slender, curved; basal lobe long and slender. ♀ AND EARLY STAGES: unknown.

HOLOTYPE ♂: Sierra Leone, Freetown, VI-1967, D. F. Owen, K. 20, to be deposited in the British Museum, Natural History.

This species is dedicated to its discoverer, Professor D. F. Owen of the University of Sierra Leone.

LYBIOCLANIS KARSCHI (R. & J.) 1903.

Pseudoclanis karschi R. & J. *Novit. zool.* 9 suppl. (Victoria, Cameroons, ♀).

Ssp. *karschi*.

Cameroons to the Congo.

A specimen glimpsed for a moment by the writer on the flap of his tent at Bwamba, in western Uganda, almost certainly belonged to this species.

Ssp. *bainbridgei* R. & J. 1906.

Novit. zool. 13: 180 (Sierra Leone).

The West African race.

LIBYOCLANIS VICINA R. & J. 1915.

Novit. zool. 22: 285 (Nigeria, ♂).

Known from Liberia, Nigeria to the Congo.

LIBYOCLANIS PUNCTUM Rothschild 1907. (III; 7)

Novit. zool. 14: 507 (Salisbury, Rhodesia, ♂).

♂: head and thorax bright pinkish brown, abdomen paler. Fw. 35 mm., long and narrow, pinkish brown with a blackish dot near apex and a reddish inner marginal basal streak. Hw pinkish orange; apex acute, tornus somewhat produced, outer margin almost straight.

♀: not seen, but said to be larger and to have more rounded wings.

HABITAT AND RANGE

Savanna from the Transvaal to Rhodesia, Zambia, Katanga and Tanzania.

One ♂ taken by Dr. C. McCleery at Songea, S. Tanzania, April 1962.

LIBYOCLANIS METRIA Jordan 1920. (III; 8)

Novit. zool. 27: 167 (Rhodesia, ♂).

♂: head and thorax light brown, much darker than abdomen. Fw. 37 mm., pale pinkish brown, mottled and marked with darker brown. Hw pinkish red. Size and shape much as in two preceding species.

♀: similar to ♂, but larger, wings broader and more rounded. Fw, 45 mm.

HABITAT AND RANGE

Brachystegia woodland in Rhodesia, Katanga, Zambia and Tanzania.

EAST AFRICAN RECORDS

TANZANIA NM : Ilonga.

ZAMBIA NM : Abercorn.

LIBYOCLANIS NOCTIVAGA Kernbach 1957.

Rev. Zool. Bot. afr. 55: 176.

Described from a pair from Elisabethville, Katanga. Almost certainly a synonym of *Libyoclanis metria* Jordan.

LIBYOCLANIS ILLUSTRIS (R. & J.) 1906 comb. nov. (III; 9)

Typhostia illustris R. & J. *Novit. zool.* 13: 406 (Gold Coast, ♂).

♂: differs from other species of the genus in having 2 strong emarginations at the termen of the fw. Fw, 27–29 mm., from base to apex. Apex very acute; margin concave from apex to end of vein 2 and again from vein 2 to tornus which is somewhat produced. Fw and body straw-coloured. Fw with a number of irregular, dark transverse lines. Fringe dark brown. Hw strongly produced at tornus, pinkish red; tornal area straw-coloured.

GENITALIA: uncus deeply bilobed; gnathos a narrow belt. Saccus very slender. Valve very long and slender, membranous. Harpe a lightly sclerotised simple plate projecting inwards above middle of ventral margin. Inward projecting process at dorso-basal margin of valve longer and narrower than in other species of the genus. Aedeagus long and slender, unarmed; basal lobe long and slender.

FEMALE AND EARLY STAGES: unknown.

HABITAT AND RANGE

Lowland forest from Liberia to the Congo and western Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Bwamba.

LIBYOCLANIS GOODI (Holland) 1889 comb. nov. (X; 8)

Polyptychus goodi Holland *Trans. Amer. ent. Soc.* 16: 64 (Upper Ogowe River, ♀).

One ♀ in B.M. from Irumu, eastern Ituri district, Congo. A figure of the undescribed ♂ is appended, but the insect cannot be described as it is in a private collection (Coll. P. N. Darge, Paris) and therefore inaccessible. The specimen was taken at Franceville, Gabon and the photo was supplied by Dr. P. C. Rougeot of the Muséum National, Paris.

PHYLLOXIPHIA R. & J. 1903

Novit. zool. 9 suppl. : 263; type species *P. oberthueri* R. & J. 1903.

PHYLLOXIPHIA OBERTHUERI R. & J. 1903.

Novit. zool. 9 suppl. : 263 (Lolodorf, Cameroons, ♂).

1916 *Libyoclanis hollandi* Clark *Proc. New Engl. zool. Cl.* 6: 62 (Cameroons, ♀).

Lowland forest from West Africa to the Congo.

NEOCLANIS gen. nov.

Proboscis short and weak. Frons not crested. Palpi small. Eyes ciliated. Tibiae spinose, two pairs of hindtibial spurs. Pulvillus present, paronychium absent. Wing margins entire and regular, frenulum present. Apex of discoidal cell of fw produced distad anteriorly, indented at origin of vein 5; cell of hw broad and prolonged distally at vein 4; veins 6 and 7 with common origin, but not stalked. Male genitalia without modified scales. Differs mainly from *Leucophlebia* Westwood and from *Leptoclanis* R. & J. in the deeply divided uncus, in the absence of projections at the base of the valve and in the strongly bent aedeagus, and from *Leptoclanis* in the absence of signa in the ♀.

TYPE SPECIES: *Smerinthus basalis* Walker 1866.

NEOCLANIS BASALIS (Walker) 1866. (III; 10—XII; 1—XIII; 5)

Smerinthus basalis Walker *List. Lep. Ins. B.M.* 35: 1858 (Zambesi River).

1881 *Choerocampa virgo* Westwood in Oates, *Matabeleland*: 354 (Zambesi).

1903 *Leptoclanis basalis* R. & J. *Novit. zool.* 9 suppl. : 229.

♂: fw 30–40 mm., very pale greyish green, densely speckled with darker spots. Hw similar, more heavily speckled and with a large red patch at base.

GENITALIA: uncus very deeply divided, consisting of two slender, well sclerotised downcurved processes separated by a broad sinus which almost reaches base of uncus. Gnathos slender and pointed, as long as uncus lobes. Saccus slender. Valve entire, rounded; harpe basal, long and broad, terminating in a rounded upright lobe armed with small spines. Aedeagus short and stout, sharply bent downwards; vesica unarmed.

♀: similar but larger (fw up to 50 mm.), broader winged, more heavily speckled.

GENITALIA: vaginal plate divided into 2 rounded lobes. Ductus long and membranous, as wide as bursa. Signa absent.

HABITAT AND RANGE

Dry bush and woodland from Rhodesia and Angola to Zambia, Tanzania and east Kenya.

EAST AFRICAN RECORDS

KENYA NM : Mtito Andei, Kilifi.

TANZANIA NM : Lake Rukwa, Ilonga.

SM : Saza.

BM : Musoma, Shinyanga, Kilosa.

R : Mlingano.

MC : Lindi, Songea.

LEUCOPHLEBIA Westwood 1848

Cab. Or. Ent. : 46; type species *Leucophlebia lineata* Westwood 1848 (India).

1875 *Rasphle* Boisduval; type species *Rasphle lineata* (Westwood) 1848 (India).

Four species, two Oriental and two African. Proboscis very short and weak. Frons with prominent crest. Antennae thick, strongly compressed and grooved in ♂, much more slender in ♀. Palpi much smaller in ♀ than in ♂. Abdominal tergites spinose, particularly at distal edge. Tibiae spinose, hind-tibiae armed with two pairs of spurs. Pulvillus present. Paronychium with lobes short and slender, particularly the lateral ones. Wing margins entire, frenulum present. Veins 6 and 7 of hw not stalked. Valve without modified scales, aedeagus and vesica unarmed. Bursa of ♀ without signa. (*L. afra* Karsch).

LARVA: body granulose, horn short, head triangular (*L. lineata* Westwood). The Indian species *L. lineata* is known to feed on *Saccharum* and it is very probable that the two African species also feed on *Graminaceae*. Small pink and yellow moths.

LEOCOPHLEBIA NEUMANNI Rothschild 1902. (III; 12)

Novit. zool. 9. : 598 (Akobo River, Ethiopia, ♀).

Only the ♀ is known. Head and body entirely rosy red. Fw pink with yellow longitudinal streak. Hw orange yellow. Mid and hindtibiae creamy white.

GENITALIA: 8th sternite broadly sclerotised, with a narrow median posterior sinus, and a deep anterior cleft with reflexed edges. Post-vaginal plate broad with a median sinus dividing posterior margin into 2 shallow rounded lobes. Ostium leading into a shallow sclerotised cup from the base of which the very long and slender ductus originates. Colliculum absent. Bursa small, being scarcely wider than ductus, unarmed.

RANGE AND HABITAT

Dry bush in southern and western Ethiopia and in northern Uganda.

EAST AFRICAN RECORDS

UGANDA SM : Karamoja.

ETHIOPIA BM : Akobo River, Blue Nile.

NOTE: *L. neumanni* may well be the African subspecies of the Indian *L. emittens* Walker, 1866 (*List. Lep. Ins. B.M.* : 1858), but the matter cannot be decided until the ♂ is known.

LEUCOPHLEBIA AFRA Karsch 1891.

Ent. Nachr. 17: 12 (Mukenge, Kasai, ♂).

♂: fw. 20–25 mm. Palpi and frons red. Thorax pink, abdominal tergites black edged distally with orange. Venter rosy red; legs, including tibiae red. Fw. various shades of pink with a creamy yellow median streak from base to apex and a creamy stigma. Hw yellow to orange.

♀: larger and darker than ♂, fw up to 30 mm.

GENITALIA: vaginal plate deeply divided into 2 sub-lateral lobes connected with the corresponding tergite at the base of the first pair of struts. Ductus bursae very slender, not sclerotised. Bursa long, slender, with a small subapical, lateral lobe. Signum and operculum absent.

Four subspecies have been described, based on differences in colour, pattern and genitalia, the latter being trivial and unstable. The range of the species is continuous, covering grassland areas throughout Africa, excluding South Africa and N.E. Africa and the four subspecies intergrade and overlap; only two are recognised here, and it is very likely that even these two are not real races, but seasonal and climatic forms.

Ssp. *afra* Karsch 1891.

1917 *Leucophlebia afra edentata* R. & J. *Novit. zool.* 23: 254 (Gold Coast)

Dorsum of thorax and head very pale pink, contrasting strongly with red of frons and palpi. Fw very pale pink, lower edge of creamy longitudinal streak entire.

GENERAL DISTRIBUTION

Senegal to N. Uganda and the Sudan in the east, and to Angola in the west. Overlaps with the following race in Uganda and in the southern Congo.

EAST AFRICAN RECORDS

UGANDA NM : Aremo (Karamoja) Madi Opei; Gulu; Lake Kyoga; Kidepo, Chobe.

SUDAN BM : Bahr el Ghazal, Lado, Lokoja.

TANZANIA NM : Buhemba (Musoma).

Ssp. *xanthopis* Hampson 1910. (III; 11)

Proc. zool. Soc. Lond. 461 (South-East Katanga).

1917 *Leucophlebia afra rosulenta* R. & J. *Novit. zool.* 23: 256 (Mahoro, German East Africa).

Differs from *afra* in having all the pink areas of the wings and body above much brighter and darker, providing little contrast between the palpi and frons and the rest of the head and thorax. In the more extreme form (*xanthopis*) the lower margin of the creamy fw band is indented between the veins; in form *rosulenta* it is entire.

RANGE: Rhodesia, Zambia, Katanga, Malawi, Mozambique, Tanzania, S. Uganda and west Kenya.

EAST AFRICAN RECORDS (form *rosulenta*).

KENYA S : Istsare, Kitale.

UGANDA NM : Nsongesi, Mubende.
BM : Mbale, Ankole, Ketoma.
TANZANIA NM : Ilonga, Mikumi.
R : Mbeya.
BM : Tunduma, Mpwapwa, Tendaguru.
Form *xanthopis*.
ZAMBIA NM : Abercorn.

LEPTOCLANIS R. & J. 1903

Novit. zool. 9 suppl. : 228; Type species *Leptoclanis pulchra* R. & J. 1903.

Proboscis short and weak. Palpi short and slender. Antennae slender. Head crested. A small tuft of hairs in front of eye, a larger one behind. Abdominal tergites smooth, spines confined to distal edges. Tibiae spinose; spines few, but prominent, those at end of foretibia longer. Tibial spurs short, hind tibia with two pairs. Pulvillus present, paronychium absent. Male genitalia without modified scales, very similar to *Leucophlebia*; female genitalia with signum. Margin of wings entire and regular, frenulum present. Veins 6 and 7 of hw arise independently. One species only.

LEPTOCLANIS PULCHRA R. & J. 1903. (III; 15—XII; 4,8)

Novit. zool. 9 suppl. : 228 (Salisbury, Rhodesia, ♂).

♂: fw. 30–35 mm., creamy green with dark green markings, rather as in *Batocnema africana* Distant. Hw. rosy red, bordered with green.

♀: darker than ♂, wings broader and more rounded; fw 40 mm.

GENITALIA: 8th tergite broadly sclerotised, with a very deep median sinus; posterior margin of 8th sternite not so broadly sclerotised. Ductus long, membranous, with numerous small tubercles near ostium. Bursa pear-shaped with a large pear-shaped spinose signum near base. Struts long and fairly stout; posterior pair dilated before apex.

HABITAT AND RANGE

Brachystegia woodland from Angola and Rhodesia to Zambia, Katanga and southern Tanzania.

EAST AFRICAN RECORDS

ZAMBIA NM : Abercorn.
TANZANIA R : Mbeya, Mbimba.
BM : Songea.
MC : Lindi.

PLATYSPHINX R. & J. 1903

Novit. zool. 9 suppl. : 224; type species: *Ambulyx constrigilis* Walker 1869.

Proboscis short and stout. Palpi not protruding beyond frons. Antennae fasciculate, much thicker in ♂. A tuft of long hairs behind eye. Abdominal tergites spinose. Tibiae spinose, only one pair of short hindtibial spurs. Pulvillus and paronychium present. Wing margins regular, frenulum present. Veins 6 and 7 of hw with common origin, but not stalked. ♂ genitalia without modified scales, with very broad uncus and with cornuti. All large, yellowish species with a prominent black patch at base of hw., which is speckled with red.

Larvae with granular skin and triangular head.

PLATYSPHINX LEMOULTI Clark 1936 *Prov. New Engl. zool. Cl.* **15**: 76 (Belgian Congo) Not seen.

PLATYSPHINX CONSTRIGILIS (Walker) 1868.

Ambulyx constrigilis Walker *Proc. nat. Hist. Soc. Glasgow* **1**: 328 (Congo, ♂).

Ssp. constrigilis. (III; 13)

♂: fw. more falcate than in following species, 55–60 mm. Ground colour very pale greenish brown with darker markings. A narrow, well defined dark streak from costa to centre of outer margin. Hw. yellow with large black patch at base and 2 irregular parallel red bands and numerous small red spots. Underside more greenish, less irrorated with dark scales, showing usual Sphingid pattern of parallel crenulate postdiscal and submarginal bands much more clearly than other species.

♀: larger, darker, broader winged.

GENITALIA: ovipositor lobes large. Struts long and slender. Sclerotised portion of 8th tergite broad and regular. Ostium flanked by a pair of pointed lateral processes directed posterad. Ventro-posterior margin of ostium produced into two small rounded lobes. Ductus entirely membranous, long, spirally coiled, with a large rounded bulge near the middle. Bursa very small, rounded, without signa.

HABITAT AND RANGE

Forests from the Cameroons to Angola, the Congo, Uganda and west Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kakamega.

UGANDA NM : Mabira, Katera, Bwamba.

Ssp. vicaria Jordan 1920.

Novit. zool. **27**: 164 (Sierra Leone).

Differs from the nominate race in minor details of the genital armature. Sierra Leone to Nigeria.

The three following species have been treated as subspecies by several authors and can only be separated from one another after dissection of the genitalia. However, as the genitalia are very different indeed and as there is some overlap, at least in the case of *P. phyllis* R. & J. and *P. stigmatica* Mabille in Nigeria, and between *P. stigmatica* and *P. piabilis* Distant in Zambia and in Katanga, it is probably best to treat them as distinct species. A brief description of the imago will suffice for all three:

MALES: fw. 58–62 mm., less falcate than in *P. constrigilis*, not so greenish. Longitudinal streak and other dark markings much less distinct. Red spots in hw evenly distributed, not arranged in regular bands. Pattern of underside much less distinct, dark irrorations more conspicuous.

FEMALES: fw. 60–65 mm., broader, less acuminate, darker and more reddish than in males; hw more heavily spotted with red.

PLATYSPHINX PHYLLIS R. & J. 1903.

Novit. zool. **9 suppl.** : 226 (Konakry, Guinea, ♀).

Sierra Leone to Nigeria.

PLATYSPHINX STIGMATICA (Mabille) 1878. (III; 14)

Basiana stigmatica Mabille *Bull. Soc. zool. France* **2**: 491 (Congo).

1879 *Basiana conspersa* Dewitz *Mitt. munch. ent. Ver.* **3**: 29 (Chinchoxo, Angola).

♂ GENITALIA: uncus short, terminating in 2 well sclerotised rounded lobes. Medial process of gnathos much broader at base, tapering gently. Valve trilobed, the upper lobe strongly sclerotised, very long, narrow and pointed. The mesial lobe rounded and membranous. The ventral lobe long, very strong, sharp and in the form of a hook directed upwards and outwards. Saccus very broad, short, blunt and membranous. Aedeagus longer and more slender than in *constrigilis*, armed on ventral surface with a long terminal hook. Vesica armed with a comb of small dense spines.

♀ GENITALIA: operculum prominent, supported distally by a strong, broad bilobed vaginal plate. Ductus long, sclerotised, constricted at ostium and before bursa. Bursa small, spherical, with central, minutely spinose U-shaped signum.

HABITAT AND RANGE

Forest up to 5,000 ft. from Nigeria to the Congo, Angola and western Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Bwamba, Fort Portal.
K : Budongo.

PLATYSPHINX PIABILIS (Distant) 1897.

Ambulyx piabilis Distant *Ann. Mag. nat. Hist.* (6) 19: 580 (Transvaal).

♂ GENITALIA: uncus short, broad, terminating in two blunt, heavily sclerotised processes. Mesial process of gnathos intermediate between *P. constrigilis* and *P. stigmatica*. Valve rounded, entire, with a central, longitudinal membranous area; upper half heavily sclerotised, armed marginally and internally with short spines. Lower portion of valve heavily sclerotised, but smooth; a short hook at base of valve, placed ventro-internally, much shorter than in other species. Saccus very short, membranous. Aedeagus bent downward at middle, armed with long terminal spine. Vesica armed with comb of dense spines.

♀ GENITALIA: operculum long and prominent, distal rim formed by two pointed processes of the vaginal plate which are curved inwards. Ductus bursae long, fairly broad and well sclerotised. Signum with irregular, up-raised margins and a narrow anterior cleft, covered in minute rounded tubercles.

HABITAT AND RANGE

Savanna and other open habitats in southern and eastern Africa.

EAST AFRICAN RECORDS

KENYA NM : Makueni, Kilifi.
TANZANIA NM : Dodoma.
R : Ilonga, Mlingano, Ukiriguru, Tabora.
MC : Lindi, Songea.
ZAMBIA NM : Abercorn.

Tribe ACHERONTIINI

Subtribe ACHERONTIAE

HERSE Oken 1815

Lehrb. Naturg. 3: 762; type species *Sphinx convovuli* Linnaeus 1758.

Large grey moths. Proboscis very long, tapering distally. Antennae straight and thick, with terminal hook. Foretarsus armed with a few large external spines. Mid and hindtarsi spinose, with comb of

bristles at base. Tibiae not spiny; midtibiae with a single pair of apical spurs, hindtibiae with two pairs. Pulvillus very small, paronychium with a single lobe at each side. Modified scales present on valve. Vein 6 of fw free, 6 and 7 of hw not stalked.

Five species of which one is American, one widely distributed throughout the Old World and 3 Australian and Australasian.

HERSE CONVOLVULI (Linnaeus) 1758.

Sphinx convolvuli Linnaeus *Syst. Nat.* 10: 490 (Europe).

1798 *Sphinx abaddonna* Fabricius *Ent. Syst. Suppl.* : 435.

1865 *Sphinx roseofasciata* Koch *Indo-Austr. Lep. Fauna*: 54.

1870 *Sphinx pseudo-convolvuli* Schaufuss *Nung. Otios*: 15 (Natal).

1877 *Protoparce distans* Butler *Trans. zool. Soc. Lond.* 9: 609 (New Zealand, Australia).

1877 *Protoparce orientalis* Butler *l.c.* (India, Ceylon etc.)

♂: fw. 40–58 mm., irregularly mottled grey with numerous very irregular narrow transverse lines. Thorax and head grey. Abdomen transversely banded with alternate black and pink stripes interrupted by a continuous grey dorsal stripe. Hw grey with four dark transverse bands.

♀: similar to ♂, but fw less variegated, more uniform grey.

HABITAT AND RANGE

A very strong flier and occasional migrant and consequently extremely widely distributed in practically all habitats in Africa, Madagascar, Seychelles, Europe, Asia and Australia. This species feeds regularly at flowers from dusk onwards.

EAST AFRICAN RECORDS

KENYA NM : Nakuru, Nyeri, Limuru, Nairobi, L. Rudolf.

SM : Kitale, Istsare, Elgon, Nairobi, Dida.

S : Mombasa.

UGANDA NM : Masaka.

S : Budongo, Entebbe, Bombo.

B : Chobe Nyabyeya, Nakawa.

TANZANIA NM : Amani, Arusha, Nachingwea.

R : Arusha, Dar es Salaam, Ilonga, Mbeya, Tabora, Mlingano, Ukiriguru.

MC : Lindi, Songea.

ACHERONTIA Laspeyres 1809

Jenaische Allg. Lit. Zeit. 4: 99; type species *Sphinx atropos* L. 1758.

1815 *Atropos* Oken *Lehrb. Naturg.* 3: 762; type *atropos* L. 1758.

1829 *Brachyglossa* Boisduval *Ind. Meth.* : 33.

Large, stout bodied, brown and yellow moths. Proboscis short, but very thick and hairy. Antennae thick and straight, with terminal hook. Tibiae without spines, tarsi spinose. Midtibiae with one pair of spurs, hindtibiae with two. Pulvillus absent, paronychium reduced. Veins 6 and 7 of both wings stalked. For genitalia and early stages, see *A. atropos* L. Three species, 2 of which are Asiatic and 1 African and European.

ACHERONTIA ATROPOS (Linnaeus) 1758.

Sphinx atropos Linnaeus *Syst. Nat.* 10: 490 (Europe).

The sexes are identical in appearance. Fw. 45–60 mm., from base to apex. Head and thorax blackish; a series of ochreous markings on thorax, resembling a human skull. Abdomen ochreous yellow with black transverse band along the posterior edge of each tergite, and a grey blue dorsal stripe, interrupted by the black bands, from base to apex. Fw brownish black mottled and variegated with brown and black. Hw ochreous yellow with two transverse black bands.

HABITAT AND RANGE

This species is a strong flier and an occasional migrant. It occurs in most habitats except the more extreme ones in most of Europe, the Middle East. Africa, Madagascar and the Seychelles.

EAST AFRICAN RECORDS

- KENYA NM : Makueni, Nairobi, Isiolo, Nakuru, Nanyuki.
 SM : Kitale, Itsare.
 S : Mombasa.
- UGANDA S : Kampala, Bombo.
 B : Nyabyeya, Nakawa, Chobe.
- TANZANIA NM : Amani, Mufindi.
 R : Arusha, Dar es Salaam, Ilonga, Mbeya, Mlingano, Tabora, Ukiriguru.
 MC : Lindi, Songea, Nachingwea.

COELONIA R. & J. 1903

Novit. zool. 9 suppl. : 24; type species *Protoparce fulvinotata* Butler 1877 (*Sphinx solani* Boisduval 1833) Proboscis very long, thicker than in *Herse*. Antennae straight and hooked, longer and more slender than in 2 previous genera, particularly in ♀. Tarsi spinose, tibiae without spines. One pair of unequal midtibial spurs, two pairs of hindtibial spurs. Pulvillus present, paronychium with 2 lobes on each side. Vein 6 of fw free, veins 6 and 7 of hw stalked.

COELONIA MAURITII (Butler) 1877. (IV; 1)

Protoparce mauritii Butler *Trans. zool. Soc. Lond* 9: 106 (? Mauritius).

Hitherto misidentified as *C. fulvinotata* (Butler) 1875. Both types in Brit. Mus. (Nat. Hist), have been examined and *C. fulvinotata*, which carries no data, is merely a synonym of the Madagascar species *C. solani* (Boisduval) 1833.

♂: fw. 52–55 mm. Body and wings brown. Two bright pink dorsal hair tufts at base of abdomen. Fw mottled and variegated with lighter brown and dark indistinct wavy lines. Hw darker, with a black basal patch surrounded by a large ochreous yellow patch. Abdomen with a large rounded yellow spot on each side of first 3–4 abdominal segments.

♀: larger and darker than ♂. Subapical area of fw much paler and more conspicuous. Antennae more slender.

GENITALIA: signum a double spinose ridge, almost as long as bursa.

HABITAT AND RANGE

Most habitats, excluding the more extreme ones, throughout the Ethiopian Region, including Mauritius and Madagascar.

EAST AFRICAN RECORDS

- KENYA NM : Nairobi, Kitale, Kakamega.
 S : Mombasa.
- UGANDA NM : Kampala, Budongo.
 B : Nakawa, Mpanga, Nyabyeya.
 RJ : Butiti.
 L : Mweya.

EXPLANATION OF PLATES

Plate I

- 1 *Lycosphingia hamata* Dewitz ♂, Kibale forest, Uganda
- 2 *Acanthosphinx guessfeldti* Dewitz ♂, Bukoba, Tanzania
- 3 *Polyptychus orthographus* R. & J. ♂, Bwamba, Uganda
- 4 *Polyptychus trisectus* Aurivillius ♂, Bwamba, Uganda
- 5 *Polyptychus carteri* form *carteri* Butler ♂, Budongo forest, Uganda
- 6 *Polyptychus carteri* form *poliades* R. & J. ♂, Bwamba, Uganda
- 7 *Polyptychus corydoni* R. & J. ♂, Abercorn, Zambia
- 8 *Polyptychus baxteri baxteri* R. & J. ♂, Mikumi, Tanzania
- 9 *Polyptychus nigriplagus* R. & J. ♂, Bwamba, Uganda
- 10 *Polyptychus pauperculus* Holland ♂, Calabar, Nigeria
- 11 *Polyptychus affinis* R. & J. ♂, Kakamega, Kenya
- 12 *Neopolyptychus serrator commodus* Jordan ♂, Kibale forest, Uganda
- 13 *Neopolyptychus consimilis consimilis* R. & J. type ♂, Ethiopia (BM)
- 14 *Neopolyptychus prionites* R. & J. ♂, Budongo forest, Uganda
- 15 *Neopolyptychus convexus* R. & J. ♂, Abercorn, Zambia
- 16 *Neopolyptychus convexus* R. & J. ♂, N.W. Rhodesia (Topotype, BM)
- 17 *Neopolyptychus compar compar* R. & J. ♂, Salisbury, Rhodesia (Type, BM)
- 18 *Neopolyptychus compar compar* R. & J. ♀, Umtali, Rhodesia

Plate II

- 1 *Polyptychopsis marshalli marshalli* R. & J. ♂, Umtali, Rhodesia
- 2 *Polyptychoides grayi niloticus* Jordan ♂, Mtito Andei, Kenya
- 3 *Polyptychoides grayi niloticus* Jordan ♀, Mtito Andei, Kenya
- 4 *Polyptychoides digitatus* Karsch ♂, Bwamba, Uganda
- 5 *Polyptychoides erosus* Jordan ♀, Amani, Tanzania (BM)
- 6 *Pseudoclanis postica postica* Walker ♂, Makueni, Kenya
- 7 *Pseudoclanis molitrix molitrix* R. & J. ♂, Bwamba, Uganda
- 8 *Pseudoclanis rhadamistus* Fabricius ♂, Bwamba, Uganda
- 9 *Microclanis erlangeri* R. & J. ♂ (? wet season form), Watamu, Kenya (BM)
- 10 *Microclanis erlangeri* R. & J. ♀, Mtito Andei, Kenya
- 11 *Andriasa contraria contraria* Walker (form *stigmatica* Gehlen), ♂, Nairobi, Kenya
- 12 *Andriasa contraria contraria* Walker ♀, Thego river, Kenya
- 13 *Rufoclanis numosae subjecta* Walker ♀, Makueni, Kenya
- 14 *Falcatula falcata* R. & J. ♂, Kigoma, Tanzania
- 15 *Falcatula cymatodes* R. & J. ♂, Kibale forest, Uganda
- 16 *Rufoclanis rosea* Druce ♂, Budongo forest, Uganda
- 17 *Rufoclanis fulgurans* R. & J. ♂, Ilonga, Tanzania
- 18 *Rufoclanis erlangeri* R. & J. ♂, Somalia (Type, BM)
- 19 *Afrosphinx amabilis occidens* Clark ♂, Dodoma (Cotype, BM)
- 20 *Batocnema africana* Distant ♂, Tiwi, Kenya
- 21 *Likoma apicalis* R. & J. ♂, Mufindi, Tanzania
- 22 *Likoma crenata* R. & J. ♀, Kilifi, Kenya
- 23 *Poliodes roseicornis* R. & J. ♀, Mtito Andei, Kenya

Plate III

- 1 *Lophostethus demolini* Angas ♂, Gojeb river, Ethiopia
- 2 *Lophostethus negus* Jordan ♂, Gara Mullata, Ethiopia
- 3 *Ceridia heuglini* Felder ♂, Bwamba, Uganda
- 4 *Ceridia mira* R. & J. ♂, Isiolo, Kenya

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- 5 *Afroclanis neavi neavi* Hampson ♂, Ilonga, Tanzania
 - 6 *Afroclanis calcarea* R. & J. ♂, Vumba, Rhodesia
 - 7 *Libyoclanis punctum* Rothschild ♂, Vumba, Rhodesia
 - 8 *Libyoclanis metria* Jordan ♀, Abercorn, Zambia
 - 9 *Libyoclanis illustris* R. & J. ♂, Bwamba, Uganda
 - 10 *Neoclanis basalis* Walker ♂, Mtito Andei, Kenya
 - 11 *Leucophlebia afra xanthopis* Hampson ♂, Mikumi, Tanzania
 - 12 *Leucophlebia neumanni* Rothschild ♀, Blue Nile, Ethiopia (BM)
 - 13 *Platysphinx constrictigilis constrictigilis* Walker ♂, Bwamba, Uganda
 - 14 *Platysphinx stigmatica* Mabilille ♂, Kibale forest, Uganda
 - 15 *Leptoclanis pulchra* R. & J. ♂, Abercorn, Zambia

Plate IV

- 1 *Coelonia mauritii* Butler ♀, Nairobi, Kenya
- 2 *Callosphingia circe* Fawcett ♀, Voi, Kenya
- 3 *Poliana buchholzi* Plotz ♂, Kibale forest, Uganda
- 4 *Macropoliana ferax* R. & J. ♀, Kikuyu Escarpment, Kenya
- 5 *Poliana micra* R. & J. ♂, Mtito Andei, Kenya
- 6 *Poliana witgensii* Strand, ♀, Mtito Andei, Kenya
- 7 *Xanthopan morgani morgani* Walker ♂, Budongo forest, Uganda
- 8 *Praedora leucophaea* Rothschild ♂, Ikutha, Kenya (Type, BM)
- 9 *Macropoliana natalensis* Butler ♂, Amani, Tanzania
- 10 *Dovania poecila* R. & J. ♂, Kalinzu forest, Uganda
- 11 *Dovania neumanni* Jordan ♂, Adola, Ethiopia
- 12 *Pemba favillacea* Walker ♂, Abercorn, Zambia
- 13 *Pemba jordani* Joicey & Talbot ♀, Fort Crampel, French Congo (Type, BM)
- 14 *Praedora plagiata* R. & J. ♂, Southern Rhodesia, (BM)
- 15 *Praedora marshalli tropicalis* R. & J. ♀, Budongo forest, Uganda
- 16 *Litosphingia corticea* Jordan ♀, Fort Victoria, Rhodesia

Plate V

- 1 *Cephonodes hylas virescens* Wallengren ♂, Nairobi, Kenya
- 2 *Sphingonaepiopsis ansorgei* Rothschild ♀, Kolwezi, Katanga, Congo
- 3 *Sphingonaepiopsis nana* Boisduval ♀, Amani, Tanzania
- 4 *Macroglossum trochilus trochilus* Hübner ♂, Mt. Elgon, Kenya
- 5 *Leucostrophus hirundo* Gerstecker ♂, Kondo, Tanzania
- 6 *Atemnora westermanni* Boisduval ♂, Kayonza, Uganda
- 7 *Antinephele achlora* Holland ♀, Budongo forest, Uganda
- 8 *Antinephele anomala camerunensis* Clark ♂, Entebbe, Uganda
- 9 *Antinephele marcida* Holland ♀, Budongo forest, Uganda
- 10 *Antinephele lunulata* R. & J. ♂, Kilosa, Tanzania (BM)
- 11 *Antinephele maculifera* Holland ♂, Entebbe, Uganda
- 12 *Temnora fumosa fumosa* Walker ♂, Entebbe, Uganda
- 13 *Temnora albilinea* Rothschild ♂, Mweya, Uganda
- 14 *Temnora marginata marginata* Walker ♂, Gazi forest, Kenya
- 15 *Temnora atrofasciata* Holland ♂, Cameroons (BM)
- 16 *Temnora atrofasciata* Holland ♀, Tchimbulu, Kasai, Congo
- 17 *Temnora griseata* R. & J. ♂, Katera, Sango Bay, Uganda
- 18 *Temnora griseata* R. & J. ♂, Tukuyu, Tanzania (BM)
- 19 *Temnora livida* Holland ♂, Lomela, Congo
- 20 *Temnora fenebris* Holland ♂, Katera, Sango Bay, Uganda

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- 21 *Temnora elisabethae* Hering ♂, Kabanyolo, Kampala, Uganda
 - 22 *Temnora subapicalis* R. & J. ♂, Limuru, Kenya
 - 23 *Temnora eranga* Holland ♂, Budongo forest, Uganda
 - 24 *Temnora scitula* Holland ♂, Fort Portal, Uganda
 - 25 *Temnora iapygoides pernix* Kernbach ♂, Amani, Tanzania
 - 26 *Temnora rattrayi* Rothschild ♂, Katera, Sango Bay, Uganda
 - 27 *Temnora elegans* Rothschild ♂, Nairobi, Kenya
 - 28 *Temnora sardanus* Walker ♂, Amani, Tanzania
 - 29 *Temnora crenulata* Holland ♂, Budongo forest, Uganda
 - 30 *Temnora curtula* R. & J. ♂, Entebbe, Uganda
 - 31 *Temnora natalis* Walker ♂, Ruwe, Katanga, Congo

Plate VI

- 1 *Temnora spiritus* Holland ♂, Katera, Sango Bay, Uganda
- 2 *Temnora plagiata fuscata* R. & J. ♂, Nairobi, Kenya
- 3 *Temnora plagiata trapezoidea* Clark ♀, Budongo forest, Uganda (BM)
- 4 *Temnora hollandi* Clark ♀, Mawakota, Uganda (BM)
- 5 *Temnora zantus apiciplaga* Karsch ♀, Kakamega, Kenya
- 6 *Temnora mirabilis* Talbot ♀, Hoey's Bridge, Kenya (Holotype, BM)
- 7 *Temnora pseudopylas pseudopylas* Rothschild ♂, Nairobi, Kenya
- 8 *Temnora pylades pylades* R. & J. ♂, Vumba, Rhodesia
- 9 *Hypaedalea butleri* Rothschild ♂, Entebbe, Uganda
- 10 *Nephele monostigma* Clark ♂, Kibale forest, Uganda
- 11 *Nephele funebris* Fabricius ♂, Thego river, Kenya
- 12 *Nephele discifera* Karsch ♀, Kamengo, Uganda
- 13 *Nephele xylinea* R. & J. ♂, Dire Dawa, Ethiopia
- 14 *Nephele bipartita* Butler ♂, Amani, Tanzania
- 15 *Nephele comma* Hopffer ♀, Amani, Tanzania
- 16 *Nephele vau* Walker ♂, Mufindi, Tanzania
- 17 *Nephele peneus* Cramer ♂, Mufindi, Tanzania
- 18 *Nephele lannini* Jordan ♀, Mufindi, Tanzania
- 19 *Nephele accentifera accentifera* Beauvois ♀, Mt. Kenya
- 20 *Nephele aequivalens* Walker ♂, Amani, Tanzania

Plate VII

- 1 *Nephele rectangulata* Rothschild ♂, Budongo forest, Uganda
- 2 *Nephele rosae illustris* Jordan ♂, Amani, Tanzania
- 3 *Nephele oenopion continentis* R. & J. ♂, Kamengo, Uganda
- 4 *Nephele argentifera* Walker, ♂, Amani, Tanzania
- 5 *Euchloron megaera megaera* L. ♂, Kakamega, Kenya
- 6 *Chaerocina dohertyi dohertyi* R. & J. ♂, Fort Hall, Kenya
- 7 *Chaerocina jordani* Berio ♂, Adola, Ethiopia
- 8 *Chaerocina ellisoni* Hayes ♂, Harar, Ethiopia (Holotype, BM)
- 9 *Rhodafra marshalli* R. & J. ♂, Mbeya, Tanzania
- 10 *Basiothia medea* Fabricius ♀, Nairobi, Kenya
- 11 *Basiothia charis* Boisduval ♀, Vumba, Rhodesia
- 12 *Basiothia aureata* Karsch ♀, Nakuru, Kenya
- 13 *Hippotion socotrense socotrense* Rebel ♂, Socotra
- 14 *Hippotion roseipennis* Butler ♀, Isiolo, Kenya
- 15 *Hippotion pentagramma* Hampson ♂, Dire Dawa, Ethiopia (BM)
- 16 *Hippotion rebeli* R. & J. ♂, Kinna, Kenya
- 17 *Hippotion socotrense diyllus* Fawcett ♀, Mtito Andei, Kenya

Plate VIII

- 1 *Hippotion celerio* L. ♀, Aberdares, Kenya
- 2 *Hippotion aporodes* R. & J. ♂, Budongo forest, Uganda
- 3 *Hippotion eson* Cramer ♂, Gabon
- 4 *Hippotion osiris* Dalman ♂, Dire Dawa, Ethiopia
- 5 *Hippotion eson* x *celerio* ♀, Nyeri, Kenya
- 6 *Hippotion chloris* R. & J. ♂, Njoro, Kenya (Type, BM)
- 7 *Hippotion balsaminae* Walker ♀, Amani, Tanzania
- 8 *Hippotion irregularis* Walker ♂, Amani, Tanzania
- 9 *Hippotion rosae rosae* Butler ♂, Mombasa, Kenya
- 10 *Hippotion stigma* R. & J. ♀, Walas Did, Kenya
- 11 *Hippotion moorei* Jordan ♂, Mtito Andei, Kenya
- 12 *Theretra capensis* L. ♂, Mufindi, Tanzania
- 13 *Theretra jugurtha* Boisduval ♂, Makerere, Uganda
- 14 *Theretra monteironis* Butler ♂, Mtito Andei, Kenya
- 15 *Theretra perkeo* R. & J. ♂, Kaolak, Senegal
- 16 *Centroctena rutherfordi* Druce ♂, Kakamega, Kenya
- 17 *Centroctena imitans* Butler ♂, Kwale, Kenya
- 18 *Theretra orpheus orpheus* Herrich-Schaffer ♂, Amani, Tanzania

Plate IX

- 1 *Chloroclanis virescens tanzanica* ssp. nov. ♂, Amani, Tanzania (Paratype)
- 2 *Chloroclanis virescens tanzanica* ssp. nov. ♀, Amani, Tanzania (Allotype)
- 3 *Falcatula tamsi* sp. nov. ♂, Harar, Ethiopia (Holotype, BM)
- 4 *Rufoclanis macleeryi* sp. nov. ♂, Lindi, Tanzania (Holotype, BM)
- 5 *Neopolyptychus compar septentrionalis* ssp. nov. ♂, Amani, Tanzania (Paratype)
- 6 *Polyptychus* ? *nigriplagus* R. & J. ♀, Lake Tumba, Congo
- 7 *Neopolyptychus serrator commodus* Jordan ♀, Entebbe, Uganda (Neallotype, BM)
- 8 *Polyptychus rougeoti* sp. nov. ♂, Lastourville, Gabon (Holotype, PM)
- 9 *Polyptychus andosus amaniensis* ssp. nov. ♂, Amani, Tanzania (Paratype)
- 10 *Chaerocina dohertyi meridionalis* ssp. nov. ♀, Mufindi, Tanzania (Paratype)

Plate X

- 1 *Hippotion rosae guichardi* ssp. nov. ♂, Socotra (Holotype, BM)
- 2 *Hippotion rosae guichardi* ssp. nov. ♀, Socotra (Allotype, BM)
- 3 *Temnora robertsoni* sp. nov. ♂, Mlingano, Tanzania (Holotype, BM)
- 4 *Temnora scheveni* sp. nov. ♂, Kalinzu forest, Uganda (Paratype)
- 5 *Libyoclanis oweni* sp. nov. ♂, Freetown, Sierra Leone (Holotype, BM)
- 6 *Temnora burdoni* sp. nov. ♂, Mufindi, Tanzania (Holotype, BM)
- 7 *Ellenbeckia monospila* R. & J. ♀, Mandera, Kenya
- 8 *Libyoclanis goodi* Holland ♂, Gabon (Paris); photo P. C. Rougeot
- 9 *Ellenbeckia monospila* R. & J. ♂, Wajir, Kenya

Plate XI (genitalia)

- 1 *Polyptychus andosus amaniensis* ssp. nov. ♂, Amani, Tanzania
- 2 *Polyptychus andosus tiro* Kernbach ♂, Lomela, Congo
- 3 *Polyptychus rougeoti* sp. nov. ♂, Lastourville, Gabon (Paratype)
- 4 *Neopolyptychus serrator commodus* Jordan ♂, Bukoba, Tanzania (BM)
- 5 *Neopolyptychus convexus* R. & J. ♂, Kolwezi, Katanga, Congo
- 6 *Neopolyptychus compar compar* R. & J. ♂, Vumba, Rhodesia

-
- 7 *Neopolyptychus prionites* R. & J. ♂, Nyabyeya, Uganda
 - 8 *Polyptychoides grayi grayi* Walker ♂, Natal, South Africa
 - 9 *Microclanis erlangeri* R. & J. ♂, Voi, Kenya
 - 10 *Polyptychopsis marshalli auriguttata* Gehlen ♂, Kolwezi, Katanga, Congo
 - 11 *Gynoeryx meander* Guenee ♂, Madagascar
 - 12 *Chloroclanis virescens tanzanica* ssp. nov. ♂, Amani, Tanzania
 - 13 *Pseudopolyptychus foliaceus* R. & J. ♂, Ghana, (BM)
 - 14 *Malgassoclanis delicata* Jordan ♂, Madagascar (BM)
 - 15 *Andriasa contraria contraria* Walker ♂, Mombasa, Kenya
 - 16 *Afroclanis neavi neavi* Hampson ♂, Ukiriguru, Tanzania
 - 17 *Pseudandriasa mutata* Walker ♂, Natal, South Africa (BM)

Plate XII (genitalia)

- 1 *Neoclanis basalis* Walker ♂, Ilonga, Tanzania
- 2 *Lophostethus negus* Jordan ♂, Gara Mullata, Ethiopia
- 3 *Chloroclanis virescens tanzanica* ssp. nov. ♀, Amani, Tanzania (Allotype)
- 4 *Leptoclanis pulchra* R. & J. ♂, Kolwezi, Katanga, Congo
- 5 *Libyoclanis oweni* sp. nov. ♂, Freetown, Sierra Leone (Holotype, BM)
- 6 *Falcatula falcata* R. & J. ♀, Kitale, Kenya
- 7 *Neopolyptychus serrator commodus* Jordan ♀, Uganda
- 8 *Leptoclanis pulchra* R. & J. ♀, Katanga, Congo
- 9 *Afrosphinx amabilis amabilis* Jordan ♀, N.W. Zambia (BM)
- 10 *Polyptychopsis marshalli marshalli* R. & J. ♀, Umtali, Rhodesia
- 11 *Microclanis erlangeri* R. & J. ♀, Merti, Kenya

Plate XIII (genitalia)

- 1 *Polyptychoides grayi niloticus* Jordan ♀, Shinyanga, Tanzania(BM)
- 2 *Rufoclanis fulgurans* R. & J. ♀, Ilonga, Tanzania
- 3 *Afroclanis calcarea* R. & J. ♀, Fort Victoria, Rhodesia
- 4 *Polyptychus nigriplagus* R. & J. ♀, Lake Tumba, Congo
- 5 *Neoclanis basalis* Walker ♀, Lake Rukwa, Tanzania
- 6 *Macropoliana ferax* R. & J. ♀, Kikuyu Escarpment, Kenya
- 7 *Ellenbeckia monospila* R. & J. ♀, Wajir, Kenya
- 8 *Sphingonaepiopsis nana* Boisduval ♂, Mombasa, Kenya
- 9 *Sphingonaepiopsis ansorgei* Rothschild ♂, Abercorn, Zambia
- 10 *Poliana buchholzi* Plotz ♂, Kibale forest, Uganda
- 11 *Poliana witgensii* Strand ♂, Mtito Andei, Kenya
- 12 *Macropoliana ferax* R. & J. ♂, Nairobi, Kenya

Plate XIV (genitalia)

- 1 *Temnora burdoni* sp. nov. ♂, Mufindi, Tanzania (Holotype, BM)
- 2 *Temnora scheveni* sp. nov. ♂, Kalinzu forest, Uganda (Paratype)
- 3 *Leucostrophus hirundo* Gerstecker ♂, Ruiru, Kenya
- 4 *Hypaedia butleri* Rothschild ♂, Kamengo, Uganda
- 5 *Temnora robertsoni* sp. nov. ♂, Mlingano, Tanzania (Holotype, BM)
- 6 *Antinephele achlora* Holland ♂, Kamengo, Uganda
- 7 *Nephele xylina* R. & J. ♂, Dire Dawa, Ethiopia
- 8 *Sphingonaepiopsis nana* Boisduval ♀, Ukerewe island, Tanzania
- 9 *Hypaedia butleri* Rothschild ♀, Moyamba, Sierra Leone (BM)
- 10 *Temnora eranga* Holland ♀, Ikom, Nigeria (BM)

-
- 11 *Antinephele achlora* Holland ♀, Kamengo, Uganda
 - 12 *Temnora iapygoides iapygoides* Holland ♀, Sierra Leone (BM)
 - 13 *Pemba jordani* Joicey & Talbot ♀, French Congo (Type, BM)
 - 14 *Sphingonaepiopsis ansorgei* Rothschild ♀, Abercorn, Zambia

Plate XV (genitalia)

- 1 *Hippotion moorei* Jordan ♂, Melka Murri, Kenya
- 2 *Hippotion aporodes* R. & J. ♂, Kibale forest, Uganda
- 3 *Hippotion irregularis* Walker ♂, Kapsabet, Kenya
- 4 *Hippotion rosae guichardi* ssp. nov. ♂, Socotra (Holotype, BM)
- 5 *Hippotion socotrense diyllus* Fawcett ♂, Mtito Andei, Kenya
- 6 *Hippotion socotrense socotrense* Rebel ♂, Socotra
- 7 *Hippotion stigma* R. & J. ♂, Kenya (BM)
- 8 *Basiothia aureata* Karasch ♂, Nyakasura, Uganda
- 9 *Centroctena imitans* Butler ♂, Mombasa, Kenya
- 10 *Theretra jugurtha* Boisduval ♂, Amani, Kenya
- 11 *Chaerocina jordani* Berio ♂, Gojeb, Ethiopia
- 12 *Leucostrophus hirundo* Gerstecker ♀, Embu, Kenya
- 13 *Basiothia aureata* Karsch ♀, Kibale forest, Uganda
- 14 *Hippotion socotrense diyllus* Fawcett ♀, Mtito Andei, Kenya
- 15 *Hippotion aporodes* R. & J. ♀, Kibale forest, Uganda
- 16 *Rhodafra marshalli* R. & J. ♀, Ngurdoto crater, Tanzania

Plate XVI (genitalia and early stages)

- 1 *Chaerocina dohertyi dohertyi* R. & J. ♀, Nyakasura, Uganda
- 2 *Theretra capensis* L. ♀, Mufindi, Tanzania
- 3 *Centroctena rutherfordi* Druce ♀, Kamengo, Uganda
- 4 *Hippotion moorei* Jordan ♀, Hargeisa, Somalia
- 5 *Xanthopan morgani morgani* Walker, larva, Mombasa, Kenya (photo D. G. Sevastopulo)
- 6 *Xanthopan morgani morgani* Walker, pupa, Mombasa, Kenya (photo D. G. Sevastopulo)
- 7 *Basiothia aureata* Karsch, larva, Mombasa, Kenya (photo D. G. Sevastopulo)
- 8 *Basiothia aureata* Karsch, pupa, Mombasa, Kenya (photo D. G. Sevastopulo)

Plate XVII (genitalia)

- 1 *Cephonodes hylas virescens* Wallengren ♂
- 2 *Rufoclanis maccleeryi* sp. nov. ♂, Lindi, Tanzania (Holotype, BM)
- 3 *Hippotion chloris* R. & J. ♂, Njoro, Kenya (Type, BM)
- 4 *Pemba jordani* Joicey & Talbot ♂, Tororo, Uganda (BM)
- 5 *Afrosphinx amabilis occidens* Clark ♂, Dodoma, Tanzania (Cotype, BM)
- 6 *Falcatula tamsi* sp. nov. ♂, Harar, Ethiopia (Holotype, BM)

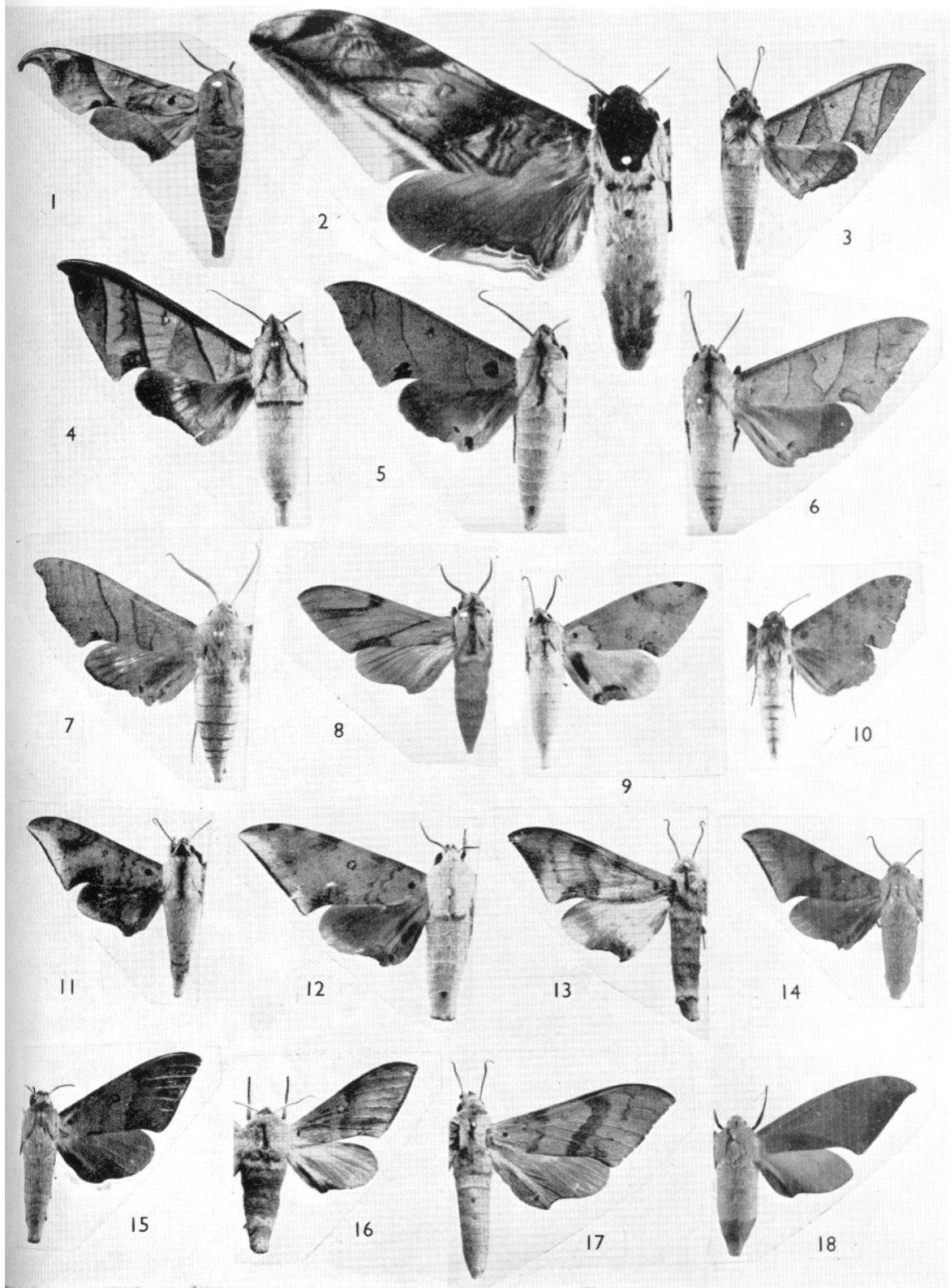


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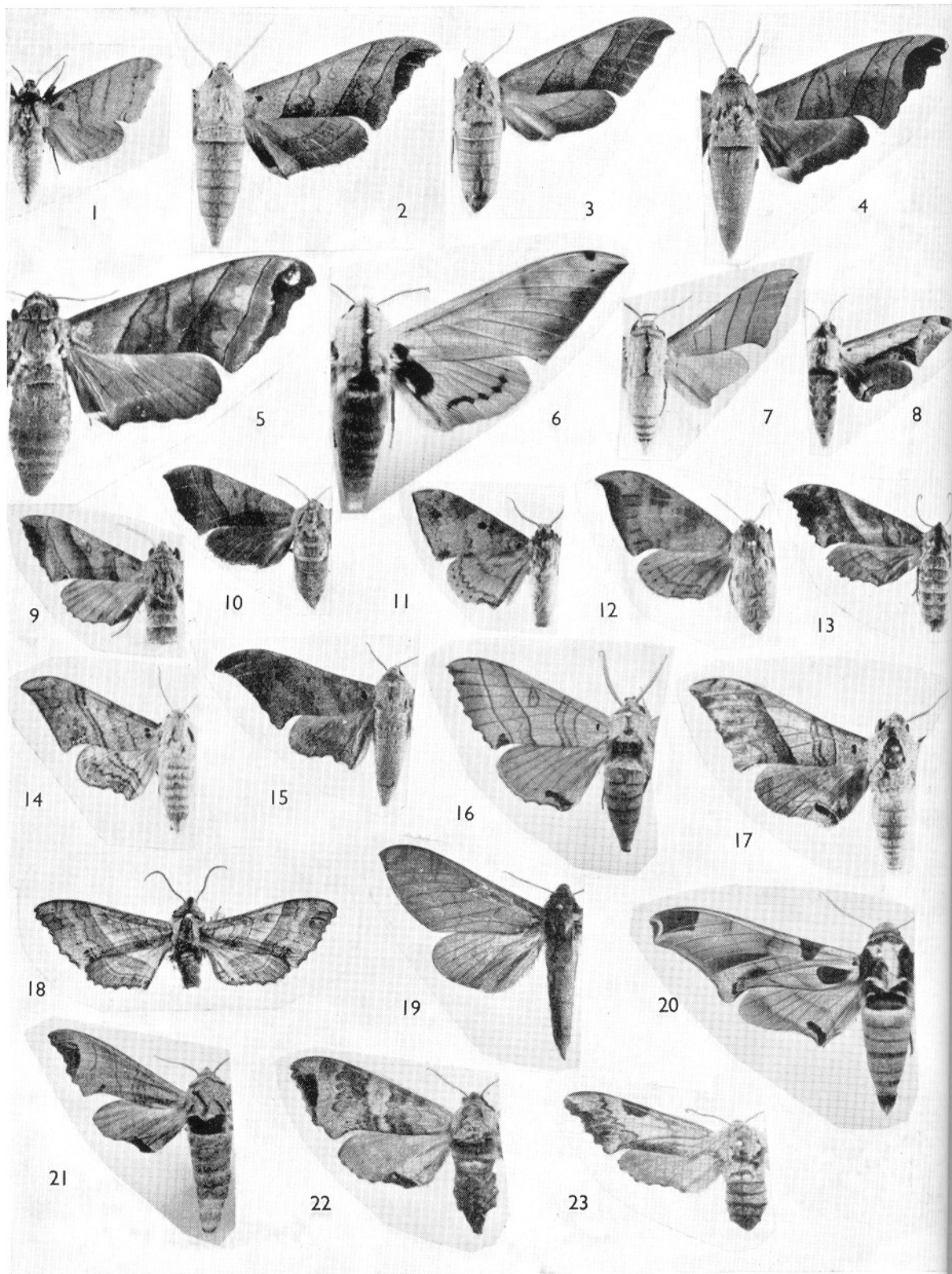


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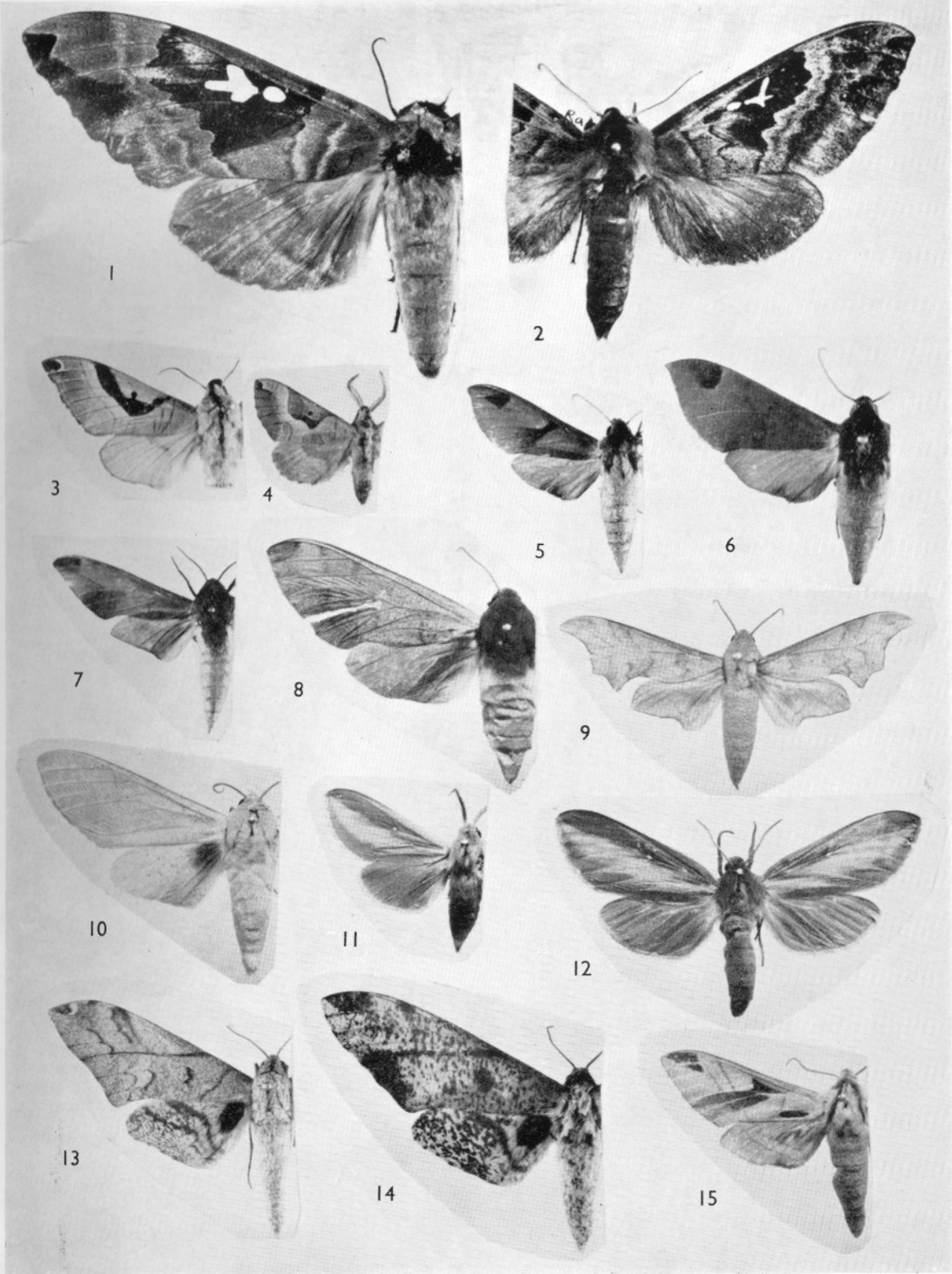


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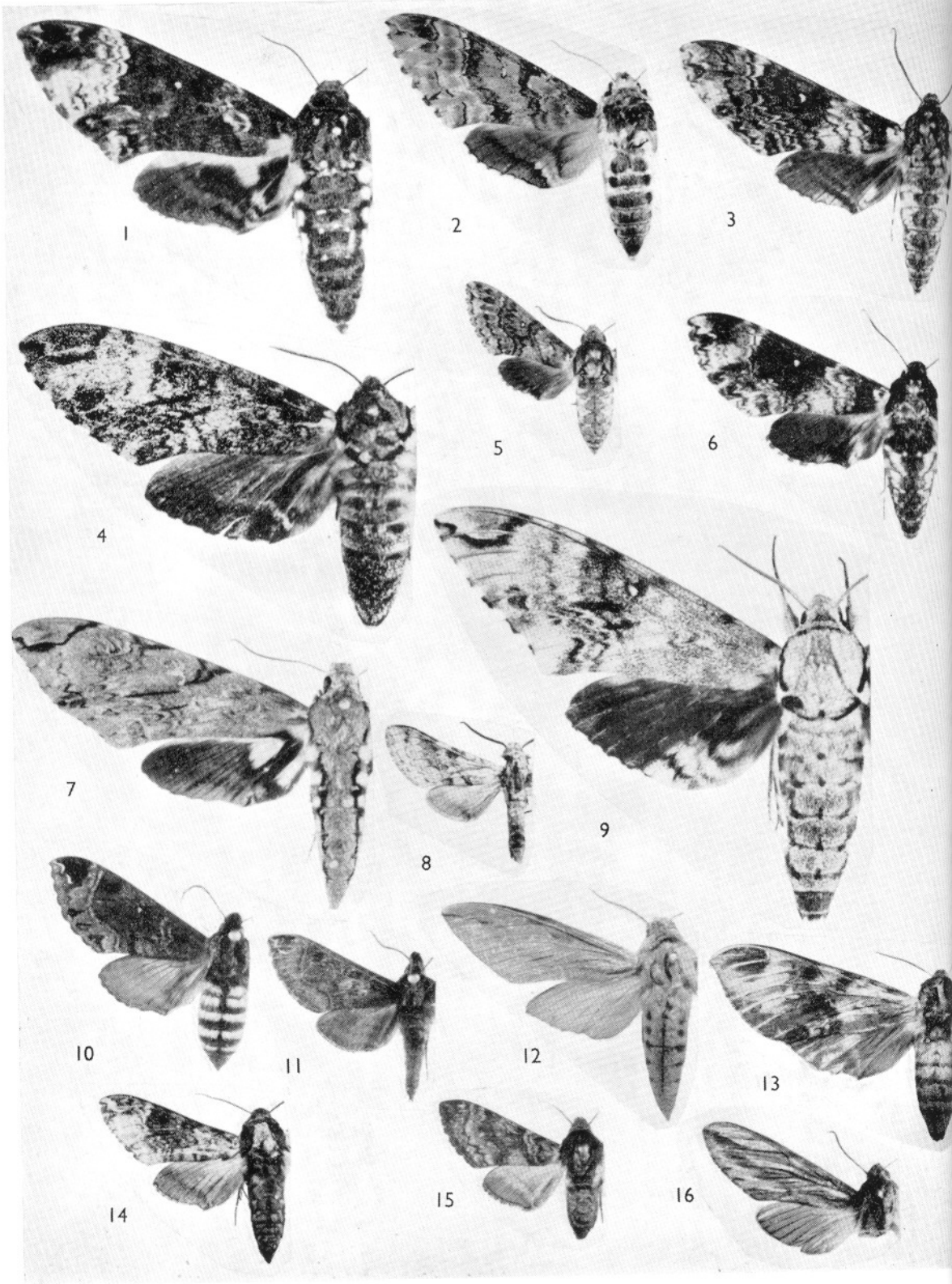


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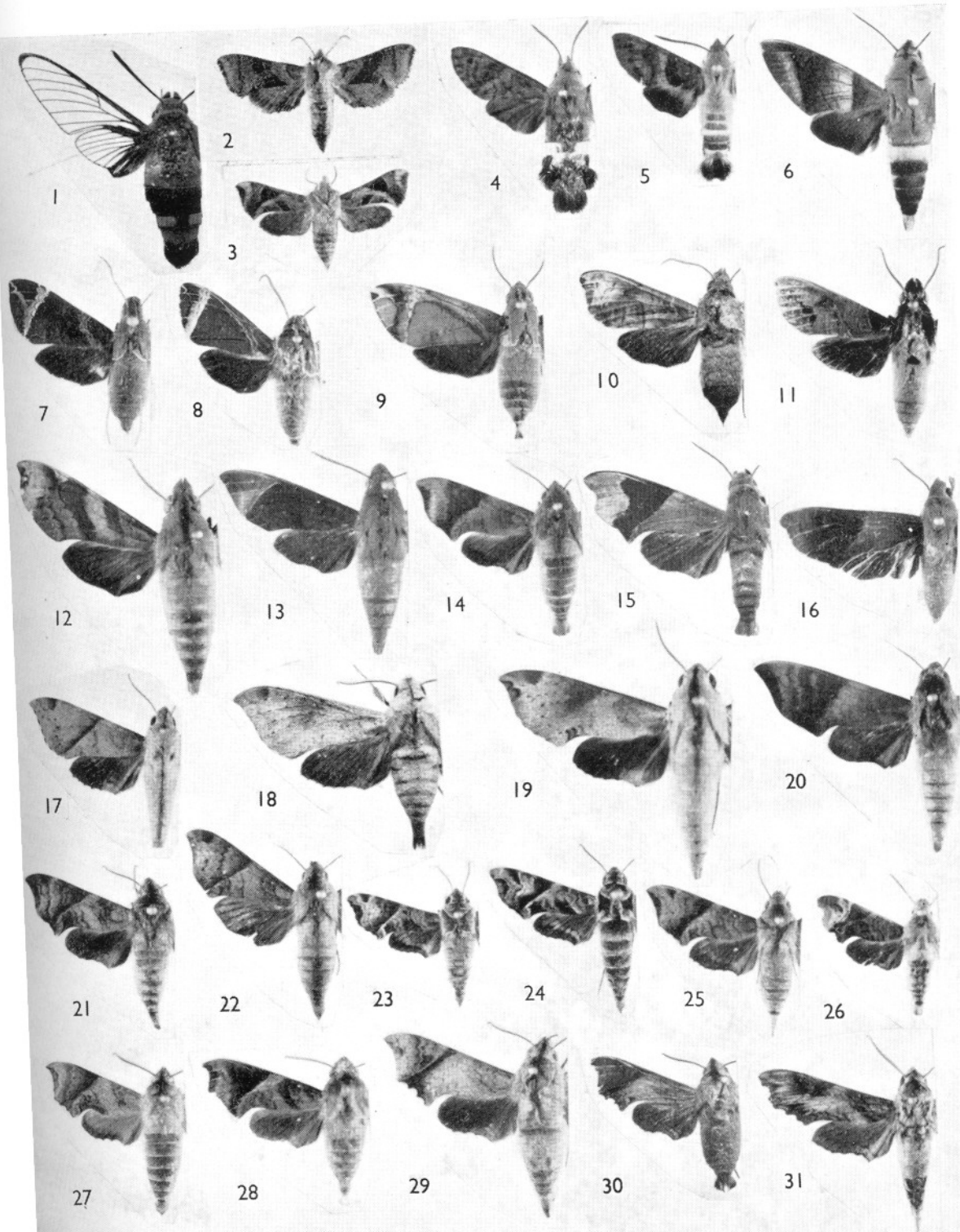


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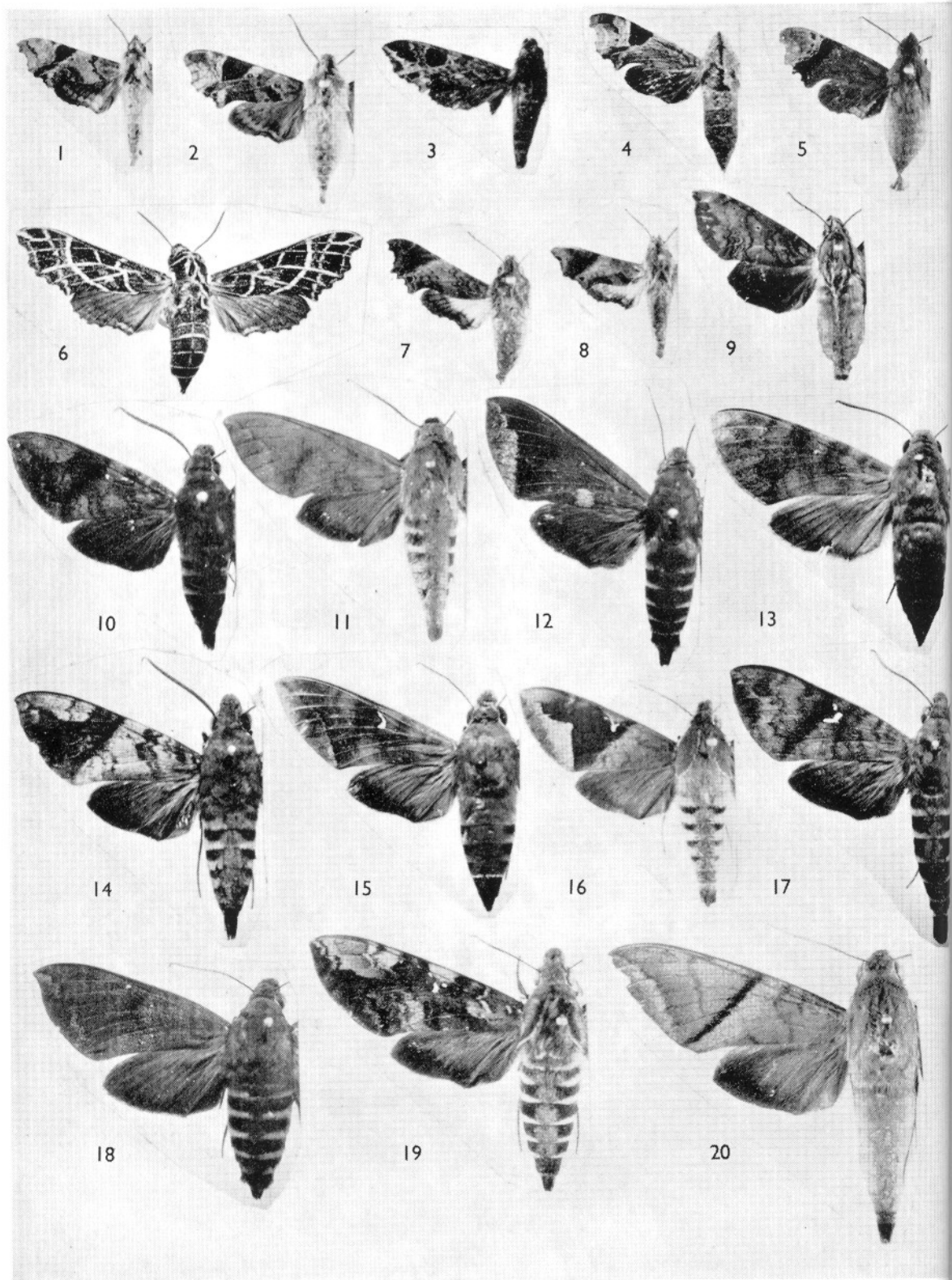


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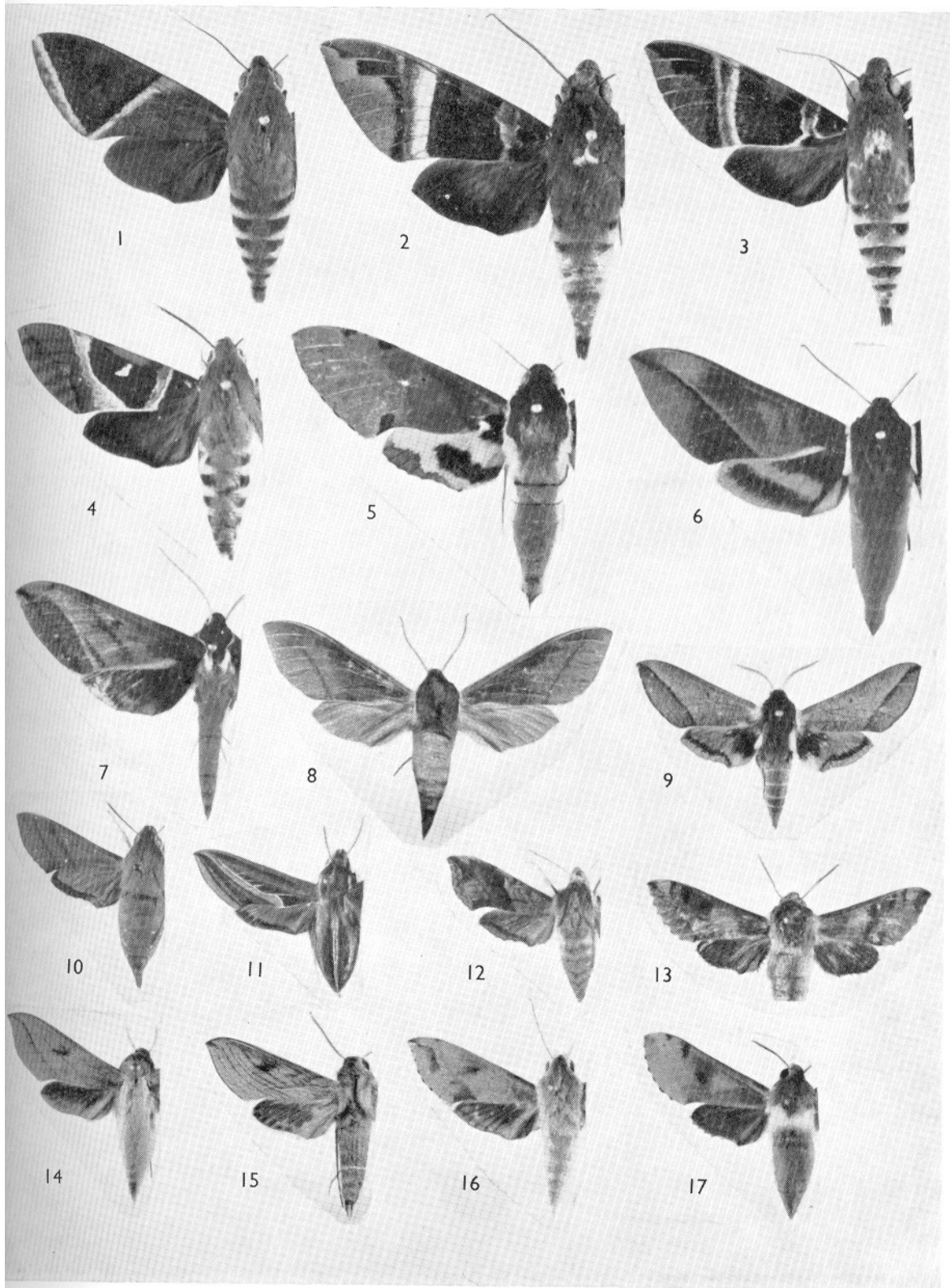


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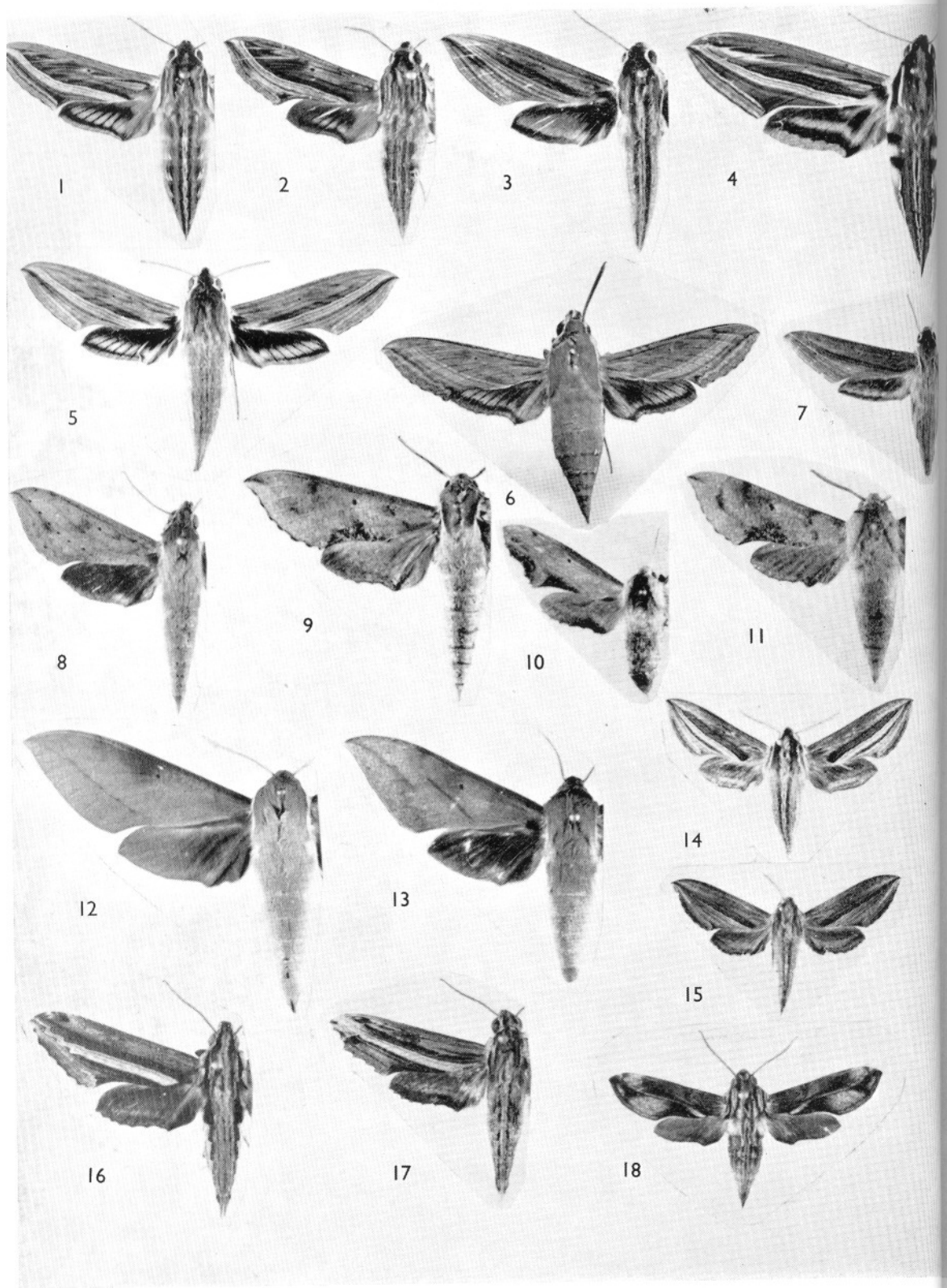


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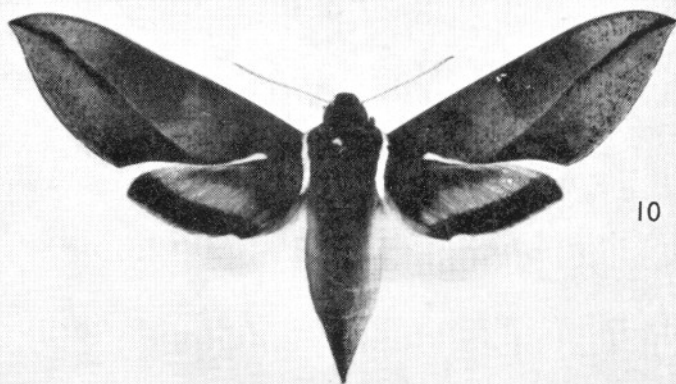
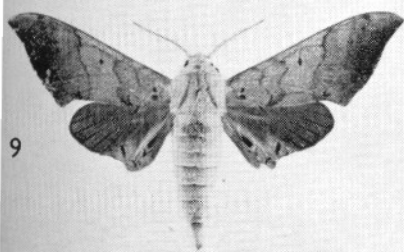
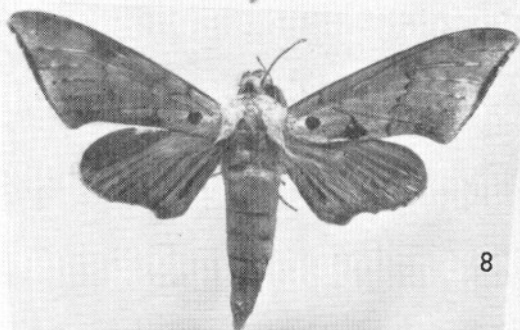
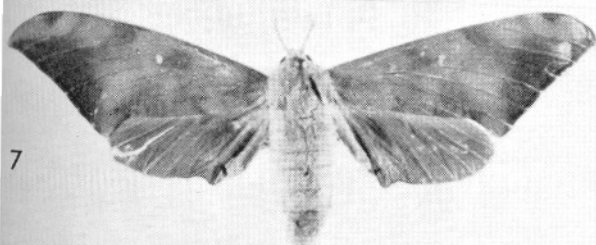
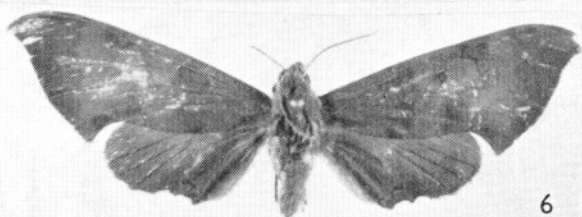
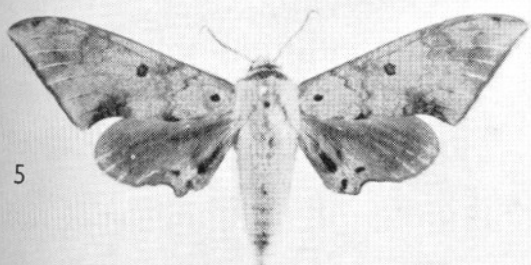
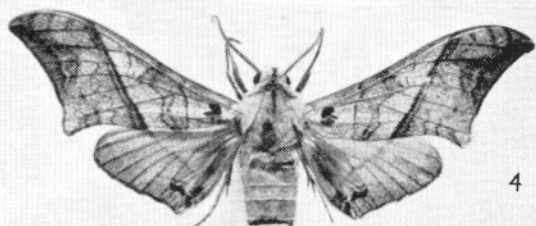
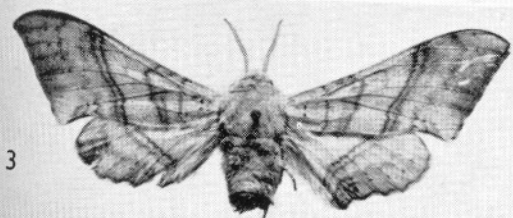
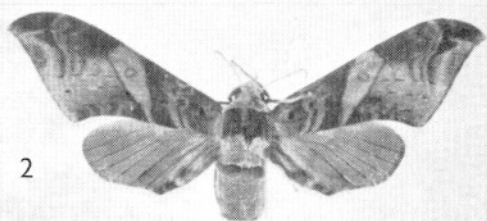
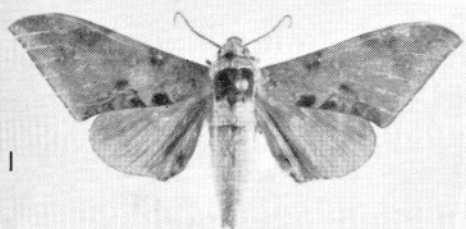


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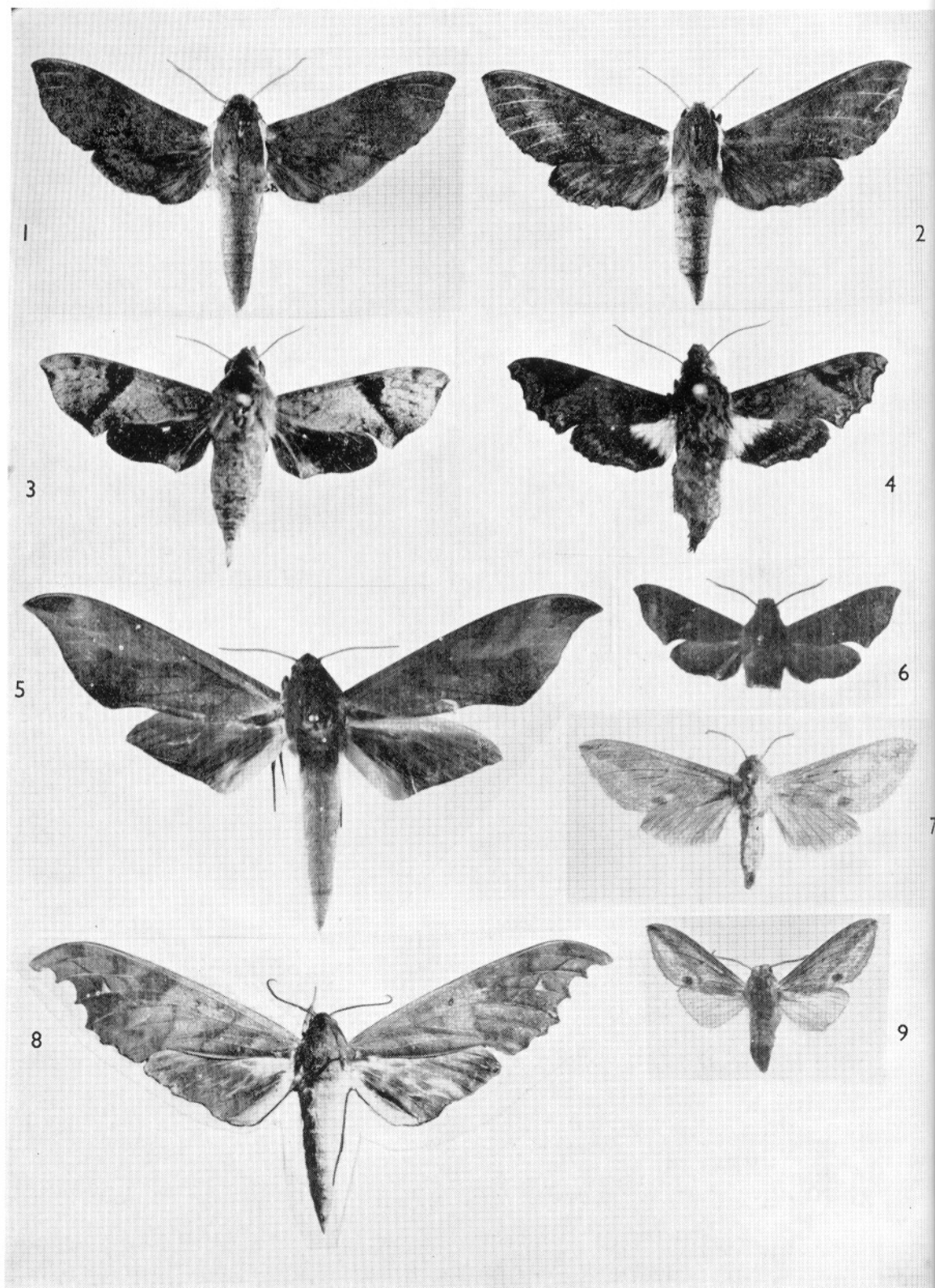


Plate X

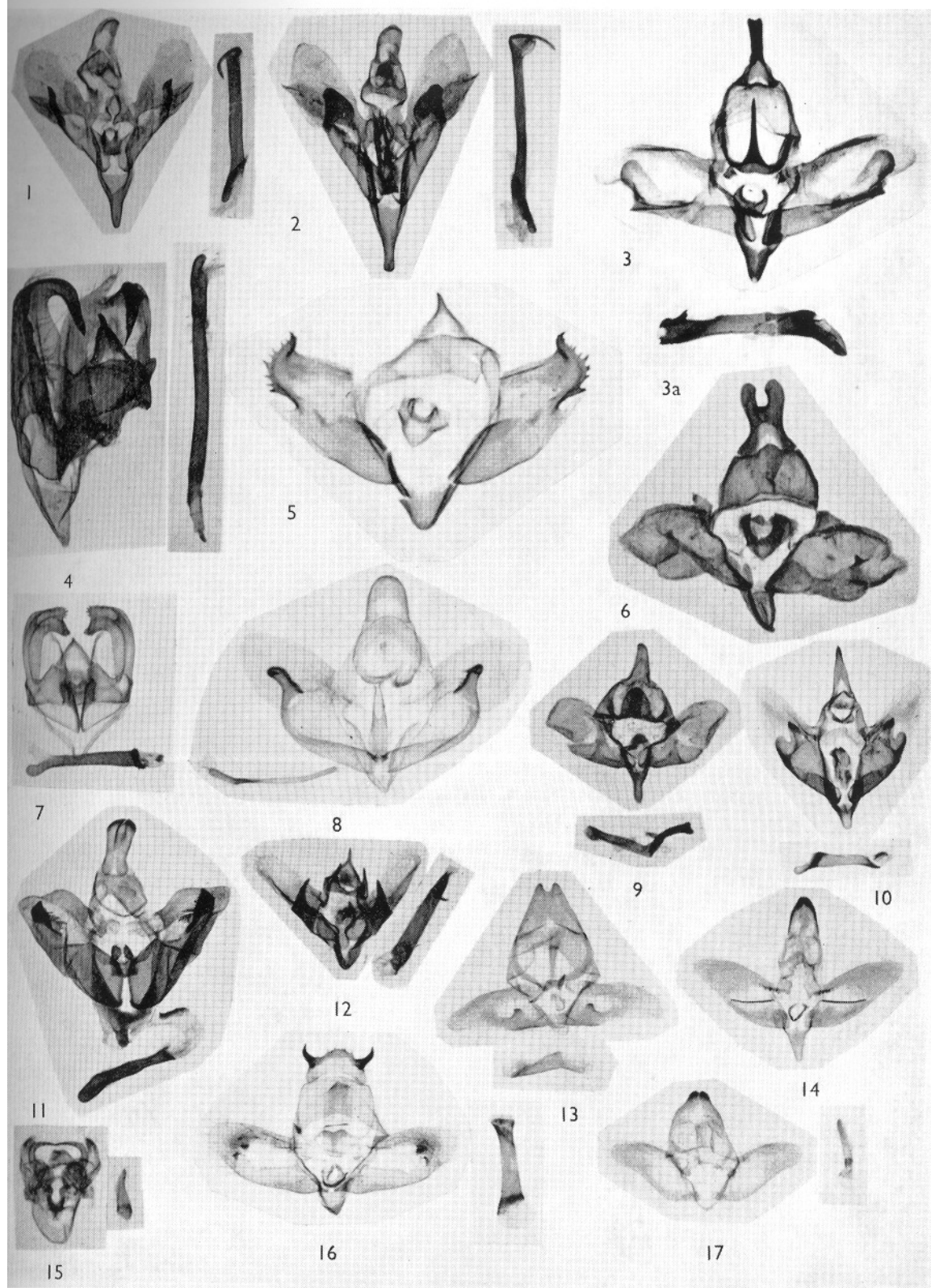


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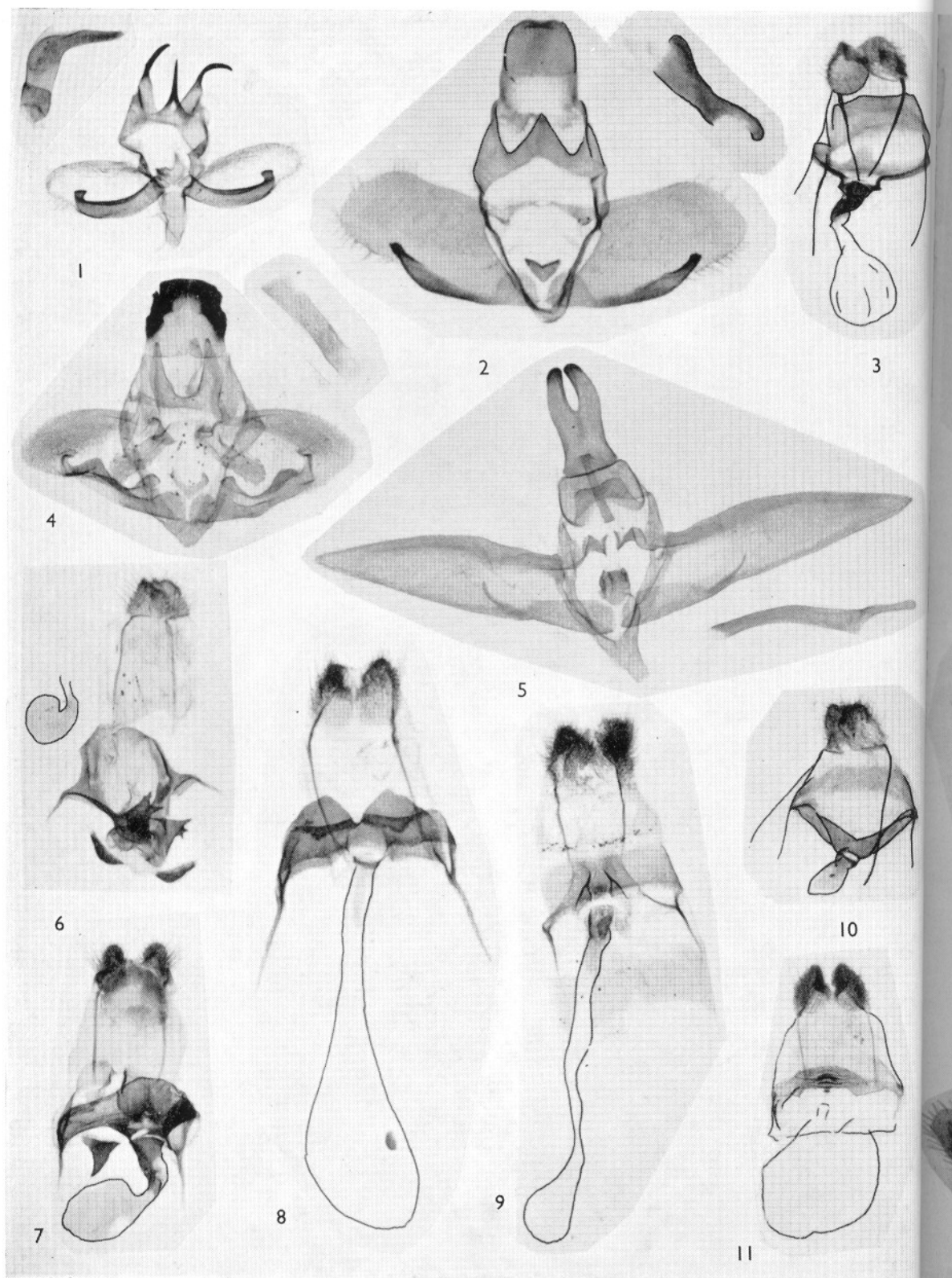


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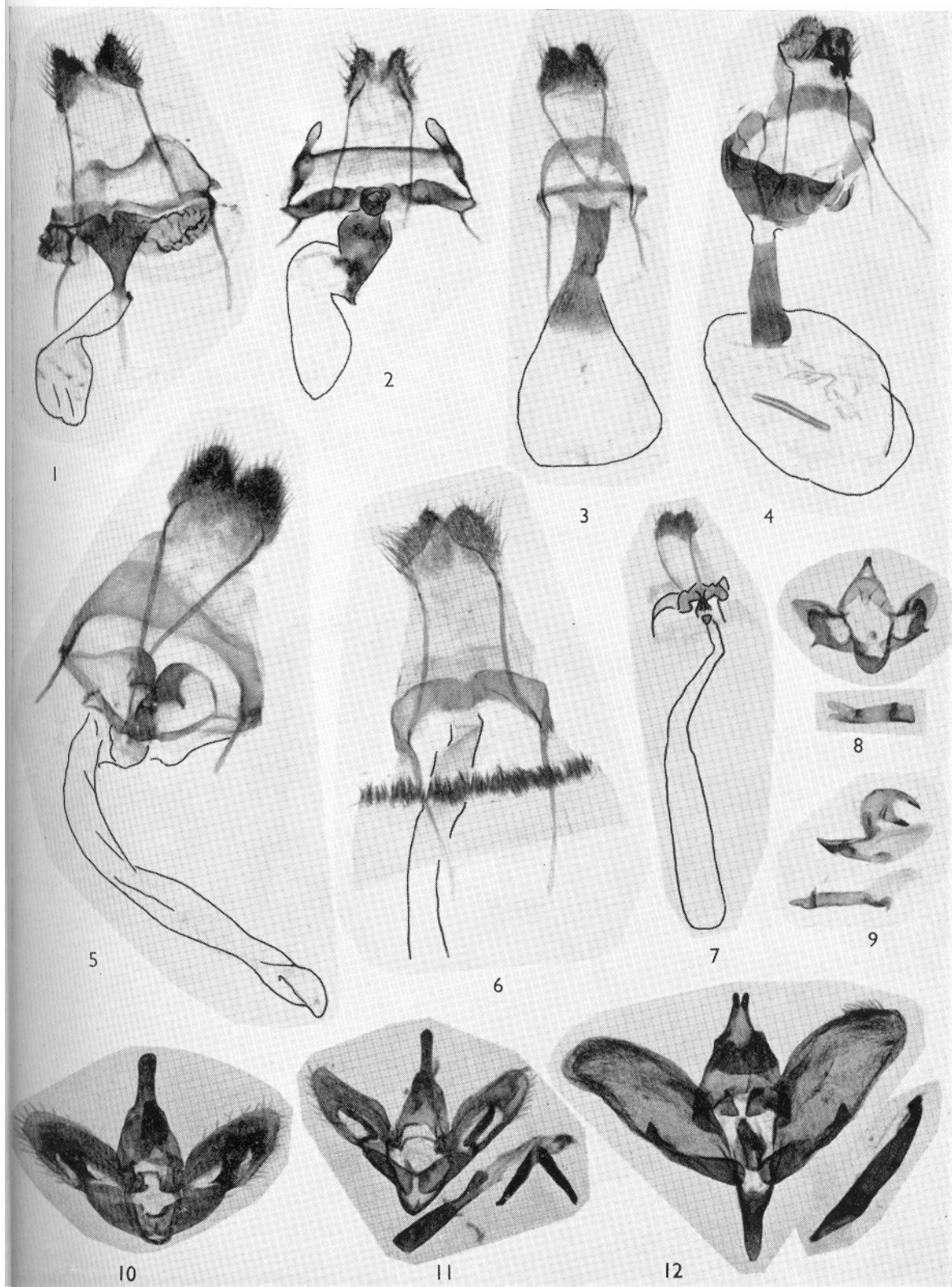


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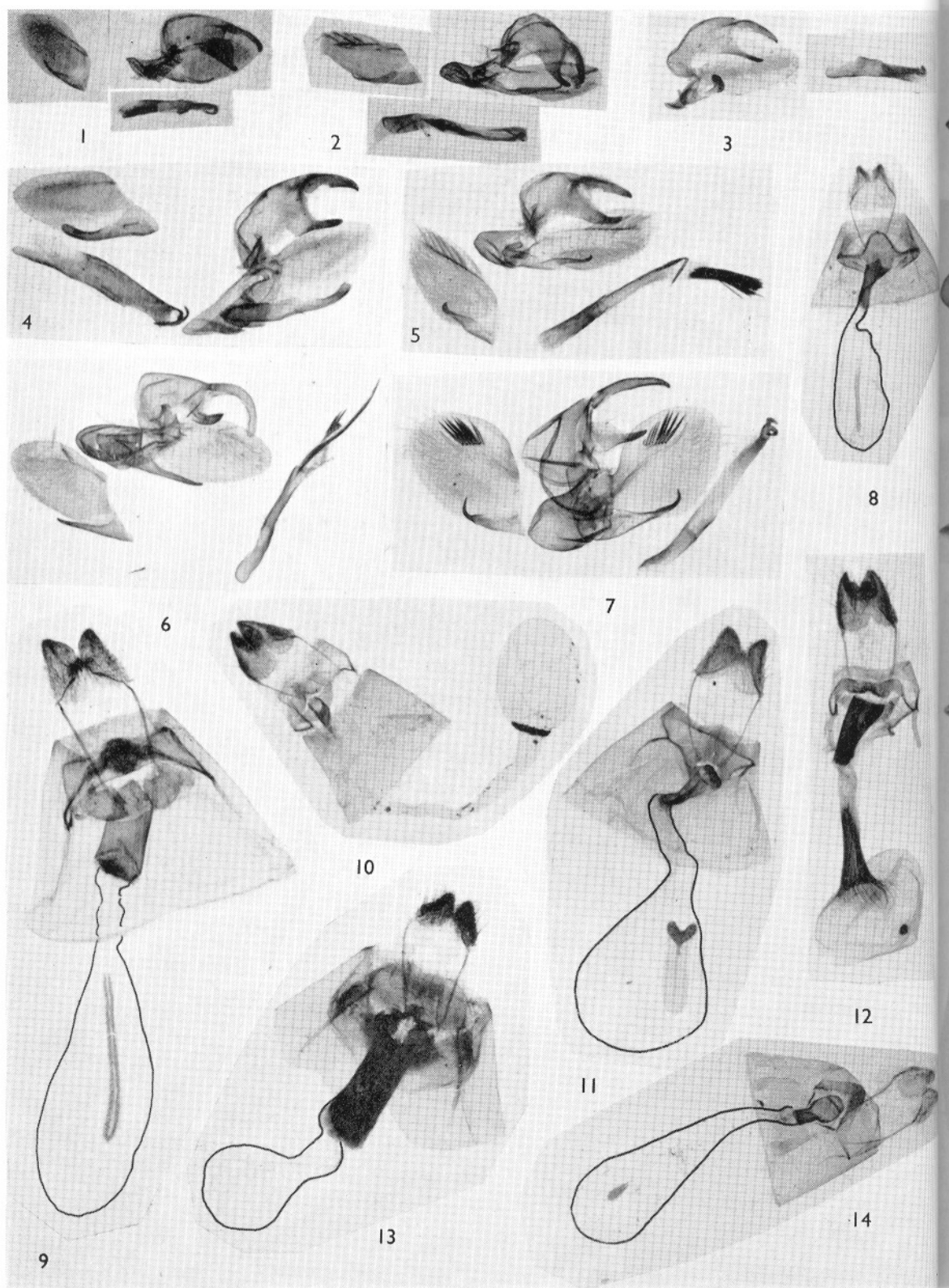


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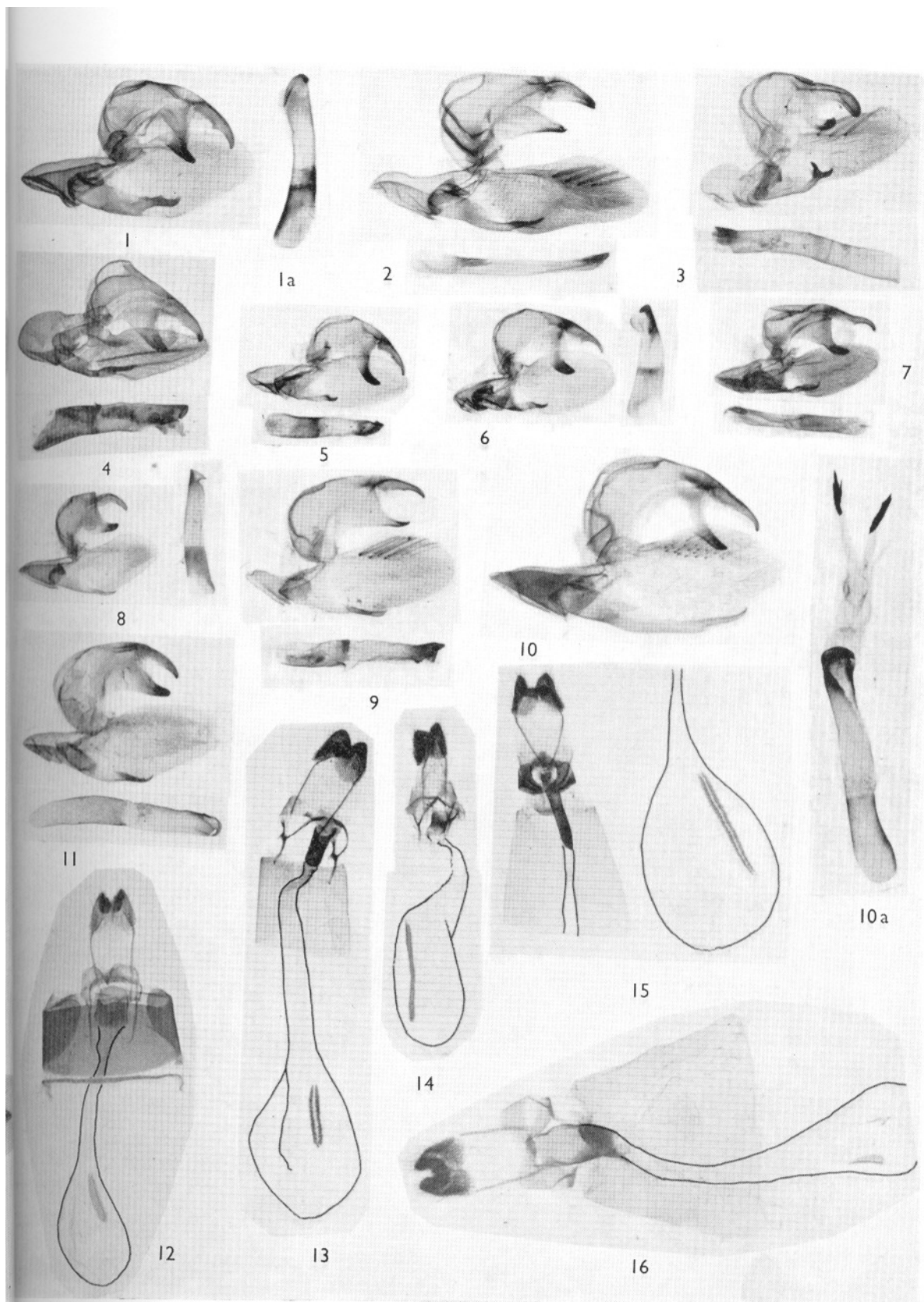


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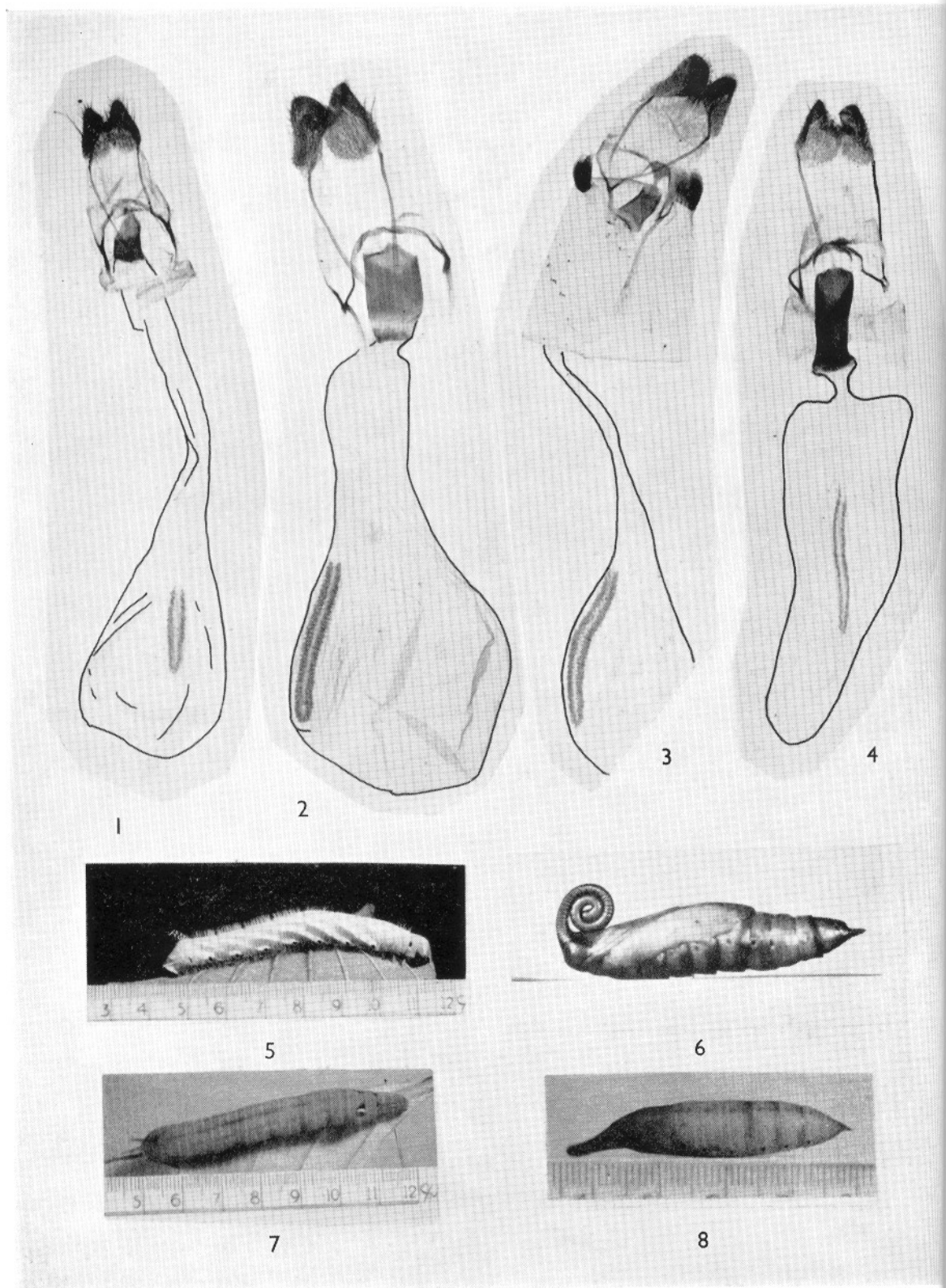


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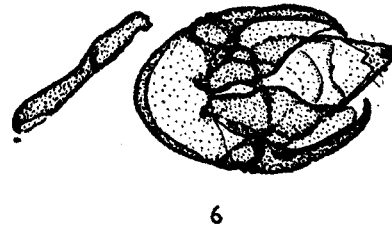
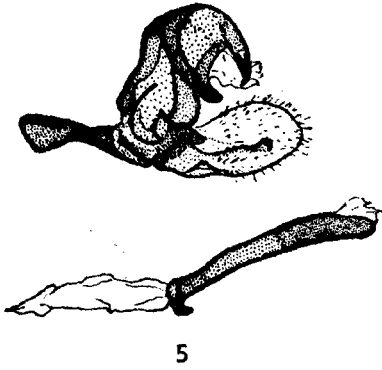
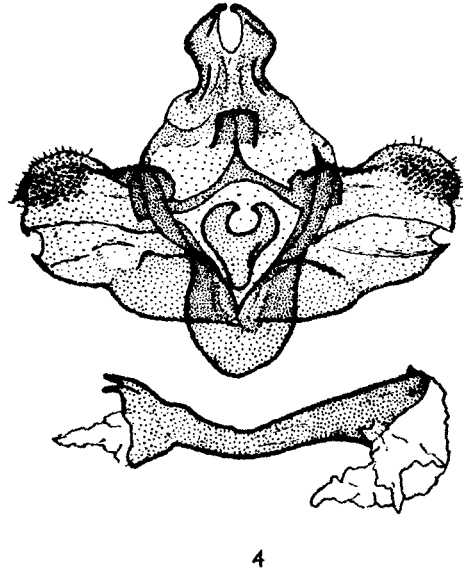
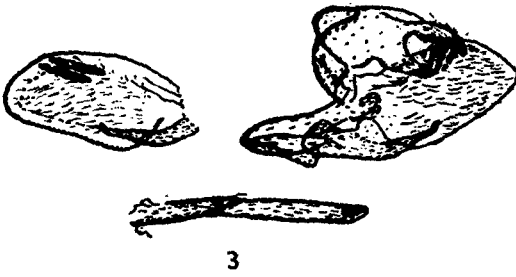
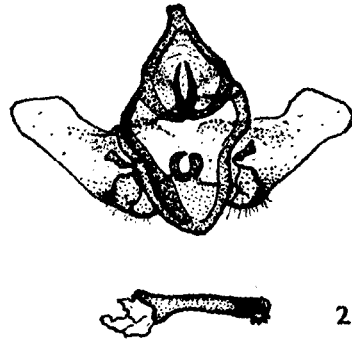
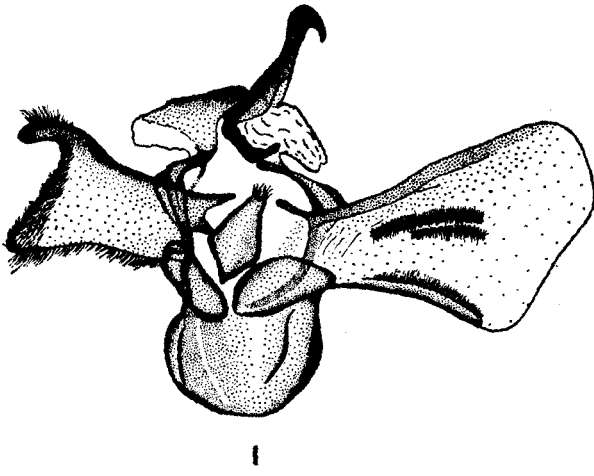


Plate XVII

TANZANIA NM : Amani, Ukerewe, Lyamungu, Mufindi.
 RJ : Mikindani.
 R : Ilonga, Tabora, Mlingano, Mbeya, Arusha.
 MC : Lindi, Songea.
 ETHIOPIA NM : Neghelli, Adola.

COELONIA SOLANI (Boisduval) 1833.

Sphinx solani Boisduval *Faune Madag. & Bourbon*: 76 (Bourbon and Mauritius).

1875 *Sphinx astaroth* Boisduval *Spec. Gen. Lep. Het.* 1: 85 (? Brasil).

1875 *Protoparce fulvinotata* Butler *Proc. zool. Soc. Lond.* : 11 (supposed to be from South Africa according to Butler's description but specimen without readable data) syn. nov.

Ssp. solani.

Mauritius, Bourbon and Madagascar.

Ssp. comoroana Clark 1927.

Proc. New Engl. zool. Cl. 9: 99 (Comoro Islands) Comoro Islands only.

COELONIA BREVIS R. & J. 1915.

Novit. zool. 22: 28 (Madagascar only).

CALLOSPHINGIA R. & J. 1916

Novit. zool. 23: 247; type species: *Dovania circe* Fawcett 1915.

Proboscis long. Antennae straight and strongly hooked, more slender in ♀. Tibiae spineless, tarsi spinose. 1 pair of midtibial spurs. Pulvillus present, paronychium with a single lobe on each side. Vein 6 of hw stalked. 6 and 7 of hw free, cell very short. For genitalia and early stages see *C. circe* Fawcett.

CALLOSPHINGIA CIRCE (Fawcett) 1915. (IV; 2)

Dovania circe Fawcett *Proc. zool. Soc. Lond.* : 106 (Kedai, Kenya).

Sexes similar in appearance. Fw. 29–36 mm. Fw. light greyish brown, with numerous wavy transverse lines and mottled with light reddish brown, slightly darker in ♀. Stigma small, whitish. Head and abdomen light reddish brown, thorax darker. Two short blackish lines at base of abdomen. Hw light coppery, darker at the margin.

♂ GENITALIA: uncus downcurved, with a strongly sclerotised terminal hook. Gnathos a blunt plate, more prominent than in previous three genera. Saccus fairly short and slender. Valve rhomboid, apically lanceolate, inner surface with numerous stout setae, particularly near distal margin. Harpe ventro-basal, armed with two long upward curved terminal hooks. Aedeagus short and straight, pointed apically.

♀ GENITALIA: vaginal plate divided mesially by prominent funnel-shaped operculum. Ductus a short sclerotised tube followed by a longer membranous one. Bursa very elongated, membranous. Signum near distal end of ductus, a rather large heart-shaped plate. Struts long and flattened.

EARLY STAGES: unknown.

Adult nocturnal.

HABITAT AND RANGE

Semi-desert and arid scrub throughout eastern Africa.

EAST AFRICAN RECORDS

KENYA NM : Isiolo, Voi, Mtito Andei, Kinna (N.F.D.).
BM : Mbololo, Kibwezi, Makindu, Kedai.
TANZANIA BM : Arusha.
NM : Mlingano.
SOMALIA NM : Durksi, Northern Region.
ETHIOPIA BE : Uarder.

Subtribe SPHINGES

XANTHOPAN R. & J. 1903

Novit. zool. 9 suppl. : 30; type species *Macrosila morgani* Walker 1856.

Proboscis extremely long. Antennae slender and hooked, inner surface of second palpal segment hollow, but covered by normal scales. Last segment of palpus with a spine-like lateral apical projection. Tibiae spineless, tarsi spinose. Midtibiae with a single pair of spurs, the outer one much longer than the inner; hindtibiae with 2 pairs, the outer ones very long. Hindtarsus with a comb of bristles at base of first segment. Pulvillus present, paronychium with two lobes on each side. Cell of hw very short.

XANTHOPAN MORGANI (Walker) 1856.

Macrosila morgani Walker *List. Lep. Ins. B.M.* 8: 206 (Sierra Leone).

Ssp. morgani. (IV; 7—XVI; 5,6)

A very large moth, rather similar to *Coelonia mauritii* Butler, but wings broader, body more slender. ♂: fw. 54–56 mm. Fw. termen straight with slight inter-nervular crenulations from apex to vein 4, slightly emarginated from vein 4 to tornus, which is rather rounded. Forewing olive brown mottled with brown and marked with black. Stigma whitish, conspicuous. Body olive brown above, whitish below. Two black lines on thorax and a series of paired black subdorsal lines on each abdominal segment. A pair of yellow lateral spots on the first 3 abdominal segments. Hw very dark brown with a large yellow basal area interrupted by a broad blackish stripe from base to tornus.

♀: similar to ♂, but larger; fw. 57–68 mm., antennae more slender.

GENITALIA: postvaginal plate rounded posteriorly, entire vaginal plate consisting of two elongated plates on either side of operculum. Operculum with a deep oblique ventral sinus. Ductus long and membranous. Bursa large, membranous, laterally dilated on one side. Signum near base of bursa, a lanceolate spinose plate. Struts long.

EARLY STAGES

LARVA: body clothed in fuzz of white setae. Head and body blue green. A series of 7 white Vs with apices on dorsum, pointing backwards. Spiracles black surrounded by a white ring. Horn stout, black, armed with pale lilac spines, slightly downcurved. Legs deep pink, ringed basally with black. Prolegs green with a black band. Claspers broadly edged with black. Anal flap vermilion, black tipped. Immediately before pupation it develops a series of orange shield-shaped dorsal markings.

PUPA: subterranean, chestnut, with the usual pear-shaped subdorsal patches on metathorax. A raised ridge between 7th and 8th abdominal somites. Proboscis sheath free, forming a spiral of two complete coils.

FOOD PLANTS: *Anona senegalensis* Pers. and *Uvaria* sp. (Anonaceae).

HABITAT AND RANGE

Forest and woodland throughout tropical Africa, up to 6,000 ft.

EAST AFRICAN RECORDS

- KENYA NM : Shimba Hills, Kakamega.
S : Mombasa.
SM : Istsare.
ESB : Muguga.
- UGANDA NM : Masaka, Kalinzu, Budongo, Fort Portal.
BM : Kampala, Entebbe, Bwamba, Bungoma.
B : Nakawa.
L : Mweya.
- TANZANIA NM : Amani, Ukerewe.
R : Ilonga, Mbeya, Mlingano, Tabora.
BM : Dar es Salaam, Pemba, Kigoma.

Ssp. praedicta R. & J. 1903.

Novit. zool. 9 suppl. : 32 (Madagascar, ♂).

Madagascar only.

PANOGENA R. & J. 1903

Novit. zool. 9 suppl. : 33; type species *Sphinx jasmini* Boisduval 1875.

PANOGENA JASMINI (Boisduval) 1875.

Sphinx jasmini Boisduval *Spec. Gen. Lep. Het.* 1: 114 (Tananarivo, Madagascar).

1877 *Diludia chromapteris* Butler *Proc. zool. Soc. Lond.* : 168 (Madagascar).

Madagascar only.

PANOGENA LINGEUS (Butler) 1877.

Protoparce lingeus Butler *Proc. zool. Soc. Lond.* : 169 (Madagascar).

Madagascar only.

POLIANA R. & J. 1903

Novit. zool. 9 suppl. : 38; type species *Sphinx buchholzi* Plötz 1880.

1910 *Taboribia* Strand *Ann. Soc. ent. belge* 54: 228; type species *Taboribia witgensii* Strand 1910.

Small to medium sized grey moths.

Proboscis not longer than body. Antennae long, slender, hooked. Tarsi spinose. Foretibia with a few strong lateral spines; mid and hindtibiae spineless, but tibial spurs, (one pair on midtibiae and two pairs on hindtibiae), very long; tarsal comb absent; pulvillus and paronychium present. Vein 6 of fw free, veins 6 and 7 of hw stalked; hw cell very short; a shallow pocket like swelling in spaces 6 and 7 of fw. Uncus undivided; harpe not at ventral margin of valve, but in a cavity in the lower half of valve. Aedeagus without apical spine; modified scales forming a narrow erect longitudinal crest on outer surface of valve.

POLIANA BUCHHOLZI (Plötz) 1880. (IV; 3—XIII; 10)

Sphinx buchholzi Plötz *Stett. ent. Zeit.* 41: 76 (Benjongo, West Africa).

1882 *Protoparce lauchearia* Druce *Ent. mon. Mag.* 19: 18 (West Africa).

1887 *Protoparce weiglei* Möschler *Abh. senckenb. naturf. Ges.* 15: 70 (Accra, Gold Coast).

Sexes indetentical superficially. Fw. 41–45 mm., olive grey, variously mottled with whitish and transversely banded with numerous crenulate blackish lines. Stigma whitish, prominent. Hw grey, whitish near tornus and inner margin. Body olive grey above, mottled with whitish and blackish, pink below. Two ochreous yellow hair tufts bordered with black near base of abdomen above.

♂ GENITALIA: uncus narrow, slightly downcurved, keeled below. Gnathos very strongly sclerotised, narrow and prominent, with slight mesial indentation at apex. Saccus short and broad. Valve long and narrow, hairy. Harpe a broad plate with 4 or 5 strong spines pointing towards apex of valve, resting in a central cavity. Aedeagus short and straight. Vesica armed with 2 long, densely spinose flaps.

♀ GENITALIA: 8th tergite posteriorly bilobed. Postvaginal plate undivided. Ostium broad, unarmed. Posterior portion of ductus a small, rounded sclerotised, open-ended capsule; remainder of ductus very long, membranous. Bursa elongated, membranous. Signum near apex of bursa, a spinose plate shaped like a leaf, with a small membranous centre. Struts very long.

EARLY STAGES: unknown.

HABITAT AND RANGE

Forests from West Africa to Uganda and West Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kakamega.

UGANDA NM : Fort Portal, Budongo.

SM : Mombo.

K : Kawanda.

POLIANA WITGENSI (Strand) 1910 comb. nov. (IV; 6—XIII; 11)

Taboribia witgensii Strand *Ann. Soc. ent. belge* 54: 228 (Tabora).

1915 *Poliana marmorata* Fawcett *Proc. zool. Soc. Lond.* : 105 (Kedai, Kenya).

1916 *Poliana buchholzi witgensii* Jordan *Novit. zool.* 23: 248.

1930 *Poliana buchholzi marmorata* Hering in Seitz, "Macrolepidoptera of the World" 14: 359.

1930 *Taboribia witgensii* Hering *l.c.* : 360.

Hering's re-instatement of *Taboribia* was due to a faulty interpretation of Jordan's diagnosis of *Poliana*, without reference to the type species, *P. buchholzi* (Plötz). Despite Jordan's opinion, *witgensii* cannot be regarded as a subspecies of *buchholzi* and must be treated as a good species owing to the fact that the two forms occupy entirely different habitats and exhibit constant genitalial differences.

Very similar to the previous species, but smaller and darker, groundcolour being almost blackish in fresh specimens, fading to chocolate in old specimens. Underside of thorax and abdomen white, not pink as in *P. buchholzi*. Sexes superficially identical. Fw. 34–40 mm.

♂ GENITALIA: similar to *P. buchholzi*, but harpe strap-shaped, with a single terminal hook, spinose flaps of vesica, shorter.

♀ GENITALIA: similar to *P. buchholzi*, but signum smaller, more rounded, without membranous centre and with larger teeth.

EARLY STAGES: unknown.

HABITAT AND RANGE

Savanna and dry bush from East Kenya and Tanzania to Rhodesia and Mozambique.

EAST AFRICAN RECORDS

- KENYA** NM : Malindi, Mombasa, Kilifi, Shimoni, Mtito Andei.
 BM : Masongaleni, Kibwezi, Rabai.
- TANZANIA** NM : Tumbi, Tabora.
 R : Mlingano, Dar es Salaam.
 BM : Shinyanga.
 ESB : Manyara.

POLIANA MICRA R. & J. 1903. (IV; 5)

Novit. zool. 9 suppl. : 809 (Ganale River, Somaliland ♂).

Very similar to some species of *Praedora* R. & J., but differs in the midtibiae and tibial spurs *not* being spinose. Sexes superficially identical. Fw. 22–28 mm. Body grey, mottled and faintly spotted with darker and lighter grey. Fw. grey with crenulated darker transverse lines, and a small whitish stigma. Hw. uniform grey.

♂ GENITALIA: uncus narrow, downcurved, heavily keeled ventrally, strongly sclerotised apically, with a small terminal hook. Gnathos strongly sclerotised, with two small terminal lobes. Saccus very short, rounded. Valve lanceolate; harpe a narrow blade terminating in 2 slender processes pointed distad. Aedeagus short, stout and straight. Vesica with two unarmed rugose flaps, very slightly sclerotised.

♀ GENITALIA: vaginal plate divided at ostium. Ductus entirely membranous, very wide and very long. Bursa elongated. Signum near middle of bursa, a small rounded, weakly sclerotised spinose plate with indefinite margins.

EARLY STAGES: unknown.

HABITAT AND RANGE

Arid scrub from Somalia to East Kenya.

EAST AFRICAN RECORDS

- KENYA** NM : Yatta, Mtito Andei, Makueni, Makindu, Ikutha, Gazi, Kitui, Voi.
 BM : Voi, Kibwezi, Kedai, Rabai, Chanler Falls.
- SOMALIA** BM : (Type) Ganale River.

MACROPOLIANA gen. nov.

Large species which differ from *Poliana* R. & J. in having *all* the tibiae spineless.

Antennae thicker than in *Poliana*, venation as in *Poliana*. Uncus bilobed, harpe ventral, aedeagus with a terminal spine, vesica unarmed; modified scales rounded and appressed, not lanceolate and erect.

TYPE SPECIES: *Diludia natalensis* Butler 1875.

MACROPOLIANA NATALENSIS (Butler) 1875, comb. nov. (IV; 9)

Diludia natalensis Butler *Proc. zool. Soc. Lond.* : 13 (Natal).

1903 *Poliana natalensis* R. & J. *Novit. zool. 9 suppl.* : 40.

♂: fw. 55–70 mm., very pale grey with wavy blackish transverse bands and whitish stigma, termen somewhat concave before tornus. Two short longitudinal blackish streaks in centre of wing. Head pale grey. Thorax pale grey surrounded dorsally by black lines edged internally with yellow. Abdomen pale grey, mottled and faintly spotted with darker grey. Hw dark greyish brown, with a large pale grey patch near tornus. 3 specimens from Adola, Ethiopia, in NM, with much darker fw.

GENITALIA: uncus narrow, downcurved, deeply bifid. Gnathos a prominent blunt plate. Saccus very long and slender, curved to one side. Valve fairly long and rounded. Harpe ventral, a simple, apically rounded blade. Aedeagus long, slender, curved ventrad, with a broad-based apical spine on ventral surface.

♀: larger, forewing broader and less concave, usually darker and more heavily marked, 65–75 mm. GENITALIA: vaginal plate undivided. Ductus not very long, narrower at ostium, sclerotised. Bursa pear-shaped. Signum small, shaped like a compressed horse-shoe, tuberculate rather than spinose or dentate. Struts long.

EARLY STAGES

LARVA, 5TH INSTAR: head pale pinkish brown, with 2 olive brown stripes above, and a pale green lateral stripe on each side. Body pale green. A yellow dorsal stripe from 4th somite to base of horn. 7 oblique yellow dorsal stripes edged above with darker green. 5th to 11th somites with subdorsal purple spots speckled with white, largest on 5th somite, decreasing in size. 3rd somite with an anterior dorsal protuberance followed by a transverse series of 16 white tubercles. 4th somite with a transverse series of 6 white tubercles. Horn very small, downcurved, appressed to body, greenish-yellow. Spiracles purple, rimmed with white, and then with purple speckled with white. Legs yellow, apical point brown. Prolegs green, transversely banded with black. Anal flap and claspers yellowish with brown tubercles. Venter green. Clothed thickly with short, erect, colourless pubescence. Immediately before pupation the larva turns olive-purple, and the yellow stripe becomes very conspicuous.

PUPA: subterranean, dark brown, punctate. A narrow subdorsal scar-like mark on metathorax. Base of proboscis sheath projecting slightly ventrad. Cremaster conical, with a longitudinal ventral ridge.

FOOD PLANT: *Spathodea nilotica* Seem. (Bignoniaceae).

HABITAT AND RANGE

Forest and moist woodland from Natal to Ethiopia and westwards to the Cameroons, Ghana and Sierra Leone.

EAST AFRICAN RECORDS

KENYA	NM	: Kakamega.
	BM	: Rabai.
UGANDA	NM	: Bwamba, Fort Portal.
	BM	: W. Elgon.
	B	: Nakawa.
TANZANIA	NM	: Amani, Marangu, Arusha (Irving).
	BM	: Bukoba.
	MC	: Lindi, Songea.
ETHIOPIA	NM	: Dire Dawa, Adola.

MACROPOLIANA *FERAX* (R. & J.) 1916 comb. nov., stat. nov. (IV; 4—XIII; 6,12)
Poliana natalensis ferax R. & J. *Novit. zool.* 23: 247 (Manow, S. Tanzania).

Although treated as a subspecies of *M. natalensis* by R. & J. and by subsequent authors, *ferax* must be regarded as a good species for the following reasons: it overlaps *natalensis* in parts of its range, it occupies a different habitat, and the genitalia are consistently different. Very similar to *M. natalensis*, but smaller and darker, particularly in the ♀. Most specimens have a series of small paired yellow dorsal spots on the abdomen, which are lacking in *M. natalensis*. Fw. 45–52 mm.

♂ GENITALIA: uncus bifid, downcurved, heavily sclerotised apically. Gnathos membranous mesially. Saccus shorter than in *M. natalensis*, not bent to one side. Valve as in *natalensis*, but more hairy.

Harpe more slender proximally, dilated distally, terminating in an upcurved blunt point. Aedeagus straight, shorter and relatively stouter, apical spine more prominent, directed backwards.

♀ GENITALIA: vaginal plate much narrower than in *M. natalensis*. Ductus long and membranous. Bursa large, smooth, pear-shaped. Signum absent.

EARLY STAGES: unknown.

RANGE AND HABITAT

Highland forest in East Africa.

EAST AFRICAN RECORDS

KENYA NM : Molo, Ngong, Nairobi, Kikuyu Escarpment.
SM : Istsare, Elgon.
BM : Kinankop, Bura (Teita).
TANZANIA R : Mbeya, Arusha.

PEMBA R. & J. 1903

Novit. zool. 9 suppl. : 45; type species *Pemba distanti* R. & J. 1903.

Medium sized grey moths.

Proboscis rather short, palpus slender and elongated. Antennae short, slender and hooked. Foretibiae and tarsi with a few prominent external spines; midtibiae with a few apical spines; both pairs of hindtibial spurs set very close together. No tarsal comb. Pulvillus present, paronychium with a single slender lobe at each side, Vein 6 of fw free, veins 6 and 7 of hw stalked, Male genitalia without modified scales.

PEMBA FAVILLACEA (Walker) 1866. (IV; 12)

Anceryx favillacea Walker *List. Lep. Ins. B.M.* 35: 1856 (Zambezi river, ♂).

1903 *Pemba distanti* R. & J. *Novit. zool.* 9 suppl. : 46 (Pemba island, ♂).

♂: fw. 34–39 mm. Head and thorax pale grey. Abdomen pale grey with a narrow dark dorsal line and a pair of blackish lateral spots on each segment. Fw, narrow and elongated, tornus not produced; pale grey lightly mottled with darker grey. Two short narrow black streaks in centre of wing, one at apex. Hw uniformly paler, with acute apex.

♀: larger (fw. 48 mm). Body and fw darker than in ♂, broader and more rounded. Hw more rounded, uniform grey, darker than fw.

GENITALIA: 8th tergite very lightly sclerotised, anterior margin bilobed. Ostium very wide. Ductus well sclerotised, particularly near ostium, long, with a sharp kink before entrance to bursa. Bursa long, apically rounded, without signa.

HABITAT AND RANGE

Savanna and bush from E. Kenya to Tanzania, Katanga, Zambia, Angola, Rhodesia and Mozambique.

EAST AFRICAN RECORDS

KENYA NM : Shimba Hills.
S : Mombasa.
TANZANIA NM : Ilonga, Mukuyu, Kigoma.
R : Tabora, Mlingano, Ukiriguru, Dar es Salaam.
BM : Pemba, Kilwa.
MC : Lindi, Songea.
ZAMBIA NM : Abercorn.

PEMBA JORDANI Joicey & Talbot 1916. (IV; 13—XIV; 13—XVII; 4)

Ann. Mag. nat. Hist. (8) 17: 477 (Fort Crampel, Afrique Equatoriale Francaise, ♀).

1925 *Pemba cardinalli* Tams *Entomologist* 58: 258 (Gold Coast, ♂) Smaller than previous species.

♂: body and forewing grey, with a wide, diffuse dark grey postmedial band and a dark diffuse spot at costa, near apex. Stigma small, round and whitish. Hw white with a small dark spot at tornus.

♀: larger, darker, wings broader than in ♂; hw dark grey.

GENITALIA: ostium opening on the same plane as the ventral surface of the abdomen, with a small posterior sinus and wider one on either side. Colliculum long and wide, rugose. Ductus very short, bursa small, rounded, pleated and unarmed.

HABITAT AND RANGE

Woodland and savanna from West Africa to Uganda.

EAST AFRICAN RECORDS

UGANDA BM : Tororo, (one ♂).

PEMBA ONEILI Clark 1925.

Proc. New Engl. zool. Cl. 19: 32 (Rhodesia).

Known from Rhodesia only.

DOVANIA R. & J. 1903

Novit. zool. 9 suppl. : 44; type species *Dovania poecila* R. & J. 1903.

Antennae slender, hooked. Proboscis long. Eyes lashed. Tarsi spinose, tibiae spineless. Tibial spurs long. Pulvilli absent, paronychium with a single lobe on each side. Modified scales absent. Venation as in *Pemba*.

DOVANIA POECILA R. & J. 1903. (IV; 10)

Novit. zool. 9 suppl. : 47 (Dowa, Malawi, ♂).

♂: fw. 30–35 mm. Head and body blackish, woolly, with a series of white transverse bands interrupted at dorsum on abdomen. Fw very dark purplish brown. with faint, irregular paler transverse bands, a small white stigma, and two prominent white lines at apex. Hw bright coppery, blackish near inner margin.

GENITALIA: uncus entire, downcurved, slender, very heavily sclerotised apically. Gnathos blunt, prominent, very heavily sclerotised. Saccus short and slender. Valve narrow, subrectangular. Harpe ventral, very broad, apically truncated and spinose. Aedeagus bent downwards at $\frac{1}{4}$ from apex. Apex armed with a flat triangular projection.

FEMALE AND EARLY STAGES: unknown.

HABITAT AND RANGE

Forest, usually above 4,000 ft. in Kenya, Uganda, Ruanda, Burundi, Tanzania and Malawi.

EAST AFRICAN RECORDS

KENYA NM : Kakamega, Thomson's Falls.

S : Istsare.

BM : Elgon.

UGANDA NM : Fort Portal, Kalinzu, Kayonza, Nsongezi, Budongo.

BM : Entebbe, Jinja, Sesse Islands.

B : Mpanga, Nakawa.

K : Rwasamaire (Ankole), Kampala, Kakumiro, Kawanda.

TANZANIA NM : Mufindi.
 BM : Njombe, Arusha.
 R : Mbeya.

NOTE: ssp. *inops* Gehlen 1951 *Rev. Zool. Bot. Afr.* 44: 251 based on a single ♂ from Ruanda is of doubtful validity.

DOVANIA NEUMANNI Jordan 1916. (IV; 11)
Novit. zool. 23: 379 (Jimma, ♂).

♂: similar to previous species, but smaller; 24–26 mm. Antennae thicker, hw olive brown, pale abdominal bands much less conspicuous.

GENITALIA: very similar to *D. poecila*, but harpe less prominent, rounded apically and aedeagus only slightly curved with smaller triangular plate at apex.

FEMALE AND EARLY STAGES: unknown.

HABITAT AND RANGE

Forests in Ethiopia.

EAST AFRICAN RECORDS

ETHIOPIA NM : Adola.
 BM : Addis Ababa, Arussi, Dangila, Jimma.

LOMOCYMA R. & J. 1903

Novit. zool. 9 suppl. : 47; type species *Sphinx ographa* Mabilie, 1884.

LOMOCYMA OEGRAPHA (Mabilie) 1884.

Sphinx ographa Mabilie *C. R. Soc. ent. Belg.* 28: 187 (Madagascar) Madagascar only.

OLIGOGRAPHA R. & J. 1903

Novit. zool. 9 suppl. : 48; type species *Sphinx juniperi* Boisduval 1847.

OLIGOGRAPHA JUNIPERI (Boisduval) 1847.

Sphinx juniperi Boisduval in *Deleg. Voy. Afr. Australe* 2: 595 (Natal).

Coastal areas from the Cape to Natal.

OLIGOGRAPHA MOSAMBIQUENSIS Joicey & Kaye 1917.

Ann. Mag. nat. Hist. 20: 305 (Delagoa Bay, Mozambique).

Known from the type locality only.

HOPLISTOPUS R. & J. 1903

Novit. zool. 9 suppl. : 49; type species *Hoplistopus penricei* R. & J. 1903.

HOPLISTOPUS PENRICEI R. & J. 1903.

Novit. zool. 9 suppl. : 50; (Munyendi River, Angola, ♂).

Known from the Kalahari, South-west Africa and Angola.

HOPLISTOPUS BUTTI R. & J. 1903.

Novit. zool. 9 suppl. : 50 (Beaufort West, Cape, ♂).
Cape Province, South Africa.

LITOSPHINGIA Jordan 1920

Novit. zool. 27: 510; type species *Litosphingia corticea* Jordan 1920.

Antennae fairly thick and hooked. Proboscis rather short. Third joint of palpus very small, conical, 2 strong lateral spines on foretibiae. Mid and hindtibiae spineless. Tibial spurs moderate. Tarsi spinose. Pulvillus present, paronychium with one long lobe at each side. Veins 6 and 7 of hw not stalked.

LITOSPHINGIA CORTICEA Jordan 1920. (IV; 16)

Novit. zool. 27: 510 (Rhodesia).

A small grey species, rather like a miniature edition of *Pemba favillacea* Walker.

♂: fw. 22 mm. Both wings long and narrow, apices acute, as in *P. favillacea*. Body grey with a dark dorsal line. Wings grey with veins darker.

GENITALIA: uncus downcurved, constricted at base, apically spatulate and slightly bilobed. Gnathos much broader than uncus, with a broad, subquadrate median projection. Saccus fairly long and broad. Dorso-basal margin of valve reflexed, forming a fold which is covered with spines and armed with numerous stout hooks at the margin. Dorso-apical margin of valve not reflexed, but spinose. Harpe ventral, terminating in a very stout, heavily sclerotised hook. Aedeagus short and straight, folded back apically.

♀: similar to ♂, but larger, darker, wings more rounded (fw 27 mm.).

GENITALIA: vaginal plate lightly sclerotised, with several parallel longitudinal folds on either side of ostium. Ductus membranous, short, strongly kinked near ostium. Bursa small, ovoid rugose. Signa absent. Struts long.

EARLY STAGES: unknown.

HABITAT AND RANGE

Savanna and bush from Matabeleland to Tanzania.

EAST AFRICAN RECORDS

TANZANIA NM : Dar es Salaam.

PRAEDORA R. & J. 1903

Novit. zool. 9 suppl. : 50; type species *Praedora marshalli* R. & J. 1903.

Proboscis about half the length of body. Antennae fairly slender, hooked. Midtibiae spinose; foretibiae spinose, with a very strong, long terminal spine. Spurs spinose. Pulvillus present, paronychium with one lobe on each side. Similar in appearance to *Poliana micra* R. & J.; for distinguishing characters see that species. Vein 6 of both wings not stalked.

PRAEDORA MARSHALLI R. & J. 1903.

Novit. zool. 9 suppl. : 51; (Umtali, Rhodesia, ♂).

Ssp. marshalli.

Savanna and bush in N. Transvaal, Rhodesia, Zambia and Angola.

Ssp. tropicalis R. & J. 1912. (IV; 15)
Novit. zool. 19: 128 (Uganda).

Darker and larger than typical *P. marshalli*, probably a cline.

Sexes superficially identical. Fw. 19–24 mm. Body and fw very dark grey, fw with paler irregular transverse bands and darker transverse crenulate lines. Hw paler, with traces of 2 faint transverse dark bands. Wings more rounded than in *Litosphingia*.

♂ GENITALIA: uncus strongly downcurved, laterally compressed very strongly sclerotised, and slightly hooked apically. Gnathos well sclerotised, apically rounded. Saccus fairly slender. Valve with numerous small spines, particularly in upper half and at dorso-basal margin, which is somewhat incrassate. Harpe ventral, terminating in a rounded upcurved lobe. Aedeagus short, straight, unarmed, tapering towards apex.

♀ GENITALIA: vaginal plate a truncated triangle. Ostium with a narrowly sclerotised anterior lip. Ductus wide, membranous, very long, without kinks, Bursa membranous, pear-shaped, without signum. Struts long.

EARLY STAGES: unknown.

RANGE AND HABITAT

Savanna and bush from Zambia to Uganda and Kenya.

EAST AFRICAN RECORDS

UGANDA NM : Budongo, Nsongesi.

BM : Ankole.

TANZANIA NM : Nachingwea, Arusha, Mbeya, Shango, Ndolage, Kigoma.

R : Dar es Salaam.

KENYA NM : Msambweni (coast).

PRAEDORA PLAGIATA R. & J. 1903. (IV; 14)

Novit. zool. 9 suppl. :51 (M'pala, Tanganyika ♀).

Very similar to previous species, but larger, more variegated and heavily marked. Sexes superficially identical. Fw. 24–29 mm.

♂ GENITALIA: uncus very short, laterally compressed, downcurved, heavily sclerotised apically. Gnathos as in *P. marshalli*. Saccus short, subtriangular. Membranous, apical half of valve square, densely spinose internally. Harpe ventral, terminating in a broad downcurved, apically dentate process. Aedeagus extremely short and thick.

♀ GENITALIA: vaginal plate broad, strongly rugose. Ostium wide; ductus short, wide, membranous, without kinks. Bursa pear-shaped, rugose. Signum large, lanceolate, spinose, with membranous centre, rather like a strongly compressed ring.

EARLY STAGES: unknown.

HABITAT AND RANGE

Savanna from Rhodesia to Tanzania.

EAST AFRICAN RECORDS

TANZANIA NM : Mukuyu.

BM : Pigawazi.

R : Ilonga.

ZAMBIA NM : Abercorn.

PRAEDORA LEUCOPHAEA R. & J. 1903. (IV; 8)
Novit. zool. 9 suppl. : 52 (Ikutha, British East Africa, ♂).

♂: fw. 20–21 mm. Body and fw greyish white with light brown transverse bands. Hw uniform very pale grey.

GENITALIA: uncus longer, not so compressed as in previous species. Gnathos subquadrate, apically rounded. Saccus slender. Valve elongated, apically rounded, hairy and tuberculate, not spinose, with a small emargination at the ventral margin. Harpe ventral, small, terminating in a minutely spinose upcurved rounded lobe. Aedeagus long, stout and straight.

FEMALE: unknown.

HABITAT AND RANGE

Dry bush areas from Natal and Bechuanaland to Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kurdi.
 BM : Ikutha (type).

ELLENBECKIA R. & J. 1903

Novit. zool. 9 suppl. : 809; type species *Ellenbeckia monospila* R. & J. 1903.

Proboscis vestigial, reduced to 2 short lobes covered with scales. Palpi very small. Foretibiae armed with a few long external spines. Tarsi spinose. Mid and hindtibiae without spines. Tibial spurs short. Antennae hooked. Pulvillus and paronychium absent. Vein 6 of fw free, veins 6 and 7 of hw stalked.

ELLENBECKIA MONOSPILA R. & J. 1903. (X; 7,9—XIII; 7)

Novit. zool. 9 suppl. : 810 (Fader Gumbi, ♀).

♀: fw. 21 mm. Body and wings grey. Fw, with veins finely delineated in black, a small blackish stigma, and a paler marginal band. A large blackish grey rounded spot, outlined in pale grey near tornus. Hw uniform grey.

GENITALIA: vaginal plate narrow, posteriorly indentated, with a deep sinus at each side of ostium anteriorly. Ostium wide, narrowing rapidly to ductus. Ductus membranous, with a constriction before bursa. Bursa very long, only slightly saccate apically, smooth. Signum absent. Posterior struts long and flattened, anterior struts short and flattened.

EARLY STAGES: unknown.

HABITAT AND RANGE

Arid areas of Kenya and Somalia.

EAST AFRICAN RECORDS

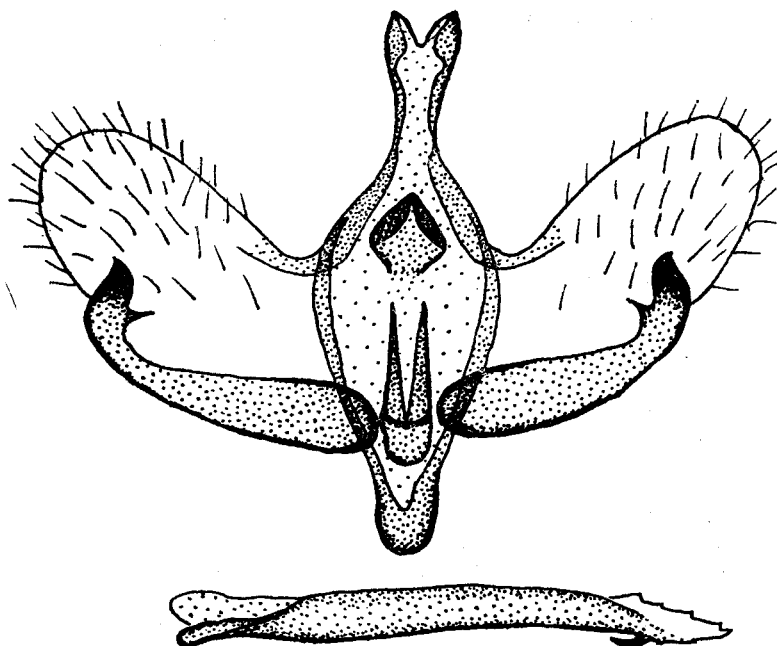
KENYA NM : Mtito Andei, Mandera, Wajir.
 BM : Merti, Dandu.
SOMALIA BM : (Type) Fader Gumbi.

♂ (previously undescribed): differs in its smaller size (fw. 19 mm.), in having a better defined black stigma and tornal spot and a white hw.

GENITALIA: uncus short, downcurved, broadly spatulate, terminating in two widely diverging blunt points. Gnathos a short, broad, heavily sclerotised pointed plate; anellus a long sleeve strongly produced anteriorly, with two sharply pointed heavily sclerotised posterior processes. Saccus very broad at base, tapering sharply towards apex which is upcurved, dorso-ventrally compressed. Valve rather long and narrow, apically rounded. Harpe ventro-basal, very broad at base, terminating in a very heavily sclerotised upcurved blade with a sharp point directed posterad at middle of ventral margin of

valve. Adeagus fairly long and slender, slightly sinuous, with a short downcurved basal lobe; apex unarmed, except for a small reflexed subapical hook on right side. Vesica unarmed.

NEALLOTYPE ♂: Kenya, North-Eastern Region, Wajir, XII-1967, J. H. M. Adam, in National Museum Nairobi.



Ellenbeckia monospila R. & J., ♂ genitalia

Subfamily SEMANOPHORINAE

Tribe DILOPHONOTINI

Subtribe AELLOPODES

CEPHONODES Hubner 1822

Verz. bek. Schmett: 31; type species *Sphinx hylas* Linnaeus, 1771.

1865 *Potidea* Wallengren *Kongl. Sv. Vet. Ak. Handl.* (2) 4: 17; type species *Potidea virescens* Wallengren, 1865.

Heavy bodied, medium sized diurnal insects. Antennae very heavily clubbed and hooked in both sexes. Palpi pointed, laterally angular, inner surface well scaled. Posterior margins of abdominal tergites armed with stout, broad, flat spines. Anal end truncated, decorated with tufts of long hair-like

scales which are expanded into a fan when the insect is in flight. Merum of mid and hindcoxa with strong angular projection. Internal surface of tarsi spinose. Tibiae without spines, tibial spurs normal. Wings covered with deciduous hair-like scales at emergence, most of which are soon lost, leaving the hyaline wing membrane exposed. Wing margins regular. Discoidal cell of fw narrow, less than $\frac{1}{2}$ of length of costa; radius arises near base of cell; veins 6, 7, 8, and 9 on a common stalk arising well before end of cell, 8 and 9 anastomosed at apex. Hw cell exceedingly short, $\frac{1}{3}$ of length of wing from base to end of vein 5; veins 3 and 4 on a long stalk; 6 and 7 also on a long stalk. Genitalia of males without modified scales, strongly asymmetrical. All the species are generalised mimics of *Xylocopa* bees.

There are 13 species, 8 of which are Indo-Australian, 1 Afro-Oriental and 4 from Madagascar and the Islands.

CEPHONODES HYLAS (L) 1771.

Sphinx hylas L. *Mant. Plant.* : 539 (China).

Ethiopian and Indo-Australian Region.

Ssp. hylas.

India and Ceylon to China and Japan.

Ssp. cunninghami (Walker) 1856.

Sesia cunninghami Walker *List. Lep. Ins. B.M.* 8: 85 (Australia). Northern Australia and Queensland to the island of Flores.

Ssp. virescens (Wallengren) 1865. (V; 1—XVII; 1)

Potidea virescens Wallengren *Kongl. Sv. Vet. Ak. Handl.* (2) 4: 17 (Caffraria, South Africa).

1875 *Macroglossa confinis* Boisduval *Spec. Gen. Lep. Het.* 1: 376 (Senegal).

Sexes identical. Fw. 25–30 mm. Antennae black; head and thorax bright olive green above, creamy white below. Upper surface of abdomen bright olive green at base; irregular dark red transverse band near middle, distal part greenish-yellow, anal fan black. Underside of abdomen dark red with some white at base and near apex. Fw mainly hyaline, black at costa and apex, olive green at base and inner margin. Hw mainly hyaline, but olive green at base, costa, inner margin and tornus.

♂ GENITALIA: highly asymmetrical. Right hand half of tegumen larger than left. Right lobe of uncus extremely reduced, left lobe a strong, slender sharply downcurved hook. Lobes of gnathos fused into a single process sharply pointed to the left. Saccus very broad and rounded, the left side better developed. Right valve larger than left, narrower at base, with regularly curved apex; ventral and outer margins hairy. Left valve much smaller, with outer margin concave and hairy, produced into a rounded, dorso-apical lobe covered in short spines. Aedeagus extremely slender and long, whip-like, unarmed. Cornuti absent.

♀ GENITALIA: 8th tergite very broad, posterior margin armed with a fringe of broad flat spines. Ostium leading into a very broad rounded chamber with two pointed lateral projections ending in the anterior struts. 8th sternite narrowly and irregularly sclerotised laterally, produced into a broad central post-vaginal plate. Posterior portion of ductus sclerotised, very narrow and short; anterior portion constricted, very short and membranous; bursa elongated, smooth and membranous, without signa. 7th sternite trapezoidal, with posterior margin armed with a fringe of broad flat spines. Posterior struts long, apically dilated.

RANGE AND HABITAT

Very common throughout the Ethiopian Region including Madagascar and the Seychelles. Inhabits

most habitats with the exception of extreme deserts and may often be seen feeding at flowers in full sunlight.

EAST AFRICAN RECORDS

- KENYA NM : Nakuru, Nairobi, Makueni, Isiolo, Aberdares.
 SM : Istsare, Kitale, Shimo la Tewa.
 S : Mombasa.
- UGANDA NM : Kampala.
 B : Nakawa.
 L : Mweya.
- TANZANIA NM : Amani, Ukerewe, Mtwara.
 R : Dar es Salaam, Ukiriguru.
 MC : Lindi, Songea.
 SM : Saza.
- ETHIOPIA NM : Dire Dawa, Koka.

CEPHONODES APUS (Boisduval) 1833.

Macroglossa apus Boisduval *Faune Mad. & Bourb.* : 79 (Islands of Bourbon and Mauritius.)

CEPHONODES TROCHILUS (Guérin) 1843.

Macroglossum trochilus Guérin, in Deless., *Voy. Ind. Or.* : 81 (Mauritius).

1844 *Macroglossum cynniris* Guérin *Ic. Regne Anim.* 2: 495 (Mauritius).

Known from Mauritius only.

CEPHONODES LEUCOGASTER R. & J. 1903.

Novit. zool. 9 suppl. : 469 (Antanambe, Madagascar, ♂).

Known from Madagascar only.

CEPHONODES TAMSI Griveaud 1960.

Bull. Soc. ent. France 65: 44 (Mahé).

Known from the Seychelles only and possibly extinct.

Tribe PHILAMPELINI

Subtribe NEPHELES

SPHINGONAEPIOPSIS Wallengren 1858

Oefv. Vet. Ak. Forh. 15: 138; type species *S. gracilipes* Wallengren 1860.

Pterogon nanum Boisduval 1847.

Very small species. Antennae fasciculate in the males, with last segment very short. Palpi fully scaled internally, 1st segment with an external fan of long scales which is held across the eye. Eyes ciliated; vertex crested. Tibiae spinose; tarsi spinose, very long and slender. Spines of abdominal tergites very weak. Tergites of both wings dentate, somewhat irregular. Discoidal cell of both wings long, broad, abruptly truncated. Veins 6 and 7 of hw with a common origin, but not stalked. Male genitalia without modified scales, female genitalia with signa. The ♂ armature of the type species is similar to some of

the simpler armatures found in the Asemanophorinae, whereas the armature of the other species is typically Philampeline. The female genitalia are very consistent in all the species examined. There are 7 known species, 2 of which are Palearctic, 1 Oriental and 4 Ethiopian.

SPHINGONAEPIOPSIS NANA (Boisduval) 1847. (V; 3—XIII; 8—XIV; 8)

Pterogon nanum Boisduval in Deleg. Voy. Afr. Austr. : 594 (Zululand).

1860 *Sphingonaepiopsis gracilipes* Wallengren Wien. ent. Mon. 4: 42 (Caffraria).

♂: fw. 11–13 mm. Head and body pale pinkish brown to greyish brown. Fw pale pinkish brown to greyish brown with a large darker triangular spot at costa $\frac{2}{3}$ from base, and a similar rectangular spot near middle of inner margin. A very small dark spot at inner margin before tornus. Hw uniformly brown.

♀: similar to ♂, but slightly larger (fw. 12–14 mm.); antennae much more slender.

GENITALIA: 8th tergite simple, showing a broad sculptured posterior band (sockets of spines). Inner surface of ostium produced into a pointed post-vaginal plate and 2 regular, blunt lateral plates; ante-vaginal area rounded, membranous. Colliculum narrow, tapering, directed to the left side. Ductus short; bursa rugose, elongated. Signum a very long undivided longitudinal rod armed with minute teeth. Posterior struts long and slender.

EARLY STAGES: (after D. G. Sevastopulo).

LARVA, penultimate instar: head small, dull orange brown. Body blackish brown; a black dorsal line and a subdorsal stripe, orange brown on the 2nd somite and on the anterior half of the 3rd thereafter composed of minute white dots. 3rd and 4th somites each with a transverse series of six white dots; the abdominal somites each with two subdorsal white dots, the anterior slightly nearer the subdorsal line than the posterior. Legs orange, venter and prolegs blackish brown, feet orange. Anal flap with an orange lateral stripe. Horn long, straight and erect, black with an orange basal line on each side, freely movable along axis of body.

FINAL INSTAR: very similar to above; subdorsal stripe extending to 3rd somite, white dots tinged with orange. Traces of a dull orange brown sublateral stripe, speckled with white. Spiracles orange. Horn laterally compressed, slightly constricted at base, apically blunt.

PUPA: in a loose cocoon of brown silk among litter on the surface of the soil. Yellowish olive with intersegmental sutures black on thorax, brown on abdomen. Abdomen decorated with a dark green dorsal stripe and transverse lines of small black dots. Wing cases with black lines from base to just before termen, interrupted in the discoidal cell. Eye, proboscis, antennae and legs outlined in black. Apex of abdomen black, cremaster a stout black spike.

The excreta of the larva, instead of being voided in short pellets, form "sticks" from 1 to 4 cm. in length.

FOOD PLANTS: fam. Rubiaceae.

HABITAT AND RANGE

A crepuscular species, frequently seen on flowers. Open habitats from South Africa to East Africa and Arabia in the east and to Angola and Nigeria in the west.

EAST AFRICAN RECORDS

KENYA NM : Kitale, Nakuru, Mtwapa, Mombasa.

BM : Kericho, Rabai, Suna.

ESB : Muguga.

UGANDA SM : Bombo.

BM : Entebbe, Bujungu, Jinja.

TANZANIA NM : Ukerewe, Dodoma, Kurasini, Amani.
 BM : Pemba, Dar es Salaam.
 R : Ilonga, Mlingano, Ukiriguru.
 MC : Lindi, Songea.

SPHINONGONAEPIOPSIS ANSORGEI Rothschild 1904. (V; 2—XIII; 9—XIV; 14)

Novit. zool. 11: 438 (Mikenge, Angola, ♂).

1928 *Sphingonaepiopsis ansorgei featheri* Clark *Proc. New Engl. zool. Cl.* 10: 45 (Elgon, Kenya)
 syn. nov.

♂: fw. 14–15 mm. Antennae thicker than in *S. nana*. Groundcolour of body and fw more reddish. Dark spots absent, but replaced by a broad, rather diffuse diagonal band. Hw uniform, more reddish. GENITALIA: uncus laterally compressed, sharply pointed, heavily sclerotised at apex. Gnathos almost as long, heavily sclerotised and armed with a few blunt teeth pointing upwards near apex. Saccus broad and rounded. Valve long and pointed with a slight ridge parallel to dorsal margin. Harpe ventral, short, broad and rounded. Aedeagus stout, not tapered, apically armed with a broad, reflexed plate, rather like a shepherd's crook. Vesica unarmed.

♀: very similar to *S. nana*, but postvaginal plate like a broad inverted V. Ostium rounded, but less enlarged than in *S. nana*. Colliculum shorter and wider, not directed to one side. Ductus much wider. Bursa elongated, smooth. Signum near apex of bursa, short, pear-shaped, with the sharp end directed backwards and bifid, and covered by larger teeth than in *S. nana*.

HABITAT AND RANGE

Open habitats from Natal to East Africa in the east and to Angola in the west.

EAST AFRICAN RECORDS

KENYA NM : Kitale.
 SM : Istsare.
 S : Mombasa.
 BM : Rabai.
 TANZANIA BM : Upper Ruvubu River, Urindi.
 NM : Tabora.
 ZAMBIA NM : Abercorn.

SPHINGONAEPIOPSIS OBSCURA (Mabille) 1880.

Pterogon obscurus Mabille *Ann. Soc. ent. France* (5) 9: 344 Madagascar only.

SPHINGONAEPIOPSIS WELLSI Griveaud 1959.

Faune Madag. 8: 109 (♀).

Madagascar only.

ODONTOSIDA R. & J. 1903

Novit. zool. 9 suppl. : 586; type species *Smerinthus pusillus* Felder 1874.

ODONTOSIDA PUSILLA (Felder) 1874.

Smerinthus pusillus Felder *Reise Novara, Lep. t.* 82 f.1 (Caffraria, Tsomo River).

1894 *Lophuron pulcherrimum* Rothschild *Novit. zool.* 1: 70 (Namaqualand).
 Cape, Natal and Transvaal.

ODONTOSIDA MAGNIFICA (Rothschild) 1894.

Lophuron magnificum Rothschild *Novit. zool.* 1: 71 (Namaqualand).
Cape, Natal and Rhodesia.

Odontosida erlangeri R. & J. See *Rufoclanis erlangeri* (R. & J.).

MICROSPHINX R. & J. 1903

Novit. zool. 9 suppl. : 593; type species *Pterogon pumilum* Boisduval 1847.

MICROSPHINX PUMILA (Boisduval) 1847.

Pterogon pumilum Boisduval in *Deleg. Voy. Afr. Austr.* : 594 (Zululand).
1897 *Lophuron minutum* Distant *Ann. Mag. nat. Hist.* (7) 19: 580 (Pretoria).
South Africa only.

The above three genera are rather different from the rest of the Philampelini and have some characters in common with the Ambulicini; their true systematic position is uncertain.

MACROGLOSSUM Scopoli 1777

Intr. Hist. Nat. : 414; type species *Sphinx stellatarum* Linnaeus 1758.

1822 *Psithyros* Hübner *Verz. bek. Schmett.* : 131; type species *Sphinx stellatarum* L. 1758, Europe.
1858 *Rhamphoschisma* Wallengren *Oefv. Vet. Ak. Forh.* 15: 139; type species *Psithyros trochilus* Hübner 1824, Africa.

A large genus of small to medium sized, heavy-bodied diurnal species.

Very similar to *Cephonodes*, but differs mainly in the structure of the ♂ genitalia, which are symmetrical.

Proboscis long. Eye ciliated. Palpus projecting beyond frons, laterally angular, inner surface fully scaled. Vertex slightly crested. Antennae strongly clubbed. Spines on abdominal tergites as in *Cephonodes*. 7th sternite spineless, triangular in ♀. Anal fan of long hair-scales as in *Cephonodes*, preceded by lateral tufts on the more proximal segments. Merum of midcoxa produced backwards into a sharp tooth. Tibiae spineless, except on shorter midtibial spur, which has a prominent comb of spines. Hindtibial spurs very unequal. Tarsi spinose. Paronychia and pulvilli normal. Wing margins regular. Venation of fw as in *Cephonodes*, but veins 8 and 9 not anastomosed at apex. Hw cell longer and broader than in *Cephonodes*; veins 3 and 4 arise very close to one another, 6 and 7 with a common origin, but not stalked. Male genitalia without modified scales. The sexes are very similar and cannot be separated unless dissected, except by the presence of a retinaculum in the males. Larva tapering forwards to a small head. Pupa with compressed, ventrally carinate proboscis sheath. 1 Palearctic species, 1 African, 5 from Madagascar and the Islands and 52 Oriental species.

MACROGLOSSUM TROCHILUS (Hübner) 1824.

Psithyros trochilus Hübner *Samml. Ex. Schmett.* 2: 158 (Africa).

Ssp. trochilus. (V; 4)

1856 *Macroglossa sitiene* Walker *List. Lep. Ins. B.M.* 8: 92 (Natal).

1858 *Rhamphoschisma fasciatum* Wallengren *Oefv. Vet. Ak. Handl.* 15: 139.

Sexes identical. Fw. 15–18 mm. Antennae blackish. Head and thorax pale olive above, very pale buff below. Abdomen pale olive above, orange laterally. Posterior segments darker dorsally, with a yellow

distal fringe. Anal fan very dark brown, tipped with buff. Small lateral tufts dark brown and white. Abdomen reddish brown below. Fw brown with a series of darker transverse bands. Hw orange with a very broad dark reddish brown border. Both wings brownish red below.

♀ GENITALIA: postvaginal plate very small, triangular. Ostium broad and rounded. Colliculum short and wide. Ductus very wide, with an elbowed expansion near base. Bursa ribbed, pear-shaped. Signum a long longitudinal spiny plate pointed at both ends and with a narrow median ridge.

HABITAT AND RANGE

Frequently seen at flowers in full sunshine. Very common in most habitats throughout southern and eastern Africa and in the Comoro Islands.

EAST AFRICAN RECORDS

- KENYA NM : Chyulu Hills, Kapenguria, Nairobi, Thomson's Falls, Elgon, Nakuru.
SM : Istsare, Kitale, Malindi.
S : Kaptagat, Shimba Hills, Mombasa.
- UGANDA NM : Kamengo, Mafuga (Kigezi).
SM : Bombo.
B : Kampala.
- TANZANIA NM : Ngorongoro, Kilimanjaro.
MC : Lindi, Songea.

Ssp. trochiloides (Butler) 1875.

Macroglossa trochiloides Butler *Proc. zool. Soc. Lond.* : 5 (Sierra Leone).

Sierra Leone to Angola and the upper Congo.

MACROGLOSSUM ALLUAUDI (Joannis) 1893.

Macroglossa alluaudi Joannis *Bull. Soc. ent. France.* : 52.

Seychelles only, probably extinct.

MACROGLOSSUM SOROR R. & J. 1903.

Novit. zool. 9 suppl. : 639 (Isle de France, Bourbon, ♀). Bourbon only.

MACROGLOSSUM MILVUS (Boisduval) 1833.

Macroglossa milvus, Boisduval *Faune Mad. Bourb.* : 78 (Bourbon).

1844 *Macroglossa pandora* Guérin *Icon. Regne Anim.* 2: 495 Bourbon and Mauritius.

MACROGLOSSUM AESALON (Mabille) 1879.

Macroglossa aesalon Mabille *Ann. Soc. ent. France.* : 299 (South-east Madagascar).

Madagascar, Mauritius and Comoro Islands.

MACROGOLOSSUM PACHYCERUS R. & J. 1903.

Novit. zool. 9 suppl. : 630 (Tamatave, Madagascar, ♂). Madagascar only.

LEUCOSTROPHUS R. & J. 1903

Novit. zool. 9 suppl. : 671; type species *Macroglossa commasiae* Walker 1856.

Differs from *Macroglossum* in the terminal segment of the antenna being short, in vein 5 of fw arising

below middle of discoidal cell and in veins 3 and 4 being stalked. Tarsi and tibial spurs shorter than in *Macroglossum*. Male genitalia without modified scales.

Two African species, both diurnal and very similar to *Macroglossum* in appearance and behaviour.

LEUCOSTROPHUS COMMASIAE (Walker) 1856.

Macroglossa commasiae Walker *List. Lep. Ins. B.M.* 8: 90 (Sierra Leone).

West Africa to Gabon and to Kasai (s-w Congo).

LEUCOSTROPHUS HIRUNDO (Gerstaecker) 1871. (V; 5—XIV; 3—XV; 12)

Macroglossa hirundo Gerstaecker *Arch. Naturgesch.* 37: 360 (Mombasa).

Sexes identical. Fw. 16–20 mm. Antennae blackish. Head, thorax and base of abdomen dark grey. Fw dark grey with darker transverse lines and bands. A prominent dark spot near apex. Hw uniform dark grey. A conspicuous irregular white band across abdomen. Anal fan black, lateral tufts black and white.

♀ GENITALIA: very similar to *Macroglossum trochilus*, but colliculum shorter, ductus much narrower and longer, signum shorter.

HABITAT AND RANGE

Feeds on flowers in full sunlight. Very common in most habitats throughout southern and eastern Africa.

EAST AFRICAN RECORDS

KENYA NM : Nairobi, Embu, Nyeri, Nakuru.

S : Mombasa.

TANZANIA NM : Kilimanjaro, Amani.

R : Dar es Salaam, Ilonga, Mbeya, Mlingano.

ETHIOPIA NM : Dire Dawa.

GM : Afgoi.

ATEMNORA R. & J. 1903

Novit. zool. 9 suppl. : 615; type species *Macroglossa westermanni* Boisduval 1875.

A single species from Africa, linking *Macroglossum* and allied genera to *Temnora*. Crepuscular and nocturnal. Palpi projecting beyond frons, laterally angular, densely scaled internally. Antennae more slender than in two previous genera, with short bundles of cilia in the ♂, sharply hooked, apical segment long. Process at base of proboscis (pilifer) very large. Eyes not ciliated. Abdominal spines large and numerous. Anal fan much narrower than in previous genera; lateral tufts very much smaller. Merum of midcoxa with angular process. Tibiae unarmed, tarsi densely spinose. Tibial spurs normal. Wing margins regular, entire. Vein 5 of fw arises from middle of discoidal cell, 3 and 4 have separate origins. Hw cell very narrow, short; veins 3 and 4, and 5 and 6 with common origins, but not stalked. Male genitalia with large, deciduous modified scales, as in succeeding genera.

ATEMNORA WESTERMANNI (Boisduval) 1875. (V; 6)

Macroglossa westermanni Boisduval *Spec. Gen. Lep. Het.* 1: 355 (Guinea).

1879 *Macroglossa falkensteini* Dewitz *Mitt. munch. ent. Ver.* 3: 23 (Chinchoxo, Angola).

♂: fw. 23–27 mm. Antennae blackish. Head and thorax dark olive, brighter in fresh specimens, with a dark dorsal line. Abdomen mainly dark orange brown dorsally, bright orange at base and laterally.

Anal tuft very dark orange brown, tipped with pale buff. Basal third of fw dark olive, fading to dark orange brown in old specimens. Remainder of fw violet-brown with two irregular, rather diffuse dark brown bands well separated at the costa, but meeting before tornus, the inner much more curved than the outer. Antemedial straight, perpendicular to axis of wing, separating olive basal area from paler distal area. Two faint, narrow dark wavy oblique lines from inner margin to inner dark band. Cilia dark brown. Hw uniform slightly olivaceous very dark brown, with pale orange cilia and inner margin.

♀: similar to ♂, but antennae more slender, anal fan much narrower. Fw 29–31 mm.

GENITALIA: bursa elongated, ribbed and minutely pitted. A small transverse spiny signum near base and a very small rounded signum near apex, surrounded by an area of thickened membrane.

EARLY STAGES: (after D. G. Sevastopulo).

MATURE LARVA: thoracic segments tapering sharply to a small round green head. Body rather stout, green; a fine blue-black dorsal line entire on somites 2 to 4, interrupted at the rear of each somite, from 5 to 11. Dorsal area sprinkled with white dots which form rough oblique dorso-lateral stripes, the one on 7–8 terminating laterally in four large creamy white dots. A dark olive green oblique stripe edged below with whitish green from the subdorsal area of the 10th somite to the base of the horn. Horn stout, downcurved, dull slate blue, with 2 large cream lateral spots at base. Spiracles very dark blue. Legs pink, venter and prolegs green.

PUPA: in a leaf with edges spun together on the surface of the soil. Pinkish minutely speckled with black and with very fine rufous streaks radiating from rufous specks. A faint greyish dorsal line and a subdorsal series of greyish dots. A series of lateral subtriangular olive suffusions on abdomen. Venter suffused with olive, with a reddish median line becoming black from 7th abdominal sternite to base of cremaster. Wing cases, leg and antenna sheaths very pale pinkish olive with fine irregular olive streaks giving the appearance of a dead leaf, the costal margin dark brown and producing the illusion of a mid-rib. The outer margin of the wing case with a whitish submarginal and a red-brown marginal line. Head with a dorsal, roughly pear-shaped dark chocolate mark edged with whitish, the dorsal line originating from the tip of this spot.

Pupa with eyes angulate, broad across the 3rd abdominal somite, tapering rapidly after the 8th. Cremaster narrowly spade-shaped, with a few apical hooked spines which are fixed in the silk of the very slight cocoon.

FOOD PLANT: *Strychnos* sp. (Loganiaceae), according to Pinhey, 1962.

HABITAT AND RANGE

Wooded habitats throughout the Ethiopian Region including Madagascar, but excluding the extreme south of the continent.

EAST AFRICAN RECORDS

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|----------|--|
| KENYA | NM : Aberdares, Kiganjo, Nakuru. |
| | SM : Kisumu, Kakamega. |
| | S : Mombasa. |
| | BM : Nairobi, Kibwezi, Hoey's Bridge. |
| UGANDA | NM : Kayonza, Kamengo, Budongo. |
| | SM : Ruwenzori, Kalinzu. |
| | BM : Kampala, Entebbe, Jinja, Katera. |
| | L : Mweya. |
| | ESB : Kidepo. |
| TANZANIA | NM : Ukerewe, Amani. |
| | SM : Mwanza. |
| | R : Ilonga, Mlingano, Tabora, Ukiriguru. |
| | BM : Pemba. |

ANTINEPHELE Holland 1889

Trans. Amer. ent. Soc. **16**: 68; type species *Nephele anomala* Butler 1882.

Palpi short, laterally rounded, with a small bare patch on inner surface. Eye ciliated. Antennae long, very slender, more so in ♀; apical hook gradual and long. Abdomen broad and flattened. Abdominal spines long and weak, anal tuft long and narrow. Merum of hindcoxa without keel. Tibiae unarmed, hindtibial spurs very unequal. Mid and hindcoxa with comb of long spines. Wing margins entire, or slightly dentate. Venation of fw as in *Atemnora*. Hw cell narrower and longer, sharply angled distad at origin of vein 4; veins 6 and 7 on a common stalk. Male genitalia of the same pattern as in the following genera, with a few large modified scales. Cornuti of vesica well developed. Females with large signa. Medium sized crepuscular insects seldom attracted to light. More than half the specimens taken at flowers are females. The sexes are identical and can only be separated by the presence of a retinaculum in the males, and by the antennae.

ANTINEPHELE ANOMALA (Butler) 1882.

Nephele anomala Butler *Ann. Mag. nat. Hist.* (5) **10**: 434 (Aburi, Gold Coast, ♂).

Ssp. anomala.

Sierra Leone to Nigeria.

Ssp. camerunensis Clark 1937. (V, 8)

Proc. New Engl. zool. Cl. **16**: 34 (Cameroon).

Sexes identical. fw 18-21 mm. Head and thorax slightly ochreous brown to chocolate-brown with a narrow pale green dorsal line. Abdomen darker brown. Fw ochreous brown to chocolate. A pale green line from inner margin near base to costa before apex. A broader, straight green line from tornus to costa, edged proximally with white and distally with blackish. A fine zigzag white line at apex. Hw uniform dark brown.

♀ GENITALIA: vaginal plate subtriangular with a large reniform central opening for ostium. Colliculum fairly long and narrow. Ductus short. Bursa small, rounded smooth. A large heart-shaped signum with few large tubercles near base, apex directed towards apex of bursa. Signum followed distad by a leaf-shaped area of thickened membrane covered in minute papillae and with a median depression where the membrane is thinner.

HABITAT AND RANGE

Forests from Cameroon to Uganda and W. Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kaimosi, Kakamega.

UGANDA NM : Nagunga, Entebbe, Kamengo.

SM : Budongo Forest.

BM : Mabira Forest, Kampala.

K : Kawanda.

ANTINEPHELE MARCIDA Holland 1893. (V; 9—XIV; 6,11)

Ent. News **4**: 340 (Benita, Gabon, ♂).

Sexes similar. Fw. 23-26 mm. Very similar to previous species. Groundcolour of fw and body paler, orange-brown, never chocolate. Green bands of fw darker, broader, outer band more oblique,

reaching apex nearer base. A dark terminal spot below apex surrounded by a small whitish apical area. Hw uniform dark brown.

♂ GENITALIA: uncus slender, subapically dilated, very much longer than gnathos. Valve upcurved, modified scales long and narrow, in 2 series. Harpe long, slender and straight. Saccus short and broad. Aedeagus apically unarmed. Vesica armed with a long narrow blade-like structure terminating in a sharp point and with a series of teeth along the distal half of one side.

♀ GENITALIA: similar to *A. anomala*, but anterior part of vaginal plate lacking. Colliculum shorter and wider. Bursa as in *A. anomala*; signum similar, but lobes less pronounced, apex less acute, thickened area better defined at margins, with median depression narrower, forming a groove.

HABITAT AND RANGE

Forests from the Cameroons to Uganda and West Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kakamega.
UGANDA NM : Budongo Forest, Kamengo, Entebbe.
BM : Kampala, Jinja.
K : Kawanda, Nagunga.

ANTINEPHELE ACHLORA Holland 1892. (V; 7)

Ent. New 4: 340 (Benita, Gabon).

Sexes similar. Fw. 19–23 mm. Body and wings very dark brown. Fw. a pale band composed of 3 irregular more or less parallel narrow lines set close together, from inner margin near base to costa at $\frac{1}{3}$ from base; a small pale stigma, a broad pale band from costa at $\frac{2}{3}$ from base to tornus, and a narrower pale band from apex to middle of outer band; pale markings may be light green or pinkish in fresh specimens; when green they usually fade to pinkish with age. Hw uniform dark brown.

♀ GENITALIA: vaginal plate not clearly defined. Edges of ostium thickened and recurved. Colliculum directed to the left. Bursa slightly ribbed and pitted near base. Signum heart-shaped as in previous species, with elongated thickened area well defined, but irregular at the edges.

HABITAT AND RANGE

Forests from Sierra Leone to Uganda and west Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kakamega.
UGANDA NM : Kamengo, Nagunga, Kampala, Entebbe, Budongo Forest.
BM : Mpumu, Jinja.
K : Kawanda.

ANTINEPHELE LUNULATA R. & J. 1903. (V; 10)

Novit. zool. 9 suppl. : 598 (Mikindani, Tanganyika, ♂).

1926 *Antinephele weberi* Clark *Proc. New Engl. zool. Cl.* 9: 53.

Sexes similar. Fw. 18–21 mm. Body and fw dull orange-clay coloured to dull ochreous olive. Fw with blunt apex and slight emargination below apex; variously mottled and lined with brown; an ill-defined paler area nearer apex, and a small prominent dark apical spot. Hw uniformly dark brown.

♀ GENITALIA: 8th tergite with a very broad, shallow mesial sinus at posterior margin. Vaginal plate consisting of a very narrow sclerotised transverse plate immediately behind dorsum. 8th sternite with one deep, long oblique cavity on either side of ostium. Ostium wide. Colliculum very narrow,

with a very deep emargination at ostium and laterally compressed and dilated at base of ductus. Ductus moderately long and wide, membranous. Bursa very small, rounded. Signum heart-shaped, with a much prolonged, very acute apex.

RANGE AND HABITAT

Forests and wooded habitats from Sierra Leone to the Cameroons, Congo, Zambia, Rhodesia and Tanzania.

EAST AFRICAN RECORDS

TANZANIA BM : Kilosa, Mikindani (Type).

ANTINEPHELE EFULANI Clark 1926.

Proc. New Engl. zool. Cl. 9: 53. Cameroons.

ANTINEPHELE MUSCOSA Holland 1892.

Trans. Amer. ent. Soc. 16: 70 (Benita, Gabon, ♀).

Similar to *A. lunulata*, but may be distinguished by the straighter termen and in fresh specimens by the bright blue-green colour of the abdomen.

RANGE: Ghana to Gabon. One specimen from Rhodesia may belong here according to Pinhey.

ANTINEPHELE MACULIFERA Holland 1889. (V; 11)

Trans. Amer. ent. Soc. 16: 69 (Benita, Gabon, ♂).

Sexes alike. Fw. 22–24 mm. Head and tegulae very dark brown. Posterior portion of thorax and base of abdomen pale brown with a prominent dark brown dorsal spot. Rest of abdomen above bright orange, shading to light brown on dorsum. Head and body whitish below. Fw pale pinkish brown mottled with olive and with pinkish, with a number of faint, irregular dark lines. A prominent triangular dark brown spot at base and two or more conspicuous dark brown spots in distal part of wing. Hw uniformly dark brown.

♂ GENITALIA: uncus strongly compressed laterally, with a sharply downcurved, heavily sclerotised terminal hook. Gnathos shorter, slender, not apically sclerotised. Saccus short and rounded. Valve fairly rounded, with a number of stiff bristles near base. Modified scales narrow and long, 7–8 in number, *not* set in a straight line. Harpe very short, upcurved. Aedeagus with a short simple terminal spine. Vesica with a short apical spine.

♀ GENITALIA: vaginal plate ill-defined. Colliculum short and wide, slightly pointed to the left. Ductus saccate at base, fairly long and slender. Bursa elongated, pitted but not ribbed. Signum unlike previous species, very long and slender, shaped like a blade of grass, without spines or papillae.

EARLY STAGES: unknown.

RANGE AND HABITAT

Sierra Leone to the Congo and Uganda. Also in Malawi, Tanzania and Rhodesia. Forests and wooded habitats.

EAST AFRICAN RECORDS

UGANDA NM : Entebbe, Kamengo.

SM : Budongo forest.

BM : Elgon.

K : Kawanda.

TANZANIA R : Ilonga.

TEMNORA Walker 1856

- List. Lep. Ins. B.M.* 8: 114; type species *Temnora natalis* Walker 1856.
 1856 *Diodosida* Walker *l.c.* : 163; type species *D. murina* Walker 1856.
 1847 *Lophuron* Boisduval in Deleg. *Voy. Afr. Austr.* : 549; type species ? *Sphinx pylas* Cramer 1779.
 1875 *Ocyton* Boisduval *Spec. gen. Lep. Het.* 1: 303; type species *Ocyton tyrrius* Boisduval 1875=
Temnora murina (Walker) 1856.
 1875 *Aspledon* Boisduval *l.c.* 1: 305; type species *Aspledon dorus* Boisduval 1875=*Lophura zantus*
 Herrich-Schaffer 1854.
 1889 *Eulophura* Holland *Trans. Amer. ent. Soc.* 16: 58; type species *Eulophura atrofasciata* Holland
 1889.

A purely Ethiopian genus of small to medium-sized species. Head crested; eyes with short cilia. Palpi projecting beyond frons, fully scaled internally, or with a very small bare patch on 2nd joint. Antennae slightly clubbed, hooked, last segment long; cilia of antennae short in male. Abdomen with slender elongated spines. Anal tuft of ♂ truncated, of ♀ very thin. The males of most species have 2 tufts of fine hairs on first abdominal segment below which are often red or pink and are only visible when extruded. Tibiae unarmed, spurs unarmed, 2 pairs on hindtibia. Tarsi spinose, mid-tarsus with a prominent posterior comb. Wing margins entire, or with a slight emargination below apex, or irregularly dentate. Costa of hw lobed in some species. Lower angle of discoidal cell somewhat produced, origin of veins 3 and 4 well separated. Lower angle of discoidal cell strongly produced in hw, the cubitus being much longer than the radius; veins 6 and 7 arising contiguously, or on a short stalk. Male genitalia of the usual pattern with undivided uncus, well developed undivided gnathos, short broad saccus, regular single lobed valve, short simple harpe. A few (4–6) large modified scales usually in a straight line, sometimes set in a slight ridge parallel to the dorsal margin of the valve. These scales are highly deciduous and easily lost during dissection; sometimes they appear to have been lost in life, possibly during copulation. Aedeagus usually with a latero-apical spiny hook or plate. Vesica armed with one or more stout spines, or with numerous spicules of varying length. The spicules are sometimes lost in the bursa of the female during copulation, and the vesica appears unarmed when dissected.

The larvae usually have the thoracic segments tapering towards a rather small round head. Pupae with proboscis case protruding a little beyond head, but not keeled below. There are about 45 species, most of which appear to feed on flowers. The females appear to be crepuscular and are seldom attracted to light, although often caught on flowers; the males fly later and come frequently to MV light.

Temnora is a very compact genus and cannot be rationally subdivided, nor can the structure of these insects be used as a guide to a convincing phylogenetic sequence. The order followed here has been based largely on wing shape and general appearance.

TEMNORA STEVENSI R. & J. 1903.

Novit. zool. 9 suppl. : 571 (Sierra Leone, ♂).
 Forests from Sierra Leone to the southern Congo.

TEMNORA SWYNNERTONI Stevenson 1938.

Trans. Rhod. sci. Assoc. 36 (1): 146 (Mount Selinda, S. Rhodesia).
 Apparently confined to the eastern border of Rhodesia.

TEMNORA FUMOSA (Walker) 1856.

Zonilia fumosa Walker *List. Lep. Ins. B.M.* 8: 193 (Congo, ♂).

Ssp. fumosa. (V; 12)

1894 *Diodosida fallax* Rothschild *Novit. zool.* 1: 72 (nomen nudum).

Sexes alike. Fw. 22–28 mm. Margin of fw entire, with a small emargination below apex. Fw olive brown to dark olive brown, with several oblique darker bands, which are less visible in dark specimens. Apical area somewhat paler. A greyish mark at costa $\frac{3}{4}$ from base. Hw darker brown, unmarked. Abdominal tufts of ♂ fairly bright red.

♀ GENITALIA: postvaginal plate linguiform. Colliculum straight, wide and fairly long. Ductus very long, minutely pitted. Bursa pleated, sock-shaped. Signum a long narrow longitudinal plate pointed at both ends, densely covered by minute teeth.

EARLY STAGES: (after D. G. Sevastopulo).

LARVA, LAST INSTAR: head green, rounded. Body pale green, speckled along the secondary segmental divisions with white. A subdorsal white line edged above with darker green. The ground colour paler below the subdorsal area. Legs pale green, ringed with black. Prolegs and venter pale green. Horn stout, slightly downcurved, greenish-blue with minute black tubercles. Spiracles white with the central slit black. Becomes suffused with purple when preparing to pupate.

PUPA: in a very slight cocoon among litter on the surface of the soil. Olive minutely speckled with black. A black dorsal line. Venter with the median area whitish speckled with black and with a double black central line. Spiracles black set in whitish spots. Cremaster triangular, minutely bifid at apex. Metathorax and 1st abdominal segment with a subdorsal depression above wing case. Except for the wing cases, clothed in a short dark pubescence.

HABITAT AND RANGE

Most habitats throughout Africa south of the Sahara. One of the commonest species.

EAST AFRICAN RECORDS

KENYA NM : Aberdares, Thomson's Falls.

SM : Kitale.

S : Mombasa.

UGANDA NM : Entebbe, Kamengo, Masaka.

SM : Budongo, Katera.

L : Mweya.

TANZANIA NM : Amani, Ukerewe.

R : Arusha, Dar es Salaam, Ilonga, Mbeya, Mlingano, Tabora, Ukiriguru.

MC : Lindi, Songea.

Ssp. peckoveri (Butler) 1877.

Diodosida peckoveri Butler *Trans. zool. Soc. Lond.* 9: 637 (Madagascar).

Madagascar, Comoros, Seychelles.

TEMNORA LEIGHI R. & J. 1915.

Novit. zool. 22: 287.

Comoro Islands.

TEMNORA ALBILINEA Rothschild 1904. (V; 13)

Novit. zool. 11: 436 (Angola, ♂).

1913 *Temnora albilinea obscurascens* Strand *Arch. Naturgesch.* 79 A6: 110 (Ujiji, Tanganyika).

Sexes alike. Fw. 25–27 mm. Body and both wings very dark olive when fresh, fading to dark orange-

brown. Margins entire, apex of fw acuminate, and slightly falcate, fw narrow and long. Fw with a very fine curved whitish line from tornus to costa; apical area paler. Abdominal tufts of ♂ red. The type is very faded and *T. A. obscurascens* Strand was merely a fresh specimen.

♂ GENITALIA: uncus stout and rather short; gnathos shorter, apically dentate. Harpe short, slender, smooth, sharply upcurved. Aedeagus armed with an apical dentate plate on the left side and with a sharp smooth hook-like process on the right. Vesica armed with numerous long spicules.

♀ GENITALIA: 8th tergite with a median tongue-like process. Post-vaginal plate longitudinal, long and narrow, apically curved. Ante-vaginal plate very broad, consisting of 2 wide, curved lateral lobes separated by a wide, shallow, mesial sinus. Ostium very wide. Ductus completely membranous, wide and long. Bursa pleated, apically pitted, very long, not much wider than ductus. Signa absent.

EARLY STAGES: unknown.

HABITAT AND RANGE

Forests from the Cameroons to Angola, the Congo, Uganda, Kenya and Tanzania.

EAST AFRICAN RECORDS

KENYA NM : Kakamega.

UGANDA NM : Kamengo, Mweya.

SM : Katera.

TANZANIA NM : Amani.

MB : Ujiji, (Type of *obscurascens* Strand).

TEMNORA ARGYROPEZA (Mabille) 1879.

Chaerocampa argyropeza Mabille *Bull. Soc. philom.* (7) 3: 135 (Nossi-bé, Madagascar, ♂).

1879 *Ocyton tyrrhus* id. *Ann. Soc. ent. France* : 299. Madagascar only.

TEMNORA MARGINATA (Walker) 1856.

Darapsa marginata Walker *List. Lep. Ins. B.M.* 8: 185 (Natal, ♂).

1894 *Diodosida brunnea* Rothschild *Novit. zool.* 1: 72 (Namaqualand).

Ssp. *marginata*. (V; 14)

Sexes alike. Fw. 21–23 mm. Apex of fw slightly acuminate, outer margin incurved below apex and above tornus, convex at middle. Head, body and fw dark greyish cinnamon. A broad dark band proximally well defined, distally diffuse from tornus to costa, much broader at costa. Basal and apical areas with indistinct narrow wavy lines, termen dark brown. Hw dark rufous cinnamon brown, with a dark brown border and whitish internervular cilia. Underside paler, more rufous, with basal area of fw blackish. Foretibiae silvery white. Abdominal tufts of ♂ paler than body.

♀ GENITALIA: vaginal plates ill-defined. Ostium wide, with a small projection at each side. Colliculum tapering, pointing to the left. Ductus very long and narrow. Bursa pear-shaped, smooth. Signum a long, straight, narrow, sparsely tuberculate plate not terminally pointed.

HABITAT AND RANGE

Savanna and woodland in eastern and southern Africa.

EAST AFRICAN RECORDS

KENYA NM : Kibwezi, Shimba Hills, Gazi, Sokoke forest.

TANZANIA NM : Mlingano.

R : Dar es Salaam, Ukiriguru, Ilonga.

Ssp. *comorana* R. & J. 1903.

Novit. zool. 9 suppl. : 573 (Grande Comore, ♂). Comoro Islands only.

TEMNORA BURDONI sp. nov. (X; 6—XIV; 1)

Closely allied to *T. marginata* Walker, but differs in its smaller size, longer and thicker antennae, reddish colour of hw above and of base of fw below and in the structure of the male genitalia.

MALE

ANTENNAE: long, thick, strongly clubbed, liver brown, but much paler at apex and below; pectinations rather long.

HEAD: frons and vertex liver brown, eyes with prominent liver brown cilia. Palpi liver brown above, pecan brown below.

THORAX AND ABDOMEN: liver brown above, pecan brown below. Abdominal tufts pecan brown.

LEGS: foretibiae and tarsi white; forefemora and 2nd pair of legs pecan brown, but somewhat paler than abdomen; 3rd pair missing.

UPPERSIDE

FOREWING: apex slightly acuminate; termen incurved from below apex to end of vein 3; tornus slightly produced; length of fw 22 mm. Ground colour liver brown with a slight violet gloss. Basal, subbasal and antemedial vandyke brown, very faint, A broad, diffuse vandyke brown fascia from middle of costa to tornus, interrupting faint, double postmedial. Apical third of wing slightly paler than basal area. Submarginal rather faint, crenulate, thicker and better defined near costa. Marginal area vandyke brown from immediately below apex to end of vein 3. Two faint paler spots with diffuse edges in area 2, just inside diagonal dark fascia. Cilia vandyke brown.

HINDWING: margins slightly crenulate, tornus slightly produced; brick red with a narrow dark brown margin. Cilia very pale buff except at ends of veins, where they are dark brown.

UNDERSIDE

FOREWING: basal $\frac{3}{4}$ uniform brick red, paler at costa and inner margin; apical and marginal areas paler (pecan brown); three short parallel blackish crenulate transverse lines, not reaching inner margin; the distal one from costa at $\frac{3}{4}$ from base, very short; the two distal ones progressively longer. A complete, irregular, faint blackish submarginal line at an angle to the three short lines.

HINDWING: pecan brown speckled with darker scales, three faint curved, parallel crenulate transverse lines from costa to inner margin. A complete dark terminal band, broader at apex, narrower at tornus.

GENITALIA: of the usual Semanophorine pattern common to all members of the genus. Uncus slender, downcurved, apically smooth and bulbous. Gnathos slightly shorter, narrower than in *T. marginata*, terminating in a curved vertical dentate ridge. Saccus broad, short and rounded. Valve of the usual pattern, apically pointed. Modified scales lost, but three sockets clearly visible on outer surface of valve, near dorsal margin. Harpe ventral, almost reaching middle of valve margin, smooth, slender, apically pointed, slightly upcurved. Aedeagus fairly long, straight, tapering from base to apex. Vesica armed ventro-basally with a broad spinose plate which is attached to the ventral surface of the aedeagus before the apex and folded into the aedeagus when the vesica is not extruded.

FEMALE: unknown.

HOLOTYPE ♂: Mufindi, Iringa, Tanganyika, II-1960, P. Burdon, to be deposited in the British Museum (Natural History).

This species is known from the Holotype only and is dedicated to its discoverer, Dr. P. Burdon.

TEMNORA FUNEBRIS (Holland) 1893. (V; 20)*Diodosida funebris* Holland *Ent. News* 4: 340 (Benita, Gabon).1938 *Polyptychus vumbui* Stevenson *Trans. Rhod. sci. Assoc.* 36: 141 (Vumba, Rhodesia, ♀).

Sexes alike. Fw 23–29 mm. Very similar to *T. marginata*, but larger, wings longer and narrower, termen of fw much more oblique, tornus less prominent. Foretibia white, abdominal tufts long, cinnamon brown, paler than abdomen. Anal tuft longer and more slender than in *T. marginata*.

♀ **GENITALIA**: postvaginal plate tongue-shaped, small. Antevaginal plate a rough, wide crescent with blunt apices, transversely rugose. Ductus entirely membranous, very long, minutely pitted near base. Bursa long and narrow, pleated. Signa absent.

EARLY STAGES: unknown.

HABITAT AND RANGE

Forests from West Africa to the Congo, Uganda, Tanzania and Rhodesia.

EAST AFRICAN RECORDS

UGANDA NM : Kayonza (Kigezi), Katera.

BM : Bwamba.

TANZANIA NM : Mufindi, Mbimba (Mbeya).

MC : Lindi, Songea.

TEMNORA ANGULOSA R. & J. 1906.

Novit. zool. 13: 182 (Congo).

1951 *Temnora bicolor* Gehlen *Rev. Zool. Bot. afr.* 44: 252. Nigeria to the Congo.

TEMNORA ATROFASCIATA (Holland) 1889. (V; 15,16)

Eulophura atrofasciata Holland *Trans. Amer. ent. Soc.* 16: 59 (Benita, Gabon, ♂).

1894 *Lophuron umbrinum* Rothschild *Iris* 7: 29 (Sierra Leone, ♀).

♂: fw. 22 m., fairly broad; apex produced, but rather blunt; termen strongly emarginate between apex and vein 5, and slightly incurved before tornus. Tornus acute, somewhat produced. Body and fw brown. A broad dark brown band from tornus to costa, straight and well defined proximally, irregular and strongly indented distally; apical area paler than basal area. Hw very dark brown, slightly paler at costa. Abdominal tufts buff.

♀: fw. 24 mm., broader than in ♂, with much more regularly rounded margins. Ground colour darker, wide dark band much less contrasting. Dark band merging distally with paler apical area.

GENITALIA: postvaginal plate roughly rounded, median area densely covered with minute tubercles. Colliculum fairly long and wide, curved to the left. Ductus long and narrow, densely pitted. Bursa oblong, smooth. A minute basal signum consisting of a few contiguous but irregularly arranged large tubercles subrounded by an area closely studded with minute papillae. A much larger rectangular, transverse subapical signum armed with stout blunt spines and similarly surrounded by small papillae.

EARLY STAGES: unknown.

RANGE AND HABITAT

Forests from W. Africa to the Congo and Uganda, with an apparently isolated population in the Usambara Mountains.

EAST AFRICAN RECORDS

UGANDA BM : Kamengo.

TANZANIA BM : Amani.

TEMNORA LIVIDA (Holland) 1889. (V; 19)

Chaerocampa livida Holland *Trans. Amer. ent. Soc.* **16**: 63 (Benita, Gabon, ♀).

The largest species of the genus. Sexes alike. Fw. 29–34 mm. Head and body grey, with a dark median line from vertex to base of abdomen. Fw grey with numerous indistinct crenulate dark lines. A darker area at costa, near apex and a squarish dark spot at inner margin before tornus. A large, diffuse darker area beyond middle of costa. Apex of fw acute, slightly falcate, termen regular and entire. Hw uniformly dark blackish grey with a pale grey spot at tornus. Abdominal tufts light red.

♀ GENITALIA: post-vaginal plate a narrow sclerotised strip. Ante-vaginal plate a wide, smooth flap. Colliculum wide and extremely short. Ductus slender and very long. Bursa large and rounded, pitted and slightly pleated. Signum a long narrow transverse plate across base of bursa, armed with strong spines.

RANGE AND HABITAT

Forests from Gambia to the Congo and Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Katera.

B : Kabanyolo, (Kampala).

TEMNORA REUTLINGERI (Holland) 1889.

Ocyton reutlingeri Holland *Trans. Amer. ent. Soc.* **16**: 61 (Benita, Gabon, ♂).
Nigeria to Gabon.

TEMNORA GRISEATA R. & J. 1903. (V; 17,18)

Novit. zool. **9** suppl. : 568 (Tvoko, Congo, ♀; type lost).

1912 *Temnora cinereofusca* Strand (*Arch. Naturgesch.* **78** A: 155 (Luluabourg, Kasai, ♀).

1916 *Temnora griseata* R. & J. *Novit. zool.* **23**: 119 (Nigeria, ♂).

1916 *Temnora oxyptera* R. & J. *Novit. zool.* **23**: 120 (Chintechi, Nyasaland, ♂ syn. nov.).

1935 *Temnora reutlingeri acra* Gehlen *Ent. Z.* **49**: 11 (Manow, S. Tanganyika, ♂ and ♀).

The status of this species is in some doubt owing to the fact that the type, which was a ♀, and should be in the Musée Royal de l'Afrique Centrale at Tervuren, Belgium, has been lost and owing to the instability of the diagonal band of the forewing.

It is possible that *T. griseata* is a synonym of *T. reutlingeri* Holland, the type of which (a ♂) is in the Carnegie Museum at Pittsburgh and therefore inaccessible. According to the figures of the types of the two species in Rothschild and Jordan's Monograph (*op. cit.*, Plate VII, figs. 9 and 16), *T. griseata* is much larger and lacks the diagonal band, whereas *T. reutlingeri*, which is a good deal smaller, has a well developed diagonal band. There is a ♀ from Calabar, Nigeria, in the National Museum which agrees very well with the figure of *T. reutlingeri* and which has genitalia which differ from those of Uganda ♀♀ provisionally placed in *T. griseata*. Unfortunately the bursa and ostium of *griseata* which carry good diagnostic characters, were not figured in the original description and it is consequently impossible to know whether it was the ♀ of *reutlingeri*, or whether it was indeed a good species. There is also some doubt about the Neallotype ♂ of *griseata*, described in 1916, as it may have been wrongly associated with the original ♀. The possibilities are therefore as follows:—

- (1) The types of *griseata* and *reutlingeri* belong to 2 distinct species and the Calabar specimen in the National Museum is the ♀ of *reutlingeri* and the Neallotype ♂ of 1916 was correctly associated with the ♀ of *griseata*.
- (2) *Griseata* 1903 is the ♀ of *reutlingeri*, and the Calabar ♀ belongs to an undescribed species. In this

case, if the ♂ *griseata* of 1916 agrees with the type of *reutlingeri* (also a ♂), the name *griseata* should sink into synonymy. If the ♂ *griseata* does not agree with *reutlingeri*, the name *cinereofusca* Strand 1912 is the earliest name available for it. The type of *cinereofusca* which is in the Berlin Museum has been examined and agrees very well with the Neollotype ♂ of *griseata*, with the Holotype ♂ of *T. oxyptera* R. & J. 1916 and with *T. reutlingeri acra* Gehlen 1935.

As stated earlier, this confusion is partly due to the instability of the diagonal bar of the fw. which is present in the type of *reutlingeri*, in the Calabar ♀ (but not so distinct), in the type of *cinereofusca*, and in one of the two ♂♂ figured by Gehlen as *acra*, but less distinct in the other; it is completely absent in the Holotype and Neallotype of *griseata* and in the Holotype of *oxyptera*; a B.M. ♂ specimen from Tukuyu, S. Tanzania, near the type locality of *acra*, has a very faint bar, and a series of 14 ♂♂ in the National Museum from Uganda, the Congo and Gabon show every gradation from a complete absence of the bar to a very well marked one; 2 ♀♀ from Uganda in the National Museum have a well developed bar. Until more material and information become available, it will be best to treat *reutlingeri* and *griseata* as distinct and to apply the latter name to the East African populations. The following description is based on the ♂ from Tukuyu in the British Museum.

♂: fw. 25 mm. Antennae strongly clubbed and sharply hooked, Vertex and pronotum with a prominent crest. Head and body grey. Fw with acute, slightly falcate apex, evenly curved, entire termen and rather blunt tornus. Fw grey with faint indications of a straight dark bar from middle of costa to tornus. A large dark grey spot at costa, immediately before apex. Several very faint irregular dark transverse lines marked by minute dark dots on the veins. Cilia whitish except near apex and at the veins. Hw uniformly dark greyish-brown; cilia whitish, except at the veins. Abdominal tufts very light red.

GENITALIA: uncus downcurved, of medium length and thickness. Gnathos very short and broad, apically bisinuate. Valve apically pointed, with a prominent ridge parallel to dorsal margin, to which five large modified scales are attached. Harpe rather short, smooth and slender, sharply upcurved, with blunt apex and slightly incrassate before apex. Aedeagus straight, tapering gradually from base; a broad spinose plate proximally attached to ventral surface before apex, distally protruding beyond apex and attached to base of vesica. Vesica armed with a single sharp apical spine.

♀ (based on R. & J's. description and figure, *Novit. zool. 9 suppl.* : 568): Fw. 27 mm. Similar to ♂, but broader winged, apex of fw not so acute, diagonal bar lacking.

GENITALIA: not figured, specimen lost.

2 ♂♂ in the National Museum from the Congo and Gabon have a more slender, longer harpe than the Tukuyu ♂. The diagonal bar is present in the Gabon specimen, absent in the Congo specimen.

RANGE AND HABITAT

Forests from Nigeria to the southern Congo, southern Tanzania and Malawi.

EAST AFRICAN RECORDS

TANZANIA BM : Tukuyu.
MB : Manow.
NM : Mbimba.

The Uganda population of this species, represented by 12 ♂♂ and 2 ♀♀ in the National Museum and by 6 ♂♂ and several ♀♀ in the British Museum is quite distinct, but it is deemed unwise to propose a name for it until the taxonomic confusion surrounding this species has been cleared up. Nevertheless, a brief description appears desirable.

♂: fw. 21–22 mm. Ground colour of body and of fw paler than in the Tukuyu specimen, with a very slight ochreous tinge. Specimens with a well marked dark diagonal bar, have a dark dorsal line from the vertex to the end of the abdomen. Underside pale clay coloured, not pinkish as in the Tukuyu specimen. Abdominal tufts pale clay-coloured.

GENITALIA: as in the Tukuyu specimen, but harpe longer and more slender, dentate plate of aedeagus narrower.

♀: fw. 24 mm. Similar to ♂, but ground colour darker, diagonal bar present. Dorsal line absent. 1 specimen has the same underside as the ♂, the other has a pinkish underside, like the Tukuyu ♂. **GENITALIA:** post-vaginal plate ill-defined. Ante-vaginal plate broad, bisinuate anteriorly. Ostium wide, Colliculum wide and rather short, slightly directed to the left. Ductus long and narrow, with numerous minute papillae at the base. Bursa pear-shaped, ribbed and covered by small papillae. Basal signum fairly large, more or less rounded, armed with strong spines. Subapical signum a rather long, wide longitudinal rod armed with strong spines.

EAST AFRICAN RECORDS

UGANDA NM : Katera (Sango Bay), Kamengo.

TEMNORA ROBERTSONI sp. nov. (X; 3—XIV; 5)

Allied to *T. griseata* R. & J., but differs in the heavily marked fw and in the structure of the ♂ genitalia.

MALE

ANTENNAE: rather short, of even thickness, abruptly hooked, very pale grey. Pectinations very short.

HEAD: frons and vertex drab, palpi drab. A prominent darker crest on vertex, extended to thorax.

THORAX AND ABDOMEN: drab above, pinkish buff below. Abdominal tufts long, light red.

LEGS: first two pairs missing. Third pair very light pinkish buff speckled with brown scales.

UPPERSIDE

FOREWING: apex rather blunt, not falcate; termen slightly incurved below apex and above tornus; tornus rather strongly produced. Length of fw 23 mm. Ground colour drab; a broad sepia band from immediately above tornus to middle of costa, widening abruptly from vein 3 to costa, where it is 3 times wider than at tornus. Traces of a very faint double subbasal and of a double antemedial at inner margin. Postmedial faintly indicated and parallel to outer margin of dark band from costa to vein 3, reappearing at inner margin below tornus. A triangular sepia spot at costa before apex followed by nervular dark spots, indicating submarginal line. Termen sepia from apex to just beyond vein 5 and from vein 2 to tornus. Cilia sepia from apex to vein 4, thence light buff except at the veins, where they are sepia.

HINDWING: uniformly sepia, with a faint reddish tinge in discal area; a diffuse grey spot at tornus and faint grey streaks along veins 3 and 4, near margin. Tornus somewhat produced, cilia light buff.

UNDERSIDE

FOREWING: pinkish buff with a large fuscous basal area not extending to the costa. Three narrow crenulate parallel transverse lines, the inner at $\frac{2}{3}$ from base at the costa. A faint straight dark line from apex merging with outer crenulate line at vein 5. Apex drab, followed by a very diffuse darker marginal spot extending to vein 6; remainder of outer marginal area more greyish than rest of wing.

HINDWING: pinkish buff with 3 faint, crenulate parallel curved lines from costa to inner margin.

GENITALIA: uncus long, straight and narrow, heavily sclerotised apically, but without terminal hook. Gnathos almost as long, slightly upcurved, apically dentate and heavily sclerotised. Saccus wide, rounded and longer than in most species of *Temnora*. Valve elongated, sole-shaped, with a longitudinal ridge near dorsal margin in which 6 large modified scales are set. Harpe smooth, fairly long and slender, apically upcurved and provided with a thin vertical blade connecting the apex to the base. Aedeagus long, slender, slightly curved, armed apically with a long narrow spinose longitudinal ridge which is prolonged into a slender reflexed hook with a few apical spines. Vesica armed with numerous very long spicules.

FEMALE AND EARLY STAGES: unknown.

HOLOTYPE ♂: Tanganyika, Mlingano, 20-1-1964, I. A. D. Robertson, taken at light; to be deposited in British Museum (Natural History).

This species is known from the Holotype only, and is dedicated to its discoverer.

TEMNORA NEPHELE Clark 1922.

Proc. New Engl. zool. Cl. 8: 12 (Cameroons) Spanish Guinea to the Cameroons.

TEMNORA ELISABETHAE Hering 1930. (V; 21)

Rev. Zool. Bot. afr. 17: 406 (Belgian Congo, ♂).

Sexes alike. Fw. 21-24 mm. Apex fairly acute, termen concave at vein 4. Fw, head and body dark grey. Fw with a large dark brown triangular spot at middle of costa, with apex prolonged into a slightly curved line to tornus. A smaller dark brown spot at costa, before apex. Numerous irregular dark narrow transverse lines. Hw uniform very dark brown. Underside bright pinkish buff lined with fuscous; basal $\frac{2}{3}$ of fw fuscous. Abdominal tufts pink.

♀ GENITALIA: postvaginal plate roughly triangular. Anti-vaginal plate not sclerotised, ostium very wide. Colliculum very wide at ostium, tapering, directed to the left; ductus short, narrow, pitted. Bursa very long and narrow, pitted and pleated. 1 large rounded basal signum armed with strong spines.

EARLY STAGES: unknown.

HABITAT AND RANGE

Forests from the Congo to Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Kamengo, Entebbe, Mabira, Katera, Makerere, Budongo.
BM : Kampala.
B : Nakawa.

TEMNORA SUBAPICALIS R. & J. 1903. (V; 22)

Novit. zool. 9 suppl. : 572 (Kikuyu Escarpment, Kenya, ♀).

♂: fw. 24 mm. Very similar in size, shape and markings to the previous species, but ground colour of both wings rich cinnamon brown, not grey. Diagonal bar from tornus to costa, straight narrow, well defined, not dilated at costa; a dark dorsal line from head to apex of abdomen. Fore and mid-tibiae whitish, abdominal tufts of ♂ cinnamon.

GENITALIA: very similar to *T. griseata*; uncus short, evenly downcurved, apically blunt. Gnathos almost as long as uncus, apically bisinuate. Subdorsal ridge and modified scales present on valve. Harpe smooth, sharply upcurved, apically pointed. Spinose subapical plate of aedeagus very much broader than in *T. griseata*. Vesica armed with a single stout apical spine.

♀: fw. 26 mm. Wings broader and more rounded; diagonal bar dilated distally to form a large dark brown patch with diffuse outer edge.

GENITALIA: post-vaginal plate reduced to two narrow lateral arms flanking the ostium. Ante-vaginal plate large, smooth, with anterior margin rounded and slightly sinuate. Colliculum wide and very short. Ductus slender and moderately long. Bursa small, ovoid and rugose, densely covered by small papillae. Basal signum transverse, consisting of two lateral sclerotised irregularly spinose plates connected by a lightly sclerotised bridge. Subapical signum a small irregular dentate plate.

HABITAT AND RANGE

Apparently very rare; highland forest in central Kenya and also in Rhodesia, according to Pinhey.

EAST AFRICAN RECORDS

KENYA NM : Limuru.

BM : Kikuyu Escarpment (Type), Uplands.

TEMNORA IAPYGOIDES (Holland) 1889.

Ocyton iapygoides Holland *Trans. Amer. ent. Soc.* 16: 60 (Benita, Gabon, ♂).

1891 *Ocyton preussi* Karsch *Ent. Nachr.* 17: 292 (Barombi, Cameroons).

1894 *Pterogon clements* Rothschild *Novit. zool.* 1: 69 (Sierra Leone).

Ssp. iapygoides. (XIV; 12)

Sexes alike. Fw. 18–20 mm. Very similar to *T. subapicalis* R. & J., but rather smaller, more narrow winged. Diagonal bar broader, margins more diffuse, hw a little paler, underside brighter. Abdominal tufts of ♂ long, very pale.

♀ GENITALIA: post-vaginal plate an irregular transverse ridge with deep parallel transverse folds. Ante-vaginal plate slightly sclerotised at the sides only. Colliculum long, tapering towards ductus. Ductus rather short, straight, sclerotised and fluted. Bursa small and rounded, pitted and pleated, sclerotised at base. Signum a small apical spinose rounded plate.

HABITAT AND RANGE

Forests from Sierra Leone to the Congo and Uganda.

EAST AFRICAN RECORDS

KENYA NM : Kericho.

UGANDA NM : Kawanda, Katera, Fort Portal, Budongo, Bwamba, Kayonza.

BM : Sesse Islands, Kampala, Kamengo.

Ssp. pernix Kernbach 1962. (V; 25)

Mittel. Deutsch. ent. Ges. Jahrg. 21, 4: 53 (Southern Rhodesia).

A race of doubtful validity. Slightly larger (fw 20–22 mm.); ground colour brighter, markings heavier, better defined. Amani specimens have the colour and markings of topotypical specimens from Rhodesia, but are smaller. South Congo specimens have the same coloration as Uganda and West African specimens, but agree with *pernix* in size.

RANGE: Rhodesia, Zambia. Malawi and Tanzania to the Kenya Coast.

EAST AFRICAN RECORDS

KENYA S : Mombasa.

TANZANIA NM : Amani.

R : Mlingano, Ilonga.

TEMNORA ERANGA (Holland) 1889. (V; 23—XIV; 10)

Ocyton eranga Holland *Trans. Amer. ent. Soc.* 16: 61 (Kangwe, Ogowe, ♀).

1931 *Temnora heringi* Gehlen *Ent. Z.* 45: 203 (Lake Tanganyika, ♂) syn. nov.

Sexes alike. Fw 16–18 mm. Very similar to previous species, but smaller, ground colour much paler, buffish, markings much more clearly visible, hw with a submarginal series of angular buff spots. Abdominal tufts of ♂ apparently missing.

♀ GENITALIA: post-vaginal plate irregular, with ill-defined posterior margin and with 4 deep longitudinal folds. Ante-vaginal plate a small, regular crescent. Colliculum short, tapering abruptly at ductus. Ductus long and narrow. Bursa of moderate size, ovoid, pitted, but not pleated. Signum a narrow, transverse spiny plate at base of bursa.

HABITAT AND RANGE

Forests from Sierra Leone to the Congo and Uganda and west Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kakamega.
UGANDA NM : Katera, Kalinzu, Budongo.
B : Nyabyeya.

TEMNORA SCITULA (Holland) 1889. (V; 24)

Ocyton scitula Holland *Trans. Amer. ent. Soc.* 16: 60 (Benita, Gabon, ♂).

Sexes alike. Fw. 19–23 mm. Wing margins less crenulated, more regular than previous species. Body brown above; crest very dark brown, a dark brown triangle with pale margins on each tegula. Fw brown, marked and much variegated with dark brown and with several creamy buff spots in the distal part of the wing. Hw reddish brown with a dark margin and a submarginal series of angular pinkish buff spots. Underside spotted with orange brown and cream; a small ventral creamy spot on each abdominal sternite. Abdominal tufts of male buff.

♀ GENITALIA: very similar to *T. eranga*, but ventro-posterior margin of colliculum very deeply incised at ostium.

HABITAT AND RANGE

Forests from Gambia to the Congo, Angola and Uganda; an isolated but typical population in E. Tanzania.

EAST AFRICAN RECORDS

UGANDA NM : Mabira, Katera, Fort Portal, Kalinzu, Budongo, Bwamba, Kayonza.
BM : Kamengo.
B : Nyabyeya.
TANZANIA NM : Amani, Mbimba.

TEMNORA ENGIS Jordan 1933.

Novit. zool. 38: 342 (♂). Madagascar.

TEMNORA CATALAI Griveaud 1959.

Faune Madag. 8: 71 (♂). Madagascar.

TEMNORA NITIDA Jordan 1920.

Novit. zool. 27: 160. Madagascar.

TEMNORA INORNATA (Rothschild) 1894.

Lophuron inornatum Rothschild *Novit. zool.* 1: 71 (Namaqualand, ♂). South Africa.

TEMNORA MURINA (Walker) 1856.

Diodosida murina Walker *List. Lep. Ins. B.M.* 8: 163 (Natal). South Africa.

TEMNORA NAMAQUA R. & J. 1903.

Novit. zool. 9 suppl. : 571 (Little Namaqualand, Cape, ♂). South Africa.

TEMNORA GRANDIDIERI (Butler) 1879.

Diodosida grandidieri Butler *Ann. Mag. nat. Hist.* (5) 4: 234. Madagascar.

TEMNORA ELEGANS (Rothschild) 1894. (V; 27)

Diodosida elegans Rothschild *Iris* 7: 298 (Sierra Leone).

Ssp. elegans.

West Africa.

Ssp. polia Rothschild 1904.

Novit. zool. 11: 437 (Angola, ♂).

Smaller and greyer, particularly below, than the typical race. East African specimens are somewhat intermediate to *ssp. elegans*.

Sexes alike. Fw. 18–21 mm. Apex of fw acute, margin incurved to vein 4, thence regularly crenulate to tornus. Body and fw grey. Fw with numerous irregular transverse lines and a heavier oblique fascia from tornus to just beyond middle of costa. Hw crenulate, uniform light brick-red, with a narrow dark margin and whitish cilia between the veins. Abdominal tufts of male bright red.

♀ **GENITALIA:** postvaginal plate incurved at ostium, produced at posterior margin and laterally as far as base of anterior struts. Colliculum long and narrow, tapering distally, directed to the left, minutely sculptured and regularly folded transversely, like a half extended concertina. Ductus very long and slender, pitted. Bursa pear-shaped, pleated and pitted. A single small rounded pinose apical signum.

HABITAT AND RANGE

Savanna from Angola to Zambia, Rhodesia, Malawi and East Africa.

EAST AFRICAN RECORDS

KENYA NM : Nairobi.

BM : Kibwezi.

S : Mombasa.

UGANDA BM : 1 specimen labelled "Uganda", T.H.E. Jackson.

TANZANIA NM : Ilonga, Ngurdoto Crater.

R : Dar es Salaam, Mbeya, Mlingano, Ukiriguru.

MC : Lindi.

BM : Kondoa, Kikori, Mwanza, Kilosa, Tendaguru.

ZAMBIA NM : Abercorn.

TEMNORA SARDANUS (Walker) 1856. (V; 28)

Enyo sardanus Walker *List. Lep. Ins. B.N.* 8: 116 (Sierra Leone, ♀).

1894 *Diodosida uniformis* Rothschild *Novit. zool.* 1: 72 (Sierra Leone).

♂: fw. 19–21 mm. Apex of fw acute, termen sharply produced at vein 5. Body dark grey, thorax with a prominent crest. A dark dorsal spot on last abdominal segment. Fw dark grey with numerous faint, irregular transverse lines. A large dark brown triangle with its base resting on the costa and its apex at the tornus; proximal margin well defined and somewhat curved; distal side straight and diffuse. Terminal area from apex to vein 5 darker than ground colour. Hw uniform greyish brown, with a paler spot at tornus. Abdominal tufts light red.

♀: fw. 23–25 mm. Wings broader, more rounded, termen more regular. Ground colour darker, dark markings more diffuse, less distinct.

GENITALIA: postvaginal plate very small, rectangular. Antevaginal plate large, rounded, very lightly sclerotised. Ostium rounded, colliculum long and wide, directed to the left, distally dilated. Ductus extremely long and slender. Bursa large, elongated, pleated and pitted. One fairly long transverse basal signum, armed with stout curved teeth.

EARLY STAGES: unknown.

HABITAT AND RANGE

Forests and heavy woodland from Sierra Leone to the Congo and Angola, thence to Rhodesia and East Africa.

EAST AFRICAN RECORDS

KENYA NM : Ruiru, Kitale.

S : Mombasa.

UGANDA BM : Entebbe.

TANZANIA NM : Amani, Kigoma.

R : Ilonga, Mlingano.

BM : Nguelo.

TEMNORA PALPALIS R. & J. 1903.

Novit. zool. 9 suppl. : 579 (Antanambe, Baie d'Antongil, Madagascar, ♂).

Madagascar only.

TEMNORA AVINOFFI Clark 1916.

Proc. New Engl. zool. Cl. 6: 109 (Cameroons). Nigeria to Gabon.

TEMNORA CRENULATA (Holland) 1893. (V; 29)

Ocyton crenulata Holland *Ent. News* 4: 338 (Batanga, Cameroons, ♂).

Sexes alike. Fw. 22–28 mm. Head and body grey. A narrow elevated crest blackish on head, becoming buff on thorax. Apex of fw acute, termen strongly produced at vein 4, strongly crenulate from vein 4 to tornus. Fw grey, mottled and lined with blackish. A reddish brown bar from middle of costa to end of vein 4, more clearly defined distally than proximally. Hw dark greyish brown except at tornus and inner margin, which are grey. A series of pinkish-buff spots at posterior margin of abdominal sternites, and a series of creamy spots at each side. Abdominal tufts bright red.

♀ GENITALIA: 8th tergite with a median triangular process projecting forward. Postvaginal plate with a median linguiform plate covered by minute tubercles and two transverse lateral plates tapering to the base of the anterior struts. Ostium deeply incurved ventrally and anteriorly. Colliculum short and wide, directed to the left. Ductus very long and slender. Bursa pear-shaped; pleated and slightly pitted. Signa absent.

EARLY STAGES: unknown.

HABITAT AND RANGE

Forests from Sierra Leone to the Congo, Uganda and west Kenya, with an apparently isolated population in the Usambara mountains of N.E. Tanzania.

EAST AFRICAN RECORDS

KENYA NM : Kakamega.
SM : Malawa.
UGANDA NM : Fort Portal, Kalinzu, Entebbe, Budongo.
BM : Kamengo.
B : Kabanyolo, Nakawa.
TANZANIA NM : Amani.

TEMNORA CAMEROUNENSIS Clark 1923.

Proc. New Engl. zool. Cl. 8: 62. Cameroons.

TEMNORA CURTULA R. & J. 1908. (V; 30)

Novit. zool. 15: 260 (Entebbe, ♀).

Sexes alike. Fw. 17–19 mm. Head and body dark purplish grey; head with a very dark prominent crest. Fw crenulate, dark purplish grey lined and mottled with blackish. A blackish subapical bar wider at costa. A black dot followed by a pinkish buff dot at inner margin near tornus. Hw blackish grey with a pale rectangular spot at tornus. Underside very dark grey with a golden dot near tornus of each wing, that on fw much brighter. Abdominal tufts of ♂ bright red.

♂ GENITALIA: almost identical with *T. crenulata*, but gnathos more slender. Valve and harpe as in *crenulata*. Aedeagus armed dextro-ventrally with three stout apical spines. Vesica armed apically with a small irregular plate terminating in a short slender spine.

♀ GENITALIA: very similar to *crenulata*, but ostium wider, colliculum tapering gradually from ostium. Bursa smooth, without signa.

HABITAT AND RANGE

Forests in the Congo, Uganda and west Kenya. Apparently very rare.

EAST AFRICAN RECORDS

KENYA NM : Kaimosi.
UGANDA NM : Entebbe.
BM : Kamengo, Nagunga.

TEMNORA NATALIS Walker 1856. (V; 31)

List. Lep. Ins. B.M. 8: 104 (Natal, ♂).

1936 *Temnora natalis kafakumbae* Clark *Proc. New Engl. zool. Cl.* 15: 87 (Kafakumba, Katanga, Congo). Syn. nov.

Sexes alike. Fw. 22–24 mm. Head and body grey. Apex of fw blunt, but margin strongly dentate. Fw grey, subbasal straight, blackish, oblique; a large diffuse blackish spot at costa, at $\frac{2}{3}$ from base. A sagittate black submarginal spot in cellule 3 and another smaller one in 2. Hw crenulate, dark brownish grey, with traces of a blackish submarginal band and grey tornus. Abdominal tufts of ♂ bright red. Ssp. *kafakumbae* Clark is merely a fresh specimen which was darker than the much faded type from Natal.

♀ GENITALIA: very similar to *T. crenulata*, but anterior margin of ostium not incurved, colliculum longer and tapering. Ductus very long and slender. Bursa sock-shaped, pleated and weakly pitted. Signa absent.

HABITAT AND RANGE

Bush and savanna from Natal to Rhodesia, Zambia and Tanzania.

EAST AFRICAN RECORDS

TANZANIA NM : Shinyanga, Ukiriguru.
R : Ilonga, Mbeya, Tabora.

TEMNORA MIRABILIS Talbot 1932. (VI; 6)
Bull. Hill. Mus. 4: 178 (Hoey's Bridge, Kenya, ♀).

♀: fw. 27 mm. Wings strongly crenulate. Body and fw dark brown heavily marked with creamy-buff. Hw dark brown with a light spot at tornus.

GENITALIA: not dissected.

Only known from 2 females, both from the type locality: one, the type in the British Museum, the other in the Stoneham Museum, Kitale.

TEMNORA RADIATA (Karsch) 1893.

Ocnyon radiata Karsch *Ent. Nachr.* 18: 116 (Bismarckburg, Togo, ♂). West Africa to Angola.

TEMNORA PLAGIATA Walker 1856.

List. Lep. Ins. B.M. 8: 105 (Natal, ♂).

1856 *Panacra confusa* Walker *l.c.* 8: 161 (Natal).

1875 *Aspledon dicanus* Boisduval *Spec. Gen. Lep. Het.* 1: 304 (Natal).

1894 *Lophuron maculatum* Rothschild *Novit. zool.* 1: 71 (Natal). A very variable species.

Ssp. plagiata.

South Africa only.

Ssp. fuscata R. & J. 1903. (VI; 2)

Novit. zool. 9 suppl. : 576 (Kikuyu Escarpment, ♀).

Slightly larger and darker than the typical race, but doubtfully valid. Rhodesian specimens are intermediate. Sexes alike. Fw. 21–23 mm. Apex of fw rather blunt, margin irregularly crenulate. Body snuff brown with a dark dorsal line on head and anterior part of thorax. Fw snuff brown, mottled and variegated with dark brown and with pale greyish brown. A large dark brown angular spot from vein 4 to costa, its inner margin near middle of costa. Two oblique broad dark bands from inner margin to vein 2 and a small blackish spot in cellule 3, near margin. Apical area paler. Hw snuff brown with a darker margin and a faint reddish submarginal band. Abdominal tufts of ♂ red.

♀ GENITALIA: 8th sternite produced proximad into a rounded median lobe. Vaginal plate large and lightly sclerotised, roughly triangular posteriorly, produced into a lobe on either side of ostium anteriorly. Colliculum long and narrow, sharply curved to the left distally. Ductus long and slender, pitted and coiled in a spiral. Bursa very long, slightly pitted, but not pleated. Signa absent.

HABITAT AND RANGE

Wooded habitats from Malawi to East and Central Kenya and S. Ethiopia, above 4,500 ft.

EAST AFRICAN RECORDS

KENYA NM : Kiganjo, Thomson's Falls, Aberdares, Nairobi.
 BM : Kikuyu Escarpment (Type).
 TANZANIA NM : Mufindi.
 ZAMBIA NM : Abercorn.
 ETHIOPIA NM : Adola, Neghelli.

Ssp. (? form) *trapezoidea* (Clark) 1935. (VI; 3)

Temnora trapezoidea Clark *Proc. New Engl. zool. Cl.* 15: 30 (Karunga, Kisumu, ♀).

Ground colour of fw more uniform, costal spot smaller and more rounded. The specimen cited above from Thomson's Falls (a ♂), is exactly intermediate between *fuscata* and *trapezoidea*; a ♂ from Abercorn in the National Museum (not the one cited above) and a ♀ in the British Museum from "S. Kavirondo" agree precisely with Clark's figure; a ♀ from Bukoba (N.W. Tanzania) in the N.M. and one from Budongo (W. Uganda) in the B.M. are more extreme, with all the dark markings enlarged, (except the costal spot which is reduced) and of the same colour and with the light markings becoming somewhat reticulate, as in *T. radiata* Karsch. The genitalia of these insects agree perfectly with those of specimens from Nairobi, Malawi and Natal, suggesting that this may be a cline with *trapezoidea* somewhere near the middle of the series. However, the presence of both *fuscata* (a rather pale specimen approaching the nominate form) and of *trapezoidea* at Abercorn vitiates this conclusion, and it is possible that they are seasonal forms occurring in the western part of the specific range only. The precise status of these insects will have to be left in abeyance until more material is available from the entire range of the species.

TEMNORA SPIRITUS (Holland) 1893. (VI; 1)

Ocyton spiritus Holland *Ent. News* 4: 339 (Kangwe, Ogowe, ♂).

♂: fw. 19–20 mm. Very similar to *T. plagiata*, but much paler, the ground colour being a pale buffish brown, sometimes with a green tinge, particularly in fresh specimens. The hw has always a darker marginal band. Costa of hw slightly lobed, abdominal tufts very pale buff.

♀: darker than ♂.

GENITALIA: post-vaginal plate very narrow, deeply incised behind ostium. Ante-vaginal plate lightly sclerotised, broad, posteriorly bi-lobed. Ostium very wide. Colliculum short, very wide, tapering slightly at ductus. Ductus long; bursa scarcely wider than ductus, sharply elbowed at base, forming with the ductus a structure shaped like a stocking. Bursa not pleated, nor pitted, and without signa.

HABITAT AND RANGE

Forests from Sierra Leone to the Congo, Uganda and west Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kakamega.
 UGANDA NM : Fort Portal, Kalinzu, Katera, Entebbe, Budongo.
 K : Kawanda.
 B : Kabanyolo.

TEMNORA HOLLANDI Clark 1920. (VI. 4)

Proc. New Engl. zool. Cl. 7: 74 (Cameroons).

Sexes alike. Fw. 17–18 mm. Head and body light brown with a darker dorsal line single at first, double from base to tip of abdomen. Fw narrow, margin very irregular, deeply indented below apex and above tornus. Fw light brown, with a well defined dark brown triangle at costa, followed by a dark brown streak which reaches margin at end of vein 3. Basal and apical areas of the same colour; basal area almost unmarked except at base, apical area lightly mottled with darker brown and pale greyish. A narrow whitish line separating distal edge of triangle from apical area. Hw uniform dark brown, paler at tornus. Abdominal tufts light brown.

♂ GENITALIA: uncus long and slender, heavily sclerotised apically. Gnathos almost as long, dorso-ventrally dilated before apex, slightly upcurved. Valve rather long, basally constricted, apically pointed; subdorsal ridge very slight. Harpe long and slender, apically upcurved. Aedeagus long and slender, abruptly bent at base. A narrow dentate longitudinal ridge, almost half the length of aedeagus, ending at apex. Vesica with a large subbasal area clothed in dense short bristles and armed apically with numerous minute spines.

♀ GENITALIA: 8th tergite sinuate posteriorly, with a well sclerotised mesial anterior lobe, broader apically than mesially. Post-vaginal plate a narrow transverse crescent. Ante-vaginal plate lacking. Colliculum slender, slightly sinuous, directed towards the left, with a slight emargination at the ostium. Ductus long and pleated. Bursa small, pleated, shaped like a sock, without signa.

RANGE AND HABITAT

Forests from Nigeria to the Congo and Uganda.

EAST AFRICAN RECORDS

UGANDA BM : Kamengo.
B : Entebbe.

TEMNORA RATRAYI Rothschild 1904. (V; 26)

Novit. zool. 11: 436 (Kampala, ♂).

♂: fw. 16 mm. Very similar to *T. hollandi*, but differs in having the basal area of fw darker and more variegated, the apical area paler and also more variegated and the costal triangle narrower and more oblique. Costa of hw slightly lobed, abdominal tufts pale pink.

♀: fw. 17–21 mm. Similar to ♂, but broader winged, generally darker and less variegated.

GENITALIA: vaginal plate very weak, almost membranous. Colliculum evenly wide, rather long, directed to the left. Ductus extremely long and slender, pleated and pitted, spirally coiled. Bursa sock-shaped, covered in minute tubercles. Signa absent.

RANGE AND HABITAT

Forests in the Congo and Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Katera, Entebbe.
BM : Kampala (Type).

TEMNORA ZANTUS (Herrich-Schaffer) 1854.

Lophura zantus Herrich-Schaffer *Ausser. Schmett.* 1, t. 23, f.105 (Cape).

1856 *Enyo excisa* Walker *List. Lep. Ins. B.M.* 8: 119 (Natal).

1875 *Aspledon dorus* Boisduval *Spec. Gen. Lep. Het.* 1: 306 (Caffraria).

1928 *Temnora brunnescens* Clark *Proc. New Engl. zool. Cl.* 10: 33 (Pondoland).

Ssp. zantus.
South Africa.

Ssp. curvilimes Hering 1927.
In Seitz, *Macrolepidoptera of the World* 14: 375 (Mikindani,♀).

♂: fw. 18–19 mm. Body and wings very dark purplish-brown. Margin of fw very irregular and deeply indented. Fw very dark purplish-brown; a blackish line curved proximad from vein 4 to costa at $\frac{2}{3}$ from base. Apical area outside blackish line light olive-brown, mottled with darker olive and pale grey. A prominent black spot at costa immediately beyond blackish line. Hw very dark brown with an olive brown angular spot at tornus. Underside dark reddish-brown, abdominal tufts dark reddish brown.

♀: fw. 19–21 mm., broader winged, margin of fw less irregular.
GENITALIA: 8th tergite mesially sinuate at posterior margin. Postvaginal plate triangular, laterally incurved. Antevaginal plate in the form of a rather shallow Gothic arch. Ostium very wide. Colliculum narrow, long, curved to the left. Ductus exceptionally long and slender, pitted. Bursa very broad and blunt, decorated with minute circular depressions, particularly at the "heel" and at the apex. Signa lacking.

HABITAT AND RANGE

Forest and woodland from Rhodesia and Mozambique to Malawi, Tanzania and the Kenya coast.

EAST AFRICAN RECORDS

KENYA NM : Sekoke forest.
S : Mombasa.
TANZANIA NM : Amani, Ilonga.
R : Mbeya, Mlingano.
MB : Dar es Salaam, Mikindani.

Ssp. apiciplaga (Karsch) 1891. (VI; 5)
Pseudenyo apiciplaga Karsch *Ent. Nachr.* 17: 291 (Cameroons).

Slightly larger than above (fw. 20–21 mm.). Ground colour more reddish, apical area paler, more ochreous, diagonal blackish band wider, underside more reddish, genitalia as in *curvilimes*.

RANGE: Cameroons to Uganda and W. Kenya.

EAST AFRICAN RECORDS

KENYA NM : Kakamega.
UGANDA NM : Kayonza, Entebbe, Nagunga, Kabanyolo.
BM : Kamengo, Katera.
SM : Budongo.
L : Mweya.

TEMNORA WOLLASTONI R. & J. 1907.
Novit. zool. 15: 260 (Upper Congo). Known from the Congo.

TEMNORA PYLAS (Cramer) 1779.
Sphinx pylas Cramer *Pap. exot.* 3: 23 (Surinam).
1856 *Lophura brisaesus* Walker *List. Lep. Ins. B.M.* 8: 106 (Surinam).
Type locality erroneously stated to be Surinam, in South America. Confined to South Africa and Rhodesia.

TEMNORA PYLADES R. & J. 1903.*Novit. zool.* 9 suppl. : 583 (Natal, ♂).1926 *Temnora stevensoni* Clark *Proc. New Engl. zool. Cl.* 9: 52 (Rhodesia).*Ssp. pylades.* (VI; 8)

South Africa to Rhodesia.

Ssp. tanganyikae Clark 1928.*Proc. New Engl. zool. Cl.* 10: 45 (Njavarongo, Ruanda river, Tanganyika, ♂).

Differs from the nominate race in the greyer colour of the fw and in the wider dark margin of the hw. Sexes alike. Fw. 17–20 mm. Body and fw brownish grey. Fw margin slightly dentate, projecting at end of vein 4. Fw rather pale brownish grey, with numerous, irregular transverse lines, and an ill-defined darker subapical fascia from vein 3 to the costa; apical area more strongly mottled with darker grey-brown. A small black submarginal lunule in cellule 2 in some specimens. Hw ochreous yellow, with a very broad, diffuse reddish grey marginal band. Underside brownish-grey, more reddish near base, with numerous crenulate, parallel transverse lines. Abdominal tufts of ♂ pale buff.

♀ GENITALIA: postvaginal plate narrow and short, with minute tubercles. Ante-vaginal plate membranous. Ostium wide. Colliculum wide, short and directed to the left. Ductus very long and slender. Bursa sock-shaped, slightly pitted apically, without signa.

HABITAT AND RANGE

Highland forest in East Africa.

EAST AFRICAN RECORDS

KENYA NM : Ol Kalau, Thomson's Falls.

UGANDA NM : Fort Portal.

TANZANIA NM : Mbeya.

BM : Njombe.

ESB : Mt. Meru.

NOTE: *T. pylades* has the same genital armature as *T. pseudopylas* Rothschild in both sexes, and is considered a form of it by some authors, including Kernbach. However, this view is unlikely to be correct, as *pylades* has a much more restricted range and habitat than *pseudopylas*, and can always be separated from it by the following characters: Smaller, greyer on both sides, fw margin less indented, costa of hw only very slightly lobed.

TEMNORA PSEUDOPYLAS (Rothschild) 1894.*Lophuron pseudopylas* Rothschild *Novit. zool.* 1: 71 (patria incognita, ♂).1936 *Temnora congoi* Clark *Proc. New Engl. zool. Cl.* 15: 88 (Kafakumba, Katanga, Congo, ♂)
syn. nov.*Ssp. pseudopylas.* (VI; 7)

Sexes alike. Fw. 20–22 mm. Very similar to the previous species, but slightly larger, fw and body reddish brown to dark purplish brown, margin of wings more deeply indented. Markings of fw heavier, more distinct, dark margin of hw dark brown, better defined, underside variegated with ochreous yellow and orange brown, never greyish; costa of hw more strongly lobed. Abdominal tufts of ♂ dull reddish brown.

GENITALIA: as in *T. pylades* in both sexes.

EARLY STAGES: (after D. G. Sevastopulo).

5TH INSTAR: head and body green. A faint darker dorsal stripe and a subdorsal white stripe. 3rd and

4th somites with a slightly oblique interrupted yellow lateral stripe, edged with black on the third. A series of oblique white lateral stripes from 6th to 11th somites. Lateral and dorsal white stripes speckled with black and edged with black speckles. Green lateral areas sprinkled with white dots along the secondary segmental divisions. An elliptical white spot from base of horn to tip of anal flap. Horn lavender blue, minutely tuberculate, slightly downcurved, tip dark brown, ending in a sharp spine. Spiracles white, central slit black. Legs pink. Prolegs and venter green. Turns brown prior to pupation.

FOOD PLANTS: (Kenya coast) *Pentas bussei* Krause (Rubiaceae).

HABITAT AND RANGE

Very common and almost ubiquitous in eastern and southern Africa, but absent in very dry habitats; *congoi* Clark 1936 is a pale reddish ♂ from Katanga, which is closely matched by the Abercorn specimen in the National Museum; this is probably a very dry form.

EAST AFRICAN RECORDS

KENYA NM : Nairobi, Aberdares, Ruiru, Machakos, Nyeri, Nakuru, Nanyuki, Kakamega, Fort Hall, Kiganjo.

SM : Kitale, Istsare.

S : Mombasa.

UGANDA NM : Mubende, Fort Portal, Impenetrable forest, Kayonza.

S : Kampala.

K : Nagunga, Jeza.

TANZANIA NM : Amani.

R : Arusha, Ilonga, Mlingano.

MC : Lindi, Songea.

ETHIOPIA NM : Butale.

Uganda specimens are transitional to ssp. *leptis* R. & J.

Ssp. *leptis* (R. & J.) 1903 stat. nov.

Temnora leptis R. & J. *Novit. zool.* 9 suppl. : 548 (Sierra Leone, ♂).

Darker than the nominate race with a wider dark border to the hw. Specimens from the Congo and Uganda are intermediate between this race and the nominate race.

Ssp. *latimargo* R. & J. 1903.

Novit. zool. 9 suppl. : 584 (Grande Comore, ♂). Comoro Islands.

TEMNORA SCHEVENI sp. nov. (X; 4—XIV; 2)

Closely allied to *T. pseudopylas* Rothschild, but larger and very much darker.

MALE

ANTENNAE: long, slender, slightly thickened distally, sharply hooked, very dark purplish brown above, cilia rather long.

HEAD: frons Vandyke brown; vertex Vandyke brown, prominently crested; crest darker; palpi Vandyke brown, orange brown at base of 1st segment.

THORAX: Vandyke brown above; tegulae with a slight reddish tinge. Below, walnut brown laterally, ochraceous orange ventrally.

ABDOMEN: Vandyke brown above; a series of 2 subdorsal oblique dark reddish streaks on 3 penultimate segments; last segment dark reddish brown. Anal tuft very dark brown, almost black. Below walnut brown, mottled with ochraceous orange ventrally; 3 penultimate segments with 2 small whitish lateral dots.

LEGS: Vandyke brown; femora of mid-pair with an orange brown tinge, tips of tibial spurs paler.

UPPERSIDE

FOREWING: apex not produced; margin produced at vein 7, then incurved to vein 4, and regularly indented between the veins to tornus; end of veins 6 and 5 rather prominent; length of fw 22–23 mm; wing broader than in *T. pseudopylas*. Ground colour very dark Vandyke brown with a violetish sheen; basal line very faint, blackish, subbasal very dark reddish brown, faint, double, irregular; ante-medial very dark reddish brown, better defined, double, somewhat irregular and curved distad, filled in at the costa to form a dark spot. Stigma very small, pinkish; four faint slender dark lines strongly angled proximad between the veins from the inner margin to vein 4. A very dark reddish brown irregular spot from costa at $\frac{2}{3}$ from base to vein 4 with an extension distad, parallel to costa from vein 6 to vein 5, not invading submarginal area, streaked with black along the veins. A dark reddish brown submarginal spot in space 7, reaching costa near apex followed by a narrow fascia to vein 4, coalescing with the large dark irregular spot in space 6. Submarginal portion of space 3 mottled with paler reddish brown and with a few black and pinkish scales. A black sagittate spot surrounded proximally with reddish brown near termen in space 2. Terminal line black, dilated into a small sagittate spot in space 7, rather thick from vein 7 to vein 3, thence narrow, but dilated at the veins. Cilia black, apically buff between the veins.

HINDWING: regularly dentated between the veins, slightly produced at tornus, lobed at costa. Basal third yellow ochre, remainder dark bistre brown, the dividing line between the two colours, very irregular. A faint paler submarginal line showing through from underside. Termen narrowly black, dilated at the veins, cilia as above.

UNDERSIDE

FOREWING: Prout's brown, with complete submarginal series of irregular internervular ochraceous-orange spots.

HINDWING: rusty brown at costa, shading to ochraceous-orange towards inner margin and tornus. A faint reddish brown ante-medial line from lower angle of discoidal cell to middle of cellule 1a. Postmedial double, blackish near costa, becoming reddish brown, strongly dentate distad at the veins, the intervening space with scattered rusty scales. An irregular Vandyke brown marginal band from apex to vein 1b.

GENITALIA: of the usual *Temnora* pattern and very similar to *T. pseudopylas* Rothschild. Uncus slender, evenly curved, heavily sclerotised apically. Gnathos almost as long, heavily sclerotised and irregularly dentate. Valve rather long and slender; subdorsal ridge well developed, modified scales very large, protruding beyond dorsal margin of valve. Harpe broad basally, tapering rapidly to a rather long, slender, somewhat irregular process, upcurved at the apex. Saccus of the usual pattern, broad and rounded. Aedeagus rather long; dorso-apical margin broadly rounded and smooth, produced on the right side into a narrow oblique dentate ridge and on the left side into a long narrow oblique process with 2 subapical notches. Vesica armed with numerous spicules, much shorter than in *T. pseudopylas*.

FEMALE: unknown.

HOLOTYPE ♂: Kalinzu forest, Ankole, Uganda, III-1965, B. Scheven, to be deposited in the British Museum (Natural History).

♂ PARATYPES: 4 same data as *Holotype*
2 as above, but April 1965.

Paratypes in National Museum, Nairobi.

This species is dedicated to its discoverer, Dr. B. Scheven.

Temnora aureata Karsch and *T. stigma* R. & J. were erroneously placed in this genus and belong to the tribe Choerocampini; see pages 117 and 127.

PSEUDENYO Hollandi 1889

Trans. Amer. ent. Soc. **16**: 57; type species *Pseudenyo benitensis* Holland 1889.

PSEUDENYO BENITENSIS Holland 1889.

Trans. Amer. ent. Soc. **16**: 57 (Benita, Gabon, ♂). Nigeria to Gabon and Spanish Guinea.

TEMNORIPAIS R. & J. 1903

Novit. zool. **9 suppl.** : 585; type species *Pterogon lasti* Rothschild 1894.

TEMNORIPAIS LASTI (Rothschild) 1894.

Pterogon lasti Rothschild *Nov. zool.* **1**: 70 (S.W. Madagascar, ♂). Madagascar only.

HYPAEDALIA Butler 1877

Trans. ent. Soc. Lond. : 397; type species *Hypaedia insignis* Butler 1877.

Three medium sized, heavy-bodied species, all African. Palpus laterally angular, end segment apically triangular, upcurved, projecting well in front of eye, completely scaled internally. Antennae compressed and not clubbed in both sexes, last segment short. Eyes rather small, ciliated. Vertex with a very prominent crest directed forward, expanded on thorax to form a large dorsal patch of woolly hair-scales. Abdomen broad and flattened, spines weak. Abdominal tuft broad and rounded in ♂, narrow in ♀. Tibial spurs very unequal. Wings broad and short; fw slightly incurved below apex, hw costa convex, protruding beyond costa of fw and thus effectively breaking up outline of insect when resting. Vein 9 of fw arises from cell at $\frac{1}{2}$ from apex, vein 8 just before apex; upper angle of dc acute, lower one a right angle. Dc just under half the length of wing, and narrow. DC of hw short and narrow, veins 6 and 7 on a short stalk, costal area above vein 8 very broad. ♂ genitalia very much as in *Temnora*, but modified scales smaller, and more numerous, not arranged in a single straight line. Aedeagus with a bifid apical process as in *Nephele*, Vesica unarmed. Crepuscular forest insects.

HYPAEDALIA INSIGNIS Butler 1877.

Trans. ent. Soc. Lond. : 398 (Sierra Leone, ♀). Sierra Leone to Gabon.

HYPAEDALIA LOBIPENNIS Strand 1913.

Arch. Naturgesch. **79 A**: 83 (Cameroons). West Africa.

HYPAEDALIA BUTLERI Rothschild 1894. (VI; 9—XIV; 4,9)

Novit. zool. **1**: 69 (Aburi, Gold Coast, ♀).

1936 *Temnora viridis* Clark *Proc. New Engl. zool. Cl.* **15**: 86 (Congo) syn. nov.

Sexes alike. Fw 25–27 mm. Head and thorax purplish brown. A large patch of raised olive green hairs edged with dark brown on head and thorax; abdomen pale ochreous brown. Fw purplish brown with irregular narrow dark brown transverse lines, and a minute dark stigma; a broad well defined, very irregular dark purple brown marginal band, very narrow at apex, very wide at vein 4, then narrowing suddenly to tornus. Hw very short, uniform dark brown.

♀ GENITALIA: post-vaginal plate sub-triangular. Ante-vaginal plate consisting of two irregular lateral plates, one on either side of ostium. Colliculum short and wide, directed to the right. Ductus wide and very short. Bursa large, elongated and pitted. Signum longitudinally very long, from base of bursa, to a point $\frac{1}{4}$ of length of bursa from the apex, consisting of two parallel spinose ridges, very much as in *Nephele*.

HABITAT AND RANGE

Forests from Sierra Leone to the Congo and Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Kamengo, Entebbe, Budongo, Katera.

BM : Nagunga, Kampala.

NEPHELE Hubner 1822

Verz. bek. Schmett. : 133; type species *Zonilia morpheus* Cramer 1777 = *Sphinx didyma* Fabricius (India), 1775.

A very uniform genus of large dull coloured insects, 1 Australian, 1 Oriental species and 18 Ethiopian species. A conspicuous patch of fine hairs at base of proboscis, below pilifer. Palpi projecting well beyond frons, fully scaled internally. Eyes large, cilia absent. Antennae long, hooked, not clubbed in ♂, more slender, slightly incrassate distally in ♀; end segment long, rough scaled. Head not crested. Abdominal spines numerous, elongate, flattened, strong. Anal tuft 3-cornered in ♂, truncate in ♀. Mid and hindtarsi armed posteriorly with a comb of spines; tibial spurs very unequal; external (short) spur of midtibia and external apical spur of hindtibia also armed with a posterior comb of spines. Wing margins regular, entire; lower angle of discoidal cell obtuse in fw. DC of hw very small, with lower angle strongly produced. Veins 6 and 7 with common origin, but not stalked. Genitalia of ♂ extremely uniform throughout the genus, typically *Semanophoriae*; uncus simple, slender, with a small terminal hook; gnathos short and narrow, without terminal hook or teeth. Saccus rounded, broad. Valve entire, with a hairless subdorsal area, sometimes less heavily sclerotised than remainder; dorsal margin of valve thickened in some species. Modified scales long and much narrower than in *Temnora*, without "midrib", heavily sclerotised throughout, in one or two rows, and more numerous than in *Temnora*. Harpe terminating in a sharp upcurved hook. Aedeagus armed apically with a bifid dorsal process, as in *Hypaedaleia*; vesica unarmed. ♀ genitalia also very uniform, ante-vaginal plate absent, post vaginal plate very small, triangular. Colliculum long and slender, bursa long, signum a very long, narrow longitudinal plate. Larva with thoracic segments only slightly smaller than remainder, head large and round, horn very short and stumpy. Pupa with proboscis sheath projecting well beyond head, laterally compressed.

All species of *Nephele* feed readily on flowers at dusk and during the night. Both sexes appear to be on the wing at the same time and are attracted to light in equal numbers.

NEPHELE XYLINA R. & J. 1910. (VI; 13—XIV; 7)

Novit. zool. 17: 457 (Abyssinia, ♂).

1916 *Nephele vespera* Fawcett *Proc. zool. Soc. Lond.* : 108 (Kedai, B.E.A. ♂).

Sexes alike. Fw 30–33 mm. Antennae of ♂ thicker than in other species of the genus. Body and fw pale greyish olive to pale greyish buff, abdomen completely unmarked. Apex of fw blunter than in other species, termen more rounded. Fw with a number of diffuse irregular transverse lines, and a very small pale stigma. Hw uniform grey, paler at base.

HABITAT AND RANGE

Semi-desert from Kenya to Ethiopia and Somalia.

EAST AFRICAN RECORDS

KENYA BM : Kedai.

ETHIOPIA NM : Dire Dawa.

BM : Harar.

SOMALIA NM : Hargeisa.

BM : Buran.

NEPHELE LEIGHI Joicey & Talbot 1921.

Entomologist 54: 107 (Mahe Island, Seychelles, ♀). Seychelle Islands only.

NEPHELE AEQUIVALENS (Walker) 1856. (VI; 20)

Pachylia aequivalens Walker *List. Lep. Ins. B.M.* 8: 191 (Sierra Leone, ♀).

1875 *Zonilia zebu* Boisduval *Spec. Gen. Lep. Het.* 1: 148 (Sierra Leone).

The largest species in the genus.

Sexes alike. Fw 45–52 mm. Body and wings dark greyish olive, abdomen unmarked. Fw with a thick straight dark diagonal line from tornus to middle of costa. Basal, subbasal, antemedial and post-medial lines faint, irregular and incomplete; submarginal complete, more regular and more distinct. Hw very dark olive, apical third darker.

HABITAT AND RANGE

Forest up to 5,000 ft. and heavy woodland throughout tropical Africa.

EAST AFRICAN RECORDS

KENYA NM : Kitale.

S : Mombasa.

UGANDA NM : Kampala, Bwamba, Fort Portal, Budongo.

B : Entebbe, Nakawa, Nyabyeya.

BM : Jinja.

L : Mweya.

TANZANIA NM : Amani, Ilonga.

BM : Moshi.

R : Mlingano, Dar es Salaam.

MC : Lindi, Songea.

NEPHELE COMMA Hopffer 1857. (VI; 15)

Monatsber. Ak. Wiss. Berlin : 421 (Mozambique).

1856 *Zonilia viridescens* Walker *List. Lep. Ins. B.M.* 8: 192 (partim).

1877 *Nephele charoba* Kirby *Trans. ent. Soc. Lond.* : 239 (Madagascar).

Sexes alike. Fw. 32–39 mm. Very variable. Body and fw dark olive green to reddish-brown, to light ochreous-brown. Dorsum of abdomen broadly of the same colour as thorax, three large quadrate blackish lateral spots on segments 3, 4 and 5. Fw with irregular dark transverse bands which are usually much better developed in the olive or ochreous specimens than in the reddish ones. Terminal area with a greyish tinge, usually in distinct contrast with remainder of wing, clearly defined proximally by a regular blackish submarginal line from apex to tornus; the marginal area is very wide at vein 5, tapering gradually and regularly from there to the apex and to the tornus. In the typical form (*comma* Hopffer), the stigma is a prominent silvery white reversed comma with its curve towards the base

of the wing and its extremities towards the termen. This stigma is even more dilated posteriorly and reduced anteriorly in form *charoba* Kirby, and is reduced to a tiny dot or altogether absent in form *derasa* R. & J. *Novit. zool. 9 suppl.* : 556 (= *Nephele charoba* form *microstigma* Clark, *Proc. New Engl. zool. Cl.* 9: 108, 1927). Hw various shades of olive, with a darker margin.

HABITAT AND RANGE

Extremely common throughout the Ethiopian Region, including Madagascar.

EAST AFRICAN RECORDS

- KENYA NM : Mtito Andei.
SM : Kitale, Itsare.
- UGANDA NM : Katera, Kamengo.
SM : Tororo.
L : Mweya.
- TANZANIA NM : Amani, Shinyanga, Mpanda.
R : Dar es Salaam, Ilonga, Mbeya, Mlingano, Tabora, Arusha, Ukiriguru.
SM : Mwanza.
MC : Lindi, Songea.
- ETHIOPIA GM : Shoa.

NEPHELE FUNEBRIS (Fabricius) 1793. (VI; 11)

Sphinx funebris Fabricius *Ent. Syst.* 3, 1: 371 (Guinea).

1856 *Zonilia viridescens* Walker *List. Lep. Ins. B.M.* 8: 192 (Natal).

1877 *Nephele infernalis* Kirby *Trans. ent. Soc. Lond.* : 239 (Ashanti).

Sexes alike. Fw. 33–39 mm. Very similar to previous species, but less variable in colour, being usually some shade of dark olive brown. May be separated from *N. comma* by the presence of 5 large blackish lateral spots on the abdomen, and by the much more irregular margin of the terminal area of the fw, which does not contrast in colour with the remainder of the wing. The typical form has no stigma, or at most a minute whitish dot. Form *conimacula* R. & J. (*Novit. zool. 9 suppl.* : 558), has a silvery white stigma in the shape of a longitudinal wedge-shaped spot with the pointed end distad, sometimes surmounted proximally by a much smaller elongated spot.

EARLY STAGES: (after D. G. Sevastopoulo).

5TH INSTAR: head red-brown. Body red-brown, minutely streaked with black. Black dorsal line diffuse and interrupted after segment 5. An oblique elliptical lateral mark on 6 and 7, white, reticulated with reddish. A dark dorso-lateral line from 7th somite to base of horn. A pale pinkish lateral triangle, its apex at the anterior edge of 11th somite edged above by the dorso-lateral line and extending to anal clasper below. Spiracles black. Venter, legs and prolegs red-brown. Horn purplish-pink, stout, short, slightly downcurved, terminating in an abrupt conical point.

PUPA: in a slight web among litter on the surface of the soil. Reddish chestnut, minutely pitted. A blackish dorsal spot on head and a blackish dorsal line from mesothorax to anal end. A dark lateral suffusion and a broad dark ventro-lateral stripe on abdomen. Sheaths of antennae, legs and wings minutely chequered with greyish. A black line along proboscis sheath, which is produced frontad, rather as in *N. comma*. Spiracles black, Cremaster deeply grooved ventrally, ending in a short bifid spine.

HABITAT AND RANGE

Very common throughout most of the Ethiopian Region, excluding Madagascar and the Congo-Cameroon equatorial forest belt, where it is replaced by *N. maculosa* R. & J.

EAST AFRICAN RECORDS

- KENYA NM : Kitale, Aberdares, Sokoke forest.
SM : Mombasa, Malindi, Mambui, Shimo la Tewa.
UGANDA NM : Kamengo, Budongo, Entebbe.
SM : Katera.
B : Kampala.
L : Mweya.
TANZANIA NM : Amani.
R : Arusha, Dar es Salaam, Ilonga, Mbeya, Mlingano, Tabora, Ukiriguru.
MC : Lindi, Songea.
SOMALIA NM : Mogadishu.

NEPHELE MACULOSA (R. & J.) 1903 stat. nov.

Nephele funebris maculosa R. & J. *Novit. zool.* 9 suppl. : 558 (Yakusu, Upper Congo, ♂).

Very similar to previous species, but larger and more variegated. Only known from the Congo-Cameroon equatorial forest belt, where it appears to replace the previous species. Will almost certainly be found in the Bwamba Valley of western Uganda.

NEPHELE DISCIFERA (Karsch) 1891. (VI; 12)

Nephele peneus (Cramer), form *discifera* Karsch *Ent. Nachr.* 17: 298 (Cameroons).

1894 *Nephele aureomaculata* Rothschild *Novit. zool.* 1: 88 (Upper Congo).

Sexes alike. Fw. 32–36 mm. Very similar to *N. comma*, but always very dark olive brown, all abdominal segments marked laterally with black, stigma minute, wings broader and more rounded. Marginal area of fw as in *comma*, but contrasting with remainder of wing even more strongly. The typical form has a large rounded orange-pink spot at middle of inner margin of fw. Form *rattrayi* Rothschild 1904 (*Novit. zool.* 11: 437), has the pink spot reduced or completely lacking.

HABITAT AND RANGE

Forests from Liberia and Ghana to the Congo and Uganda.

EAST AFRICAN RECORDS

- UGANDA NM : Masaka, Kamengo, Budongo.
BM : Jinja, Nagunga, Kampala.

NEPHELE LANNINI Jordan 1926. (VI; 18)

Novit. zool. 33: 381 (Umtali, S. Rhodesia).

Sexes alike. Fw. 31–33 mm. Head, thorax and fw very dark olive brown. Abdomen with all segments marked with black, the black lateral spots almost meeting on the dorsum, where they are separated by a small dark olive spot, and separated longitudinally by almost uninterrupted pale buffish brown transverse stripes at the posterior margin of each tergite. Fw very broad and rounded, apex acute and very slightly falcate, mottled with blackish and with a faint diffuse black bar from middle of costa to tornus; a conspicuous irregular, interrupted submarginal pale grey line, edged proximally with black. Hw uniformly dark brown.

HABITAT AND RANGE

Highland forest in Rhodesia, Malawi, and southern Tanzania.

EAST AFRICAN RECORDS

- TANZANIA NM : Mufindi.

NEPHELE MONOSTIGMA Clark 1925. (VI; 10)

Proc. New Engl. zool. Cl. 9: 35 (Cameroons).

Sexes alike. Fw. 30–32 mm. Very similar to previous species, but slightly smaller, wings narrower, fw more mottled with ochreous brown, a very small white stigma usually present, submarginal line not edged distally with pale grey.

HABITAT AND RANGE

Highland forest in the Cameroons, Uganda and Kenya.

EAST AFRICAN RECORDS

UGANDA NM : Kibale forest, Kalinzu forest, Kayonza.

KENYA NM : Muguga, Kitale.

NEPHELE BIPARTITA Butler 1878. (VI; 14)

Ann. Mag. nat. Hist. (5) 2: 455 (Old Calabar, Nigeria).

Sexes alike. Fw. 34–38 mm. Very similar to previous species; olive dorsal spots of abdomen larger, black lateral spots not separated by brownish buff, but by the ground colour; fw not falcate, ground colour pale yellowish olive, area beyond dark diagonal bar dark brown except at costa and apex, stigma absent. Hw dark olive brown, darker at apex and termen.

EARLY STAGES: (after D. G. Sevastopoulo).

5TH INSTAR: head purple brown, densely speckled with pale dots, a darker mark shaped like an inverted V with apex at vertex. Body dark brown, a black dorsal line edged indistinctly with pinkish on first 4 somites. A broad pinkish brown dorsal stripe from 7th somite, edged with black and containing a pattern of brown and pinkish markings repeated on each somite. Lateral area dark chocolate with a small copper-red sublateral patch on 4 and 5 and a broad oblique copper-red band on 6 and 7. From middle of 7th somite to middle of 9th whitish with two oblique brown lines edged below with copper-red. Latero-anal triangle pinkish brown speckled with dark brown. Spiracles slate-blue, set in copper-red spots. Horn short, downcurved, dull purplish, tuberculate, ending in a sharp point. Venter, prolegs and legs as above.

FOOD PLANT: *Landolphia* sp. (Apocynaceae).

HABITAT AND RANGE

Lowland forest and heavy woodland from West Africa to the coast of Kenya and Tanzania and to Malawi and Mozambique.

EAST AFRICAN RECORDS

KENYA NM : Gazi.

SM : Malindi, Istsare.

S : Mombasa.

BM : Kibwezi.

UGANDA NM : Bwamba.

BM : Entebbe, Jinja, Kamengo.

L : Mweya.

TANZANIA NM : Amani, Ukerewe.

R : Dar es Salaam, Ilonga, Mlingano.

BM : Mikindani, Kilosa, Ngudo, Uluguru.

MC : Lindi, Songea.

NEPHELE PENEUS (Cramer) 1776. (VI; 17)

Sphinx peneus Cramer *Pap. exot.* 1: 139 (Sierra Leone).

1892 *Nephele pachyderma* Karsch *Ent. Nachr.* 18: 180 (Baliburg).

Sexes alike. Fw. 33–40 mm. All abdominal segments marked with broad blackish spots separated by a pale brownish buff band at the posterior margin; olive dorsal spots rather wide. Fw broad, with evenly rounded termen, olive grey, banded and mottled with blackish and sometimes ochreous. Submarginal band very irregular, indistinct. Silvery white stigma consisting of a small anterior comma and of a wide angled V; in some specimens the arms of the V do not meet at the apex and the stigma then consists of 3 spots. Occasional specimens without the stigma are referable to the form *imnotata* R. & J., *Novit. zool.* 9 suppl. : 560.

EARLY STAGES: (after D. G. Sevastopulo).

4TH INSTAR: head olive, a darker line on each cheek with a paler one behind it. Body olive-green. Somites 1 to 4 with a fine blackish dorsal line and a dark subdorsal line. Dorsum behind somite 6 heavily suffused with whitish with a series of X shaped olive marks. An oblique white lateral streak on somite 6. A subdorsal white line from 7 to base of horn, edged below with a fine white line expanded into a lateral triangle on 11. Lateral area from 7 to 10 with a reticulate pattern of dark lines. Somites 5 and 6 with paired white dorsal spots. Legs, prolegs and venter very dark olive. Horn long, olive, apically upturned and white. Thorax expanded into a lateral lobe at 4 and 5.

5TH INSTAR: similar to above, but with less contrast between dorsal and lateral areas. Horn shorter and stouter, olive with dark speckles laterally and below, tip truncate.

PUPA: in slight cocoon in surface litter. Dark dull chestnut, with a blackish dorsal line. Dorsum of abdomen heavily speckled with black, remainder less so. A black ventral line. Proboscis sheath prominent, shaped like a duck's bill. Cremaster black, ending in two slightly downcurved stout spines.

FOOD PLANT: an unidentified Asclepiadaceous creeper.

HABITAT AND RANGE

Forest and woodland from Senegal to East Africa, Angola and Delagoa Bay.

EAST AFRICAN RECORDS

KENYA NM : Voi, Tiwi, Mtwapa, Kibwezi.

SM : Shimo la Tewa.

S : Mombasa.

BM : Kiokwe.

UGANDA NM : Bwamba, Budongo.

BM : Masindi.

B : Nakawa.

L : Mweya.

TANZANIA NM : Amani, Mufindi.

R : Dar es Salaam, Mlingano, Tabora, Ilonga.

BM : Mikindani, Moshi, Pemba, Kilwa.

MC : Lindi, Songea.

SUDAN BM : Tambura, Bahr el Ghazal.

ETHIOPIA NM : Bongozi (lower Omo River).

NEPHELE ACCENTIFERA (Beauvois) 1805.

Sphinx accentifera Beauvois *Ins. Afr. Amer.* : 264 (Africa).

1840 *Sphinx tridyma* Hoeven *Tijdschr. Naturl. Gesch.* 7: 278 (Guinea).

1850 *Deilephila ranzani* Bertoloni *Mem. Ac. Bologna* 2: 183 (Mozambique).

1875 *Nephele variegata* Butler *Proc. zool. Soc. Lond.* : 15 (Congo).

Ssp. accentifera. (VI; 19)

Sexes alike. Fw. 35–42 mm. Abdomen heavily marked with black as in previous species. Fw broad, with evenly curved margin, boldly but irregularly marked with dark brown, grey and ochreous. Submarginal areas dark brown with diffuse ochreous internervular spots at the termen. A very dark wedge shaped area with apex at inner margin, near base. A large ochreous apical area at costa, and a similar but smaller spot between costa and stigma. Stigma consisting of 3 silvery white commas converging rather like the spokes of a wheel. Hw dark olive brown with a blackish margin.

HABITAT AND RANGE

Common in most habitats throughout the Ethiopian Region, excluding Madagascar and the Cape.

EAST AFRICAN RECORDS

- KENYA NM : Kibwezi, Nairobi, Kiganjo, Aberdares, Kitale.
 UGANDA NM : Kampala, Masaka, Bwamba.
 SM : Budongo, Nabugabo, Bombo.
 B : Chobe, Entebbe, Nyabyeya.
 TANZANIA NM : Amani, Mufindi.
 R : Arusha, Ilonga, Mbeya, Mlingano, Tabora, Ukiriguru.
 MC : Lindi, Songea.
 ERITREA BE : Dorfu.
 ETHIOPIA NM : Bongozi (lower Omo River).

Ssp. comoroana Clark 1923.

Proc. New Engl. zool. Cl. 8: 61.

Comoro Islands,

NEPHELE VAU (Walker) 1856. (VI; 16)

Zonilia vau Walker *List. Lep. ins. B.M.* 8: 197 (patria incognita).

1857 *Zonilia schimperi* Lucas *Ann. Soc. ent. France*: 605 (Abyssinia).

1878 *Zonilia raffrayi* Oberthür *Et. d'Ent.* 3: 31 (Abyssinia).

Sexes alike. Fw. 25–31 mm. Black abdominal spots somewhat diffuse and narrow. Ground colour variable, from pale greyish buff to coppery-brown, to olive-green. Fw with a large dark olive to reddish brown, to olive-green. Fw with a large dark olive to reddish-brown subtriangular spot with apex at tornus and base resting from middle of costa to apex, with distal margin well defined but very strongly indented. A V-shaped golden-white stigma. Hw olive bordered with brown or copper.

HABITAT AND RANGE

Common throughout most of Africa south of the Sahara, but rarer in southern Africa.

EAST AFRICAN RECORDS

- KENYA NM : Nyeri, Nairobi, Voi, Aberdares, Thomson's Falls, Machakos.
 SM : Istsare, Kitale.
 S : Mombasa.
 UGANDA NM : Budongo.
 B : Nakawa.
 L : Mweya.
 TANZANIA NM : Arusha, Ukerewe, Mufindi.
 R : Mlingano.
 MC : Lindi, Songea.
 ERITREA MG : "Eritrea".

NEPHELE DENSOI (Keferstein) 1870.

Zonilia densoi Keferstein *Jahrb. Ak. Erfurt* (2) 6: 14 (Madagascar).

1864 *Zonilia rhadama* Walker *List. Lep. Ins. B.M.* 8: 33 (nomen nudum).

1874 *Zonilia malgassica* Felder *Reise Novara. Lep.* pl. 74, f. 2 (Madagascar).
Madagascar and Comoro Islands.

NEPHELE ARGENTIFERA (Walker) 1856. (VII; 4)

Zonilia argentifera Walker *List. Lep. Ins. B.M.* 8: 194 (Natal).

Sexes alike. Fw. 32–35 mm. Black lateral spots of abdomen large and well defined. Ground colour of body and fw dark olive, usually fading to light ochreous brown. Fw with a straight silvery-white subbasal band and a thick silvery-white postmedial with proximal margin evenly curved, distal margin straight. Stigma consisting of a large silvery-white triangular spot. Hw olive with a wide blackish margin.

HABITAT AND RANGE

Coastal bush and savanna from Somalia to Natal.

EAST AFRICAN RECORDS

KENYA NM : Tiwi, Mtwapa, Meru.

SM : Mombasa, Malindi.

BM : ? Nairobi.

TANZANIA NM : Amani, Dar es Salaam.

R : Ilonga, Mlingano.

R. J. : Kilwa, Lindi.

MC : Songea.

SOMALIA BE : Lower Shebeli.

NEPHELE OENOPION (Hübner) 1806.

Orneus oenopion Hübner *Samml. ex. Schm.* 2: 159 (patria incognita).

Ssp. oenopion.

Nephele oenipion oenopion R. & J. *Novit. zool.* 9 suppl. :562 Madagascar, Bourbon, Mauritius.

Ssp. stictica R. & J. 1903.

Novit. zool. 9 suppl. : 562 (Grande Comore, ♂).

Comoro Islands.

Ssp. continentis R. & J. 1903. (VII; 3)

Novit. zool. 9 suppl. :562 (Sierra Leone, ♂).

Sexes alike. Fw. 38–40 mm. Black abdominal spots rather diffuse and narrow. Ground colour of body and fw dark olive-brown, sometimes fading to dark red-brown. Fw with a small white basal dot, an irregular paler olive subbasal band edged with white, and an almost straight postmedial consisting of a thick white proximal line slightly curved distad near inner margin and of a narrower straight white distal line. Stigma absent or indicated by a minute white dot, subbasal and postmedial parallel, not converging at inner margin as in *N. argentifera*. Marginal area paler, limited by an irregular, interrupted, faint dark line from apex to tornus, strongly incurved proximad at vein 5, where it almost meets outer white line. Hw dark olive with a broad blackish outer margin.

HABITAT AND RANGE

Forests from Sierra Leone to the Congo and East Africa.

EAST AFRICAN RECORDS

KENYA S : Mombasa.
 UGANDA NM : Budongo, Kamengo.
 B : Nyabyeya.
 L : Mweya.
 TANZANIA NM : Amani.

NEPHELE ROSAE Butler 1875.

Proc. zool. Soc. Lond. : 14 (Boma, ♂).

Ssp. rosae.

Sexes alike. Fw. 40–45 mm. Very similar to previous species, but larger and differing as follows: subbasal band wider, without white edges; stigma present, in the form of a small white comma; postmedial band proximally straight, and edged with white, distal border without white edging; marginal area as in *N. oenopion*, but even more irregular and more contrasting with ground colour, hw blackish with an olive suffusion at base.

HABITAT AND RANGE

Forest and woodland from Sierra Leone to Angola and Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Katera, Budongo.
 B : Mpanga, Nakawa.
 L : Mweya.

Ssp. illustris Jordan 1920. (VII; 2)

Novit. zool. 27: 512 (Inyamadzi, Mozambique, ♀).

Larger than the typical race (fw. 44–48 mm.). Differs also in lacking the stigma and in having a much broader white proximal margin to the postmedial band.

EARLY STAGES: (after D. G. Sevastopulo).

LARVA (FINAL INSTAR): head green with a pale stripe from vertex to outside the mouth, edged internally by a darker stripe. Body green with a purplish dorsal line wider posteriorly. A broad white lateral stripe from subventral area of somite 6 to sublateral area of 7. Similar, but less prominent lines on 7/8 and 8/9. A lateral white line from somite 9, dividing at 11 to form a broad white horizontal V. Horn purplish, stout, tuberculate, downcurved at first, but the tip pointed and upcurved. Legs blackish, set in yellow patches. Venter and prolegs green. Spiracles black, the ends white. 6th somite slightly expanded laterally. When alarmed, the head and first two somites are retracted, the yellow patches in which the legs are set producing a yellow streak on each side of the head.

PUPA: in slight web among surface litter. Olive-brown with a blackish dorsal line. Lateral area blackish contrasting strongly with the pale venter. Proboscis sheath a short “duck’s bill”. Cremaster rounded, mesially concave armed with six teeth which are continued ventrally as a double ridge.

RANGE AND HABITAT

Transvaal and Mozambique to Rhodesia, Zambia, Malawi, Tanzania and the Kenya coast.

EAST AFRICAN RECORDS

KENYA NM : Gazi Forest.
 S : Shimba Hills.
 TANZANIA NM : Amani.
 BM : Pemba, Nguelo.
 R : Ilonga, Mlingano, Mbeya.
 MC : Lindi, Songea.

NEPHELE RECTANGULATA Rothschild 1894. (VII; 1)

Iris. 7: 300 (Sierra Leone, ♂).

Sexes alike. Fw. 36–40 mm. A complete series of large lateral black spots on abdomen. Ground colour of thorax and fw rich olive-brown. Fw with a straight silvery-white line from costa at almost $\frac{1}{2}$ from base to tornus, where it meets a straight silvery-white submarginal line, forming a right angle. Hw uniform dark brownish-red.

HABITAT AND RANGE

Forests from Sierra Leone to the Congo and Uganda.

EAST AFRICAN RECORDS

UGANDA NM : Budongo, Kampala, Entebbe, Kabanyolo.
BM : Katera, Masaka, Kawanda.

MAASSENIA Saalmüller 1884

Lep. Madag. : 126; type species *Zonilia heydeni* Saalmüller, 1878.

MAASSENIA HEYDENI (Saalmüller) 1878.

Zonilia heydeni Saalmüller *Ber. Senk. Nat. Ges.* : 89 Madagascar only.

DEILEPHILA Laspeyres 1809

Jenaische Allg. Literatur-Z. 4: 99; type species *Sphinx nerii* L. 1758.

1815 *Elpenor* Oken *Lehrb. Nat.* III, 1: 760; type species *S. nerii* L.

1823 *Daphnis* Hübner *Verz. bek. Schm.* : 134; type species *S. nerii* L. (partim).

1835 *Choerocampa duponcheli* in God. *Lep. France Suppl.* 2 159; type species *S. nerii* L.

1836 *Metopsilus* Duncan, in Jardine, *Nat. Libr.* 40: 154; type species *Sphinx nerii* L.

Large species. Palpi rather prominent. Antennae slender, of uniform thickness in the ♂, slightly clubbed in the ♀, abruptly hooked, last segment prolonged into a long filiform process. Eyes large, without cilia. Abdominal spines long, but rather weak. Tarsi spinose, midtarsus with posterior comb of spines. Tibial spurs very unequal, without comb of spines. Wing margins entire. Discoidal cell of fw narrow, slightly shorter than half of costa. Vein 10 arises from radius at $\frac{1}{3}$ of length of cell before end of cell. Vein 9 arises before end of cell. Discoidal cell of hw very short and narrow, lower angle produced; veins 6 and 7 on a short stalk. Genitalia very much as in *Nephele*, but modified scales of ♂ larger, only slightly sclerotised. Larva tapering anteriorly, pupa with proboscis sheath laterally compressed, but not projecting frontad.

One Indo-Afro-Palaeartic species, 3 Australian species, 2 Oriental species and 1 Indo-Australian.

DEILEPHILA NERII (Linnaeus) 1758.

Sphinx nerii Linnaeus *Syst. Nat.* 10: 490 (Europe).

Sexes alike. Fw. 45–55 mm. A very handsome and distinctive species with body and wings green, beautifully marked and variegated with darker green and pink.

RANGE AND HABITAT

Very common throughout the Ethiopian Region, including Madagascar. Also in Southern Europe,

Middle East, North Africa, India and Ceylon. A strong migrant, occasionally recorded from Britain, France, Germany and Russia, and also from various parts of Arabia.

EAST AFRICAN RECORDS

KENYA NM : Nairobi, Nyeri, Kinangop, Nakuru.

SM : Shimo-la-Tewa, Istsare, Kitale.

S : Mombasa.

UGANDA SM : Bombo, Kitgum.

B : Entebbe, Mpanga, Nakawa.

L : Mweya.

TANZANIA NM : Amani.

R : Arusha, Dar es Salaam, Ilonga, Mbeya, Mlingano, Tabora, Ukiriguru.

MC : Lindi, Songea.

ETHIOPIA NM : Bongozi (lower Omo River).

Tribe CHOEROCAMPINI

CELERIO Oken 1815

Lehrb. Naturg. 3: 761; type species *Sphinx gallii* Rottenburg 1775 (Holarctic Region).

Large robust insects.

First palpal segment not densely scaled at apex (internally); second segment without apical tuft of long scales on inner side. Eye lashed. Antennae incrassate distally, club-shaped in ♀. External spines of foretarsus longer than internal ones. Comb of spines on mid and hind-tarsi vestigial. Two pairs of hindtibial spurs, the inner ones much longer than the outer ones. Abdominal spines strong, particularly on tergites, in series of three rows. Modified scales in ♂ genitalia rather small and numerous.

There are thirteen species in this genus, one of which is cosmopolitan, one Holarctic, two confined to the Hawaiian islands, one to Cuba, one to Madagascar, two South American and five Palearctic. Several species are strong migrants.

CELERIO EUPHORBIAE (L.) 1758.

Sphinx euphorbiae L. *Syst. Nat.* 10: 492.

Several subspecies are recognised from different parts of the Palearctic Region.

Ssp. mauretanica (Staudinger) 1871.

Deilephila mauretanica Staudinger, in Staudinger & Wocke, *Cat. Lep.* 2: 36 (North Africa).

One specimen in the National Museum from the Tibesti mountains, Sahara.

CELERIO BIGUTTATA (Walker) 1856.

Deilephila biguttata Walker *List. Lep. Ins. B.M.* 8: 172 (Madagascar).

Known from Madagascar only.

CELERIO LINEATA (Fabricius) 1775.

Sphinx lineata Fabricius *Syst. Ent.* : 541 (America).

Ssp. lineata.

North and South America.

Ssp. livornica (Esper) 1779.

Sphinx livornica Esper *Schmett.* 2: 88.

Sexes alike. Fw. 30–36 mm. Specimens from very dry areas tend to be smaller. Specimens from southern Europe and North Africa usually exceed 36 mm. Antennae stout, blackish tipped with white. Head light olive brown, whitish laterally. Thorax light olive brown, tegulae edged with white. Abdomen light olive brown, with two large black lateral spots alternating with three white ones near base. Posterior margins of tergites narrowly edged with white and decorated with four black dots. Discoidal cell of fw oblique and sharply pointed at costa. DC of hw short, triangular, sharply pointed at origin of vein 4. Veins 6 and 7 with a common origin, but not stalked. Fw olive brown with a light buff diagonal band from base to apex and a broad, grey terminal band. Veins indicated by creamy streaks. Hw light red with a black base and black submarginal band and a whitish spot near inner margin.

HABITAT AND RANGE

Most habitats, including sub-desert and high mountains, throughout the Ethiopian Region including Arabia and Socotra. Appears to be absent from the equatorial forest belt of the Congo and West Africa. Also common in Southern Europe, North Africa, the Middle East and thence to China and South India. A regular migrant, particularly in North Africa and Europe.

The equal development of all the eye-spots in the larva and the lack of any noticeable thickening of the 5th and 6th segments suggest a primitive condition in the warning devices which are so well developed in some of the following genera.

EAST AFRICAN RECORDS

- | | | |
|----------|------|--|
| KENYA | NM : | Magadi, Nairobi, Thomson's Falls, Uaso Nyiro, Naivasha, Voi, Nyeri, Lake Rudolf. |
| | S : | Mombasa. |
| | SM : | Istsare, Kitale. |
| TANZANIA | NM : | Momela, Arusha. |
| | R : | Ilonga, Mlingano, Tabora, Ukiriguru. |
| | MC : | Lindi, Songea. |
| UGANDA | L : | Mweya. |
| | B : | Nakawa. |
| ETHIOPIA | NM : | Neghelli, Bongozi (lower Omo River). |
| | GM : | "Eritrea". |
| SOMALIA | NM : | Durdureh, Murdugh, Hargeisa. |
| SOCOTRA | NM : | "near R.A.F. Camp". |

Ssp. livornicoides (Lucas) 1891.

Deilephila livornicoides Lucas *Proc. Roy. Soc. Queensld.* 8: 73 (Toowoomba, Queensland).

The Australian race; no subspecies of *C. lineata* has so far been recorded from the Malay archipelago or from New Guinea.

RHODAFRA R. & J. 1903

Novit. zool. 9 suppl. : 740; type species *Sphinx opheltes* Cramer 1780.

Closely allied to *Celerio* Oken, but differs as follows: Antennae less incrassate distally, more slender; scales of external surface of palpus very long and slender forming a crest which appears as a continuation of the cilia surrounding the eye; abdominal spines more numerous, but weaker. Tibial spurs

less unequal, tarsal spines weaker; veins 6 and 7 of hw on a short stalk. Larva of *R. opheltes* Cramer without thoracic thickening and with a complete series of equal eye spots; horn very short.

RHODAFRA OPHELTES (Cramer) 1780.

Sphinx opheltes Cramer *Pap. ex.* 3: 164 ("Coromandel", patria falsa).

1875 *Deilephila mariae* Wallengren *Oefv. Vet. Ak. Forh.* 32, 1: 93.

A purely South African species.

RHODAFRA MARSHALLI R. & J. 1903. (VII; 9—XV; 16)

Novit. zool. 9 suppl. : 741 (Mashonaland, ♂).

Sexes alike. Fw. 23–29 mm. Antennae whitish. Head and thorax light olive-brown, whitish laterally. Abdomen paler olive-brown with two black lateral spots at base. Fw pale cinnamon buff, densely speckled with blackish. A small black stigma and a dark diagonal line from apex to inner margin at $\frac{3}{4}$ from base. Hw rosy red with a large black basal patch and a narrow black submarginal line. Termen and tornus buff speckled with blackish.

♀ GENITALIA: 8th tergite deeply incurved at posterior margin, with a small mesial projection at anterior margin. Vaginal plate consisting of two widely separated lobes at either side of ostium. Ostium very wide, opening ventrally. Colliculum short and wide, bent to the right, tapering at base of ductus. Ductus fairly long, wide with a sharp basal kink. Bursa small, not much wider than ductus. Signum short, U-shaped, near apex of bursa, on right side.

RANGE AND HABITAT

High, open country from Rhodesia to Kenya.

EAST AFRICAN RECORDS

KENYA NM : Nakuru, Muguga (Nairobi).

TANZANIA NM : Mufindi, Mbeya, Ngurdoto Crater.

CHAEROCINA R. & J. 1903

Novit. zool. 9 suppl. : 741; type species *C. dohertyi* R. & J. 1903.

Antennae long and slender, of uniform width. 2nd palpal segments open, not mutually appressed as in previous genera, smoothly scaled and without apical tuft; first segment narrow, covered externally by long, hair-like scales, joint of 1st and 2nd segments exposed. Eyes without cilia. Tibial spurs well developed, the inner ones more than twice the length of the outer ones. Tarsal spines strong and numerous. Genitalia of the usual pattern, modified scales very large, with a narrow midrib, very deciduous. Veins 6 and 7 of hw on a long stalk. Early stages unknown. 3 African species.

CHAEROCINA DOHERTYI R. & J. 1903.

Novit. zool. 9 suppl. : 742 (Kikuyu Escarpment, Kenya, ♂).

Ssp. dohertyi. (VII; 6—XVI; 1)

Sexes alike, although ♀ occasionally paler. Fw. 45–49 mm. Head and thorax dark brown, edged laterally with white, abdomen lighter brown. Fw lighter brown speckled with blackish, with broad basal and discal dark brown fasciae. A blackish ring at end of cell, and a thick dark line from apex to inner margin at $\frac{3}{4}$ from base. Hw bright red with black base and with a black submarginal line

which does not quite reach costa. Underside of body and wings ferruginous speckled with black, legs whitish.

♀ GENITALIA: post-vaginal plate a slender arc. Colliculum very wide and short. Ductus very long, bursa pear-shaped, minutely pitted, but not ribbed. Signum rather short and wide, smooth mesially, irregularly dentate laterally.

HABITAT AND RANGE

Highland forest in Kenya and Uganda.

EAST AFRICAN RECORDS

KENYA NM : Thomson's Falls, Molo, Kiganjo, Nyeri, Fort Hall, Kaptagat, Kakamega.
BM : Uplands, Lumbwa, Elgon.
UGANDA BM : Kalinzu, Nyakasura, Impenetrable forest (Kigezi).
K : Fort Portal.

Ssp. meridionalis nov. (IX; 10)

Similar to the nominate race, but the black band of the hw is displaced towards the margin, leaving only a very narrow pink terminal fringe, is broader and always reaches the apex.

HABITAT AND RANGE

Highland forest in S. Tanzania and Malawi.

HOLOTYPE ♀: Mufindi, Iringa, Tanganyika, II-1960. P. Burdon, to be deposited in BM (NH).

♀ PARATYPES: 4, data as above, in National Museum, Nairobi. There is also one specimen from Mbeya in the Robertson collection.

CHAEROCINA JORDANI Berio 1938. (VII; 7—XV; 11)

Bull. Soc. ent. Ital. 70: 85 (Eritrea, ♂).

♂: fw. 37–38 mm. Head and body bright deep green. Sides of thorax whitish pink. Fw deep green with four regular darker green transverse lines, a large black stigma and a black streak at apex. Inner margin narrowly pink. Hw blackish with a large green spot at margin, near tornus. Underside red at base, ochreous speckled with black elsewhere. Tow dark brown crenulate transverse lines, margins dark.

♀: unknown.

RANGE AND HABITAT

Highlands of Ethiopia.

RECORDS

ETHIOPIA NM : Adola, Gojeb, Dire Dawa.
BM : Harar.

CHAEROCINA ELLISONI Hayes 1963. (VII; 8)

Entomologist 96: 97 (Harar, ♂).

♂: fw. 34 mm. Head and thorax bright grass green with whitish edges. Abdomen paler green. Fw bright grass green with a straight darker green postmedial line. Hw paler green. Underside green.

♀: unknown.

RANGE AND HABITAT

Highlands of Ethiopia.

RECORDS

Only known from the Holotype and two Paratypes from Harar, all in the BM (N.H.).

EUCHLORON Boisduval 1875

Spec. Gen. Lep. Het. 1: 213; type species *Sphinx megaera* L. 1758.

Very similar to *Chaerocina*; palpi open as in *Chaerocina*, but outer scaling of 1st segment normal; 2nd segment shorter with bare patch thinly clothed with small rounded scales, and joint of 1st and 2nd segments covered by scales, not exposed. Only one species.

EUCHLORON MEGAERA (L.) 1758.

Sphinx megaera L. *Syst. Nat.* 10: 492 (Africa).

Ssp. megaera. (VII; 5)

Sexes alike. Fw. 40–50 mm. Body and fw bright deep green. Fw with a black and white spot at base, a dark brown spot near tornus and one or two at costa. Hw orange-yellow with an irregular brown margin turning greenish near tornus. A black spot at base and a large, elongated black spot from inner margin to vein 5.

♀ GENITALIA: post-vaginal plate smooth, tongue-shaped. Colliculum broad, tapering from ostium. Ductus long and slender. Bursa oval, pleated and pitted. Signum long, consisting of two series of short irregular transverse ridges, each carrying two or three small teeth, separated by a narrow, smooth median area.

RANGE AND HABITAT

Very common and widely distributed in most habitats except high mountains and very arid areas; most of Africa south of the Sahara, but not in the western Cape. Migratory.

EAST AFRICAN RECORDS

- | | | |
|----------|------|--|
| KENYA | NM : | Mombasa, Nairobi, Kakamega. |
| | SM : | Malindi, Shimo la Tewa, Kitale, Istsare. |
| UGANDA | NM : | Kampala, Katera, Kamengo, Kibale forest, Budongo forest. |
| | B : | Entebbe, Mabira, Nakawa, Nyabyeya, Chobe. |
| TANZANIA | NM : | Amani, Dar es Salaam. |
| | R : | Arusha, Ilonga, Mbeya, Mlingano, Tabora, Ukiriguru. |
| | MC : | Lindi, Songea. |
| ETHIOPIA | NM : | Adola. |
| | GM : | Afgoi. |

Ssp. lacordairei (Boisduval) 1833.

Faune Madag. & Bourb. : 73 (Madagascar).

Madagascar, Bourbon, Réunion and Mauritius.

BASIOTHIA Walker 1856

List. Lep. Ins. B.M. 8: 124; type species *B. idricus* Walker 1856, non Drury 1782 = *Sphinx medea* Fabricius 1781, Africa.

Small, stout insects. Antennae thick, clubbed in both sexes. 1st palpal segment crested apically on inner side, externally convex and with a transverse crest as in *Sphingonaepiopsis*. 2nd segment with

very large internal bare patch. Palpi closed. Eyes strongly ciliated. Abdominal spines numerous, but weak. Genitalia of the usual pattern; modified scales of ♂ long, in a single row of 5 to 8. ♀ with a sharp smooth anterior edge to the ostium, poorly developed post-vaginal plate, long slender ductus, rather short longitudinal signum. Larva strongly tapering in front.

BASIOTHIA MEDEA (Fabricius) 1781. (VII; 10)

Sphinx medea Fabricius *Spec. Ins.* 2: 143 (Africa aequinoctialis).

1782 *Sphinx idricus* Drury *Ill. ex. Ins.* 3: 2 (Africa).

1793 *Sphinx clio* Fabricius *l.c.* 3: 377 (Guinea).

1797 *Sphinx onotherina* Martyn *Psyche* t.23, f. 59–60.

1860 *Choerocampa transfigurata* Wallengren *Wien ent. Mon.* 4: 42.

Sexes alike. Fw. 22–25 mm. Body grass green. Fw grass green with 2 or 3 faint darker green transverse lines. Hw dull orange with a narrow brown margin.

♀ GENITALIA: colliculum broad and short, slightly tapering from ostium. Ductus very long, pleated. Bursa rounded, pleated, but not pitted. The smooth median part of signum rather wide, the lateral teeth irregular, arranged in transverse series.

HABITAT AND RANGE

Common in open habitats throughout the Ethiopian Region, including Madagascar; probably absent from the equatorial forest belt, except as a vagrant. An active migrant.

EAST AFRICAN RECORDS

KENYA	NM	: Thika, Thomson's Falls, Nairobi, Sultan Hamud, Mtito Andei, Kitale, Machakos, Aberdares.
	S	: Mombasa.
	SM	: Istsate.
UGANDA	NM	: Kamengo.
	SM	: Bombo.
	L	: Mweya.
TANZANIA	B	: Chobe.
	R	: Arusha, Dar es Salaam, Ilonga, Mbeya, Mlingano, Tabora.
	MC	: Lindi, Songea, Nachingwea.
ETHIOPIA	NM	: Dire Dawa.
ERITREA	BE	: Elaberet.

BASIOTHIA CHARIS (Boisduval) 1847. (VII; 11)

Choerocampa charis Boisduval in Deleg. *Voy. Afr. austr.* : 595 (Natal).

1856 *Choerocampa celerionina* Walker *List Lep. Ins. B.M.* 8: 136 (Congo).

1875 *Choerocampa celerina* Boisduval *Spec. Gen. Lep. Het.* 1: 238.

Sexes alike. Fw. 22–25 mm. Head and body golden brown with a double gold dorsal line. Fw golden reddish-brown with a straight whitish line from middle of inner margin to apex. Two parallel darker straight lines near outer margin. Ground colour interrupted by whitish streaks along the veins inside whitish line. Hw crimson with a narrow brown border.

♀ GENITALIA: ostium deeply incurved proximally. Colliculum tapering, curved to the right. Ductus long and slender, with a basal kink. Bursa elongate, pleated and very lightly pitted. Signum of the usual type, but longer than in other species of the genus.

HABITAT AND RANGE

Fairly common in most habitats, excluding very dry areas, throughout Africa south of the Sahara. Not recorded from Madagascar.

EAST AFRICAN RECORDS

KENYA	NM :	Nakuru, Kakamega, Ruiru, Kitale, Aberdares, Mt. Elgon, Kiganjo.
	SM :	Istsare.
	S :	Mombasa.
	BM :	Hoey's Bridge, Kaimosi, Rabai.
UGANDA	NM :	Fort Portal.
	BM :	Masindi.
	B :	Kampala.
	L :	Mweya.
TANZANIA	R :	Arusha, Dar es Salaam, Mbeya, Mlingano, Tabora.
	MC :	Njombe.
ETHIOPIA	BM :	Arussi.

BASIOTHIA SCHENKI (Möschler), 1872.

Chaerocampa schenki Möschler *Stettin ent. Ztg.* 33: 339 (Natal).

1872 *Chaerocampa protocharis* Möschler *l.c.* 33: 340.

Recorded with certainty from South Africa and Rhodesia only; frequently confused with the preceeding species.

BASIOTHIA LATICORNIS (Butler) 1879.

Gnathostypsis laticornis Butler *Ann. Mag. nat. Hist.* (5) 4: 233 (Madagascar).

1879 *Chaerocampa bifasciata* Mabile *Ann. Soc. ent. France*: 345 (Madagascar).

Known from Madagascar only.

BASIOTHIA AUREATA (Karsch) 1891 comb. nov. (VII; 12—XV; 8,13—XVI; 7,8)

Ocyton aureata Karsch *Ent. Nachr.* 17: 293 (Barombi, Cameroons).

1894 *Lophuron brevipenne* Rothschild *Iris* 7: 296 (Cameroons).

1903 *Temnora aureata* R. & J. Novit. *zool.* 9 suppl. : 569.

Although placed in *Temnora* by Rothschild & Jordan in their Monograph of 1903, the structure of the palpi and of the pilifer as well as the early stages of this species undoubtedly agree with those of the Choerocampini, and particularly of the genus *Basiothia*. *B. aureata*, with its more slender antennae and long-snouted pupa appears to be a link between *Basiothia* and *Hippotion*. The palpi and genitalia agree with those of *Basiothia medea*.

Sexes alike. Fw. 20–23 mm. Head and body reddish-brown, the abdomen decorated with tiny golden dots. Fw reddish-brown mottled with pinkish-brown, particularly at the base, the apex and above the tornus. Numerous oblique darker transverse lines. Hw paler, with a dark brown margin. The females are sometimes darker.

♀ GENITALIA: anterior margin of ostium semi-circular. Colliculum short and wide. Ductus long and slender, slightly kinked basally. Bursa pear-shaped, pitted, but only pleated at the base. Signum short and broad, with prominent teeth.

EARLY STAGES: (after D. G. Sevastopulo).

LARVA (FINAL INSTAR): head green. Body green, a darker green dorsal line and traces of a darker subdorsal line with a few black specks in it. 4th somite with a smoky subdorsal mark with a diffuse

whitish streak across its lower third. 5th somite with an ocellus consisting of a very dark green, white dotted oval pupil, surrounded by a ring, creamy yellow above and red below, the whole ringed by a fine black line and joined to a triangular black spot above. Legs and prolegs pink. Horn thin, straight, smooth and black. Spiracles white with a central black transverse bar.

PUPA: in surface litter. Pale bone with a greenish dorsal stripe on the abdomen and a series of sub-dorsal black dots, one on each somite. A broken black ventral line. Wing and leg cases finely speckled with black. Spiracles black. Slender in shape, with head produced into a projection rather like a duck's bill. Cremaster a cone ending in a cluster of stout hooked spines.

FOOD PLANT: *Impatiens* sp. (Balsaminaceae).

RANGE AND HABITAT

Wooded habitats from Liberia to Kenya in the east and to Angola, Zambia and Rhodesia in the south.

EAST AFRICAN RECORDS

KENYA NM : Nakuru.
SM : Kitale, Istsare.
S : Mombasa.
BM : Eldama, Kaimosi.

UGANDA NM : Entebbe, Nyakasura, Fort Portal.
BM : Kampala, Katera, Ruwenzori.
K : Nagunga.

TANZANIA NM : Lyamungu, Arusha, Amani, Mufindi.
BM : Kalambo River, Morogoro.
MC : Lindi, Songea.
R. & J. : Zanzibar.

HIPPOTION Hübner 1822

Verz. bek. Schmett. : 134; type species *Sphinx celerio* L. 1758.

Medium to large sized moths, generally more streamlined than in previous species.

1st segment of palpus densely scaled at apex internally, not convex externally. *H. irregularis* Walker has an apical external cavity as in *Theretra*. 2nd segment without apical tuft of scales. Antennae more slender than in *Basiothia*, clubbed in the ♀. Larva strongly tapering in front, fifth segment enlarged, ocelli present. Pupa with projecting proboscis sheath.

Twenty two species, of which fourteen are Ethiopian, one Ethiopian and Mediterranean, one Old World and six oriental.

HIPPOTION GERYON (Boisduval) 1875.

Choerocampa geryon Boisduval *Spec. Gen. Lep. Het.* 1: 241 (Antananarivo, Madagascar).
Madagascar and Comoro Islands.

HIPPOTION OSIRIS (Dalman) 1823. (VIII; 4)

Deilephila osiris Dalman *Anal. Entom.* : 48 (Africa).

Sexes alike. Fw. 34–42 mm. Body light brown. Head and thorax brownish pink laterally. Tegulae edged with silvery white and with a longitudinal silvery line from base to apex. Abdomen with a double silvery dorsal line and silvery lateral lines from 3rd abdominal tergite to apex. Two large lateral black spots at base. Fw light brown, with an almost straight triple silvery line from inner margin near

base to apex, a number of pinkish brown streaks in anterior part of wing, and a straight submarginal silvery line followed by a pinkish brown terminal band. Hw bright pink with a black spot near base, some irregular black mottling near costa, and a black submarginal band. Marginal area pinkish brown. Similar to *H. celerio* L. but may be distinguished by its greater size and black lateral spots on abdomen.

RANGE AND HABITAT

Common throughout most of the Ethiopian Region, including Madagascar and the Seychelles. Occasional vagrants have been recorded from Spain. Uncommon on the East African coast. An occasional migrant.

EAST AFRICAN RECORDS

- KENYA NM : Nakuru, Nairobi.
SM : Kitale, Istsare.
S : Mombasa.
- TANZANIA NM : Amani, Musoma, Ukerewe.
R : Arusha, Dar es Salaam, Ilonga, Mbeya, Mlingano, Tabora, Ukiriguru.
MC : Lindi, Songea, Nachingwea.
- UGANDA NM : Kampala.
B : Jinja, Nakawa, Nyabyeya.
L : Mweya.
- ETHIOPIA NM : Dire Dawa.

HIPPOTION CELERIO (L.) 1758 *Sphinx celerio* L. *syst. Nat.* 10: 491. (VIII; 1)

1758 *Sphinx tisiphone* L. *l.c.* : 492.

1781 *Phalaena inquilinus* Harris *Exp. Engl. Ins.* : 93.

1815 *Elpenor phoenix* Oken *Lehrb. Naturg.* 3: 760.

1822 *Hippotion ocys* Hübner *Verz. bek. Schmett.* : 135.

1864 *Deilephila albo-lineata* Montrouzier *Ann. Soc. Linn. Lyons* 11: 250 (Kanala).

Sexes alike. Fw. 30–32 mm. Similar to *H. osiris* but smaller. Dorsal line on abdomen pale brown, not silvery. Silvery lateral lines interrupted at each tergite. Black lateral spots missing. Ground colour of fw darker, oblique silvery band more prominent, pale markings on anterior part of fw less conspicuous. Hw bright pink at base only; a series of black streaks along the veins connecting black costal area with black submarginal band; marginal band narrower and darker than in *H. osiris*.

RANGE AND HABITAT

Very common throughout the Ethiopian Region including Arabia, Socotra, the Seychelles and Madagascar. Also common throughout the Oriental Region and the southern Palaearctic region, from south Europe to Japan. Also present in Australia, but not in New Zealand. Occasional vagrants have been recorded in Great Britain. It is a vigorous migrant which prefers arid and semi-arid habitats. In forested areas it is much commoner in the dry season than in the wet season.

EAST AFRICAN RECORDS

- KENYA NM : Nairobi, Sultan Hamud, Makueni, Aberdares, Nakuru,
S : Mombasa.
SM : Kitale, Istsare.
- UGANDA SM : Kitgum, Bombo, Entebbe, Kampala.
B : Jinja, Nyabyeya, Mweya, Chobe, Nakawa.
- TANZANIA NM : Amani, Shinyanga.
R : Arusha, Dar es Salaam, Ilonga, Mbeya, Mlingano, Tabora, Ukiriguru.
MC : Lindi, Songea, Nachingwea.

ETHIOPIA GM : "Ethiopia" and "Eritrea".
SOMALIA NM : Hargeisa.

HIPPOTION CHLORIS R. & J. 1907. (VIII; 6—XVII; 3)
Novit. zool. 14: 94 (Njoro, British East Africa, ♂).

♂: fw. 32 mm. Body more robust than in previous species, olive green. Fw olive green, marked as in *H. celerio*, but broader, more rounded at termen. Hw as in *H. celerio*, but pink duller, black areas better developed. This species is known from the type only and its appearance and rarity suggest that it is probably a natural hybrid of *H. celerio* and *Basiothia medea*. The genitalia are precisely intermediate between the two species and confirm this view. Natural hybrids of well differentiated species are probably more frequent among the Sphingidae than in most other groups of insects.

HIPPOTION APORODES R. & J. 1912. (VIII; 2—XV; 2,15)
Novit. zool. 19: 135 (Bibianaha, Gold Coast, ♂).

Sexes alike. Fw. 28–34 mm. Very closely allied to *H. celerio*; it differs in being consistently darker, in the oblique band of the fw being more evenly curved, buff instead of silvery and enclosing 3 narrow but distinct, dark brown parallel lines. Hw as in *H. celerio*, but crimson patch at base deeper in tone, blackish markings better developed, invading most of the wing with the exception of the base, inner margin and a series of internervular post-median spots which are crimson.

♂ GENITALIA: similar to *H. celerio*, but gnathos with a strongly sclerotised apical tooth. Four large modified scales. Harpe sinuous, more slender, smooth. Aedeagus as in *H. celerio*, but apical teeth smaller.

♀ GENITALIA: as in *H. celerio*, but bursa larger, signum a good deal longer.
EARLY STAGES: unknown.

RANGE AND HABITAT

Forests from the Ivory Coast to the Congo and Uganda. A single specimen taken by A. I. D. Robertson at Arusha, must be regarded as a vagrant. *H. aporodes* tends to replace *H. celerio* in the main equatorial forest belt, and the two species appear to be ecological vicariants. In W. Africa *H. aporodes* is a strong migrant, moving regularly North and South with the Intertropical Convergence Zone (J. Bowden, personal communication).

EAST AFRICAN RECORDS

KENYA NM : Kakamega.
UGANDA NM : Fort Portal, Kampala, Kalinzu, Budongo.
BM : Mulange, Jinja, Kamengo.
B : Nakawa.
TANZANIA NM : Minziro forest (Bukoba), Arusha.

HIPPOTION HORUS Rober 1921.
Ent. Rdsch. 38: 24 (Cameroons).
Almost certainly a synonym of *H. aporodes* R. & J.

HIPPOTION AURORA R. & J. 1903.
Novit. zool. 9 suppl. : 812 (Diego Suarez, Madagascar, ♀).

Ssp. aurora.
Madagascar and Assumption Islands.

Ssp. gloriosanum R. & J. 1915.

Novit. zool. 22: 293 (Gloriosa Island, near Madagascar).

Ssp. delicatum R. & J. 1915.

Novit. zool. 22: 293 (Farquhar Island, near Madagascar).

HIPPOTION ISIS R. & J. 1903.

Novit. zool. 9 suppl. : 753 (patria incognita, ♂).

Based on a single specimen of unknown origin in the Stockholm Museum, but assumed to be African by R. & J. The description suggests that it may possibly be a natural hybrid of *H. celerio* L. and *H. eson* Cramer.

HIPPOTION ESON (Cramer) 1779. (VIII; 3)

Sphinx eson Cramer *Pap. exot.* 3: 57.

1875 *Chaerocampa gracilis* Butler *Proc. zool. Soc. Lond.* : 8 (Congo).

Sexes alike. Fw. 32–40 mm. Head and thorax light brown, edged with white laterally. Abdomen slightly paler, with numerous faint darker longitudinal lines on dorsum and a broader, indistinct golden line on each side. Fw light brown with several darker almost straight marginal and diagonal lines meeting at the apex; a very small black stigma. Hw red with an irregular black spot at base and black at the costa. Tornus fawn, marginal band narrow, light brown, fading towards tornus.

RANGE AND HABITAT

Very common in most habitats throughout the Ethiopian Region, including Madagascar and the Seychelles. Migratory.

EAST AFRICAN RECORDS

- | | | |
|----------|------|---|
| KENYA | NM : | Nyeri, Nakuru, Aberdares, Kibwezi, Thomson's Falls. |
| | SM : | Kitale, Istsare, Elgon, |
| | S : | Mombasa. |
| UGANDA | NM : | Kamengo, Aremo. |
| | SM : | Budongo. |
| | B : | Entebbe, Kalinzu, Nyabyeya, Mweya, Chobe. |
| TANZANIA | NM : | Mpanda, Shinyanga. |
| | R : | Arusha, Ilonga, Mbeya, Mlingano, Tabora, Ukiriguru. |
| | MC : | Lindi, Songea. |
| ETHIOPIA | NM : | Dire Dawa. |

A ♀ in the National Museum (KENYA, Nyeri, 12–VII–1948, C. H. Stockley, No. 11. 484, ex Townsend Collection), is very probably a natural hybrid of *H. celerio* and *H. eson*. Its description is as follows: fw. 35 mm. Body as in *H. eson*. Fw as in *H. eson*, but oblique and marginal bands somewhat more distinct. Hw very pale brown, broadly black at base. A very narrow black submarginal line fading before tornus; narrow black streaks along veins. It could also be a hybrid of *H. eson* and *H. balsaminae* Walker. (VIII ;5)

HIPPOTION BALSAMINAE (Walker) 1856. (VIII; 7)

Chaerocampa balsaminae Walker *List. Lep. Ins. B.M.* 8: 138 (Natal).

Sexes alike. Fw. 24–28 mm. Head and body very pale sandy brown, with faint darker longitudinal lines. Fw of the same colour with numerous thin darker, regular oblique and submarginal lines meeting at the apex; the two anterior oblique lines darker and more prominent than the others. Hw blackish with a very light sandy brown submarginal line.

RANGE AND HABITAT

Common in most habitats throughout the Ethiopian Region, including Madagascar.

EAST AFRICAN RECORDS

KENYA NM : Ruiru, Nairobi, Thomson's Falls.
SM : Kitale, Istsare.
S : Mombasa.
UGANDA NM : Bwamba, Kamengo, Entebbe.
B : Mweya, Chobe, Nakawa.
TANZANIA NM : Amani, Ukerewe.
R : Dar es Salaam, Ilonga, Mbeya, Mlingano, Tabora, Ukiriguru.
MC : Njombe.
SUDAN NM : Tombe, Bahr el Ghazal.

HIPPOTION PENTAGRAMMA Hampson 1910. (VII; 15)

Ann. nat. Hist. 5: 455 (British Somaliland, ♂).

1916 *Hippotion roseipennis somalicum* Jordan *Proc. zool. Soc. Lond.* : 140.

Sexes alike. Fw. 22–24 mm. Head, body and fw pale sandy brown. Fw marked with five narrow evenly curved parallel darker lines from inner margin to apex and costa. The intensity of these lines is variable and some specimens are almost unmarked. Hw greyish brown at base, pinkish towards outer margin. Underside pinkish.

♂ **GENITALIA**: uncus with a sharply downcurved apical tooth. Gnathos short and broad; apex heavily sclerotised, very wide and minutely dentate. Valve with a single very large modified scale. Harpe irregularly sinuate, short, smooth, with point directed upwards. Aedeagus with a single large apical spine directed downwards on the left side and a very small tooth on the right. Vesica unarmed.

♀ **GENITALIA**: colliculum very deeply incurved at ostium. Ductus long with a saclike flap near base. Bursa elongated pitted and pleated. Signum long and rather wide, its lateral serrated edges narrow, leaving a wide median plate unarmed.

RANGE AND HABITAT

Arid areas in Arabia, Somalia and Ethiopia.

EAST AFRICAN RECORDS

ETHIOPIA BM : Dire Dawa.
SOMALIA NM : Hargeisa.
BM : Daladu.

NOTE: This species is very closely allied to *H. roseipennis* Butler, is very similar to it in appearance, occupies a similar habitat and has identical genitalia in both sexes. Jordan treated it as a subspecies of *roseipennis*, but the apparent absence of transitions despite the lack of any sort of ecological barrier between the ranges of the two insects, suggests that they probably are good species.

HIPPOTION ROSEIPPENNIS (Butler) 1882. (VII; 14)

Diodosida roseipennis Butler *Ann. Mag. nat. Hist.* (5) 10: 433 (Delagoa Bay, ♂).

- 1915 *Hippotion exclamatoris* Fawcett *Proc. zool. Soc. Lond.* : 109 (Masongaleni, B.E.A., ♂).
 1930 *Hippotion exclamatoris austrinum* Jordan *Novit. zool.* 36: 5 (Zululand, ♂).

A variable species. Sexes alike. Fw. 22–25 mm. Ground colour of body and fw very pale sandy, to light ochreous-olive, lightly speckled with black in form *exclamatoris* Fawcett, darker and heavily dusted with black in form *austrinum* Jordan. Fw with 2 parallel curved lines from inner margin to apex and a dark wedge-shaped stigma. In some specimens the parallel lines are almost wanting, in others they are outlined by dark dots at the veins. Hw brownish, pinkish at the margin. Underside light brown to light reddish-brown variously marked and speckled with darker brown.

Genitalia of both sexes as in *H. pentagramma*.

HABITAT AND RANGE

Dry areas from Natal and Mozambique to Rhodesia, Zambia, Malawi, Tanzania, Kenya, Uganda and S. W. Ethiopia.

EAST AFRICAN RECORDS

- KENYA NM : Kibwezi, Sekoke, Kisumu, Makueni, Shimba Hills, Mtwapa, Isiolo.
 S : Mombasa.
 BM : Gazi, Nairobi, Kakamega.
 TANZANIA NM : Ukerewe, Ziwani, Moshi.
 R : Dar es Salaam, Ilonga, Mlingano, Tabora, Ukiriguru.
 BM : Mwanza, Banagi.
 UGANDA BM : Jinja, Kibero (Unyoro).
 L : Mweya.
 ETHIOPIA NM : Bongozi (lower Omo River).

HIPPOTION REBELI R. & J. 1903. (VII; 16)
Novit. zool. 9 suppl. : 761 (Bahr el Seraf, Sudan, ♀).

Sexes alike. Very similar to *H. roseipennis*, and equally variable, but larger and generally more reddish on both sides and more heavily marked. Fw. 25–28 mm.

♂ GENITALIA: very similar to *H. pentagramma* and to *H. roseipennis*, but differs in having a shorter, more sharply upcurved harpe and a long, curved apical spine on the aedeagus.

♀ GENITALIA: very similar to the two preceding species, but colliculum shorter and broader.

RANGE AND HABITAT

Dry areas in northern Uganda, Kenya, Tanzania, the Sudan, Ethiopia, Somalia and Arabia.

EAST AFRICAN RECORDS

- KENYA NM : Ndoto, Kinna, Voi.
 UGANDA B : Chobe.
 SUDAN: Bahr el Seraf (Type, Vienna Museum).
 ETHIOPIA NM : Dire Dawa, Bongozi (lower Omo River).
 ERITREA NM : Dorfu.
 SOMALIA NM : Hargeisa.
 BM : Berbera.
 PM : Obock.
 TANZANIA NM : Manyara, Dar es Salaam.

HIPPOTION IRREGULARIS (Walker) 1856. (VIII; 8—XV; 3)
Pergesa irregularis Walker *List. Lep. Ins. B.M.* 8: 152 (West Africa, ♀).

1886 *Theretra crossei* Rothschild iii, p.22, n.3 (Assaba) (*sic* in *Novit. zool.* 9 suppl. : 761).

1st palpal segment with an external apical cavity, as in *Theretra*. Sexes alike. Fw. 33–36 mm. Body and fw olive-ochreous. Fw slightly mottled with brown and marked with a few faint oblique lines, evenly curved from inner margin to apex, crenulate near margin. A small blackish stigma and a series of blackish dots at the veins from middle of inner margin to apex. Hw dark brown with a pale spot at tornus.

♂ GENITALIA: uncus apically blunt. Gnathos short and broad, very heavily sclerotised apically. Valve narrow, with 4 large modified scales. Harpe short, terminating in 2 sharp spines. Aedeagus apically unarmed. Vesica unarmed.

♀ GENITALIA: ostium surrounded laterally and posteriorly by a wide sclerotised band. Colliculum broad and very short. Ductus slender and extremely long, with a basal kink. Bursa rounded and pitted. Signum of the usual pattern, long and rather broad.

EARLY STAGES: unknown.

RANGE AND HABITAT

Forests from Liberia to the Congo, Uganda and W. Kenya. Also in the Usambara area of Tanzania.

EAST AFRICAN RECORDS

KENYA NM : Kapsabet, Kakamega.

UGANDA NM : Kamengo, Kampala, Masaka, Budongo.

SM : Bombo, Katera.

BM : Entebbe.

TANZANIA NM : Amani, Ilonga.

BM : Nguelo.

R : Mlingano.

HIPPOTION ROSAE (Butler) 1882.

Darapsa rosae Bulter *Ann. Mag. nat. Hist.* (5) 10: 433 (Delagoa Bay, ♀).

Ssp. rosae. (VIII; 9)

♂: fw. 40–43 mm. Head and body grey; sides of thorax white. Antennae bright pink. Fw grey, speckled with blackish. Faint traces of darker anteromedial and postmedial lines. A prominent black stigma and some dark irrorations alternating with creamy ones at the hind margin. Hw grey, with a yellowish tinge. Cilia chequered. Underside uniform light grey with dark speckles.

GENITALIA: uncus and gnathos slender, of similar length. Harpe rather long, apically upcurved, with irregular upper margin. Aedeagus rather short and stout, slightly curved, with a dorso-apical reflexed flange terminating in two lateral dentate processes. Vesica unarmed. Modified scales small and numerous.

♀: fw. 41–45 mm. Similar to ♂, but wings broader and more rounded.

GENITALIA: colliculum broad, tapering towards ostium, wider at base of ductus. Ductus very wide and short, with two lateral sac-like extensions. Bursa long, but no wider than ductus, pleated, but not pitted. Signum of the usual pattern, but ending well short of the apex of the bursa.

HABITAT AND RANGE

Dry areas from South-West Africa to Mozambique and northwards to East Africa. The ♂ are very much rarer than the ♀.

EAST AFRICAN RECORDS

- KENYA NM : Shimoni, Mombasa.
 BM : Simba.
 UGANDA S : Kampala (One ♀, should be regarded as a vagrant).
 TANZANIA R : Dar es Salaam, Ilonga, Mlingano, Ukiriguru.
 MC : Lindi, Songea.
 ESB : Manyara.

Ssp. guichardi nov. (X; 1,2—XV; 4)

Differs from the nominate race in being smaller and broader winged, with less acute apices and less produced tornus. Antennae pink, but paler than in *rosae*; colour of wings and body greyer without trace of buff and all markings only very faintly indicated. Genitalia as in *rosae*. Fw 29 mm. in ♂, 34 mm. in ♀.

HOLOTYPE ♂: Socotra, Hadibo Plains, 12–IV–1967, leg. K. M. Guichard, British Museum No. 1967–389.

ALLOTYPE ♀: Socotra, Hadibo Plains, 3–V–1967, leg. K. M. Guichard, British Museum No. 1967–389.

Both specimens in British Museum, Natural History.

HIPPIOTON DEXIPPUS Fawcett 1915.

Proc. zool. Soc. Lond. : 109 (Kedai, B.E.A., ♂).

♂: very similar to *H. rosae*, but antennae grey, colour slightly more ochreous, dark markings slightly better developed. Usually smaller than *H. rosae* (34–36 mm.).

GENITALIA: as in *G. rosae*.

♀ AND EARLY STAGES: unknown.

RANGE AND HABITAT

Dry areas in eastern Kenya.

RECORDS

KENYA BM : Kibwezi, Kedai.

NOTE: The scantiness of the material available makes it impossible to assess the true status of this insect. It is unlikely to be a northern race of *H. rosae*, as the ranges of the two insects overlap in eastern Kenya; it could however be a seasonal form of *H. rosae* restricted to the drier parts of its range.

HIPPIOTON MOOREI Jordan 1926. (VIII; 11—XV; 1—XVI; 4)

Novit. zool. 33: 383 (Mwanza, ♂).

1926 *Hippotion moorei canens* Jordan l.c. (Daladu, Ethiopia, ♀) syn. nov.

Very similar to *H. rosae*, but can be readily distinguished, by the absence of the white margins to the tegulae, the thorax being unicolorous. Sexes similar, but ♀ larger, broader winged. Fw 28–34 mm in the ♂, 35–40 in the ♀. Antennae bright pink. Some specimens (form *canens* Jordan) are identical with *H. rosae*, except for the absence of the white margins to the thorax. Others (form *moorei* Jordan) have pinkish hw and are pinkish below. More extreme specimens are completely bright vinaceous above and below, speckled with blackish. All transitions between the extreme grey and pink forms occur in the same localities and therefore there is no question of subspecific differentiation. These forms are probably seasonal and climatic, the grey individuals being wet season forms.

♂ GENITALIA: as in *H. rosae*. The upper part of the valve shows numerous small scars, suggesting the loss of numerous small modified scales. However, the scales, if present, must be extremely deciduous, as none were found on any of the specimens dissected.

♀ GENITALIA: as in *H. rosae*.

EARLY STAGES: unknown.

RANGE AND HABITAT

Dry areas from northern Tanzania to Ethiopia and Somalia.

RECORDS

KENYA NM : Mtito Andei, Voi, Melka Murri (Mandera).
BM : Kitale, Makindu.
TANZANIA NM : Ukiriguru.
BM : Mwanza (type)
ESB : Manyara.
ETHIOPIA BM : Daladu.
SOMALIA NM : Hargeisa.
BM : Malka Re,

HIPPOTION SOCOTRENSE (Rebel) 1899.

Metopsilus socotrensis, Rebel. Sitz. Ber. Akad. Wiss. Wien. 1899: 360 (Socotra, ♂).

Ssp. *socotrense*. (VII; 13—XV; 6)

♂: fw. 22 mm. Antennae pale buff, body and fw ochreous-olive. Fw with indications of an ante-medial band, and with a darker, broad diffuse medial fascia. Postmedial and submarginal indicated by 2 dark irregular lines from costa to vein 5. A short, indistinct oblique dark streak at apex. Hw uniformly darker brown. Cilia of both wings chequered.

GENITALIA: uncus slender. Gnathos short, very broad dorso-ventrally, apically sclerotised. Valve with numerous small scars, possibly indicating loss of modified scales. Harpe short, broad, apically upcurved. Aedeagus stout, curved, with a long, oblique apical row of teeth on right side, and a short dentate process on left. A rounded ventro-apical flap. Vesica unarmed.

♀ AND EARLY STAGES: unknown.

This subspecies is only known from the type at the B.M. and from another male collected by G. Popov at Hyama, Socotra, in the National Museum, Nairobi.

Ssp. *diyllus* (Fawcett) 1915 stat. nov. (VII; 17—XV; 5,14)

Hippotion diyllus Fawcett Proc. zool. Soc. Lond. : 109 (Kedai, B.E.A., ♂).

Sexes alike. Fw. 22–25 mm. Differs from the nominate race in having a paler, more greenish ground colour and a more reduced median band, usually indicated by a large, diffuse, central dark spot.

♂ GENITALIA: very similar to *H. socotrense socotrense*, but gnathos narrower dorso-ventrally, harpe shorter, with dorsal margin more irregular, saccus longer.

♀ GENITALIA: colliculum very short and broad, slightly bent to the right. Ductus very short. Bursa long, slightly pleated, but not pitted. Signum long, almost reaching apex of bursa, with very small teeth almost obliterating smooth medio-longitudinal area.

EARLY STAGES: unknown.

RANGE AND HABITAT

Dry areas from eastern Kenya to southern Ethiopia; almost certain to occur in Somalia, but not yet recorded.

RECORDS

KENYA NM : Voi, Mtito Andei, Wajir.
BM : Kedai (Type).
S : Mombasa.
ETHIOPIA NM : Neghelli.

HIPPOTION BUTLERI (Saalmüller) 1884.

Panacra butleri Saalmüller *Lep. Madag.* : 118 (Nossi-Be, Madagascar, ♀). Madagascar only.

HIPPOTION SACLAVORUM (Boisduval) 1833.

Deilephila sacclavorum Boisduval *Faune Madag. Bourb.* : 71 (Madagascar). Madagascar only.

HIPPOTION BATSCHI (Keferstein) 1878.

Chaerocampa batschi Keferstein *Jahrb. Ak. Erfurt* (2) 6: 14 (Tamatave).

1879 *Chaerocampa humilis* Butler *Ann. Mag. nat. Hist.* (5) 4: 234. Madagascar only.

HIPPOTION GRIVEAUDI nom. nov.

1959 *Hippotion albolineata* Griveaud *Faune Madag.* 8: 145 (Andranomandevy, East-central Madagascar, ♂).

Prooccupied by *Deilephila albo-lineata* Montrouzier 1864, a synonym of *Hippotion celerio* (L.). Madagascar only.

HIPPOTION STIGMA (R. & J.) 1903 comb. nov. (VIII; 10—XV; 7)

Temnora stigma R. & J. *Novit. zool. 9 suppl.* : 811 ("between Addis Abeba and Kismayo", ♀).

Sexes alike. Fw. 26–28 mm. Palpi small. Wing margins crenulated; apex of fw blunt, termen concave between veins 3 and 5. Head and body pale grey, with a large dark grey dorsal area on thorax. Fw pale grey; distal half of inner margin very dark grey. Termen dark grey from just above tornus to vein 6. A faint, thin rather wavy line from inner margin to vicinity of apex. Costa darker than rest of wing. A blackish dot at costa before apex; a sharply defined black stigma. Hw. pale grey, with lower half of outer margin and tornus blackish grey.

♂ GENITALIA: uncus downcurved, considerably longer than gnathos. Valve long and narrow, without trace of modified scales in the only ♂ known; a semi-circular thickening on outer surface, near apex of valve. Harpe rather short and wide, terminating in a short, sharp, abruptly up-curved spine. Aedeagus straight, with an apical curved toothed flange terminating in a stout down-curved hook which protrudes beyond apex. Vesica unarmed.

♀ GENITALIA: post-vaginal plate narrow; ante-vaginal plate completely membranous. Colliculum very short, with a slight twist to the right. Ductus very long. Bursa missing in the only ♀ available.

EARLY STAGES: unknown.

HABITAT AND RANGE

Arid regions of eastern and northern Kenya, Ethiopia and Somalia.

RECORDS

KENYA NM : Walas Did (Bura).
BM : Dandu.
? SOMALIA BM : Type.

NOTE: The size, general appearance and shape of this insect are reminiscent of *Temnora* and in fact it was placed in that genus by Rothschild and Jordan. Never-the-less, the structure of the pilifer and of the palpus agree very well with the Choerocampini. Here it is provisionally placed in *Hippotion*, despite the smallness of the palpi, which otherwise agree with that genus, and the unusual shape of the wings. It is most probable that when something is known of the early stages and more material becomes available, a new genus will have to be erected to accommodate *stigma*; however, it would be most unwise to base the description of a new genus on the very scanty and incomplete material available at present.

THERETRA Hübner 1822

Verz. bek. Schmett. : 135; type species *Sphinx nesus* Drury 1773, India.

1858 *Gnathostypsis* Wallengren *Oefv. Vet. Ak. Forh.* 15: 137; type species *Sphinx capensis* L. 1764.

1882 *Hathia* Moore *Lep. Ceylon* 2: 19; type species *Sphinx latreillei* Macleay 1827, Australia.

Very similar to *Hippotion*; second segment of palpus with internal apical tuft of scales directed ventrad; apex of first segment densely and regularly scaled internally; an external apical cavity always present on first segment.

Male genitalia as in *Hippotion*, but cornuti present in some species.

Larva more strongly tapering than in *Hippotion*, always ocellated. Proboscis case of pupa always prominent and laterally compressed. About 30 species, 7 of which are African, the remainder Oriental, Australian and Palaearctic.

THERETRA CAPENSIS (L.) 1764. (VII; 12—XVI; 2)

Sphinx capensis L. *Mus. Lud. Ulr.* : 349 (Cape of Good Hope).

1774 *Sphinx megara* Muller *Naturs.* 5: 642 (India).

1779 *Sphinx aeas* Cramer *Pap. exot.* 3: 57.

1779 *Sphinx cecrops* id. *l.c.* : 57.

1790 *Sphinx immaculata* Gmelin *Syst. Nat.* 1: 2386.

1860 *Gnathostypsis ostracina* Wallengren *Wien. ent. Mon.* 4: 42 (Caffraria).

Sexes alike. Fw. 44–52 mm. Body and fw pale greenish-brown, greyish-green, buff, or pale reddish brown, sometimes with a darker postmedial band. Hw uniform rosy red.

♂ GENITALIA: uncus short, very slender. Gnathos short and broad, slightly upcurved. Modified scales numerous, small, very slender. Harpe a slender upcurved point. Aedeagus stout, armed dorso-apically with an oblique dentate ridge. Vesica armed with two spiny flaps.

♀ GENITALIA: colliculum short and very broad, tapering suddenly at base of ductus. Ductus short and wide. Bursa short and rounded, pleated and minutely pitted. Signum of the usual type, broad, and almost reaching apex of bursa.

RANGE AND HABITAT

Woodland and open habitats from the Cape to Rhodesia, Zambia, Katanga, Malawi, Mozambique and East Africa.

EAST AFRICAN RECORDS

- KENYA NM : Nairobi, Ruiru, Kiganjo.
 SM : Kitale, Istsare.
 S : Mombasa.
- UGANDA NM : Mt. Kadam, Karamoja.
- TANZANIA NM : Mufindi, Amani, Momela, Ndolage.
 R : Dar es Salaam, Ilonga, Mbeya, Mlingano, Tabora, Ukiriguru.
 MC : Lindi, Songea.
- ETHIOPIA NM : Neghelli, Bulale.

THERETRA TESSMANNI Gehlen 1927.

Int. ent. Z. Guben 21: 174 (Cameroon). Cameroon and Nigeria.

THERETRA JUGURTHA (Boisduval) 1875. (VIII; 13—XV; 10)

Choerocampa jugurtha Boisduval *Spec. Gen. Lep. Het.* 1: 256 (Senegal).

1894 *Theretra oblitterata* Rothschild *Novit. zool.* 1: 75 (Sierra Leone).

1893 *Choerocampa clotho* Schaus & Clemens *Sierra Leone Lepid.* : 18.

Sexes alike. Fw. 37–45 mm. Body and Fw ochreous olive, hw dark brown, very much like a large edition of *Hippotion irregularis* Walker.

♂ GENITALIA: very similar to *T. capensis*, but aedeagus longer, spines of vesica longer,

♀ GENITALIA: very similar to *T. capensis*, but colliculum very much longer.

EARLY STAGES: (after D. G. Sevastopulo)

5TH INSTAR: head and body green. Dorsal area with large yellow dots. A bluish dorsal line. A white subdorsal stripe edged above with dark green from 6th somite to base of horn. Lateral area more bluish; a series of oblique lateral white stripes. Ocellus very protruberant, upper half lilac, lower half white. Horn lilac, very short and downcurved. Spiracles cream. Legs yellow. Venter and prolegs blue-green. Anal flap yellow-green edged with blue-green. Before pupation ground colour changes to olive brown and ocellus becomes black.

PUPA: in slight cocoon in surface litter. Gingery brown minutely speckled with darker brown and with paler specks on abdomen. Head and thorax darker, venter paler with a broad greenish-grey median band. Proboscis sheath not produced frontally, with deep furrow on either side at base. 7th abdominal somite very short, with posterior edge overlapping the 8th which has two deep ventro-lateral pits. Cremaster conical, ending in two divergent bifid spines.

FOOD PLANT: *Vitis* (Ampelidaceae).

RANGE AND HABITAT

Wooded areas in tropical Africa.

EAST AFRICAN RECORDS

- UGANDA NM : Bwamba, Katera, Makerere.
 BM : Jinja, Entebbe.
- TANZANIA NM : Amani.
 R : Ilonga, Mlingano.
 MC : Lindi, Songea.

THERETRA CAJUS (Cramer) 1777.

Sphinx cajus. Cramer *Pap. exot.* 2: 80 (Cape of Good Hope).

1782 *Sphinx celaeno* Esper *Ausl. Schmett.* 2: 203.

1782 *Sphinx gordius* Stoll, in Cramer, *Pap. exot* 4: 147.

1822 *Xylophanes gortys* Hübner *Verz. bek. Schmett.* : 136.

1847 *Choerocampa epicles* Boisduval in Deleg., *Voy. Afr. Austr.* : 595 (Zululand).

South Africa and Rhodesia.

THERETRA PERKEO (R. & J.) 1903 stat. nov. (VIII; 15)

Theretra cajus perkeo R. & J. *Novit. zool.* 9 suppl. : 781 (Ogrugra, Nigeria, ♂).

Sexes alike. Fw. 19–21 mm. Pinkish-brown with a darker oblique stripe and a parallel series of narrow paler lines from hind-margin of fw to vicinity of apex. Head and body with a dorsal silvery line, hw uniform pinkish-brown. Underside uniform reddish-brown, paler at the margin.

♂ GENITALIA: very much like a *Hippotion*. Harpe long and slender, upcurved. Modified scales large, 5 in number. Aedeagus slightly curved, armed subapically on the right side with an elongated ring of small teeth. Vesica unarmed.

♀ GENITALIA: vaginal plates membranous. Colliculum wide, wider at ductus, curving to the right. Ductus moderately long and slender. Bursa small and rugose. Signum very small, elliptical, near apex of bursa.

EARLY STAGES: unknown.

RANGE AND HABITAT

Arid areas north of the equatorial forest belt, from Senegal to northern Uganda.

EAST AFRICAN RECORDS

UGANDA B : Lukung (Acholi).

This species was treated by Rothschild and Jordan as a subspecies of *T. cajus* Cramer, for reasons which are not clear. Apart from *T. perkeo* being little more than half the size of *T. cajus*, much more slender and very different in appearance, the enormous gap between the ranges of the two insects makes a racial connection extremely improbable.

THERETRA MONTEIRONIS (Butler) 1882. (VIII; 14)

Choerocampa monteironis Butler *Ann. Mag. nat. Hist.* (5) 10: 433 (Delagoa Bay, ♀).

1923 *Theretra cajus ugandae* Clark *Proc. New Engl. zool. Cl.* 8: 63 (Kibwezi, Kenya ("Uganda"))
syn. nov.

Sexes alike. Fw. 20–23 mm. Very similar to *T. perkeo* but ground colour pale brown without trace of pink, pale lines and stripes on wings and body much more prominent, almost silvery.

♀ GENITALIA: colliculum short and wide, tapering towards ostium, curving to the right. Ductus long and wide. Bursa oval, heavily pitted, but not pleated. Signum weak and very short.

RANGE AND HABITAT

Dry habitas from Natal to eastern Kenya.

EAST AFRICAN RECORDS

KENYA NM : Makueni, Mtito Andei.
 BM : Kibwezi (Paratype of *T. cajus ugandae* Clark).
 S : Mombasa.
TANZANIA NM : Ilonga, Morogoro.
 R : Dar es Salaam, Mlingano.
 MC : Lindi, Songea.

THERETRA ORPHEUS (Herrich-Schaffer) 1854.

Choerocampa orpheus Herrich-Schaffer *Aussereur Schmett.* 1: 104, (Cape of Good Hope).
1894 *Panacra natalensis* Rothschild *Novit. zool.* 1: 79 (Natal).

Ssp. orpheus. (VIII; 18)

Variable; sexes alike. Fw. 22–26 mm. Fw narrow and long, termen rounded, especially in ♀, apex not very acute. Body dark brown to dark grey, with numerous paler longitudinal lines. Fw grey, brown or ochreous brown, with one or more curved dark lines from inner margin near base to apex, separated by a conspicuous short pale stripe at inner margin. Basal and anterior portion of wing usually darker. Hw dark blackish grey. In Uganda the much darker, less variegated *T. o. pelius* R. & J. occurs as a form together with the typical form.

RANGE AND HABITAT

Woodland and forest from the Cape to East Africa.

EAST AFRICAN RECORDS

KENYA NM : Kiganjo, Thomson's Falls.

BM : Nairobi.

SM : Kitale.

S : Shimba Hills.

UGANDA NM : Kalinzu, Fort Portal, Budongo, Kamengo.

BM : Entebbe.

B : Mpanga Forest.

TANZANIA NM : Amani, Mufindi.

R : Mbeya.

Ssp. pelius R. & J. 1903.

Novit. zool. 9 suppl. : 787 (Johann Albrechts Höhe, Cameroons, ♂).

1915 *Theretra orpheus scotinus* R. & J. *Novit. zool.* 22: 294 (Ilesha, S. Nigeria, ♀) syn. nov.

Paler and narrower-winged than typical race, but of very doubtful validity, as it occurs as an occasional form, together with the very dark form *scotinus* R. & J. throughout the range of *T. orpheus orpheus*, with particular frequency in Uganda. Congo to Sierra Leone.

Ssp. intensa R. & J. 1903.

Novit. zool. 9 suppl. : 788 (Grande Comore, ♂).

Comoro islands.

Ssp. malgassica Clark 1933.

Proc. New Engl. zool. Cl. 13: 102 (Madagascar).

1956 *Theretra orpheus megalesia* Viette *Lamb.* 56: 62 (Madagascar).

Madagascar only.

RHAGASTIS R. & J. 1903

Novit. zool. 9 suppl. : 791; type species *Pergesa velata* Walker 1853, India.

10 Oriental species and one from Madagascar.

RHAGASTIS LAMBERTONI (Clark) 1923.

Hippotion lambertoni Clark *Proc. New Engl. zool. Cl.* 9: 48 (Madagascar, ♂).

1959 *Rhagastis lambertoni* Griveaud *Faune Madag.* 8: 149.

Madagascar only.

CENTROCTENA R. & J. 1903

Novit zool. 9 suppl. : 790; type species *Panacra rutherfordi* Druce 1882.

“Differs from *Theretra* in the shorter spur of the midtibia bearing a comb of stiff bristles, as in *Nephele*. Cavity at end of first segment of palpus large and well defined; second palpal segment broader than long. Abdomen with conspicuous tufts at ventral edges of tergites 4 to 6. Distal margins of wings somewhat scalloped”.

2 African species.

CENTROCTENA RUTHERFORDI (Druce) 1882. (VIII; 16—XVI; 3)

Panacra rutherfordi Druce *Ent. mon. Mag.* 19: 16 (Cameroons, ♀).

1890 *Panacra saalmulleri* Möschler *Abh. senckenb. naturf. Ges.* 15: 68 (Accra, Gold Coast).

1900 *Choerocampa udulata* Aurivillius *Oefv. Vet. Ak. Forh.* 57: 1050 (Congo).

Sexes alike. Fw. 30–34 mm. Body dark olive brown with longitudinal black lines. A large lateral black spot at base of abdomen. Fw evenly crenulated at margin, dark olive brown, speckled and mottled with ochreous and with black. A straight black line from base to apex, followed by a creamy band, the proximal half of which is straight, the distal half undulate; submarginal area ochreous green, termen and cilia very dark brown except below apex, where they are chequered with cream. Hw evenly crenulate at margin, uniform dark brown.

♂ **GENITALIA**: uncus and gnathos of equal length, the latter apically sclerotised and dentate. Modified scales of two sizes; a proximal series of 6 large ones and 3 distal series of numerous smaller ones. Harpe slender, apically upcurved. Aedeagus stout and straight, with right side prolonged apically by a long oval lobe armed with small hooks dorsally and ventrally, but smooth and rounded apically; these marginal hooks are frequently broken off during copulation and may be found in the colliculum and ductus of the ♀. Vesica unarmed.

♀ **GENITALIA**: post-vaginal plate small, triangular, distally curved. Colliculum very short and wide, curved to the right, tapering towards ostium. Ductus very long. Bursa large, pear-shaped, pleated and pitted. Signum long and very broad, well sclerotised and prominently spinose.

EARLY STAGES: unknown.

RANGE AND HABITAT

Forests from Sierra Leone to Uganda and west Kenya; also in the Usambara area of N. E. Tanzania.

EAST AFRICAN RECORDS

KENYA NM : Kakamega.

UGANDA NM : Kamengo, Kalinzu, Fort Portal, Budongo, Kayonza.

BM : Jinja.

K : Kampala, Kawanda.

TANZANIA NM : Amani.

BM : Nguelo.

CENTROCTENA IMITANS (Butler) 1882. (VIII; 17—XV; 9)

Panacra imitans Butler *Ann. Mag. nat. Hist.* (5) 10: 432 (Delagoa Bay, ♂).

♂: fw. 29–31 mm. Very similar to the previous species, but differs as follows: crenulations of fw termen deeper, irregular, the apex and the end of vein 5 being more prominent than remainder of termen; black spots at base of abdomen lacking; ground colour very dark sepia to creamy, lacking

all traces of yellow and green; oblique creamy band of fw with straight margins throughout its length, not undulate in distal half.

GENITALIA: very similar to previous species, but aedeagus with a broad flat, apically dentate apical process on right side and a short subapical dentate crest on left.

FEMALE AND EARLY STAGES: unknown.

HABITAT AND RANGE

Wooded areas of eastern Africa, from Mozambique to East Kenya.

EAST AFRICAN RECORDS

KENYA NM : Shimba Hills, Mombasa.

BM : Nairobi.

TANZANIA BM : Uluguru Mts.

R : Dar es Salaam, Mlingano, Ilonga.

ADDENDA

The following species have been recently captured by Mr. A. L. Archer near Sango Bay, Uganda:

Libyoclanis bicolor Rothschild

Temora reutlingeri Holland

Hypaedalea lobipennis Strand

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GLOSSARY

ACUMINATE	Ending in a sharp, slender point
AEDEAGUS	The penis of an insect
AESTIVATION	A passive state in which the animal does not feed or grow, which enables it to survive a hot, dry season
ALLOPATRY, ALLOPATRIC	Refers to species with a different range
ALLOTYPE	The specimen from which the second sex of a new species or sub-species is described. If the first specimen (holotype) to be described is a male, the allotype is a female, and vice versa
ANELLUS	A ring-like structure through which the aedeagus (penis) slides when extruded or withdrawn
APOSEMATISM, APOSEMATIC	The possession of bright colours or of a conspicuous pattern which help to warn predators of the distasteful or toxic properties of its owner
BURSA (BURSA COPULATRIX)	A membranous bag attached to the vagina of the female, in which the sperm is stored after copulation
CARINATE	Keeled
CELL (DISCOIDAL)	An elongated basal ring formed by two longitudinal veins connected by a transverse cross-vein from which most of the other veins of the wings radiate
CHITIN, CHITINISED	A hard, durable substance which reinforces all the hard external structures of insects
CHRYsalis, (=PUPA)	The passive phase which insects undergo between the caterpillar stage and the emergence of the adult
CILIA	Slender scales forming the fringe of the wings; long hair-like scales, usually protecting the eye
CLASPER	Paired lateral flaps at the end of the abdomen of the males which help to hold the female during copulation. (see also valve); last pair of prolegs (false legs) of the caterpillar
CLINE	Distinct populations at the extremes of a specific range linked by intermediate populations in the intervening areas
CLYPEUS	A large triangular plate at the front of an insect's head
COLLICULUM	A chitinised tube opening externally into the ostium (vagina) and internally into the ductus bursae
CORNUTI	Chitinised spines or plates with which the bladder of the penis (vesica) is sometimes armed
COSTA	The leading (anterior) margin of the wings; the dorsal margin of the clasper
COTYPE	A member, other than those specially designated, of a series of specimens from which the description of a new species or sub-species was written
COXA	First segment of the leg
CREMASTER	A hook or spine at the anal end of the pupa
CRENULATE	With small, regular indentations or undulations
CRYPTIC	Colours, markings or postures which assist concealment
CUBITUS	The lower (posterior) arm of the discoidal cell
DENTATE	Toothed
DIAPAUSE	A completely passive stage in an insect's life during which all activity is suspended, there is no growth and metabolism is slowed down
DIMORPHIC, DIMORPHISM	A species with individuals constantly exhibiting two different colour patterns

DISCAL	Pertaining to the central part of the wing, where the discoidal cell is placed
DISCOIDAL (CELL)	See cell
DISJUNCTION, DISJUNCT	A complete break in the geographic range of an organism
DISTAD	Directed away from the centre, or base of an object
DISTAL	Portion furthest away from the centre, or base
DORSAD	Directed towards the dorsum
DORSAL	Pertaining to the dorsum
DORSUM	Upper surface of an organism in a horizontal position; back if in a vertical position
DUCTUS (BURSAE)	Tube connecting the vagina or colliculum with the bursa
ECLECTIC	Widespread and adaptable
EMARGINATION,	A marginal concavity sufficiently deep or irregular to give the
EMARGINATE	appearance of incompleteness
ENDEMIC, ENDEMISM	Occuring in one locality or area only
EPICRANIUM	The upper part of an insect's head, in which the sockets of the antennae are placed
EPISTOME	Base of the proboscis
FACIES	External appearance
FALCATE	Pointed apex, suggesting the bill of a hawk
FASCICULATE	Armed or decorated with bundles of cilia at regular intervals
FEMUR	The third segment of an insect's leg
FRENULUM	A long stiff bristle at the base of the hindwing
FRONS	Front of the head
FRONTAD	Directed towards the front
GENAL (PROCESS)	Triangular process separating the pilifer from the eye
GLOSSA	Tongue
GNATHOS	The 10th sternite in the male
GYNOTROPIC	Movement directed towards the female; attracted by the female
HABITAT	The sum of environmental conditions required by a species
HARPE	Spiny process inside the valve of a male insect
HIBERNATION	Diapause or quiescence which takes place in winter
HOLOTYPE	The individual specimen from which a species is described
HYALINE	Glass-like, transparent
INCRASSATE	Thickened
INCURVED	A regularly curved concavity of the margin
INSTAR	Stages between moults of a caterpillar
INTERNERVULAR	Between the veins
LABRUM	Anterior edge of clypeus, sometimes projecting beyond base of proboscis
LANCEOLATE	Shaped like the blade of a spear
LARVA	Active immature stage unlike the adult (caterpillar)
LATERAD	Directed towards the side
LIGULA	Soft, fleshy flap below labrum of caterpillar
LINGUIFORM	Shaped like a tongue
LUNATE	Shaped like a crescent moon
LUNULE	A small crescent shaped spot
MAXILLA	Appendages of the mouth which, in the Lepidoptera, are fused with the glossa to form the proboscis
MENTUM	A transverse strip of chitin below the base of the proboscis
MERUM	Ventral chitinated plate behind the one in which the leg is articulated
MESIAL, MESIALLY	At the middle

MESOTHORAX	Second segment of the thorax
METATHORAX	Third segment of the thorax
NEALLOTYPE	Specimen from which the second sex of a species or subspecies is described, if published subsequently to the description of the Holotype
NERVULAR	Pertaining to the veins of the wing
NICHE	Position of a species within its habitat and community
NOMINATE	Subspecies to which the type of the species belongs
OCCIPUT	Third, or posterior segment of the head
OCELLUS	Single eye, or eye-like spot
OPERCULUM	Portion of colliculum, or vaginal tube projecting beyond ventral surface of abdomen
OSTIUM	Vaginal opening of female
OVIPOSITOR	Structure carrying the egg pore
OVOID	Egg-shaped
OVUM	Egg
PALPUS	Paired processes flanking the proboscis, consisting of 3 segments
PAPILLA	Small nipple-like projection
PARAPLEURUM	Lateral plate of the thorax
PARASITOID	An internal parasite which always kills its host
PARATYPE	A member of a type series other than the holotype or allotype, designated by the author
PARONYCHIUM	Paired lateral process of the foot of an insect
PATAGIUM	Small paired dorso-lateral flap behind head
PECTINATED, PECTINATION	Armed with one or more series of processes or cilia, comb-like
PILIFER	A bristly process between the genal process and the base of the proboscis
PILOSE	Hairy
PILOSITY	Hairiness
POLYMORPHISM, POLYMORPHIC	Exhibiting several different colour patterns in one species
POSTDISCAL	Beyond the discal area of the wing
PROBOSCIS	Coiled tube through which fluid is sucked
PROLEG	Abdominal legs of the caterpillar which are lost in the adult
PROTHORAX	First segment of the thorax
PUBESCENCE, PUBESCENT	Covered by short dense fuzzy hairs
PULVILLUS	Pad between the claws of an insect
QUADRATE	Squarish
RADIUS	Anterior arm of the discoidal cell
REFLEXED	Bent backwards
RENIFORM	Kidney-shaped
RETICULATE, RETICULATION	Net-like markings
RETINACULUM	Flap at the base of the forewing below which holds the frenulum in the males
RHOMBOID	Roughly diamond-shaped
RUGOSE	Wrinkled
SACCATE	Sack-shaped
SACCUS	A sack-like process, part of the 9th sternite of the male
SAGITTATE	Shaped like an arrow-head

SCALLOPED (MARGIN)	With prominent, step-like emarginations
SCLERITE	Chitinised plate
SCLEROTISED	Chitinised
SCULPTURED	Surface with raised pattern or with regular pattern of small cavities
SUBAPICAL	Immediately before the apex
SUBBASAL	Immediately beyond base
SUBDORSAL	Below the dorsum
SUBLATERAL	Above the venter (sternum)
SUBMARGINAL	Immediately inside the outer margin
SUBSCAPHIUM	A process originating below the gnathos
SUBSPECIATION	Processes leading to the evolution of a subspecies
SUBTERMINAL	See submarginal
SUTURE	Line where two chitinised plates meet
SYMPATRIC,	Two or more populations with an overlapping range
SYMPATRY	
TARSUS	The last five short segments of the leg
TAXON	Category used for purpose of classification, such as species, genus, family etc.
TAXONOMY	The study of the classification of animals etc.
TEGULA	Dorso-lateral flap attached to the mesothorax
TEGUMEN	9th tergite of the male
TERGITE	Dorsal plate
TERGUM	Dorsum
TERMEN	Outer margin
TIBIA	Fourth segment of an insect's leg
TOPOTYPICAL	A specimen from the same locality as the type
TORNUS	The angle between the inner and outer margins of the wings
TRACHEA	Breathing tube
TROCHANTER	Second segment of the leg of an insect
TYMPANAL ORGAN	Organ of hearing at the base of the abdomen found in some insects
TYPE	The specimen from which a taxon is described
UNCUS	The 10th tergite of the male
UNISERIATE	In a single series
UNIVOLTINE	With a single annual brood
UNSCULPTURED	Without surface sculpturing
VAGINA	Opening into which the aedeagus is inserted during copulation (ostium)
VAGINAL PLATE	Chitinised plate surrounding the ostium
VAGRANT	Individual found outside its normal range
VALVE	Paired flaps at the end of the abdomen which help to hold the female during copulation (clasper)
VENTER	Lower, or ventral surface
VENTRAD	Directed towards the ventral surface
VERTEX	Top of head
VESICA	Eversible bladder of the aedeagus
VICARIATION,	Replacement of a species by a close relative in a different area or
VICARIANT	habitat

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Species figured in Hering, 1930 are indicated by S followed by the number of the plate; P indicates species figured in Pinhey, 1962. G species figured in Griveaud, 1959. Genitalia are figured in Griveaud, 1959 and R. & J. 1903 (R followed by sex). Genitalia are also figured in most original descriptions published since 1915. Synonyms marked *

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