# PARC NATIONAL DE LA GARAMBA. - MISSION H. DE SAEGER

en collaboration avec

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Fascicule 25

# COLYDIIDAE (1) (COLEOPTERA CLAVICORNIA)

BY

ROBERT D. POPE (London)

# INTRODUCTION

I am greatly indebted to the authorities of the Institut des Parcs Nationaux du Congo et du Ruanda-Urundi, for their kindness in allowing me to study the *Colydiidae* collected by M. H. DE SAEGER and his collaborators in the Parc National de la Garamba.

The collection assembled by these workers amounted to 939 specimens referable to 35 species distributed among 20 genera. From the position and size of the Parc, this would appear to represent a most thorough sampling of the fauna. In the whole of Africa the Colydiid fauna as known at present consists of 162 species assigned to 46 genera. A majority of these species are found in the forests of west Africa and the Congo basin, 108 species being so far recorded from the Congo as a whole. The Parc National de la Garamba, bordering as it does on the southern Sudan and being in large part savanna-type country, would not be expected to harbour such a large number of species as does the vast, forested area of central Congo.

In view of the interesting geographical location of the Parc and the excellent material at my disposal, I have thought it better to give much more than a simple list and descriptions of new species and genera where necessary. In order to relate the fauna of the Parc to that of Africa as a whole and so determine, as far as possible, its affinities, I have provided at the outset a key to the African tribes of *Colydidae*. Where a tribe is

<sup>(1)</sup> Manuscript deposited on May 20, 1961.

represented among the fauna of the Parc, a key to all African genera within that tribe is given. Similarly, when a genus in that tribe is recorded from the Parc, a key to all its African species has been added.

Tribes not known from the Parc are recorded in the key with their distribution. Likewise, species not yet found in the Parc, but included within genera recorded therefrom, are contained in the key to species. Species collected by M. H. De Saeger and his helpers are all described, or redescribed, and all the genera to which they belong are diagnosed. The other species assigned to these genera are recorded in the present paper; a reference is given to their original description and a summary of their distribution as it is known at present is provided. Where it is thought that it might prove useful, a few notes on the appearance of the non-parc species are given.

In this way it is hoped to show how the Parc species compare in number, appearance and distribution with the rest and to make easy the identification of any other known African species which may, at a

later date, be found within the Garamba Parc area.

Groups and species not yet found within the Parc National de la Garamba are recorded within [].

#### ACKNOWLEDGMENTS.

This work has involved the study of much other material, apart from that collected by M. De Saeger and his colleagues. A major portion is in the British Museum (Nat. Hist.), London and without facilities for its examination, this analysis would not have been possible.

Many other institutions and individuals have been most helpful in supplying material, including certain types, and my grateful thanks are again due. These other sources are: The South African Museum, Capetown; the Muséum d'Histoire Naturelle, Paris; the Zoologisches Museum zu Humboldt-Universität Berlin; the Deutsches Entomologisches Institut, Berlin-Dahlem; the G. Frey Museum, Munich; the Zoologisches Sammlung der Bayerischen Staates; the Naturhistoriska Riksmuseum, Stockholm; the Zoologiska Institution, Lunds Universitets, Lund; the California Academy of Sciences, U.S.A.; the Musée Royal de l'Afrique Centrale, Tervuren; the Institut Royal des Sciences naturelles de Belgique, Brussels; the Commission d'Étude des Bois Congolais, Boitsfort and the Museu do Dundo, Angola.

Figures 4 and 5 were drawn for me by Mrs. C. A. O'BRIEN and figure 5 is reproduced by kind permission of the authorities of the Lund Universitets Zoologiska Institution.

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# CATALOGUE OF SPECIES

# COLLECTED IN GARAMBA NATIONAL PARK AND THEIR GEOGRAPHICAL DISTRIBUTION.

#### Tribe SYNCHITINI.

Genus Synchita HELLWIG, 5 species.

crenicollis Wollaston; Cape Verde Is., Tanganyika Territory, Congo (Barumbu, Garamba).

fairmairei Grouvelle: Zanzibar, Tanganyika Territory, Cameroons, S. Rhodesia, Congo (Nioka, Tshikapa, Garamba).

impressa Wollaston: Cape Verde Is., Tanganyika Territory, Cameroons, Ghana, Congo (Luki, Eala, Kasai, Elisabethville, Yangambi, Garamba).

lineatosquamosa Grouvelle : Spanish Guinea, Tanganyika Territory, Congo (Yangambi, Kunungu, Garamba).

saegeri n. sp.: Congo (Garamba).

Genus Pubala Grouvelle, 1 species.

squamifera Grouvelle: Tanganyika Territory, Uganda, Ghana, Congo (Kasenyi, Mayidi, Tshela, Dumbi, Elisabethville, Albertville, Haut-Uele: Moto, Garamba).

Genus Sassaka gen. n., 1 species.

minor n. sp.: Congo (?Eala, Bokala, Garaniba).

Genus Cicones Curtis, 2 species.

africanus Grouvelle: Spanish Guinea, Senegal, Congo (Ituri, Madyu, Luki, Yangambi, Garamba).

minor Pope: Angola, Ghana, Congo (Luki, Bas-Uele: Koteli, Yangambi, Mweka, Garamba).

Genus Colobicus Latreille, 2 species.

specialis Grouvelle: Spanish Guinea, Tanganyika Territory, Cameroons, Togo. Congo (Mayidi, Léopoldville, Eala, Yangambi, Bena-Leka (Demba), Luki, Gandajika, Bitale-Kivu, Mweka, Garamba).

minutus Pope : Angola, Cameroons, Spanish Guinea, Congo (Garamba).

Genus Sprecodes gen. n., 1 species.

ater (Grouvelle) : Congo (Lingunda, Haut-Uele, Kamaiembi : Luebo, Watsa à Niangara, Ituri : Medje, Sankuru : Lodja, Kunungu, Equateur : Botende-Yolombo, Flandria, Yangambi, Temvo, Gandajika, Mweka, Nioka, Garamba).

Genus Pabula CARTER, 1 species.

africanus n. sp. · Tanganyika Territory, Zanzibar, Congo (N. Lake Kivu, Garamba).

Genus Microprius FAIRMAIRE, 2 species.

confusus Grouvelle: Tanganyika Territory, S. Rhodesia, Cape Province, Angola, Uganda, Kenya, Cameroons, Sierra Leone, Nigeria, San Thomé, Congo (Eala, Kasenyi, Kamaiembi, Luebo, Mayidi, Boma, Haut-Uele: Watsa, Bokala, Lulua: Lunene, Kunungu, Equateur: Flandria, Albertville, Kinshasa, La Moto: Madyu, Ituri, Haut-Uele: Moto, Lake Leopold II, Mongende, Katanga: Katompe, Ganda-Sundi, Yangambi, Nioka, Gandajika, Tshela, Parc Nat. de l'Upemba, Garamba).

decoratus n. sp.: Congo (Garamba).

Genus Bitoma HERBST, 1 species.

lyctiformis Wollaston: Tanganyika Territory, Angola, Nigeria, Cameroons, Sierra Leone, Principe, Zanzibar, Abyssinie, Cape Verde Is., Spanish Guinea, Congo (Yangambi, Lubelunge, Mulungu, Elisabethville, Beni, Ituri Forest, Nioka, Léopoldville, Luebo, Haut-Uele: Moto, Makuba, Mwana n'Deke, Bitale, Kivu, Garamba).

#### GEMPYLODINI.

Genus Mecedanum Erichson, 1 species.

auberti (Fairmaire): Sierra Leone, Ghana, Cameroons, Uganda, Angola, Nigeria,
 Tanganyika Territory, Congo (Beni Forest, Yangambi, Mweka, Bulongo,
 N'Gaze, Makuba, Luki, Ongoka, Mayidi, Gandajika, Garamba).

#### TEREDINI.

Genus Teredolaemus Sharp, 2 species.

impressipennis Heinze: Cameroons, Tanganyika Territory, Congo (Yangambi, Kasai: Ngombe, Mokeba, Luebo. Nioka, Haut-Uele: Moto, Sankuru, Kasai: Makumbi, Gandajika, Bulongo, Mweka, Bena Leka, Garamba).

problematicus n. sp.: Congo (Garamba).

Genus Teredomorphus Heinze, 1 species.

rufipes (Kraltz): Togo, Cameroons, Ghana, Congo, Yangambi, Luki, Valley near Bunyakivi, Equateur: Inongo, Equateur: Flandria, Mongende, Barumbu, Rutshuru, Mayumbe, Haut-Uele: Moto, Gandajika, Garamba).

# DERATAPHRINI.

Genus Sosylus Erichson, 2 species.

bistriatus Fairmaire: Gaboon, Ghana, Cameroons, Tanganyika Territory, Uganda, Congo (Yangambi, Hembe-Bitale, Mayidi, Nioka, Mweka, Kindu, Haut-Uele: Moto, Haut-Uele: Watsa, Bas-Uele, Sandoa, Eala, Sankuru, Bumbuli, Mayumbe: Tshela, Gandajika, Garamba).

conradti (Grouvelle): Cameroons, Congo (Yangambi, Equateur: Boende, Garamba).

#### BOTHRIDERINI.

Genus Antibothrus Sharp, 2 species.

angustior n. sp.: Tanganyika Territory (Ukerewe Id.), Congo (Garamba).
elongatus n. sp.: Tanganyika Territory (Ukerewe Id.), Congo (Rwankwi, Luebo, Garamba).

Genus Shekarus gen. n., 1 species.

ornatus n. sp.: Ghana, Nigeria, Tanganyika Territory (Ukerwe Id.), Congo (Yangambi, Albertville, Haut-Uele: Moto, Garamba).

Genus Dastarcus WALKER, 1 species.

interruptus (FAIRMAIRE): Zanzibar, Rhodesia, Congo (Garamba).

Genus Machlotes PASCOE, 3 species.

angustatus Grouvelle: Cameroons, Ghana, Nigeria, Angola, Uganda, Tanganyika Territory (Ukerewe Id.), Congo (Mayidi, Bas-Uele: Koleli, Haut-Uele: Moto, Congo da Lemba, 18 miles S. W. Elisabethville, Garamba).

occidentalis Malkin: Sierra Leone, Cameroons, Tanganyika Territory (Ukerewe Id.), Congo (Uele: Pawa, Garamba).

hintoni Malkin: Uganda, Congo (Moto: Kibali-Ituri, Haut-Uele: Moto, Mweka, Garamba).

Genus Triboderus GROUVELLE, 1 species.

tessmanni Grouvelle: Spanish Guinea, Congo (Équateur: Boende, Garamba).

Genus Ogmoderes GANGLBAUER, 1 species.

sculpticollis (Thomson): Gaboon, Old Calabar, Nigeria, Ghana, Sierra Leone, Uganda, Tanganyika Territory (Ukerewe Id.), Sudan, Congo (Yangambi, Kamango Forest, Parc National Albert, Parc National de l'Upemba, Garamba, etc.).

Genus Pseudobothrideres GROUVELLE, 2 species.

confossicollis (FAIRMAIRE): Abyssinia, Spanish Guinea, Kenya, Tanganyika Territory, N. Rhodesia, S. Rhodesia, Congo (Albertville, Elisabethville, Ruindi, Lomami-Kaniama, 300 km from Kindu, Congo-Zambezi watershed, Parc National Albert, Garamba).

conradsi Pope : Tanganyika Territory (Ukerewe Id.), Nyasaland, Kenya, N. W. Rhodesia, S. Rhodesia, Zululand, Congo (Garamba).

Genus Ascetoderes gen. n., 2 species.

 $conradsi \ \ n. \ \ sp.: Tanganyika \ Territory \ (Ukerewe \ Id.), \ Congo \ (Yangambi, \ Garamba).$   $watsanus \ \ n. \ \ sp.: \ Congo \ \ (Garamba, \ Haut-Uele: \ Watsa).$ 

#### KEY TO AFRICAN TRIBES.

anterior coxae at least as long as coxal diameter; intercoxal process of first abdominal segment narrow, acuminate anteriorly; anterior coxae narrowly separated; basal tarsal segment usually much longer than second segment; antennal club, if present, of three or more segments  Gempylodini Sharp, p. 46.
— Body less elongate (up to 3,5:1), subdepressed; prosternum behind anterior coxae at most as long as coxal diameter; anterior coxae separated by almost twice the diameter of a coxa; intercoxal process of first abdominal segment broad, truncate anteriorly; basal tarsal segment no longer than second segment; antennal club always distinct, two-segmented, sometimes with the two segments of the club almost completely fused[Pycnomerini Erichson. Cosmopolitan].
4. Apical segment of maxillary palpi flattened, asymmetrically narrowed to apex (fig. 9); insects blind; body glabrous, wings absent
— Apical segment of maxillary palpi barrel-shaped or fusiform, not asymmetrically narrowed to apex; insects with or without eyes; body glabrous or setiferous; wings present or absent
5. Middle coxal cavities narrowly closed by sterna (fig. 37); body glabrous, shining. (Anterior coxal cavities almost closed posteriorly; intercoxal process of first abdominal segment narrow, acuminate.)
— Middle coxal cavities broadly closed by sterna (fig. 38); body setiferous or squamiferous
6. Mentum produced anteriorly on either side of labium so as partly to enclose maxillary palpi (fig. 22); anterior coxae prominent although overlain by prosternal process; hind coxae separated by about one fourth of total width of first abdominal segment; basal tarsal segment distinctly shorter than second segment  [Rhopalocerini Reitter. Europe, E. Africa].
<ul> <li>Mentum not produced anteriorly as in figure 22, or if slightly produced, incapable of obscuring maxillary palpi when viewed from beneath; without the remaining characters in combination</li></ul>
7. Trochanters large, obvious
Trochanters small, almost or quite concealed within excavations in

- 8. Intercoxal process of first abdominal segment narrow, acuminate anteriorly; anterior coxal cavities open posteriorly or, if closed then the intercoxal process does not project behind the anterior coxae ...

  Teredini Seidlitz, p. 51.
- 9. [Euxestini Van Emden. Cosmopolitan. Cycloxenini Jeannel and Paulian. India, Africa. Tachyoryctidiini Jeannel and Paulian. Africa].
- 10. Intercoxal process of first abdominal segment broadly rounded anteriorly; basal tarsal segment longer than second segment ............

  Derataphrini Horn, p. 62.

# SYNCHITINI.

#### KEY TO GENERA REPRESENTED IN AFRICA.

- 2. Intercoxal process of first abdominal segment narrow, acuminate apically, or if not, then much less than one tenth of the total width of the first abdominal segment; antennal grooves on underside of head short or long; lateral margins of pronotum broadly explanate ..... (3)
- Intercoxal process of first abdominal segment broadly rounded apically, never less than one tenth as wide as the segment; antennal grooves very brief; lateral margins of pronotum at most narrowly explanate ...
  [Afrorthocerus POPE. S. Africa].
- 3. Hypomera with deep, well-marked cavities for the reception of the antennae; antennal grooves beneath head very brief; underside of body with deep cavities for the reception of the legs .......

[Mamakius gen. n.], p. 12.

<del></del>	Hypomera without antennal cavities; antennal grooves beneath head long, reaching to level of hind borders of eyes; underside of body without cavities to receive legs [Sallachius Pope. S. Africa].
4.	Antennae 10-segmented, last segment alone expanded to form a club (5)
	Antennae 11-segmented, club always consisting of two or three segments although sometimes with the last segment much reduced (fig. 12) (9)
5.	Form cylindrical; elytra at least twice as long as their greatest combined breadth; pronotum usually without explanate lateral margins (6)  Form elongate-elliptical, moderatelly convex to subdepressed; elytra less than twice as long as their greatest combined breadth; pronotum with lateral margins usually explanate, if only narrowly so
6.	Anterior pronotal border angulate medially; eyes larger, more coarsely facetted, minimum separation beneath head about one and one third times the longitudinal diameter of an eye
	Anterior border of pronotum arcuate medially; eyes smaller, finely facetted, minimum separation beneath head more than one and one half times the longitudinal diameter of an eye
7.	Intercoxal process of first abdominal segment acuminate apically (8) Intercoxal process of first abdominal segment broadly rounded apically Gicones Curtis, p. 16.
8.	Antennal grooves beneath head long, reaching posteriorly to level of hind borders of eyes; lateral margins of pronotum quite broadly explanate
_	Antennal grooves beneath brief; lateral margins of pronotum with a very narrow explanate border Synchita Hellwig, p. 22.
9.	Antennal club composed of three segments; anterior coxal cavities closed posteriorly(10)
—	Antennal club of two segments; anterior coxal cavities open or closed posteriorly(11)
10.	Head expanded and broadest in front of eyes; eyes vertically elongate and emarginate anteriorly; pronotum broadly explanate laterally; elytra tuberculate, tubercles sometimes elongate
	Head not expanded in front of eyes; eyes circular with their anterior margins entire; pronotum not broadly explanate laterally; elytra longitudinally carinate [Lasconotus Erichson, E. Africa and Congo].

11.	Pronotum and elytra with prominent longitudinal carinae
12.	Antennal grooves on underside of head long, extending to behind level of posterior borders of eyes; pronotum with lateral margins broadly explanate
	Antennal grooves brief, not extending behind midline of eyes; lateral margins of pronotum not broadly explanate Bitoma Herbert, p. 34.
13.	Lateral borders of elytra sharply sinuate at level of hind coxae when viewed from the side. (Antennal grooves beneath head very long; third antennal segment shorter than the fourth and fifth segments togethher; eyes prominent; pronotum with lateral margins broadly explanate and disc usually bearing two well-defined admediant tubercles.) [Trachypholis Erichson. E., W., S. Africa, Congo].
_	Lateral borders of elytra not sharply sinuate at level of hind coxae
14.	Anterior coxal cavities open posteriorly; antennal grooves of varying length or absent(15)
	Anterior coxal cavities closed posteriorly; antennal grooves long, reaching to level of hind borders of eyes
15.	Antennal grooves absent from beneath head; antennae with tenth segment only slightly wider than ninth segment; antennae inserted at some distance in front of eyes; elytral setae sometimes arranged in patches
	Antennal grooves always present beneath head although sometimes short; tenth antennal segment always at least twice as broad as ninth segment; antennae inserted close to eyes; elytral setae never arranged in patches
16.	Body oblong-elliptical, subdepressed; tarsi with three basal segments distinct and subequal(17)
_	Body cylindrical, strongly convex; tarsi either with basal segment distinctly smaller than the one following or with segments one and two almost completely fused
17.	Third antennal segment little longer than fourth segment; antennal grooves beneath head brief, strongly convergent posteriorly, not reaching level of posterior borders of eyes; lateral borders of pronotum coarsely dentate

- Third antennal segment longer than the two following segments together; antennal grooves long, reaching at least to level of hind borders of eyes; lateral borders of pronotum finely denticulate ........

  Colobicus Latreille, p. 42.
- 18. Eleventh antennal segment freely articulated; third segment little longer than fourth segment; antennal grooves long; basal tarsal segment shorter than the one following

[Neotrichus Sharp. E. Africa, S. Africa, Congo].

— Eleventh antennal segment very closely applied to tenth segment (fig. 12), third segment at least as long as fourth and fifth segments together; antennal grooves very short; basal tarsal segment almost completely fused to second segment (fig. 6) ... Pabula Carter, p. 44.

#### [MAMAKIUS gen. n.]

Type species: Endophloeus conradti Grouvelle.

Body shortly oblong-oval; pronotum and elytra broadly explanate laterally. Head strongly transverse, expanded in front of eyes, strongly raised above antennal insertions; anterior border of head bidentate laterally; frons tuberculate between eyes which are doubly emarginate anteriorly and elongate vertically; antennae with a well-marked two-segmented club; first and second segments strongly elongate, but broader than segments three to eight which are quadrate to slightly transverse; underside of head without antennal grooves; genae expanded to reach anterior borders of eyes. Pronotum strongly transverse, strongly narrowed toward anterior angles which are produced to enclose lateral borders of head; lateral borders dentate; hind border almost truncate; disc strongly and regularly tuberculate. Elytra with disc convex, lateral margins broadly explanate; almost parallel-sided for basal two thirds, then evenly and slightly acuminately rounded to apicosutural angles; disc very coarsely striate-punctate, alternate intervals between striae strongly tuberculate; elytral epipleurae broad to apices, hiding femora when viewed from above, sharply sinuate at level of hind coxae when viewed from one side. Prosternum bearing strongly raised ridges in the shape of an « M »; anterior coxal cavities open posteriorly; intercoxal process with a median longitudinal raised ridge. Mesosternum bearing a pair of large, deep, feebly oval foveae. Metasternum excavate laterally to receive mid-tarsi, hollowed behind middle coxal cavities. First abdominal segment excavate laterally to receive hind tarsi and apical half of each hind tibia and with a deep, transverse median fovea. Legs with tibiae not expanded toward apices; tarsi with basal segment slightly longer than second segment, first three segments together shorter than fourth segment.

Grouvelle, when describing Endophloeus conradti, noted that it was distinct from all other species of Endophloeus by virtue of the cavities on the underside which receive the antennae and legs when retracted. Presumably he referred to the other African species known to him, E. peringueyi Grouvelle and E. minutissimus Grouvelle. Neither of these two species is congeneric with E. conradti and none of the three can rightly be accommodated in Endophloeus Erichson which is a fully-winged genus, its species bearing eleven-segmented antennae the last two segments of which are strongly expanded and, with the ninth segment, form a loosely articulated club. On the other hand there is a marked superficial resemblance between Endophloeus and Mamakius.

# [Mamakius conradti (GROUVELLE).]

Endophloeus conradti Grouvelle, 1914, Ann. Soc. Ent. Fr., 83:148.

This species, described originally from the Cameroons, is widespread throughout west Africa, Congo and is also known from east Africa and Angola. It would seem unlikely that further collecting would not show it to be present also within the confines of the Parc National de la Garamba.

#### PUBALA GROUVELLE.

Pubala Grouvelle, 1902, Ann. Soc. Ent. Belg., 46:185.

Type species: Pubala squamifera GROUVELLE.

Elongate, cylindrical, squamiferous. He ad transverse; anterior clypeal border briefly emarginate medially, labrum exposed; surface of head granulose; antennae with third segment scarcely longer than fourth segment. Pronotum convex; almost parallel-sided; granulose. Elytra very convex; cylindrical; at least twice as long as their combined breadth; striatopunctate; granulose between strial punctures. Anterior coxal cavities open posteriorly, prosternal process inflected behind anterior coxae. Intercoxal process of first abdominal segment acuminate apically, hind coxae narrowly separated. Legs with the tarsi having the three basal segments subequal and together about as long as fourth segment.

Pubala is closely related to the south African genus Asprotera and is similar in general appearance to Neotrichus Sharp and Pabula Carter. Both these genera occur outside the African continent, whereas Pubala is almost certainly restricted to tropical Africa.

#### KEY TO THE AFRICAN SPECIES.

- Pronotum quadrate to transverse; prosternum and hypomera separated by a broad, deep sulcus becoming broader and deeper basally, planes of hypomera and prosternum abruptly different on either side of sulcus
   (3)

#### Pubala squamifera GROUVELLE.

Pubala squamifera Grouvelle, 1902, Ann. Soc. Ent. Belg., 46: 185. Pubala angusta Grouvelle, 1908, Rev. d'Ent. Caen, 27: 111 (syn. nov.).

Length 2,5-4,25 mm. Breadth 0,6-1 mm.

Derm piceous black, faintly shining. Head transverse; granulose, granules separated by about their own diameter, each with an apical puncture bearing a squamiform seta; intervals between granules punctate, punctures of a similar diameter to granules. Pronotum elongate (6:5); slightly narrowed to posterior angles; anterior angles acute, produced; anterior border arcuate medially; posterior border narrowly raised, feebly arcuate; impunctate band separating anterior margin from disc narrower laterally than across middle; disc with granules slightly broader than those of head, separated by more or less one diameter, by slightly more anteromedially, each with a dorsal puncture bearing a squamiform seta as on head; intervals between punctures with scattered punctures almost as large as granules; lateral borders denticulate, denticles each with a puncture on anterior face bearing a stiff, squamiform seta. Elytra two and one

half times as long as their greatest combined breadth, almost parallel-sided until evenly rounded to apicosutural angles; strial punctures coarse, slightly transverse, separated longitudinally by about one longitudinal diameter; alternate intervals between striae as wide as a strial puncture, even intervals slightly less wide than alternate intervals; longitudinal intervals between strial punctures each with a flat-topped granule having a dorsal puncture which bearing a minute, scarcely squamiform seta; alternate intervals punctured, punctures with slightly raised borders and each bearing a squamiform seta similar to those of pronotum; third, fifth and seventh intervals slightly raised near bases of elytra giving a subcarinate appearance; even intervals impunctate. Squamiform setae on underside narrower than pronotal setae.

Holotype: In the Institut royal des Sciences naturelles, Brussels. Kinshasa, Congo (Waelbroek).

Distribution. — See catalogue (p. 5).

4 examples.

2 ex.: II/gd/4, 28.IV.1952, H. DE SAEGER, n° 3384, savane herbeuse à ligneux rares, sur des branches mortes sur pied; 1 ex.: II/gd/4, 26.V.1952, H. DE SAEGER, n° 3519, savane herbeuse à ligneux suffrutescents, dans des branches mortes sur pied; 1 ex.: II/le/8, 3.V.1952, H. DE SAEGER, n° 3419, tête de source boisée, dans les arbres morts.

# [Pubala cylindrica POPE.]

Pubala cylindrica Роре, 1952 (1953), Ann. Mus Congo Belge, sér. in-8°, Sci. Zool., 19: 17.

Length 3-4 mm. Breadth 0,75-1 mm.

This species is scarcely distinguishable from *B. squamifera* other than by the characters given in the key to species.

Holotype: In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo, VIII-XI. 1950 (C. Donis) (C.E.b.C.).

Distribution. — Tanganyika Territory (Ukerewe, Id.), Ghana, Congo (Haut-Uele: Moto, Luebo, Ituri: Medje, Sankuru: Lodja, Uele: Nepoko, Mweka).

#### [Pubala granulosa POPE.]

Pubala granulosa Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:15.

Length 3,5 mm. Breadth 1,2 mm.

This species is characterised by its quadrate pronotum with well-marked median and lateral foveae (more obvious than in P. ornatula) and without punctures between granules.

Holotype: In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo, VIII. 1951 (C. Donis) (C.E.b.C.).

Distribution. Congo (Yangambi, Haut-Uele: Moto).

#### [Pubala ornatula POPE.]

Pubala ornatula Pope, 1957, Bulletin I.F.A.N., Ser. A, 19:196.

Length 3,9-5,25 mm. Breadth 1-1,5 mm.

This species is similar in appearance to *P. granulosa*, but differs by the characters given in the key, by those referred to under that species and by its slightly more elongate from.

Holotype: In British Museum (Nat. Hist.), London. Ukerewe, Id., Tanganyika Territory (CONRADS).

Distribution. — Tanganyika Territory (Ukerewe, Id.), Ghana, Cameroons, Congo (Beni Forest, Mayidi, Albertville, Mayumbe: Kikamba, Bas-Congo: Sanda, Mongende, Luebo, Léopoldville, Haut-Uele: Moto, Yangambi, Gandajika).

#### CICONES CURTIS.

Cicones Curtis, 1827, Brit. Ent., 2: expl. T, 149.

Type species: Cicones carpini Curtis = Cicones variegatus (Hellwig).

Small; elongate-oval; moderately convex. He ad with anterior border emarginate medially to expose labrum; eyes not very prominent; antennae with segments three to nine progressively decreasing in length, third segment about one and one half times as long as broad; antennal grooves beneath head long, reaching to level of hind borders of eyes; neck narrowed behind eyes. Pronotum broad; lateral margins explanate; anterior angles more or less produced. Elytra with lateral margins usually explanate (scarcely so in C. minor Pope, p. 19); disc striatopunctate; intervals between striae also with a row of punctures; both strial and interstrial punctures bearing recumbent or subrecumbent, squamiform setae. Prosternum with anterior coxal cavities open posteriorly, prosternal process emarginate apically and somewhat inflected behind anterior coxae. Legs with the three basal tarsal segments subequal and together shorter than fourth segment.

Five species from Africa have been placed in this genus. Of these, two are known today from their descriptions alone and it is doubtful, even from this meagre evidence whether they are correctly assigned. Two of the remaining three species are represented in the fauna of the Garamba

National Park as far as it is known at present. The key to species given below shows how these two species are related and how they are separated from the third known African species of the genus.

#### KEY TO KNOWN AFRICAN SPECIES.

- 2. Pronotal disc set with shallow, punctate granules, joined to one another in many instances by ridges giving a reticulate appearance; strial punctures of elytra relatively coarser, intervals between striae about as broad as a strial puncture ....... minor Pope, p. 19.
- Pronotal disc not granuliferous, intervals between punctures smooth;
   elytral punctures relatively smaller, intervals between striae about
   twice as broad as a strial puncture ..... africanus Grouvelle, p. 17.

# [Cicones squamosus GROUVELLE.]

Cicones squamosus Grouvelle, 1896, Bull. Soc. Ent. Fr., p. 187.

Length 2-4,5 mm. Breadth 0,9-1,6 mm.

This species is scarcely distinguishable from *C. africanus* other than by its variably-coloured setae and by its more broadly explanate lateral pronotal borders. In *C. squamosus* the apex of the prosternal process is more deeply emarginate than it is in *C. africanus*.

Holotype: In the Muséum d'Histoire Naturelle, Paris. Abyssinia (RAFFRAY).

Distribution. — Abyssinia, Spanish Guinea, Cameroons, Fernando Po, Ghana, Zanzibar, Natal, Congo (Nioka, Yangambi, Kasai: Makumbi, Haut-Uele: Moto, Kwamouth).

#### Cicones africanus GROUVELLE.

Cicones africanus Grouvelle, 1905, Mem. Soc. Espan. Hist. Nat., 1:246.

Length 2,8-3,8 mm. Breadth 1-1,5 mm.

Derm piceous-black, shining. Head transverse (3:4); slightly convex; anterior clypeal border emarginate medially, strongly rounded laterally, frontoclypeal junction lightly impressed laterally above antennal insertions, frontoclypeal suture not visible medially; clypeal punctures of varying sizes,

with very slightly raised rims, more noticeably so posteriorly and toward lateral margins of head, punctures separated by more than one diameter medially, but by about one diameter or less toward anterior and lateral margins, bearing moderately long, squamiform setae — except along anterior margin where there is a row of smaller, non-squamiform bristles; frontal punctures similar to those of clypeus, but more strongly raised, rims sometimes confluent, punctures bearing squamiform setae similar to those of clypeus. Pronotum transverse (65:53), somewhat convex transversely, almost flat longitudinally; anterior border slightly arcuate medially, sinuate laterally toward produced anterior angles; lateral borders evenly arcuate, pronotum widest slightly before middle; lateral margins narrowly explanate - about one twentieth of total pronotal width; posterior border arcuate medially, broadly sinuate laterally, separated from disc by a narrow sulcus, ornamented by a single row of punctures with raised, laterally confluent rims; disc set with punctures of varying shape and size, generally larger, closer and umbilicate laterally, intervals between umbilicate punctures set with smaller punctures bearing subrecumbent, squamiform setae, a few non squamiform setae also present; lateral borders with squamiform setae slightly smaller than those of disc; basal border with punctures bearing squamiform setae similar to those of lateral borders. Elytra about twice as long as their greatest combined breadth; convex; slightly emarginate basally; lateral borders slightly arcuate; subacuminate to apicosutural angles; striae grooved, punctures of striae small, transverse, rather shallow, separated by from two to three longitudinal diameters; intervals between strial punctures each with a shallowly raised, elongate-elliptical, flat-topped tubercle having a dorsal puncture bearing a small, inconspicuous seta; intervals between striae about twice as broad as a strial puncture, slightly convex, each set with a more or less regular row of punctures, numerically equal to strial punctures, having raised rims and bearing squamiform setae similar to larger pronotal setae. Prosternal process angulate-emarginate apically, narrowed in front of coxae, very slightly narrowed from level of coxae to apex. Metasternum flattened and very finely punctured medially and basally, longitudinal median sulcus reaching almost to anterior border.

Holotype : In the Instituto de Entomologia, Madrid. Biafro Cabo, San Juan, Spanish Guinea.

Distribution. — See catalogue (p. 5).

60 examples.

18 ex.: II/gd/4, 1.IX.1952, H. De Saeger, n° 4007, savane herbeuse, dans les branches mortes des ligneux suffrutescents; 1 ex.: II/id/8, 17.XI.1951, H. De Saeger, n° 2763, tête de source, sous les écorces et arbres en décomposition, quelques arbres reliques (Mitragyna); 2 ex.: PpK/51/g/9, 2.IV.1952, H. De Saeger, n° 3276, galerie forestière, au dernier stade de dégradation, dans les arbres morts debout et sur le sol; 1 ex.: II/dd/9, 1.II.1952, H. De Saeger, n° 3082, galerie forestière, sous l'écorce d'un arbre

abattu, vivant, valion encaissé, abords brûlés; 1 ex. : II/fe/4, 24.VII.1951, H. De Saeger, nº 2130, savane herbeuse, brûlée, dans le bois d'un Ficus mort, récolte à comparer avec nº 2132; 1 ex.: II/fd/17, 24.VII.1951, H. DE SAEGER, nº 2132, galerie forestière, vide 2130; 1 ex.: II/gd/Camp, 8.VII.1951, H. DE SAEGER, no 2228, bambous introduits, utilisés pour la construction des toits en paille, Obs. 216; 1 ex. : II/gd/4, 7.VIII.1951, H. DE SAEGER, nº 2208, savane herbeuse brûlée, dans une tige morte (Lonchocarpus laxiflorus); 1 ex.: II/gc/11, 5.X.1951, H. DE SAEGER, no 2517, expansion marécageuse, expansion avec vestiges de galerie forestière, Obs. 282; 1 ex.: II/gd/4, 9.X.1951, H. DE SAEGER, nº 2562, savane herbeuse, sur les fleurs (Crotalaria striata); 1 ex.: I/o/2, 2.XI.1950, H. De Saeger, nº 928, galerie forestière, volant sur fruits mûrs (Ficus capensis); 2 ex.: Garamba/4, 3.II.1951, J. Verschuren, nº 1214, graminées courtes non brûlées, entre la savane brûlée depuis un mois et la rivière; 1 ex. : II/gc/8, 22.II.1951, H. DE SAEGER, nº 1281, tête de source boisée, écorce en grande partie détachée, Obs. 60 (Voacanga obtusa mort sur pied); 1 ex.: II/fc/15, 14.III.1951, H. De Saeger, no 1386, marécage à Papyrus, strate inférieure très humide; 1 ex.: II/gd/4, 26.V.1952, H. DE SAEGER, nº 3519, savane herbeuse à ligneux suffrutescents, dans les branches mortes sur pied; 4 ex.: Ndelele/3, 18.VI.1952, H. DE SAEGER, nº 3649, éboulis rocheux, dans un arbre mort sur pied; 1 ex.: 11/gd/4, 28.IV.1952, H. DE SAEGER, nº 3384, savane herbeuse à ligneux rares, sur des branches mortes sur pied; 5 ex. : PpK/1/6, 30.VIII.1952, H. De Saeger, nº 3992, savane herbeuse, de la strate herbacée entre marais et savane arborescente; 12 ex.: Iso/2/3, 12.VI.1952, H. DE SAEGER, nº 3622, savane arborescente, dans les branches et sous les écorces des arbustes.

#### Cicones minor POPE.

Cicones minor Pope, 1954, Publ. Cult. Cia. Diamant. Angola, No. 23:112.

Length 2,4-2,9 mm. Breadth 0,9-1 mm.

C. minor is very closely related to both C. squamosus, and C. africanus, but it may be distinguished from them as indicated in the key to species above. A further slight difference between C. minor and the other two species is that in it the prosternal intercoxal process is longitudinally sulcate instead of flat.

Holotype: In the Musée Royal de l'Afrique Centrale, Tervuren. Luki, Congo.

Distribution. — See catalogue (p. 5).

1 ex.: Parc National de la Garamba, Congo, 1949-1952, H. DE SAEGER.

#### SASSAKA gen. n.

Type species: Cicones marshalli GROUVELLE.

This genus is closely related to *Synchita* Hellwig (p. 22), differing from it principally as shown in the key to genera above and in the more minor characters listed below. The diagnosis of *Synchita* given on page 22 applies equally to *Sassaka* except for these points.

In Sassaka the head together with the eyes is broader than the neck and the antennal grooves beneath the head are distinctly longer than they are in Synchita. The pronotum has more strongly produced anterior angles than is the case with most species of the latter genus.

This new genus is erected to contain three species; the type species and two others, described below as new. It is very probable that *Cicones latus* GROUVELLE (1919, Mittl. Zool. Mus. Berlin, 9: 208) ought also to be included in *Sassaka*, but the material upon which this species was based is lost and it is not possible to identify it with certainty from the original description.

# KEY TO SPECIES.

- Elytra without explanate lateral borders; pronotal disc granulose ... (2)

# [Sassaka marshalli (GROUVELLE).]

Cicones marshalli Grouvelle, 1914, Ann. Soc. Ent. Fr., 83: 151.

Length 2,2 mm. Breadth 0,9 mm.

This species is readily distinguished from other members of the genus as indicated in the key to species. Other points of difference are the obviously explanate lateral margins of the pronotum and the shorter and broader squamiform setae borne by the pronotal and elytral punctures.

Holotype: In the British Museum (Nat. Hist.), London. Umkomaas river, Natal.

The holotype of this species is unique.

# [Sassaka somereni n. sp.]

Length 2-2,5 mm. Breadth 0,8-0,9 mm.

 $S.\ somereni$  is closely related to  $S.\ minor$  n. sp., described below, differing from it principally in the characters referred to in the key to species and also by the following:

The pronotal granulation is much less strongly raised; the elytral derm is patterned by a large, triangular basal light patch, a shared light patch on the apical declivities and by a separate subapical patch on each elytron. Also the apical antennal segment is distinctly elongate.

Holotype: In British Museum (Nat. Hist.), London. Ngong, Kenya, III: 1942.

# Sassaka minor n. sp.

Length 2,4-2,55 mm. Breadth 0,8-0,85 mm.

Derm testaceous, matt. Head strongly transverse; anterior clypeal border shallowly emarginate medially; clypeus set with very faintly granulose punctures toward posterior margin; frons granulose, granules separated by slightly less than one diameter, each with a dorsal puncture bearing an erect, squamiform seta; intervals between granules impunctate. Pronotum very slightly transverse, broadest near anterior border; lateral borders convergent to anterior angles, slightly and evenly convergent from a little behind anterior angles to hind border; anterior border arcuate, anterior angles produced, acute; posterior angles almost rightangled; anterior margin not clearly separated from disc by a transverse sulcus, but indicated by shallower and closer granulation medially, distinction barely noticeable toward anterior angles; hind margin with a narrow, irregularly formed hind border; disc with slightly larger granules than head, separated by less than one diameter as a rule, each bearing a more or less erect, squamiform seta in a dorsal puncture; intervals between granules impunctate; sculpture toward lateral borders similar to that of disc except for a feebly indicated fovea on either side shortly behind middle. Elytra somewhat less than twice as long as their greatest combined breadth (7:4), parellelsided, evenly rounded to apicosutural angles; striae coarsely punctured, punctures separated longitudinally by slightly less than one diameter and alternating with elongate tubercles, each of which has a dorsal puncture bearing a subcrect, sqamiform seta smaller than those of pronotum; intervals between striae slightly narrower than the diameter of a strial puncture, each set with a row of granulose punctures bearing squamiform setae similar to those of pronotum. Apex of prosternal process not prominent medially; squamiform setae of underside recumbent, narrower than those of upper surfaces.

Holotype: In the Institut des Parcs Nationaux du Congo et du Ruanda-Urundi, Brussels.

PpK/8/d/8, 8.II.1952, H. DE SAEGER, nº 3102, tête de source, assez densément boisée, dans des troncs d'arbres morts en voie de décomposition (Gemba).

Paratypes: 1 ex.: with same data as holotype. [1 ex.: ? Eala, Congo. 1917 (R. MAYNÉ). 1 ex.: Bokala, Congo (Melis).]

#### SYNCHITA HELLWIG.

Synchita Hellwig, in Schneider, 1792, Neusst. Mag. Ent., 1 (4): 401.

Type species : Synchita juglandis Hellwig = Lyctus humeralis FABRICIUS.

Small, elongate-elliptical, convex or subdepressed. Head transverse; clypeus short, exposing labrum; eyes not prominent; neck as broad as head with eyes; antennae with third segment quadrate or elongate, segments four to nine inclusive quadrate to transverse, becoming more transverse apicad, tenth segment expanded into a flattened, button-like club, fringed round distal margin with a white pubescence; antennal grooves on underside of head brief, not reaching to level of hind borders of eyes. Pronotum quadrate or transverse; basal margin narrowly bordered; disc sometimes flattened; anterior angles sometimes produced. Elytra less than twice as long as their greatest combined breadth; subdepressed on disc; basal borders slightly emarginate; almost parellel-sided, very slightly broadened to within one fifth from apices, evenly rounded thence to apicosutural angles, striate-punctate, intervals between strial punctures each with a small granulose puncture bearing a fine seta; intervals between striae punctate, punctures bearing coarser setae than those of striae. Prosternum with anterior coxal cavities open posteriorly, prosternal process inflected apically. Legs with tibiae slightly expanded toward and obliquely truncate at apices; femora expanded; tarsi with the three basal segments subequal and together shorter than the fourth segment.

Originally erected for a European species, this genus has had species assigned to it from all parts of the world. It seems very probable that most of the neotropical species should be transferred to other genera, but the African species differ comparatively little from the European forms and may be retained within the scope of Hellwig's genus.

#### KEY TO AFRICAN SPECIES.

- 1. Elytra with very short, broad, squamiform setae; anterior pronotal border clearly differentiated from disc, much broadened medially; setae along lateral borders of pronotum not confined to denticulations ..... (2)
- Squamiform setae of elytra narrow, elongate; anterior pronotal margin feebly demarcated, scarcely broadened toward middle; setae along lateral borders of pronotum distributed on apices of denticulations ... (4)

- Pronotum with lateral borders very slightly and evenly arcuate from broadest point to base, not sinuate before hind angles; fifth and sixth elytral intervals straight along disc ..... impressa Wollaston, p. 26.
- 4. Pronotum more narrowed to base, lateral borders more sparsely denticulate near base than elsewhere (fig. 15); pronotal disc distinctly granulose ...... crenicollis Wollaston, p. 27.

# Synchita lineatosquamosa Grouvelle.

(Fig. 14, 38.)

Synchita lineatosquamosa Grouvelle, 1919, Mittl. Zool. Mus. Berlin, 9:210.

Length 2,4-3,1 mm. Breadth 1-1,25 mm.

The fasciae of the pronotum and the marked differentiation between the even and alternate elytral intervals set this species apart from all the other members of the genus described from Africa. In outline it is closest to the new species described below, but differs in the pronotal and elytral vestiture and in the basal sinuation of the lateral borders of the pronotum. Holotype: Apparently missing from the collections of the Zoologisches Museum, Berlin. Spanish Guinea (Tessmann).

Distribution. — See catalogue (p. 5).

14 examples.

5 ex.: II/dd/9, 7.VII.1952, H. De Saeger, n° 3744, galerie forestière dégradée, dans les branches d'arbres morts (Erythrophloeum, Chlorophora); 2 ex.: II/gd/4, 28.V.1952, H. De Saeger, n° 3384, savane herbeuse à ligneux rares, sur les branches mortes sur pied; 1 ex.: II/gd/4, 7.VII.1952, H. De Saeger, n° 3757, savane herbeuse, arbre mort sur pied, pas encore décomposé; 1 ex.: II/gd/4, 1.IX.1952, H. De Saeger, n° 4007, savane herbeuse, dans les branches mortes des ligneux suffrutescents; 1 ex.: II/fd/17, 15.V.1951, H. De Saeger, n° 1776, galerie forestière, détritus, sciure et terreau à la base d'un arbre creux; 1 ex.: PpK/51/g/9, 2.IV.1952, H. De Saeger, n° 3276, galerie forestière au dernier stade de la dégradation, dans les arbres morts debout et sur le sol; 3 ex.: Parc National de la Garamba, Congo, 1949-1952, H. De Saeger.

#### Synchita saegeri n. sp.

(Fig. 1.)

Length 1,76-1,88 mm. Breadth 0,75-0,85 mm.

Derm piceous-black, shining. Head transverse, almost flat; frontoclypeal suture not visible; anterior border of clypeus emarginate medially; frons set with small, punctate tubercles about as large as eye facets, separated by one diameter or less and each bearing a small, white, broad, squamiform seta; lateral borders of head shallowly emarginate. Pronotum transverse (25:31); anterior border shallowly arcuate medially, strongly sinuate laterally to acute, produced anterior angles; anterior margin indistinctly separated from disc by a narrow, dark, transverse line; lateral borders arcuately divergent from anterior angles to broadest point at about anterior fourth, strongly convergent thence posteriorly until abruptly sinuate about one fifth from almost rightangled posterior angles; lateral borders very finely crenulate and set with very short, white, squamiform setae; disc and margins set with slightly raised, umbilicate punctures, variably separated by from much less than to more than their diameter; each puncture bearing a short, broad, white, squamiform seta similar to those on head; hind margin with a single row of umbilicate, setiferous punctures; disc of pronotum more or less flat, the arrangement of the setae usually giving the impression that it is shallowly bi-foveate toward the base; lateral margins of pronotum transversely convex. Elytra slightly less than one and a half times as long as their greatest combined breadth (55:37); broadest behind middle, feebly narrowed thence to shoulders, subacuminately narrowed from broadest point to apicosutural angles; punctures of striae deep, separated longitudinally on disc by slightly more than their diameter, each longitudinal interval equipped with a very shallow, elongate tubercle bearing a minute, white, squamiform seta smaller than those of pronotum; intervals between striae each with a single row of tuberculate punctures, similar to those of pronotum and bearing similar setae; punctures separated longitudinally by slightly more than their outer diameter; striae of sutural and second intervals straight, those of intervals three, four and five arcuate of posterior part of disc (fig. 1); striae of second intervals joined to those

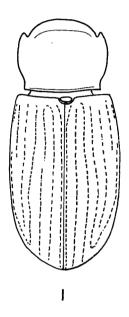


Fig. 1. — Synchita saegeri n. sp. Outline of pronotum and elytra.

of seventh intervals near apices, striae of third intervals ending freely within the conjoined apices of striae two and seven; striae of fourth and seventh intervals joined near apices, striae of fifth intervals ending freely within their conjoined apices; striae of sixth intervals discontinuous at about one third from bases of elytra.

Holotype: In the Institut des Parcs Nationaux du Congo et du Ruanda-Urundi, Brussels.

Ndelele/3, 18.VI.1952, H. De Saeger, no 3649, éboulis rocheux, dans un arbre mort sur pied.

Paratypes: 1 ex.: with same data as holotype.

1 ex.: II/dd/9, 7.VII.1952, H. DE SAEGER, n° 3744, galerie forestière dégradée, dans les branches d'arbres morts (*Erythrophloeum*, *Chlorophora*); 2 ex.: II/gd/4, 28.IV.1952, H. DE SAEGER, n° 3384, savane herbeuse à ligneux rares, sur des branches mortes sur pied.

This species, with its small size and squamiform setae of two sizes on the elytra appears to be very similar to S. flavicornis Grouvelle (1905, Mem. Soc. Espan. Hist. Nat., 1:248), known to me from its description alone. The latter species was described from material collected in Spanish Guinea, but it might be that the species has a wide distribution. If this is so, the species described above may prove to be flavicornis and not a new one, but I feel that it is better to risk the possible creation of a synonym than to apply Grouvelle's name to the material from Garamba Park without more evidence than is given by the original description of S. flavicornis.

# Synchita impressa Wollaston.

Synchita impressa Wollaston, 1867, Coleoptera Hesperidum, p. 61.

Length 1,9-2,5 mm. Breadth 0,8-1 mm.

S. impressa is closely related to S. lineatosquamosa, differing from it as indicated in the key to species above and by the following characters. The pronotum is more depressed on the disc and its punctures are often separated by more than one diameter whereas they are usually separated by less in lineatosquamosa. Also the setae along the lateral borders of the elytra, although squamiform, are elongate and more or less outstanding.

Holotype: In the British Museum (Nat. Hist.), London. S. Iago, Cape Verde Is.

Distribution. — See catalogue (p. 5).

22 examples.

2 ex.: II/gc/8, 22.II.1951, H. De Saeger, n° 1319, tête de source boisée, détritus d'écorce et de sciure à la base d'arbres morts; 1 ex.: Morubia/9, 12.III.1952, H. De Saeger, n° 3186, galerie forestière dégradée, dans des arbres morts, stade de décomposition encore peu avancé; 1 ex.: PpK/51/g/9, 2.IV.1952, H. De Saeger, n° 3276, galerie forestière au dernier stade de dégradation, dans les arbres morts, debout et sur le sol; 1 ex.: II/gd/4, 26.V.1952, H. De Saeger, n° 3519, savane herbeuse à ligneux suffrutescents, dans les branches mortes sur pied; 7 ex.: II/fd/17, 3.VI.1952, H. De Saeger, n° 3563, galerie forestière claire, dans les branches mortes; 1 ex.: II/dd/9, 7.VII.1952, H. De Saeger, n° 3744, galerie forestière dégradée, dans les branches d'arbres morts (Erythrophloeum, Chlorophora); 1 ex.: PpK/1/6, 30.VIII.1952, H. De Saeger, n° 3992, savane herbeuse de la strate herbacée (entre marais et savane arborescente); 5 ex.: II/gd/4, 1.IX.1952, H. De Saeger, n° 4007, savane herbeuse, dans les branches mortes des ligneux suffrutescents; 3 ex.: Parc National de la Garamba, Congo, 1949-1952, H. De Saeger.

# Synchita crenicollis WOLLASTON.

(Fig. 15.)

Synchita crenicollis Wollaston, 1867, Coleoptera Hesperidum, p. 62.

Length 2,2-2,9 mm. Breadth 0,75-1 mm.

Derm testaceous, somewhat shining. Head transverse; clypeus without a visible frontoclypeal suture, irregularly punctured; frons with punctures having raised borders which are interconnected by raised ridges, punctures within borders separated by more than one diameter as a rule, bearing white, outstanding squamiform setae. Pronotum transverse (35: 42), broadest before middle; anterior border truncate medially, sinuate toward produced anterior angles; anterior margin not separated from disc medially, separated toward anterior angles by a faintly indicated transverse sulcus; lateral borders arcuate, denticulate, teeth slightly smaller near anterior angles than elsewhere, missing from each side next to posterior angles leaving an emarginate gap; teeth bearing setae similar to those on head. disc depressed, bearing punctures with raised borders separated by about one diameter; punctures along lateral margins similar to those of disc, but more closely set and sometimes with interconnecting ridges; punctures of disc and lateral margins bearing setae similar to those of head; hind border with a single row of setiferous punctures. Elytra slightly less than twice as long as their greatest combined breadth (30:17); very slightly emarginate basally, slightly narrowed to shoulders, almost parallel-sided for basal two thirds, rounded apically to slightly acute apicosutural angles; disc somewhat depressed, striae transversely punctured, punctures separated by somewhat more than one transverse diameter, intervals between punctures each with a shallow, elongate tubercle having a puncture near its posterior border; intervals between striae about twice the width of a strial puncture, faintly convex, each set with a row of granulose punctures separated longitudinally by from three to five diameters and each bearing a subrecumbent, squamiform seta similar to those of pronotum.

Holotype: In the British Museum (Nat. Hist.), London. S. Iago, Cape Verde Is.

Distribution. — See catalogue (p. 5).

51 examples.

1 ex.: II/gd/4, 25.III.1951, H. De Saeger, nº 1453, à la lampe; 1 ex.: II/fd/17, 26.XI.1951, H. De Saeger, nº 2841, galerie forestière claire, ex fruits mûrs tombés sur le sol; 7 ex.: PpK/51/g/9, 2.IV.1952, H. De Saeger, nº 3276, galerie forestière au dernier stade de dégradation, dans les arbres morts debout et sur le sol; 9 ex.: II/gd/4, 28.IV.1952, H. De Saeger, nº 3384, savane herbeuse à ligneux rares, sur des branches mortes sur pied; 8 ex.: II/gd/4, 26.V.1952, H. De Saeger, nº 3519, savane herbeuse à

ligneux suffrutescents, dans des branches mortes sur pied; 17 ex. : II/dd/9, 7.VII.1952, H. De Saeger, n° 3744, galerie forestière dégradée, dans les branches d'arbres morts (Erythrophloeum, Chlorophora); 4 ex. : II/gd/4, 7.VII.1952, H. De Saeger, n° 3757, savane herbeuse, arbre mort sur pied, pas encore décomposé; 4 ex. : Parc National de la Garamba, Congo, 1949-1952, H. De Saeger.

# Synchita fairmairei GROUVELLE.

Synchita fairmairei Grouvelle, 1899, Ann. Soc. Ent. Fr., 68: 164.

Length 2,1-3 mm. Breadth 0,8-1 mm.

In general facies this species is very closely related to *S. crenicollis* Woll, but it is distinguishable as indicated in the key to species and differs also in that the elytral sculpture is slightly coarser and the punctures along the elytral intervals are more closely set.

Holotype: In the Muséum d'Histoire Naturelle, Paris. Zanzibar (RAFFRAY).

Distribution. — See catalogue (p. 5).

7 examples.

3 ex.: II/gd/4, 7.VII.1952, H. DE SAEGER, n° 3757, savane herbeuse, arbre mort sur pied, pas encore décomposé; 3 ex.: II/dd/9, 7.VII.1952, H. DE SAEGER, n° 3744, galerie forestière dégradée, dans les branches d'arbres morts (Erythrophloeum, Chlorophora); 1 ex.: II/gd/4, 26.V.1952, H. DE SAEGER, n° 3519, savane herbeuse à ligneux suffrutescents, dans des branches mortes sur pied.

#### MICROPRIUS FAIRMAIRE.

Microprius Fairmaire, 1868, Ann. Soc. Ent. Fr., (4), 8:779.

Type species: Microprius terrenus FAIRMAIRE.

Small; elongate; subdepressed; feebly shining; sparsely pubescent. Head transverse, obliquely narrowed shortly in front of prominent eyes; antennae with segments four to nine quadrate to transverse, tenth and eleventh segments about three times as broad as ninth segment; antennal grooves on underside of head long, reaching to behind level of hind borders of eyes. Pronotum rectangular, often somewhat transverse; anterior angles produced; anterior border truncate medially, or slightly emarginate; lateral borders denticulate, more or less convergent for anterior third; posterior border arcuate medially, sinuate toward posterior angles; lateral margins explanate; disc characteristically ornamented with six carinae. Elytra elongate and more or less parallel-sided, rounded together to

apicosutural angles for apical third; disc depressed, alternate intervals between punctate striae sharply carinate; eighth intervals briefly carinate at shoulders, ninth intervals with carinae stopping basally at level of apices of carinae on eighth intervals; a double row of coarse punctures present between each pair of carinae. Prosternum with anterior coxal cavities open posteriorly, prosternal process somewhat inflected behind coxae. Intercoxal process of first abdominal segment acuminate apically; abdominal segments more or less distinctly transversely foveate, especially fourth segment. Legs with tibiae very little expanded toward and obliquely truncate at apices; femora expanded medially; tarsi with three basal segments subequal and together about as long as fourth segment.

So far as is known at present, *Microprius* is restricted in distribution to Asia and Africa. Five species have been recorded from Africa, one of them being described as new in the present paper.

# KEY TO AFRICAN SPECIES.

1.	Granules on frons either separated by at least one diameter and shallow, or arranged in a definite pattern(2)
	Frontal granules separated by less than one diameter and not forming a pattern confusus Grouvelle, p. 30.
2.	Mesosternum with a median longitudinal ridge joined to a transverse ridge at anterior border; metasternum deeply foveolate on either side of median, longitudinal sulcus, foveae bridged anteriorly by a transverse depression; first abdominal segment without vestigial postcoxal ridges; carinae on pronotum and elytra more strongly raised
_	Mesosternum without a longitudinal median raised redge; metasternum not foveolate on either side of median sulcus; first abdominal segment with or without rudimentary postcoxal ridges; pronotal and elytral carinae less strongly raised
3.	Anterior border of clypeus with a projecting tooth on either side near junction with frons (fig. 21)(4)
	Anterior clypeal border without projecting teeth
4.	Apicosutural angles of elytra each produced to form a short spine fig. 27); head expanded in front of eyes (fig. 21); lateral borders of pronotum more or less parallel-sided, sometimes slightly convergent

anteriorly ...... decoratus n. sp., p. 33.

# [Microprius donisi POPE.]

Microprius donisi Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in 8°, Sci. Zool., 19:20.

Length 2,3-2,5 mm. Breadth 0,77-0,9 mm.

This species is closely related to M. terrenus, but may be distinguished by its generally smaller size and by the characters mentioned in the key to species. Other points of difference lie in the granules of the head which are more strongly raised and arranged in a more definite pattern than they are in M. terrenus and in the prosternum which is concave in front of the anterior coxae.

Holotype: In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Congo (Yangambi, Kamaiembi: Luebo).

# Microprius confusus GROUVELLE.

Microprius confusus Grouvelle, 1908, Rev. d'Ent. Caen, 27: 107, 154.

Ditoma opaca Grouvelle, 1892, Ann. Soc. Ent. 61: 296.

Microprius raffrayi Grouvelle, 1908, Rev. d'Ent. Caen, 27: 153 (syn. nov.).

Length 2,5-3,2 mm. Breadth 0,8-1 mm.

*M. confusus* is the most widespread and common of the African members of the genus. It is most readily distinguished from its relatives by the closely and evenly granulose frons. The head is almost quadrate; the pronotum slightly transverse (8:9); the elytra are slightly more than twice as long as their greatest combined breadth and the carinae along the alternate intervals all end freely before reaching the apical borders.

Holotype: In the Muséum d'Histoire Naturelle, Paris. Amani, Tanganyika Territory.

Distribution. — See catalogue (p. 6).

211 examples.

7 ex.: II/fd/17, 3.VI.1952, H. DE SAEGER, n° 3563, galerie forestière claire, dans les branches mortes; 4 ex.: Iso/II/3, 12.VI.1952, H. DE SAEGER, n° 3622, savane arborescente, dans les branches et sous les écorces des arbustes; 2 ex.: II/gd/4, 19.VI.1952, H. DE SAEGER, n° 3671, savane herbeuse, dans des petits troncs d'arbres morts couchés

sur le sol; 46 ex. : II/fc/18, 4.VII.1952, H. De Saeger, nº 3738, berges sablonneuses inondées, dans un arbre mort sur pied (Irvingia smithii); 8 ex. : II/gd/4, 1.IX.1952, H. DE SAEGER, nº 4007, savane herbeuse, dans les branches mortes des ligneux suffrutescents; 56 ex.: II/gd/4, 26.V.1952, H. DE SAEGER, no 3519, savane herbeuse à ligneux suffrutescents, dans des branches mortes sur pied; 1 ex. : II/le/8, 3.V.1952, H. DE SAEGER, nº 3419, tête de source boisée, dans les arbres morts; 11 ex. : H/gd/4, 28.IV.1952, H. De Saeger, nº 3384, savane herbeuse à ligneux rares, dans des branches mortes sur pied; 1 ex. : II/fd/17, 3.IV.1952, H. De Saeger, nº 3281, galerie forestière sèche, sur le sol couvert de feuilles sèches et de feuilles en décomposition; 1 ex. : II/eb/9, 13.III.1952, H. DE SAEGER, nº 3235, galerie forestière dégradée, dans des troncs morts de Neoboutonia; 1 ex.: II/hd/9, 18.VIII.1952, H. De Saeger, nº 3950, galerie forestière très dégradée, ramassage sous les écorces et dans les branches mortes des arbres en voie de disparition (Voacanga obtusa); 3 ex.: II/id/9, 11.VII.1952, H. DE SAEGER, nº 3774, ruisseau à galerie très dégradée, dans les arbres morts; 6 ex. : II/je/8, 15.X.1951, H. De Saeger, nº 2601, tête de source à boisement dégradé, dans des arbres et branches mortes sur le sol; 1 ex. : II/ed/10, 20.III.1951, H. DE SAEGER, nº 1436, galerie forestière, ex carpophores (Fomes lignosus); 1 ex. : II/gd/8, 12.VII.1951, H. DE SAEGER, nº 2060, tête de source faiblement arborée, sous écorce d'arbre mort (Kigelia aethiopica); 7 ex. : PpK/8/9, 15.VII.1952, H. De Saeger, nº 3787, galerie forestière dégradée, dans les arbres morts sur pied (Voacanga obtusa); 7 ex.: Utukuru/9, 26.VII.1952, H. De Saeger, nº 3823, galerie forestière, arbre mort (Spondianthus preussii) abattu récemment par la foudre; 4 ex.: II/id/9, 16.VII.1952, H. De SAEGER, nº 3799, galerie forestière dégradée Rauwolfia vomitoria; 1 ex. : II/gd/4, 6.IV.1952, H. De Saeger, nº 3305, savane herbeuse à ligneux rares; 5 ex. : I/o/2, 2.XI.1950, H. DE SAEGER, nº 928, galerie forestière, volant sur fruits mûrs; 10 ex. : I/o/1, 20.XI.1950, H. De Saeger, nº 985, savane arborescente, récolté sous les écorces d'arbres morts; 1 ex. : Garamba/4, 3.II.1951, J. Verschuren, nº 1214, graminées courtes non brûlées, entre la savane brûlée depuis un mois et la rivière; 1 ex. : Morubia/9, 12.III.1952, H. De Saeger, n° 3186, galerie forestière dégradée, dans des arbres morts, stade de décomposition encore peu avancé; 1 ex.: Garamba, entre Kiliwa et Naworoko, 3.II.1951, J. Verschuren, nº 1202, en dessous d'écorces d'Irvingia; 11 ex. : PpK/51/g/9, 2.IV.1952, H. DE SAEGER, nº 3276, galerie forestière, au dernier stade de la dégradation, dans les arbres morts et sur le sol; 1 ex. : II/fd/17, 19.VII.1951, H. De Saeger, nº 2115, galerie forestière sous ombrage, bois en décomposition, milieu très humide; 1 ex. : II/gd/Camp, 8.VIII.1951, H. DE SAEGER, nº 2228, bambous introduits, utilisés pour la construction des toits en en paille; 2 ex.: II/gc/11, 5.X.1951, H. De Saeger, nº 2517, expansion marécageuse, avec vestiges de galerie forestière, dans des bois morts en décomposition; 1 ex. : II/fe/10, 23.VIII.1951, H. De Saeger, nº 2312, vestiges de galerie forestière ancienne, dans des branches et troncs morts tombés sur le sol, premier stade de décomposition; 1 ex.: II/fd/17, 23.VIII.1952, H. DE SAEGER, nº 2301, galerie forestière, dans un champignon musciforme se développant dans la plaie d'un Erythrophloeum guineensis; 1 ex.: II/gd/4, 15.VII.1952, H. De Saeger, nº 3779, savane herbeuse, viscères de buffle déposés sur le sol dans la savane à graminées; 5 ex. : Parc National de la Garamba, Congo, 1949-1952, H. DE SAEGER.

# [Microprius terrenus FAIRMAIRE.]

Microprius terrenus Fairmaire, 1868, Ann. Soc. Ent. Fr., (4), 8:779.

Microprius reticulatus Grouvelle, 1908, Rev. d'Ent. Caen, 27:151 (syn. nov.).

Length 2,4-3,5 mm. Breadth 0,8-1 mm.

This species is very similar in general appearance to M. confusus, but is distinguished by the frontal granules which are more widely separated and interconnected in such a way as to produce three rather vague rings which are themselves interconnected by ridges. The elytral carinae of M. terrenus are slightly more strongly raised than they are in the case of M. confusus.

Holotype: ? In the Muséum d'Histoire Naturelle, Paris. Simon's Bay, Cape of Good Hope, Cape Province.

Distribution. — Cape Province, Natal, Southern Rhodesia.

The synonymy given above is based upon the examination of a cotype of M. reticulatus Grouvelle. There is no doubt that it is the same species as that described by Fairmaire.

# [Microprius carinicollis GROUVELLE.]

Microprius carinicollis Grouvelle, 1919, Mem. Ent., 2:54.

Length 3,2-4 mm. Breadth 1-1,3 mm.

The clypeal teeth of this species relate it to the new species described below, but it is separable by the characters mentioned in the key to species. It is the largest of the African *Microprius* so far discovered.

Although it is found in S. Rhodesia, it is really a central African species as its distribution shows.

Holotype: In the South African Museum, Capetown. Sebakwe, South Rhodesia.

Distribution. — Southern Rhodesia, Congo (18 miles S.W. of Élisabethville, Kaswabilenga, Katanga: Katompe, Kasai: Makumbe, Léopoldville, Kundelungu, Mayidi).

# Microprius decoratus n. sp.

(Fig. 21, 27.)

Length 2,4-3,1 mm. Breadth 0,85-1,05 mm.

Derm usually dark fuscous with anterior margin of head, explanate lateral borders of pronotum, legs and antennae more or less testaceous. Head in front of eyes in outline as in figure 21; junction of clypeus with supra-antennal extensions of frons impressed; clypeus set with shallow tubercles, each slightly smaller than an eye facet, separated from its neighbours by one diameter or more, having a small, dorsal puncture from which arises a minute seta; granules of frons of a similar diameter to those of frons, but much taller, separated by distances varying from one to several diameters, arranged in a vague pattern involving interconnected polygons, bearing setae similar to those of clypeal tubercles. Pronotum transverse (35:45); anterior border briefly emarginate medially, rounded laterally and then produced to acute anterior angles; posterior angles rightangled; lateral borders parallel-sided for most or their length, briefly convergent to anterior angles; lateral margins broadly explanate; lateral borders broadly and bluntly serrate, serrations minutely crenulate; discal and lateral pronotal carinae sharp, strongly raised, paramedian carinae extending from base to at least midway along pronotum, usually in front of middle, before joining admedian carinae; intervals between carinae with shallow, close-set tubercles bearing small, fine setae. Elytra as broad as pronotum; very slightly more than twice as long as their greatest combined breadth (21:10); briefly and slightly narrowed to shoulders, parallel-sided for basal twothirds, arcuately narrowed thence posteriorly to acute, produced apicosutural angles; sutural carinae entire, divergent near scutellum, less strongly raised than carinae of other alternate intervals; carinae of third intervals sharp, strongly raised from bases to explanate apical margins of elytra; carinae of fifth intervals as strongly raised as those of third intervals, entire to bases, but ending apically shortly before reaching explanate apical margins; carinae of seventh intervals similarly raised to those of fifth intervals, entire to bases but becoming less strongly raised along apical third of elytra and ending at about one sixth from apical borders; carinae of ninth intervals beginning just behind shoulders, increasing in prominence toward apices and forming explanate apical margins of elytra; strial punctures coarse, separated by almost one diameter. Metasternum protuberant anteromedially. First abdominal segment with divergent postcoxal ridges.

Holotype: In the Institut des Parcs Nationaux du Congo et du Ruanda-Urundi, Brussels.

 $\rm II/gd/4$ , 28.IV.1952, H. De Saeger, n° 3384, savane herbeuse à ligneux rares, sur des branches mortes sur pied.

#### Paratypes:

7 ex. : with same data as holotype. 2 ex. : II/gd/4, 26.V.1952, H. De Saeger, n° 3519, savane herbeuse à ligneux suffrutescents, dans des branches mortes sur pied; 2 ex. : Iso/II/3, 12.VI.1952, H. De Saeger, n° 3622, savane arborescente, dans les branches et sous les écorces des arbustes; 1 ex. : II/hd/4, 7.IV.1952, H. De Saeger, n° 3296, savane herbeuse, dans les tiges sèches de  $Nauclea\ latifolia$ , mortes à la suite du passage du feu en janvier.

The strongly raised pronotal and elytral carinae are reminiscent of M. donisi, but the underside characters referred to in the key to species will at once separate the latter from M. decoratus.

#### BITOMA HERBST.

Bitoma Herbst, 1793, Natursystem der Insekten: Käfer, 5:25.

Type species: Tritoma crenata FABRICIUS.

This genus is very closely related to *Microprius* Farmaire and differs from it principally in the manner indicated in the key to genera above. In general the facies is such that the sculpture and form is that of a feebly marked species of *Microprius*. *Bitoma* lacks the explanate lateral margins to the pronotum and the basal admedian carinae on the pronotal disc are very feebly marked, or absent. The carinae of the first, third, fifth, seventh and ninth elytral intervals are entire to the apices of the elytra and the first three abdominal segments are not foveolate.

According to the Coleopterorum Catalogus, *Bitoma* includes species from many parts of the world. As is the case with *Synchita* Hellwig (p. 22), *Bitoma* proves to have been something of a dumping ground and several species should be transferred to other genera.

#### KEY TO AFRICAN SPECIES.

- 1. Eyes markedly convex; admedian longitudinal pronotal carinae bifurcate anteriorly and posteriorly; lateral margins of pronotum somewhat explanate ................................[brevicollis Grouvelle], p. 35.

# [Bitoma brevicollis GROUVELLE.]

Bitoma brevicollis Grouvelle, 1908, Rev. d'Ent. Caen, 27:11.

Length 2,7 mm.

B. brevicollis was described from a single specimen collected by Eichelbaum and deposited in the museum at Hamburg, Germany. The specimen is lost and so the species is known to the present author from its description alone. It is clearly an unusual member of the genus and may indeed be improperly assigned. Regrettably the shape of the intercoxal process of the first abdominal segment and the condition of the antennal grooves beneath the head were not recorded by Grouvelle. If it is assumed that these characters are as in Bitoma, then the species keys out as above. B. brevicollis would appear to bear a strong resemblance to a species of Microprius, but here the antennal grooves are long and the pronotal margins broadly explanate.

Holotype: ? Amani, Tanganyika Territory (sous les écorces).

# Bitoma lyctiformis Wollaston.

Bitoma lyctiformis Wollaston, 1867, Coleoptera Hesperidum, p. 63. Bitoma elongata Grouvelle, 1892, Ann. Soc. Ent. Fr., 59: 296 (syn. nov.). Bitoma rufipes Kolbe, 1898, Deutsch. Ost-Afr., 4, Käf., p. 111 (syn. nov.). Xuthia granosa Grouvelle, 1914, Rev. Zool. Afr., 4: 135 (syn. nov.).

Length 2,25-3,75 mm. Breadth 0,7-1 mm.

Derm testaceous to black, moderately shining. Head including eyes transverse (5:7); anterior clypeal border shallowly emarginate medially, rounded laterally; clypeus obliquely impressed laterally over antennal insertions, clypeal surface convex, punctate, punctures smaller than eye facets, separated by one diameter as a rule, intervals smooth; frons impressed within raised lateral borders, impressed at frontoclypeal junction, convex medially between eyes, shallowly granulose, granules larger than eye facets, separated by much less than one diameter, each with a small puncture in the dorsal surface bearing a minute, appressed seta. Pronotum almost quadrate; convex, subdepressed on disc; anterior border raised, emarginate medially, arcuate laterally, strongly sinuate close to produced anterior angles; lateral borders slightly convergent anteriorly and posteriorly, more so toward weakly obtuse posterior angles; disc with six raised carinae, two entire lateral carinae on either side of a pair of admedian, ill-defined, very slightly raised carinae which are confined to anterior fourth of pronotum; lateral pairs of carinae convergent posteriorly, outer entire carinae more

sharply marked than inner complete carinae; intervals between carinae granulose, granules very feebly raised, almost flat-topped, very closely set, separated by less than a quarter of one diameter in many instances; each granule with a minute puncture bearing an inconspicuous, decumbent seta similar to those on head; basal border arcuate, raised between each pair of lateral carinae, scarcely raised medially. Elytra from two to two and one third times as long as their combined breadth; convex, cylindrical, evenly rounded apically, emarginate basally, shoulders briefly rounded; alternate intervals between striae completely, but rather feebly carinate; punctures of striae coarse, separated longitudinally by about one diameter; intervals between striae and intervals between strial punctures regularly set with minute punctures similar to those on pronotal granules and similarly setiferous. Underside coarsely punctured, not granulose.

Holotype: In the British Museum (Nat. Hist.), London. S. Iago, Cape Verde Is.

Distribution. — See catalogue (p. 6).

484 examples.

112 ex. : PpK/8/9, 15.VII.1952, H. De Saeger, nº 3787, galerie forestière dégradée, dans les arbres morts sur pied (Voacanya obtusa); 119 ex.: II/fc/18, 4.VII.1952, H. DE SAEGER, nº 3738, berges sablonneuses inondées, dans un arbre mort sur pied (Irvingia smithii); 122 ex. : II/fd/17, 3.VI.1952, H. De Saeger, nº 3563, galerie forestière claire, dans les branches mortes; 3 ex. : II/fd/17, 13:VII.1952, H. DE SAEGER, nº 2062, galerie forestière très claire, arbre mort, sous écorce et dans le bois imprégné d'humidité en partie décomposé; 6 ex.: II/gd/8, 12.VII.1951, H. De Saeger, nº 2060, tête de source faiblement arborée, sous écorces d'un arbre mort (Kigelia aethiopica); 1 ex. : II/gd/17, 15.VI.1951, H. De Saeger, no 1942, galerie forestière dense, 4 dm3 bois en décomposition (Sarcocephalus sp.), « Zulukundu »; 1 ex. : II/fd/18, 26.VI.1951, H. DE SAEGER, nº 1972, savane herbeuse, sur ados de sables alluvionnaires (Cryptogame); 1 ex. : II/fd/8, 9.V.1951, H. De SAEGER, nº 1700, tête de source arborée, de la strate herbacée; 1 ex. : II/ee/14, 26.IV.1951, J. Verschuren, nº 1612, sous écorce, dans des arbres abattus en décomposition (Sida acuta); 19 ex. : II/ed/16, 20.III.1951, H. DE SAEGER, nº 1436, galerie forestière, ex carpophores (Fomes lignosus); 3 ex. : II/gc/8, 22.II.1951, H. DE SAEGER, nº 1281, tête de source boisée, Voacanga obtusa mort sur pied, écorce en grande partie détachée (végétation arborescente dégradée, milieu se conservant assez humide malgré l'absence d'un couvert dense); 1 ex. : II/me/9, 21.XI.1951, H. DE SAEGER, nº 2746, cours d'eau à boisement dégradé, sous les écorces; 4 ex.: PpK/51/g/9, 2.IV.1952, H. De Saeger, nº 3276, galerie forestière au dernier stade de dégradation, dans les arbres morts debout et sur le sol; 5 ex. : II/gd/4, 1.IX.1952, H. DE SAEGER, nº 4007, savane herbeuse, dans les branches mortes des ligneux suffrutescents; 2 ex. : II/le/8, 8.IX.1952, H. De SAEGER, nº 4053, tête de source boisée, dans le bois mort; 10 ex. : II/fd/17, 19.VII.1951, H. De Saeger, nº 2115, galerie forestière sous ombrage, bois en décomposition, très humide; 11 ex.: II/fe/10, 23.VIII.1951, H. DE SAEGER, nº 2312, vestiges de galerie forestière ancienne, dans des troncs et branches morts tombés sur le sol, premier stade de décomposition; 1 ex. : II/fd/17, 23.VIII.1951, H. De Saeger, nº 2301, galerie forestière, champignon musciforme se développant dans la plaie d'un Erythrophloeum guineensis; 1 ex. : II/fd/17, 4.IX.1951,

H. De Saeger, nº 2362, galerie forestière, arbres et branches morts non tombés sur le sol; 3 ex. : II/gc/11, 5.X.1951, H. De Saeger, nº 2517, expansion marécageuse, strate herbeuse, non paludicole aux abords; 1 ex.: II/ke/9, 12.X.1951, H. De SAEGER, nº 2591, galerie forestière très dégradée, dans les branches tombées, en décomposition; 1 ex.: II/gd/4, 9.X.1951, H. De Saeger, nº 2562, savane herbeuse, sur les fleurs (Crotalaria striata); 2 ex.: II/id/9, 16.VII.1952, H. DE SAEGER, nº 3799, galerie forestière dégradée, Rauwolfia vomitoria; 1 ex.: I/o/2, 15.V.1950, H. De Saeger, nº 519, galerie forestière humide, sur le sol, troncs et feuilles décomposés; 2 ex. : I/o/2, 2.XI.1950, H. DE SAEGER, nº 928, galerie forestière, volant sur fruits mûrs de Ficus capensis; 2 ex.: I/o/1, 20.XI.1950, H. De Saeger, nº 985, sayane arborescente, récolté sous les écorces d'arbres morts; 11 ex.; II/gd/4, 26.V.1952, H. De Saeger, no 3519, savane herbeuse à ligneux suffrutescents, dans des branches mortes sur pied; 1 ex.; II/le/8, 3.V.1952, H. De Saeger, nº 3419, tête de source boisée, dans les arbres morts; 3 ex. ; II/gd/4, 28.IV.1952, H. De Saeger, no 3384, savane herbeuse à ligneux rares, sur des branches mortes sur pied; 1 ex.: Ndelele/3, 18.VI.1952, H. DE SAEGER, no 3649, éboulis rocheux, dans un arbre mort sur pied; 1 ex.; II/gd/4, 7.VII.1952, H. DE SAEGER, nº 3757, savane herbeuse, arbre mort sur pied, pas encore décomposé (Parinari curatellifolia): 5 ex.; II/gc/8, 30.IV.1952, H. De Saeger, nº 3405, tête de source faiblement boisée, dans des arbres morts en décomposition: 6 ex.: PpK/51/g/9, 2.IV.1952, H. De Saeger, nº 3295, galerie forestière, au dernier stade de dégradation, bois mort à un stade avancé de décomposition; 1 ex.: II/he/8, 9.II.1952, H. De Saeger, nº 3115, tête de source à boisement dégradé, dans les arbres morts; 1 ex. : II/dd/9, 7.VII.1952, H. De Saeger, nº 3744, galerie forestière dégradée, dans les branches d'arbres morts (Erythrophloeum, Chlorophora); 1 ex.: II/hd/9, 18.VIII.1952, H. DE SAEGER, nº 3950, galerie forestière très dégradée, sous les écorces et dans les branches mortes des arbres en voie de disparition (Voacanga obtusa); 1 ex.: II/dd/9, 1.II.1952, H. De Saeger, no 3082, galerie forestière sous l'écorce d'un arbre abattu, vivant, vallon encaissé, abords brûlés; 1 ex.: II/gd/4, 8.V.1952, H. DE SAEGER, n °3449, savane herbeuse, bords de piste: mélange de graminées et d'herbacées basses, sans ombrage; 12 ex. : Parc National de la Garamba, Congo, 1949-1952, H. DE SAEGER.

The synonymy given above is based upon an examination of the type specimens of *B. lyctiformis*, *B. rufipes* and *Xuthia granosa* and an example of *B. elongata* named by Grouvelle. This, together with the study of a very long series of examples from tropical Africa has led to the conclusion that all four names apply to a single, widespread species.

# [LASCOTRICHUS gen. n.]

Type species: Neotrichus eichelbaumi (GROUVELLE).

Cylindrical; convex; very elongate. Head transverse, angulate-emarginate toward anterior angles; eyes not very prominent; antennae with a two-segmented club about three times as broad as funicle, antennal grooves on underside of head well-marked, reaching to about level of hind borders of eyes. Pronotum with anterior angles produced; anterior and posterior borders arcuate; lateral margins explanate; lateral borders narrowly raised, entire, arcuate, disc strongly granulose. Elytra convex, cylindrical,

about twice as long as their combined greatest breadth; evenly rounded to apices; very coarsely striate-punctate; intervals between punctures set with strongly raised, setiferous granules. Underside of thorax and abdomen granulose. Legs with tibiae not expanded toward apices; basal tarsal segment at least as long as the one following.

This genus is erected to include two known species, one referred to *Lascotonus* by Grouvelle in 1908 and later (1941) transferred to *Neotrichus* Sharp by Hinton, and another species placed in *Neotrichus* by Hinton when he described it in 1941.

Lascotrichus is related to both Neotrichus and Lascotonus Grouvelle, differing from the former as indicated by the key to genera and from the latter in having a two-segmented club to the antennae instead of one composed of three joints.

So far as is known at present, the range of this genus does not include Garamba National Park, but one of the species was described from Amani, Tanganyika and has since been collected at Mombasa and on the Nyamakubi Mts., Kivu.

#### KEY TO SPECIES.

# [Lascotrichus cheops (HINTON).]

Neotrichus cheops Hinton, 1941, Ann. Mag. Nat. Hist., (11), 7:149.

Length 4,5 mm. Breadth 1,37 mm.

 $\operatorname{Holotype}$ : In the British Museum (Nat. Hist.), London. Jem-Jem Forest, Abyssinia.

Distribution. — As for holotype.

## [Lascotrichus eichelbaumi (GROUVELLE).]

Lascotonus eichelbaumi Grouvelle, 1908, Rev. d'Ent. Caen, 27:110.

Neotrichus eichelbaumi (Grouvelle) Hinton, 1941, Ann. Mag. Nat. Hist., (11), 7:151.

Length 3,5-4 mm. Breadth 1,3 mm.

Holotype: In the Muséum d'Histoire Naturelle, Paris. Amani, Tanganyika Territory.

Distribution. — Tanganyika Territory, Kivu, Congo, Kenya.

### SPRECODES gen. n.

Type species: Caprodes ater Grouvelle.

Oblong-elliptical; somewhat convex; moderately shining. Head almost quadrate, narrowed from a little in front of eyes to anterior border; eyes prominent or moderately prominent; antennae with a loosely articulated, two-segmented club, eleventh segment as large as tenth; antennal grooves on underside of head short, scarcely reaching to midline of eyes. Pronotum convex; lateral margins moderately explanate, coarsely denticulate; anterior margin separated from disc by a transverse sulcus, obvious laterally, but evanescent medially; posterior margin narrowly bordered. Elytra convex, slightly broadened from shoulders to beginning of apical declivities; subacuminately rounded to apicosutural angles; lateral margins very narrowly explanate, not explanate near apicosutural angles; disc and margins striate-punctate; intervals between punctures with short, narrow, feebly raised longitudinal carinae; punctures of head, pronotum and elytra bearing short, suberect, squamiform setae. Prosternum with anterior coxal cavities broadly open posteriorly, prosternal process almost parallel-sided. Legs with tibiae scarcely expanded toward apices; tarsi with basal segment closely applied to smaller second segment, third segment as large as first segment.

GROUVELLE assigned *Sprecodes ater*, with reservations, to *Caprodes* PASCOE. After describing *Diplotoma transvaalica* (1895) he later transferred it (1906), expressing his doubts as to the correctness of such a move, to *Caprodes*.

Neither of these two species in fact belong to Caprodes PASCOE and the new genus described above has been erected to include them. PASCOE's genus has a two-segmented antennal club of very closely applied segments, reminiscent of some species of Teredolaemus Sharp (p. 53). The antennal

grooves beneath the head are very long, reaching to well behind the level of the posterior borders of the eyes; the erect setae borne by the punctures in *Caprodes* are fine and non-squamiform and the second segment of the tarsi is as long as the basal segment.

#### KEY TO SPECIES.

1. Head less narrowed anteriorly, eyes less prominent (fig. 25); lateral pronotal denticles more numerous and more closely set; pronotum distinctly narrowed to anterior angles; discal pronotal sculpture of annulate punctures rather than shallow granules ......

[transvaalicus (GROUVELLE)], p. 41.

— Head more narrowed anteriorly and eyes more prominent (fig. 24); lateral pronotal denticles less numerous and more sparsely set; pronotum not, or scarcely narrowed to anterior angles; discal sculpture of pronotum of broad, shallow, closely-set granules ... ater (Grouvelle), p. 40.

## Sprecodes ater (GROUVELLE).

(Fig. 24.)

Caprodes ater Grouvelle, 1904, Ann. Soc. Ent. Belg., 48: 181.

Caprodes ater Grouvelle, Kolbe, 1919, Mittl. Zool. Mus. Berlin, 9: 202.

Length 2,3-2,75 mm. Breadth 0,8-0,95 mm.

Derm piceous-black, rather faintly shining. Head with anterior clypeal border feebly emarginate; clypeus finely and sparsely punctate, moderately impressed laterally at frontoclypeal junction, punctures bearing narrow, outstanding, dark, squamiform setae; from with shallowly-raised, very closely set granules, about twice the diameter of an eye-facet, granules each with a puncture near anterior end bearing an erect seta as on clypeus. Pronotum transverse (3:4), granulose, granules on disc very shallowly raised, separated by much less than half of one diameter medially, by more toward anterior margin; granules toward and along lateral margins more strongly raised than those of disc, separated by increasing distances toward lateral borders and more particularly toward anterior angles, granules each with an outstanding, squamiform seta in an apical puncture similar to those of head; anterior margin with smaller granules than disc, granules also setiferous; anterior angles slightly produced, almost rightangled; lateral borders almost parallel, each denticle with an outstanding seta as on disc; posterior border slightly broadened medially, bearing a single row of setiferous granules slightly smaller than those of disc; posterior angles almost rightangled. Scutellum flat or slightly concave, almost circular, basal border slightly flattened. Elytra twice as long as their combined

breadth; strial punctures separated by about one diameter on disc, by a little more toward lateral margins; intervals between striae about as wide as a strial puncture; first and second striae entire to apices, third striae joining eighth striae shortly before reaching apicosutural angles, within the enclosure thus formed the fourth and fifth striae are joined shortly before reaching the junction of the third and eighth striae and the sixth and seventh striae are similarly united; lateral borders finely serrated, more strongly so toward bases, serrations each with an outstanding seta similar to those of disc. Prosternum and hypomera transversely rugulose. Metasternum with longitudinal median sulcus confined to apical half. Setae of underside fine, short, non-squamiform.

Holotype: In the Institut royal des Sciences naturelles, Brussels. Lingunda, Congo.

Distribution. — See catalogue (p. 5).

10 examples.

4 ex.: II/fc/18, 4.VII.1952, H. DE SAEGER, n° 3738, berges sablonneuses inondées, dans un arbre mort sur pied (Irvingia smithii); 2 ex.: II/gd/4, 26.V.1952, H. DE SAEGER, n° 3519, savane herbeuse à ligneux suffrutescents, dans des branches mortes sur pied; 1 ex.: II/le/8, 3.V.1952, H. DE SAEGER, n° 3419, tête de source boisée, dans les arbres morts; 1 ex.: II/le/8, 3.V.1952, H. DE SAEGER, n° 3420, tête de source boisée, petits filets d'eau coulant entre un peuplement de Marantochloa; 1 ex.: II/fd/17, 23.VIII.1952, H. DE SAEGER, n° 2301, galerie forestière, champignon musciforme se développant dans la plaie d'un Erythrophloeum guineense; 1 ex.: I/o/2, 15.V.1950, H. DE SAEGER, n° 510, galerie forestière humide, sur le sol, troncs et feuilles décomposés.

# $[\textbf{Sprecodes transvaalicus} \ (\textbf{Grouvelle}).]$

(Fig. 25.)

Diplotoma transvaalica Grouvelle, 1895, Ann. Soc. Ent. Fr., 64: 163. Caprodes transvaalicus (Grouvelle), Grouvelle, 1906, 1. c., 75: 104.

Length 3,1-3,2 mm. Breadth 1,1 mm.

S. transvaalicus is scarcely distinguishable from S. ater other than by its slightly larger size and by the characters given in the key to species.

Holotype: (Location unknown). Makapan, Transvaal.

Distribution. — Natal, Transvaal, Tanganyika Territory (Ukerewe Id.), Congo (Kundelungu, and 18 miles S.W. of Elisabethville).

As can be seen, this species appears to be the southern counterpart of *S. ater.* Whether further collecting will discover a greater degree of overlap in distribution cannot be prophesied at present.

#### COLOBICUS LATREILLE.

Colobicus LATREILLE, 1804, Gen. Crust. Ins., 2:9.

Type species: Colobicus marginatus LATREILLE.

Small; oblong; not very convex, subdepressed on disc; setiferous. Head transverse, little convex, arouately narrowed in front of eyes; anterior border emarginate medially; eyes moderately prominent; antennae with third segment as long as the three following together; antennal grooves long, convergent posteriorly, reaching level of hind borders of eyes. Pronotum with lateral margins more or less explanate; anterior angles produced; disc moderately convex or distinctly flattened. Elytra at most narrowly explanate along lateral margins, almost parallel-sided for basal two thirds, then evenly rounded to apicosutural angles; disc and margins striate-punctate, striae feebly tuberculate between punctures, tubercles bearing recumbent setae. Prosternum with anterior coxal cavities open posteriorly, prosternal process only feebly inflected behind anterior coxae, rounded apically. Intercoxal process of first abdominal segment rounded apically. Legs with narrow tibiae which are obliquely truncated apically; femora expanded medially; tarsi with three basal segments subequal and together shorter than fourth segment.

In facies, *Colobicus* is most closely related to *Cicones* Curtis (p. 16), but falls in a different section of the key to genera on account of its eleven-segmented antennae with a two-segmented club. It closest African relative is *Sprecodes* (p. 39), from which it differs as indicated in the key to species. Another difference between the two genera lies in the elytral setae; in *Sprecodes* they are more or less erect, whereas in species of *Colobicus* they are recumbent.

Four species of *Colobicus* have been described from African material. One of these, *C. seriatus* Kolbe (1897), is almost certainly incorrectly placed in the genus, but is impossible to reassess in the absence of material. Another, *C. ampliatus* Fairmarre (1882) is apparently correctly placed in *Colobicus*, but the description is brief and lacks the details which are necessary for specific identification. The remaining species are distinguished in the key below. *C. specialis* Grouvelle is very closely related to *C. parilis* Pascoe of tropical Asia. *C. minutus* Pope is very distinct and may, when more is known of the family, prove to be more happily accommodated in a new genus.

#### KEY TO AFRICAN SPECIES.

#### Colobicus minutus POPE.

Colobicus minutus Pope, 1954, Publ. Cult. Cia. Diamant. Angola, N°. 23, p. 112.

Length 2,2-2,5 mm.

The small size of this species, together with the unusual construction of its pronotum, will at once distinguish it from all other members of the genus. The pronotal disc is strongly flattened and the posterior angles of the pronotum are almost rightangled .

Holotype: In the British Museum (Nat. Hist.), London. Luachimo gallery forst, Dundo, Angola.

Distribution. — See catalogue (p. 5).

1 example.

1 ex. : I/o/1, 20.XI.1950, H. DE SAEGER, no 985, savane arborescente, récolté sous les écorces d'arbres morts.

#### Colobicus specialis GROUVELLE.

Colobicus specialis Grouvelle, 1905, Mem. Soc. Espan. Hist. Nat., 1:248.

Length 4,4-4,85 mm. Breadth 1,75-2 mm.

Derm almost black, shining. Head with anterior clypeal border faintly and briefly emarginate medially, lateral borders and those of frontal extensions evenly rounded, lightly notched at frontoclypeal junction; clypeus convex, punctures small, separated by several diameters, each bearing a recumbent, squamiform seta; frontoclypeal suture not marked; frons slightly convex, punctures set on bread, shallow, closely arranged granules and each bearing a seta as on clypeus; setae of frons and clypeus of two colours, some almost white, others brown. Pronotum transverse (Ca. 2:3); anterior border arcuate medially, strongly sinuate to produced anterior angles; lateral margins rather narrowly explanate, strongly arcuate; prono-

tum more strongly narrowed to anterior than to posterior angles; hind margin narrowly separated from disc by a clearly-marked sulcus; discal sculpture of broad, very shallow, flat-topped granules, each surrounded by a sulcus and each with a small puncture bearing a seta similar to those of head; granules separated by less than one diameter as a rule; anterior margin set with similar, although smaller granules. Elytra less than twice as long as their greatest combined breadth (Ca. 50:35); convex; parallel-sided for basal three fifths, subacuminately narrowed thence to apicosutural angles; lateral margins narrowly expanate; punctures of striae coarse, separated longitudinally by about one diameter; longitudinal intervals between punctures convex, each with a shallowly-raised, elongate-elliptical tubercle bearing in an apical puncture a squamiform setae, either brown or almost white, similar to, although slightly larger than those of pronotum; striae separated by about twice the diameter of a strial puncture.

Holotype: In the Instituto Español de Entomologia, Madrid. Biafro-Cabo, San Juan, Spanish Guinea.

Distribution. — See catalogue (p. 5).

1 example.

1 ex. : II/gd/4, 7.VII.1952, H. De Saeger, nº 3757, savane herbeuse, arbre mort sur pied, pas encore décomposé.

#### PABULA CARTER.

Pabula Carter, 1937, Proc. Linn. Soc. N. S. W., 62: 193.

Type species: Bupala perforata BLACKBURN.

This genus, established by Carter to include *Bupala perforata* Blackburn is represented in Africa by the single species described below. The diagnostic features of the group are well covered in the key to genera above and little can be added here except to state that head (fig. 26) has a very characteristic outline and the bristles on the pronotum and elytra are stiff and outstanding. The lateral borders of the pronotum are strongly dentate. The tibiae are not expanded toward their apices.

The African species differs from *P. perforata* in that the eleventh antennal segment is very closely applied to the tenth segment and seems almost to be fused thereto.

## Pabula africana n. sp.

(Fig. 6, 12, 26.)

Length 2,9-3,95 mm. Breadth 1-1,2 mm.

Derm ferrugineous to piceous-black, moderately shining. Head with granulation increasing in size and height posteriorly, granules each with an apical puncture bearing a fine, yellow seta; eyes prominent, without a temple at posterior border; head narrowed behind eyes, feebly convex between eyes; antennae with third segment as long as the following three segments together, eleventh segment small, button-like, more or less hidden by setae of tenth segment (fig. 12). Pronotum trapezoidal, slightly transverse (4:4,7); convex; anterior margin bordered, arcuate; posterior border arcuate; lateral borders strongly dentate, each tooth obliquely truncate apically and bearing an outstanding seta; disc granulose, granules punctate, punctures bearing fine setae as on head, granules joined to each other by small ridges lower than their height. Scutellum small, transverse, flattened basally, arcuate apically. Elytra slightly more than twice as long as their combined breadth (42:19); parallel-sided for basal three fourths. apical fourth acuminately narrowed to within a short distance of apicosutural angles, then obtusely rounded to suture; basal border emarginate; humeral calli well-marked, shoulders briefly rounded; strial punctures deep, slightly transverse, separated longitudinally by about one diameter, these intervals each with a shallow, elongate tubercle bearing a very short, recumbent seta in a minute puncture; intervals between striae about as broad as strial punctures, alternate intervals each with a single row of minute tubercles which bear a stiff, outstanding seta in a small, apical puncture; setae larger than those of pronotal disc, but similar to those along lateral borders of pronotum; tubercles separated longitudinally by about twice the diameter of a strial puncture; lateral borders of elytra denticulate, teeth bearing outstanding setae similar to those of alternate elytral intervals, teeth larger toward shoulders of elytra.

Holotype: In the British Museum (Nat. Hist.), London. [Ukerewe, Id., Tanganyika Territory (CONRADS)].

### Paratypes:

[3 ex.: with same data as holotype. 1 ex.: N. lac Kivu: Rwankwi (Congo), III.1951 (J. V. Leroy)]. 1 ex.: Iso/II/3, 12.VI.1952, H. De Saeger, no 3622, savane arborescente, dans les branches et sous les écorces des arbustes.

## GEMPYLODINI.

### KEY TO AFRICAN GENERA.

1. Antennal grooves present on underside of head; prosternal process expanded beneath anterior coxae (fig. 31); body glabrous; antennae without an apical club

[Aprostoma Guérin. E. and W. Afr., Congo].

#### MECEDANUM ERICHSON.

Mecedanum Erichson, 1845, Naturg. Ins. Deutschl., 3:274.

Type species: Mecedanum erichsoni SHARP.

Pubescent or glabrous; usually not strongly shining; very elongate. Head with eyes not very prominent; antennae either having a distinct three-segmented club or a very indistinct club composed of more than three segments; frons usually elevated laterally, often sharply carinate along lateral borders, sometimes with a longitudinal median carina. Pronotum strongly elongate; disc with a longitudinal median sulcus; lateral margins with a narrow border; discal punctures usually coarse and of one size. Elytra cylindrical, almost parallel-sided for basal fourth, slightly sinuate thence to broadly rounded posterior borders; apical ends of sutural borders obliquely angled or emarginate; alternate intervals between striae carinate or subcarinate, carinae sometimes very weakly raised on disc; even intervals each with a double row of coarse punctures. Anterior coxae very narrowly separated by a very thin, lamelliform intercoxal process. Posterior border of prosternum with a membraneous hind edge. Metasternum with a distinct longitudinal median sulcus. Legs with all tibiae bearing a strongly formed external apical spur; tarsi with basal segment on middle and hind legs distinctly longer than the one following, but not more than half as long as tibiae; basal segment of anterior tarsi slightly or distinctly longer than the one following.

The distribution of this genus includes east and west Africa, Madagascar and the Seychelles.

#### KEY TO AFRICAN SPECIES.

- 1. From without a longitudinal median carina; pronotum with longi-Frons with a distinct longitudinal median carina; pronotum with longitudinal paramedian carinae differentiated from the rest of the 2. Antennae with a three-segmented club; head not declivous in front of a median angulation; from with lateral borders sharply carinate ... auberti (FAIRMAIRE), p. 48. - Antennae with segments three to ten of similar width; head declivous in front of median angulation; frons obliquely and shallowly raised toward lateral borders ............... [antennatum (KRAATZ)], p. 49. 3. Body with dense, close, velvety pubescence; median longitudinal frontal carina narrow, strongly raised posteriorly; paramedian pronotal carinae strongly raised ......(4) Body glabrous or with a few sparse, outstanding setae; median frontal protuberance variable; paramedian pronotal carinae not strongly raised ......(5) 4. Punctures along even elytral intervals separated by about their own diameter; carinae of third intervals markedly arcuate along apical declivity of elytra ...... [tomentosum Hinton], p. 49. - Punctures along even elytral intervals separated by considerably less than their own diameter; carinae of third elytral intervals feebly arcuate along apical declivity ...... [pilosum Pope], p. 50.
- Longitudinal median frontal carina narrow, convex dorsally; carinae of fifth elytral intervals never reaching apical borders of elytra, not joined by those of seventh intervals ............ [sexualis POPE], p. 50.

### Mecedanum auberti (FAIRMAIRE).

Aprostoma auberti Fairmaire, 1882, Bull. Soc. Ent. Fr., p. 30. Colydium laevifrons Kraatz, 1895, Dtsch. ent. Z., p. 157. Mecedanum filum Hinton, 1948, Novit. Zool., 42:479 (syn. nov.).

Length 4,5-6,9 mm. Breadth 0,57-0,96 mm.

This species is readily distinguished from the other African members of the genus by the characters referred to in the key to species above. Although the *pronotum* shows a reduction of the paramedian longitudinal carinae similar to that seen in *M. antennatum*, the pronotal punctures of *M. auberti* are of one size. The *elytra* are very similar to those of *M. giganteum* and *M. antennatum*, but the intervals between the coarse punctures lack the microscopic punctures present in these. The basal tarsal segment of all legs is as long as the two following together and distinctly shorter than half the length of the tibiae.

Holotype: In the Muséum d'Histoire Naturelle, Paris. Gaboon.

Distribution. — See catalogue (p. 6).

10 examples.

1 ex.: I/o/2, 2.XI.1950, H. De Saeger, n° 928, galerie forestière, volant sur fruits mûrs (Ficus capensis); 4 ex.: II/gc/8, 22.II.1951, H. De Saeger, n° 1281, tête de source boisée, écorce en grande partie détachée (Vocanga obtusa mort sur pied); 2 ex.: II/fd/17, 7.V.1952, H. De Saeger, n° 3446, galerie forestière (massif), dans les bois morts en décomposition avancée; 1 ex: II/gc/8, 30.IV.1952, H. De Saeger, n° 3405, tête de source faiblement boisée, dans des arbres morts en décomposition; 1 ex.: II/hc/8, 9.II.1952, H. De Saeger, n° 3115, tête de source à boisement dégradé, dans les arbres morts; 1 ex.: II/dd/9, 7.VII.1952, H. De Saeger, n° 3744, galerie forestière dégradée, dans les branches d'arbres morts.

After his description of Aprostoma auberti, Fairmaire remarked that it was distinct from other members of the genus by its sculpture, the pronotum being strongly narrowed to the hind border, the shorter antennae with segments nine and ten transverse and the eleventh briefly oval, and by the black colouring. In 1895 he saw Kraatz's species Colydium laevifrons and pronounced it identical with A. auberti. He further stated that the species required the erection of a new genus. It is quite clear from the descriptions given by Fairmaire and Kraatz that the insect they had before them was Mecedanum filum Hinton.

### [Mecedanum antennatum (KRAATZ).]

Colydium antennatum Kraatz, 1895, Dtsch. ent. Z., p. 158.

Mecedanum antennatum (Kraatz), Grouvelle, 1906, Ann. Soc. Ent. Fr.,
75: 107.

Length 6,5-8,5 mm. Breadth 0,95-1,2 mm.

This species is very distinct by the unusual form of the head. The elytra are also unusual in that the carinae on the alternate intervals between the striae are very shallowly raised, particularly on the basal third of the elytra. The carinae of the seventh intervals end freely shortly before reaching the apical borders of the elytra.

 $\operatorname{Holot} y\,p\,e:$  In the Deutsches Entomologisches Institut, Berlin-Dahlem. Togo.

Distribution. — Uganda, Tanganyika Territory (Ukerewe Id.), Ghana, S. Rhodesia, Congo (Yangambi).

Although apparently of rare occurrence, this species is comparatively widespread, including within its range as it does Togo and S. Rhodesia. It would seem very likely that Garamba is in fact part of its territory although the number present may be very low, so low that it has not yet been captured there.

#### [Mecedanum tomentosum HINTON.]

Mecedanum tomentosum Hinton, 1948, Novit. Zool., 42:480.

Length 8,6-13 mm. Breadth 1,4-2,3 mm.

Both *M. tomentosum* and *M. pilosum* Pope are readily distinguishable from other known species of the genus by the presence of a short, close, velvety pubescence over the upper surfaces. Further salient features are the elytral carinae, strongly raised even on the disc, the carinae of the fifth and seventh intervals which end freely shortly before the apices of the elytra, the narrow, strongly raised, longitudinal paramedian pronotal carinae and the basal segment of the middle and hind tarsi which is almost as long as the second and third segments together, but is much shorter than the middle and hind tibiae.

Holotype: In the British Museum (Nat. Hist.), London. Ghana.

Distribution. — Uganda, Congo (Yangambi).

## [Mecedanum pilosum POPE.]

Mecedanum pilosum Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:9.

Length 5,5-10 mm. Breadth 0,75-1,4 mm.

Separable from M. tomentosum as explained in the key to species.

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Ghana, Congo (Yangambi).

## [Mecedanum giganteum (KRAATZ).]

(Fig. 30.)

Colydium giganteum Kraatz, 1895, Dtsch. ent. Z., p. 159.

Mecedanum giganteum (Kraatz), Grouvelle, 1906, Ann. Soc. Ent. Fr., 75: 107.

Mecedanum centralis Hinton, 1948, Novit. Zool., 42:483.

Mecedanum centralis Hinton, Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19: 12.

Length 8,5-13,5 mm. Breadth 1,3-2 mm.

This species is characterised by its relatively larger size, the junction of the carinae of the fifth and seventh elytral intervals near the apices of the elytra and by the features referred to in the key to species.

Holotype: In the Deutsches Entomologisches Institut, Berlin-Dahlem.

Distribution. — Uganda, Ghana, Angola, Congo (Brazzaville), Congo (Yangambi, Gandajika, Kondue, 18 miles S.W. of Elisabethville).

## [Mecedanum sexualis POPE.]

Mecedanum sexualis Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:10.

Length 6-10 mm. Breadth 0,9-1,2 mm.

Structurally closely related to *M. tomentosum* and *M. pilosum*, but lacking the close pubescence. The elytra have the carinae of the fifth and seventh intervals ending freely shortly in front of the apical borders and the middle and hind tarsi have a basal segment which is almost half as long as their respective tibiae.

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Ghana, Cameroons, Congo (Yangambi, Musisi, Kivu, Bitale, Nioka).

### TEREDINI.

#### KEY TO AFRICAN GENERA.

- Prosternum with anterior margin evenly convex, without a median prominence
   Teredolaemus Sharp, p. 53.

#### TEREDOMORPHUS HEINZE.

Teredomorphus Heinze, 1943, Ent. Bl., 39: 104.

Type species: Teredus glaber KRAATZ.

Small; cylindrical; elongate; punctures bearing short, fine setae. Head with clypeus distinctly narrower than head between eyes; eyes large, subemarginate anteriorly; antennae eleven-segmented with a two-segmented club, last segment longer than the one preceding. Pronotum cylindrical; parallel-sided; finely bordered laterally, borders hidden, except near base, when viewed from above; hind margin with a fine raised ridge along extreme posterior border. Elytra elongate; convex; cylindrical; more or less regularly striate-punctuate; apical declivities with sutural intervals raised. Anterior coxal cavities open posteriorly, prosternal process not reaching to behind anterior coxae. Legs with tibiae expanded toward apices, apical borders each with a row of short spines; tarsi with basal segment scarcely longer than the one following, basal three segments together about as long as fourth segment.

So far as is known at present, *Teredomorphus* is confined to tropical Africa. Both species seem to be common in the Congo although only one has been captured in the area now studied.

#### KEY TO SPECIES.

## [Teredomorphus glaber (KRAATZ).]

Teredus glaber Kraatz, 1895, Dtsch. ent. Z., p. 159. Teredomorphus glaber (Kraatz), Heinze, 1943, Ent. Bl., 39: 105.

Length 4,5-5,7 mm. Breadth 1,3-1,5 mm.

Apart from its generally larger size, this species is very closely related to *T. rufipes* and is scarcely distinguishable from it other than by the characters mentioned in the key.

Supplementary points of difference from T. rufipes are: the pronotal punctures are relatively smaller and the elytra are more elongate (55: 23).

 ${\tt Holotype}$  : Reputed to be in the Deutsches Entomologisches Institut, Berlin-Dahlem. Togo.

Distribution. — Ghana, Cameroons, Congo (Yangambi, Hembe-Bitale, Luki, Luki-Boma, Nioka, Mayumbe).

#### Teredomorphus rufipes (KRAATZ).

Teredus rufipes Kraatz, 1895, Dtsch. ent. Z., p. 159. Teredomorphus rufipes (Kraatz), Heinze, 1943, Ent. Bl., 39: 105.

Length 3,2-3,6 mm. Breadth 0,8-1,2 mm.

Derm ferrugineous to fuscous, shining; setae short, erect on apical declivities of elytra. Head with frontoclypeal suture arcuate; anterior clypeal border shallowly emarginate medially, anterior angles rounded, punctures of clypeus small, very sparse on disc, closer toward lateral borders; frons with punctures more closely set toward eyes than on disc, separated toward eyes by one diameter, smaller than eye facets; punctures on occiput about as large as eye facets; punctures of clypeus and frons bearing small, fine, golden, subrecumbent setae. Pronotum elongate (53:41); very slightly narrowed from a little behind rounded anterior angles to within

a short distance of slightly obtuse posterior angles; lateral and hind margins narrowly bordered; anterior border almost truncated medially, arcuate toward anterior angles; punctures of disc and margins small, usually separated by more than their diameter, some, particularly along anterior margin, bearing minute, yellow, recumbent setae; intervals between punctures with very fine microsculpture. Elytra twice as long as their greatest combined breadth; strial punctures small, arranged in single, rather irregular rows where punctures are separated longitudinally by from one to more than two diameters; intervals between striae each with a single row of very sparsely arranged punctures, often separated by more than six diameters; intervals between punctures smooth, shining; some punctures between striae bearing short, stiff, upstanding setae, setae more numerous along apical declivities.

 ${\tt Holotype}$ : In the Deutsches Entomologisches Institut, Berlin-Dahlem. Togo (L. Conradt).

Distribution. — See catalogue (p. 6).

1 example.

 $1~\rm{ex}.$  ; II/gc/5, 30.III.1951, H. De Saeger, nº 1489, savane de vallée, ex fruits de Kigelia aethiopica.

#### TEREDOLAEMUS SHARP.

Teredolaemus Sharp, 1885, Journ. Linn. Soc. London, 19:74.

Type species: Teredus politus Lewis.

Teredolaemus is very closely related to Teredomorphus Heinze and the diagnosis of the latter genus applies equally to the former except for the following.

The setae of the body are very variable in length, sometimes being as much as half as long as the entire body. The last antennal segment is variable, sometimes being much smaller than the preceding segment. The lateral borders of the pronotum are arcuate in some species and are not almost hidden when viewed from above. The elytra are sometimes cylindrical, sometimes elongate-elliptical and the anterior margin of the prosternum is, as mentioned in the key to genera, evenly convex.

Twenty-two species have been placed in this genus, eleven of them from Africa, the others from Madagascar, India, Ceylon, Japan, the Philippines and New Britain. In the present report, a further species is added to the African list.

# KEY TO AFRICAN SPECIES.

1.	Pronotum and elytra unicolorous, black (2)
	Elytra particoloured or brown, not unicolorous black
2.	Elytra without a broad impression at apices; sutural striae sometimes impressed along apical declivities(3)
—	Elytra with a broad apical impression (5)
3.	Pronotum transverse; some elytral setae about half as long as body; elytra oval-elliptical, about twice as long as their greatest combined breadth setipennis POPE, p. 55.
	Pronotum elongate; elytral setae always much less than half as long as body, if present at all; elytra cylindrical, almost parallel-sided, at least two and a half times as long as their greatest combined breadth (4)
4.	Elytra almost three times as long as their combined breadth; apical antennal segment at least as large as tenth segment; pronotum and elytra with short, erect, golden setae in punctures
_	Elytra two and a half times as long as their combined breadth; apical antennal segment distinctly smaller than tenth segment (fig. 11); pronotum and elytra without noticeable except for a few minute hairs on apical declivities of elytra problematicus n. sp., p. 57.
5.	Pronotum quadrate; elytra twice as long as their greatest combined breadth, punctures of intervals between striae bearing short setae; pronotal punctures finer than those of head
	impressipennis Heinze, p. 56.
_	Pronotum elongate (5:4); elytra more than twice as long as their greatest combined breadth, setae in punctures along elytral intervals very long, especially near shoulders, bases and laterally; pronotal punctures of a similar size to those of head [pilosus Heinze], p. 58.
6.	Elytra black with brown apices; frontoclypeal suture visible, arcuate; pronotum transverse
	Elytra brown or testaceous, sometimes with longitudinal darker stripes
7.	Pronotum quadrate or transverse, sides broadly rounded (8)
7.	Pronotum quadrate or transverse, sides broadly rounded
	quality of the same of the sam

- Lateral pronotal borders without setae; setae of elytral and pronotal punctures exceedingly minute, scarcely visible except toward elytral apices; elytra unicolorous testaceous except along suture which is darker
   [seriatipennis POPE], p. 61.
- 11. Apical antennal segment much larger than tenth segment (fig. 16); pronotum and elytra with rather long, outstanding setae in punctures; elytra three times as long as broad ........................ [kraatzi Heinze], p. 61.
- 12. Elytra two and a half times as long as broad; pronotum slightly narrowed from a little behind anterior angles to hind angles (35:30) ... problematicus n. sp., p. 57.

### [Teredolaemus setipennis POPE.]

Teredolaemus setipennis Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:34.

Length 2,6-3,6 mm. Breadth 1,1-1,3 mm.

T. setipennis is a very distinctive species. It is very different from the other known all-black species which lack an apical elytral impression. The extremely long setae are readily visible to the naked eye. These, together with the large punctures from which they arise, larger than the strial punctures, will serve to separate the species from any other.

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Ghana, Congo (Yangambi, Nioka, Bulongo, Mweka, Walikale (rives Loa), Kivu: terr. Masisi).

### [Teredolaemus elongatus POPE.]

Teredolaemus elongatus Pope, 1955, Rev. Zool. Bot. Afr., 61:249.

Length 4,4-4,9 mm. Breadth 1,1-1,2 mm.

The elongate, cylindrical form of this species is reminiscent of *Teredo-morphus* spp. (p. 51). Salient characters, other than those mentioned in the key to species, are: the narrow lateral borders of the pronotum which are not thickened toward the anterior angles; the minute setae of the strial punctures of the elytra, smaller than those of the punctures between the striae and the marked asymmetry of the antennal club.

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Congo (Yangambi, Hembe-Bitale, Valley nr. Bunyakivi).

#### Teredolaemus impressipennis Heinze.

(Fig. 8.)

Teredolaemus impressipennis Heinze, 1943, Ent. Bl., 39:98.

Length 2,75-3,75 mm. Breadth 0,8-1,2 mm.

Derm shining; body cylindrical, slightly narrowed before and behind. Head evenly convex, frontoclypeal suture scarcely visible; clypeus finely punctured, punctures usually separated by more than three diameters, setiferous, setae longer toward lateral borders; frons with coarser, but variable punctures separated by from less than one to about two diameters, punctures setiferous, closer toward eyes, setae usually as on clypeus but occasionally much longer and outstanding; antennae with club as in figure 8. Pronotum quadrate, convex; lateral borders weakly arcuate medially, convergent over anterior fourth; anterior border shallowly arcuate medially, slightly sinuate toward fairly well-marked anterior angles; posterior angles rounded, posterior margin evenly arcuate, bordered; lateral margins with a narrow raised border, markedly thickened toward anterior angles, less strongly broadened toward posterior angles; disc and margins set with punctures smaller than those of frons, punctures separated by from two to three diameters, setiferous, setae similar to those of frons, some coarser, much longer, stiff, outstanding setae present along lateral borders, setae elsewhere subrecumbent. Elytra very slightly more than twice as long as broad (17:8), almost parallel-sided for basal four fifths, slightly narrowed to shoulders, narrowed in apical fifth to broadly rounded apical borders; apical declivities broadly impressed, sutural intervals raised along declivity; disc and margins striate-punctate, punctures similar in size to those of pronotal disc, separated longitudinally by about three diameters,

striae separated by about six diameters; intervals between striae each with a row of punctures, similar in size to those of striae, but separated by about six diameters; strial punctures bearing small, fine, white, recumbent setae, punctures of intervals with outstanding, golden setae similar to those along lateral borders of pronotum; basal borders each with a row of outstanding setae similar to those of intervals.

 $\operatorname{Holotyp\,e}:$  In the Deutsches Entomologisches Institut, Berlin-Dahlem. Cameroons.

Distribution. — See catalogue (p. 6).

34 examples.

6 ex.: II/gc/8, 22.II.1951, H. De Saeger, no 1281, tête de source boisée, Voacanga obtusa mort sur pied, écorce en grande partie détachée, végétation arborescente dégradée, milieu se conservant assez humide malgré l'absence d'un couvert dense; 2 ex. : II/gd/4, 16.III.1951, H. De Saeger, no 1410, savane herbeuse à ligneux rares, sous l'écorce d'arbres morts; 2 ex.: II/gd/Camp, 8.VIII.1951, H. DE SAEGER, nº 2228, bambous introduits utilisés pour la construction des toits en paille, l'attaque s'est fortement développée pendant la saison des pluies (bambous abrités des pluies), des bambous servant de mâts à l'extérieur ne sont pas attaqués (Oxytenanthera); 7 ex.: II/hc/8, 9.II.1952, H. DE SAEGER, nº 3115, tête de source à boisement dégradé, dans les arbres morts; 1 ex: PpK/51/g/9, 2.IV.952, H. De Saeger, nº 3276, galerie forestière au dernier grade de dégradation, dans les arbres morts, debout et sur le sol; 2 ex. : II/gd/4, 26.V.1952, H. De Saeger, no 3519, savane herbeuse à ligneux suffrutescents, dans des branches mortes sur pied; 8 ex. : Ndelele/3, 18.VI.1952, H. De Saeger, nº 3649, éboulis rocheux, dans un arbre mort sur pied; 1 ex. : II/dd/9, 7.VII.1952, H. DE SAEGER, nº 3744, galerie forestière dégradée, dans les branches d'arbres morts (Erythrophloeum, Chlorophora); 2 ex.: II/gd/4, 7.VII.1952, H. DE SAEGER, no 3757, savane herbeuse, arbre mort sur pied, pas encore décomposé (Parinari curatellifolia); 3 ex. : II/gd/4, 1.IX.1952, H. De Saeger, nº 4007, savane herbeuse, dans les branches mortes des ligneux suffrutescents.

## Teredolaemus problematicus n. sp.

(Fig. 11.)

Length 2,9-3,1 mm. Breadth 0,76-0,8 mm.

Derm dark brown to almost black, shining; form very similar to T. elongatus Pope (p. 56), but a little less elongate and without noticeable setae on upper surfaces of prothorax and elytra except on apical declivities of the latter. Head evenly convex; clypeus very finely punctured, punctures setiferous; frons with larger punctures separated by about two diameters, intervals between punctures with fine microsculpture; frontal punctures bearing small, recumbent setae more noticeable toward eyes; antennal club very similar to that of T. guineensis Heinze (p. 61). Pronotum elongate (22:18); convex; slightly narrowed from near anterior angles to base; anterior angles well-marked, anterior border arcuate medially, sinuate toward anterior angles; basal border finely raised, briefly arcuate medially, broadly sinuate to sharply formed posterior angles; lateral

borders thickened from middle to anterior angles, continued for a short distance along anterior border behind eyes; disc and margins set with punctures similar to those of frons, separated by from one to about three diameters, usually by more than one diameter; intervals between punctures showing a similar microsculpture to frontal surface although somewhat more faintly. Elytra approximately two and a half times as long as broad, almost parallel-sided for basal three fifths, slightly narrowed thence to broadly rounded apex; punctures of elytral striae similar in size to those of pronotum, separated longitudinally by from two to three diameters; striae separated by five or six puncture diameters; intervals between striae each with a single row of punctures, less regularly and somewhat more widely spaced than those of striae; punctures of both striae and intervals becoming finer towards lateral borders of elytra; elytral surfaces between punctures smooth, shining; each elytron with one or two short, stiff, golden setae set along apical fifths of lateral borders and along apical borders.

Holotype: In the Institut des Parcs Nationaux du Congo et du Ruanda-Urundi, Brussels.

PpK/8/9, 15.VII.1952, H. De Saeger, n° 3787, galerie forestière dégradée, dans les arbres morts sur pied (Voacanga obtusa).

## Paratypes:

1 ex.: PpK/8/9, 15.VII.1952, H. DE SAEGER, n° 3787, galerie forestière dégradée, dans les arbres morts sur pied (Voacanga obtusa); 3 ex.: II/hc/8, 9.II.1952, H. DE SAEGER, n° 3115, tête de source à boisement dégradé, dans les arbres morts; 1 ex.: PpK/8/d/8, 8.II.1952, H. DE SAEGER, n° 3102, tête de source assez densément boisée, dans des troncs d'arbres morts en voie de décomposition (« Gemba »).

### [Teredolaemus pilosus Heinze.]

Teredolaemus pilosus Heinze, 1943, Ent. Bl., 39:99.

Length 3-3,6 mm. Breadth 0,8-1 mm.

This species is so far known from two specimens only. The holotype is in the Muséum d'Histoire Naturelle, Paris and there should be a paratype in the Heinze collection in Germany. Its position in the key to species above is estimated from the original description published by Heinze.

Distribution. — South Abyssinia.

From the description it appears that T. pilosus has very long hairs on the body after the fashion of T. setipennis, but the latter species is at once distinct from it as it has no apical impression on the elytra and does not have an elongate pronotum.

#### [Teredolaemus pulcher Heinze.]

Teredolaemus pulcher Heinze, 1943, Ent. Bl., 39:100.

Length 3,8 mm. Breadth 1,4 mm.

Derm shining; head, pronotum except for anterior margin and elytra except for apices and two humeral areas fuscous, elsewhere testaceous to ferrugineous. The lateral borders of the elytra bear a few outstanding, yellowish setae more or less evenly distributed throughout their length and across the base of each elytron there is a pair of similar setae. The most characteristic feature of this species is the elytral striae, each of which is formed of a double row of small punctures. The only other species which approaches such a puncture formation is *T. bicolor* POPE (p. 59).

Holotype. — In the Muséum d'Histoire Naturelle, Paris. Elgon saw mill, Camp 2, Mt. Elgon, Kenya.

Distribution. — Kenya, Congo (Nioka).

## [Teredolaemus schedli POPE.]

(Fig. 3.)

Teredolaemus schedli Pope, 1955, Rev. Zool. Bot. Afr., 61:251.

Length 3-3,3 mm. Breadth 1 mm.

As indicated in the key to species, the outline of the pronotum in T. schedli is unusual. This feature, together with the form of the antennal club serve to separate the species from its near relatives. Superficially, T. schedli is similar to T. guineensis (p. 61).

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Congo (Yangambi).

#### [Teredolaemus bicolor POPE.]

Teredolaemus bicolor Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:36.

Length 2,8-3,15 mm. Breadth 1,1-1,3 mm.

The oval elliptical form of T. bicolor, together with its testaceous elytra bearing striae consisting of bands of punctures rather than single rows,

serve to distinguish it from any other African species. *T. pulcher* (p. 59). shows somewhat similar elytral sculpture, but may be distinguished from *bicolor* by the characters indicated in the key.

Holotype: In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Congo (Yangambi, Nioka).

#### [Teredolaemus globicollis Heinze.]

Teredolaemus globicollis Heinze, 1943, Ent. Bl., 39:102.

Length 3,6-3,9 mm. Breadth 1,2-1,3 mm.

The broad longitudinal stripe of a darker colour on each elytron is a most characteristic feature of this species. The punctures of the pronotum

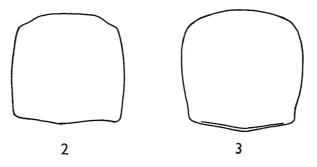


Fig. 2. — Teredolaemus guineensis Heinze.

Pronotal outline.

Fig. 3. — Teredolaemus schedli Pope.

Pronotal outline.

and elytra bear small, recumbent, inconspicuous setae. Some of the punctures along the intervals are larger than others and bear short, erect, yellowish-white setae.

Holotype: In the Deutsches Entomologisches Institut, Berlin-Dahlem.

Distribution. — Cameroons, Congo (Yangambi, Mulungu : Kivu), Ghana.

## [Teredolaemus seriatipennis Pope.]

Teredolaemus seriatipennis Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:35.

Length 2,8-3,1 mm. Breadth 1-1,1 mm.

This species is closely related to  $^{\circ}T$ . *globicollis*, differing as explained in the key to species, by the shape of its antennal club and by its less elliptical elytral outline.

Holotype: In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Congo (Yangambi, Nioka).

### [Teredolaemus kraatzi Heinze.]

(Fig. 16.)

Teredolaemus kraatzi Heinze, 1943, Ent. Bl., 39:103.

Length 3,8-4,5 mm. Breadth 0,7-1 mm.

As can be seen from the dimensions recorded above, this is a very elongate species. The head and pronotum are pitchy-black in colour and the elytra are ferrugineous on the disc and apices, but darker laterally. The elytra are also unusual in being slightly narrowed from the shoulders and from the beginning of the apical declivities toward the middle.

Holotype: In the Deutsches Entomologisches Institut, Berlin-Dahlem. Cameroons.

Distribution. — Cameroons, Congo (Yangambi).

### [Teredolaemus guineensis Heinze.]

(Fig. 2.)

Teredolaemus guineensis Heinze, 1943, Ent. Bl., 39:104.

Length 3,2 mm. Breadth 0,9 mm.

The only other species known to have an antennal club of a similar construction to *T. guineensis* is *T. problematicus* n. sp. (p. 57). As *guineensis* is usually unicolorous brown, and has a pronotum which does not narrow more toward the base than toward the apex, *T. guineensis* is not likely to be confused with this species.

Holotype: In the Zoologisches Museum, Berlin. Nkolentangan, Spanish Guinea.

Distribution. — Spanish Guinea, Congo (Yangambi).

### DERATAPHRINI.

#### KEY TO AFRICAN GENERA.

- Elongate, fusiform; pronotum at base distinctly narrower than elytra at shoulders (fig. 17) ... [Graspedophilus Heinze. W. Africa, Congo].

#### SOSYLUS ERICHSON.

Sosylus Erichson, 1845, Naturg. Ins. Deutschl. Col., 3:288.

Type species: Colydium rufipes Fabricius.

Small to medium size; convex; cylindrical; glabrous or with setae confined to head and elytral apices. Head inflected, narrowed to anterior clypeal border; eyes usually not very convex; antennae eleven-segmented with a two-segmented club, third segment not or scarcely longer than fourth segment, antennal grooves well-marked, reaching to below level of lower borders of eyes. Pronotum convex; bordered laterally and posteriorly, unbordered anteriorly; elongate to transverse, usually trapezoidal; a pair of longitudinal, basally convergent carinae present near middle of basal border, usually confined to basal half of pronotum. Elytra parallelsided; elongate; carinate; evenly rounded or subtruncate in apical sixth to apicosutural angles. Prosternum with anterior coxal cavities closed posteriorly, anterior coxae very narrowly separated by prosternal process running between them and beneath them, coxae often contiguous posteriorly, intercoxal process expanded into a variably-shaped lobe behind coxae. Intercoxal process of first abdominal segment broadly rounded apically. Legs with tibiae not much expanded toward apices; anterior and middle tibiae each with a well-marked external apical spur; hind tibiae each with a very faintly-marked spur at most; all tarsi with basal segment elongate, usually longer than the two following segments together in middle and hind tarsi, apical segment usually distinctly shorter than the three basal segments together.

GROUVELLE (1906, Ann. Soc. Ent. Fr., **75**: 109) considered that *Pycnoce-phalus* Kraatz and *Metopiestes* Pascoe were synonyms of *Sosylus* Er. Heinze (1943, Ent. Bl., **39**: 107) agreed with this. Leconte (1863, Smithsonian Misc. Coll., 167, New Species of North American Coleoptera, p. 68) admitted that

his genus *Pleuridium* (1861) was a synonym of *Sosylus*. *Cephalopycnus* Arrow (1969, Ann. Mag. Nat. Hist., (8), 4:193) was simply a new name for Kraatz's genus and so also falls into the synonymy of *Sosylus* which is set out below.

#### Sosylus Erichson, 1845.

Pycnocephalus Kraatz, nec Sharp, 1895, Dtsch. ent. Z., p. 169.

Pleuridium Leconte, 1861, Smithson. Misc. Coll., Class. Col. N. Amer.,

1:91.

Metopiestes Pascoe, 1863, Journ. Ent., 2:123. Cephalopycnus Arrow, 1909, 1. c., p. 193.

Sosylus is a widespread genus, occuring in the Americas, Africa and Asia. It is closely related to *Craspedophilus* Heinze (1943, Ent. Bl., **39**: 115), but differs as explained in the key to genera. It also shows distinct affinities with the Bothriderine genus *Antibothrus* Sharp (p. 75), emphasising the close relationship between the *Derataphrini* and the *Bothriderini*.

Sexual dimorphism: the two sexes are usually very like each other, but in general the *males* may be separated by virtue of their having a less strongly sculptured and less noticeably pubescent clypeus and by the antennae being equipped with shorter setae.

### KEY TO AFRICAN SPECIES.

- 3. Carinae of fifth and seventh elytral intervals not reaching apical borders; punctures of even elytral intervals coarser and closer on apical declivities than elsewhere; pronotum more closely and coarsely punctured ... [livadus POPE], p. 66.
- Carinae of fifth and seventh elytral intervals reaching apices; punctures of even elytral intervals neither closer nor coarser on apical declivities than elsewhere; pronotum more finely and sparsely punctured ... (4)

4.	Much smaller, less than 4 mm long; castaneous; clypeus with a conspicuous yellow pubescence; convergent basal pronotal carinae well-marked
_	Much larger, 7 to 8 mm long; piceous to black; clypeus glabrous in both sexes; convergent basal pronotal carinae not clearly marked
5.	Carinae of third elytral intervals stopping abruptly at beginning of very steep, concave apical declivities, each elytron with a conspicuous fovea near apicosutural angles; head convex
	Carinae of third elytral intervals not ending abruptly at beginning of apical declivities, or if stopping abruptly, then declivities much shallower (less than 45° from the horizontal) and not concave and head flat or concave; elytra without apical foveae
6.	Pronotum very finely punctured laterally, coarsely and closely punctured medially; carinae of third elytral intervals convergent upon and ending abruptly about halfway down apical declivities; metasternum with longitudinal median impression deeply marked for basal eighth [filum Grouvelle], p. 67.
	Pronotum with punctures along lateral margins very little smaller or sparser than those of disc; carinae of third elytral intervals not convergent upon and not stopping abruptly halfway down apical declivities; metasternum with longitudinal impression, if marked, not confined to basal eighth
7.	Pronotum with a median longitudinal carina as well as a pair of convergent basal carinae
	Pronotum without a longitudinal median carina (10)
8.	Carinae of third elytral intervals entire, or subentire (9)
	Carinae of third elytral intervals stopping at beginning of apical declivities
9.	Carinae of third elytral intervals reaching apical borders; species much larger, at least 7 mm long; clypeus glabrous in both sexes; elytra black to piceous; pronotum almost quadrate [puncticollis POPE], p. 68.
16.00; 000.	Carinae of third elytral intervals stopping shortly before reaching apices; species smaller, 3 mm long; clypeus conspicuously pubescent; elytra castaneous, pronotum distinctly elongate

[angustior Grouvelle], p. 72.

10.	Carinae of third elytral intervals evanescent after beginning of apical declivities, second intervals deeply excavate medially and sutural carinae strongly raised for median third; apical elytral borders feebly incurved to apicosutural angles[alveatus POPE], p. 68.
	Carinae of third elytral intervals stopping abruptly just before reaching apical borders, second intervals not deeply excavate and sutural carinae not strongly raised for median third; apical elytral borders not incurved

to apicosutural angles (11)

- 13. Pronotum with very closely-set, elongate punctures, separated transversely by less than one transverse diameter; eyes extremely prominent; elytral carinae bearing outstanding, yellowish setae along apical declivities ................................ [variabilis POPE], p. 70.

- Carinae of third elytral intervals not interrupted before their apices ...
  (15)
- Carinae of third elytral intervals not more strongly raised along apical declivities than elsewhere; even elytral intervals not costulate near bases; larger species, 6,5-7 mm long ... [sjöstedti Grouvelle], p. 72.

#### [Sosylus livadus POPE.]

Sosylus livadus Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:23.

Length 4-6,3 mm. Breadth 1-1,8 mm.

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Ghana, Tanganyika Territory (Ukerewe Id.), Kenya, Congo (Yangambi, Lulua, Kapanga, Mayidi, Bassin Lukuga, Haut-Uele, Moto, Mongbwalu, Bitale, Kivu, Nioka).

## [Sosylus validus (KRAATZ).]

Pycnocephalus validus Kraatz, 1895, Dtsch. ent. Z., p. 160. Sosylus validus (Kraatz), Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:22 (key).

Length 7-8 mm. Breadth 1,8-2,2 mm.

 $\operatorname{Holotype}$ : In the Deutsches Entomologisches Institut, Berlin-Dahlem. Togo.

Distribution. — Togo, Congo (Yangambi).

#### Sosylus conradti (GROUVELLE).

Metopiestes conradti Grouvelle, 1914, Ann. Soc. Ent. Fr., 83: 158.

Length 3,4-4 mm. Breadth 0.75 mm.

Male: Derm black, shining. Head convex; clypeus flattened, anterior border biarcuate, surface finely granulose; granules separated by rather less than their own diameter as a rule, shallowly raised; frontoclypeal suture not well-marked, especially medially, strongly arcuate; frons finely and rather sparsely punctured, punctures smaller than eye-facets and separated by from one and a half to more than two diameters, intervals shining; eyes not prominent. Pronotum elongate (49:34), narrowed posteriorly from very shortly behind obtuse anterior angles to about one fifth from base, very faintly sinuate thence to base; posterior angles briefly rounded; anterior border arcuate; disc with shallow punctures, much larger than those of frons, separated by from one and a half to two diameters, umbilicate; punctures smaller and more sparsely arranged toward lateral and anterior borders; intervals between punctures very finely and faintly

reticulate; disc without a longitudinal median carina; basal convergent carinae feebly marked, confined to basal fifth. Elytra three times as long as their combined breadth; very convex, almost parallel-sided; apical borders subtruncate, slightly produced near apicosutural angles, apical declivities distinctly concave; sutural carinae shallowly raised from bases to apices; third intervals carinate from bases to beginning of apical declivities, carinae shallowly raised on disc, more strongly so toward declivities, ending abruptly; carinae of fifth intervals very shallowly raised, slightly more strongly raised toward declivities, forming their lateral borders; carinae of seventh and ninth intervals also shallowly raised and each joined separately to carinae of fifth intervals along apical declivities; even intervals costulate from bases to, or almost to apical declivities; carinae very finely and sparsely punctate, a double row of slightly larger punctures present along each even interval, one row on either side of costula, punctures separated longitudinally by several diameters; apical declivity of each elytron with a small, well-marked fovea near apicosutural angle; sutural carinae each with a short row of yellow setae at about middle of apical declivity; carinae of third elytral intervals each with a tuft of longer, yellow setae at their Prosternum with intercoxal process roughly circular behind anterior coxae, raised laterally.

Female: Differs from the male in that the clypeus is setoso-punctate instead of granulose and that there are no setae on the carinae of the sutural and third elytral intervals.

Holotype: In the Muséum d'Histoire Naturelle, Paris. Cameroons.

Distribution. — See catalogue (p. 6).

2 examples.

1 ex. : II/gd/8, 9.V.1951, H. De Saeger, n° 1696, tête de source arborée, écorce de Voacanga obtusa mort, arbre de 10 à 15 m sur pied; 1 ex. : II/hc/8, 9.II.1952, H. De Saeger, n° 3115, tête de source à boisement dégradé, dans les arbres morts.

#### [Sosylus filum GROUVELLE.]

Sosylus filum Grouvelle, 1905, Mem. Soc. Espan. Hist. Nat., 1:249.

Length 3,75-4 mm. Breadth 0,75-0,8 mm.

This is a most distinctive species with its pronotum so variably punctured. The pronotum is distinctly flattened along the disc as well as being coarsely and closely punctured. Another characteristic feature of the species is that the carinae of the third elytral intervals converge along the apical declivities, as mentioned in the key to species above.

Holotype: In the Instituto Español de Entomologia, Madrid. Biafro Cabo, San Juan, Spanish Guinea.

Distribution. — Spanisch Guinea, Congo (Yangambi, Rwankwi, Nioka, Bitale, Kivu).

## [Sosylus puncticollis POPE.]

Sosylus puncticollis Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:24.

Length 7,3-7,6 mm. Breadth 2,2 mm.

The closely and coarsely punctured pronotum with a well-marked longitudinal median carina will, together the large size of the species, distinguish *S. puncticollis* from its relatives.

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. - Congo (Yangambi, Luki, Mweka, Bitale, Kivu).

## Sosylus planifrons POPE.

Sosylus planifrons Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool.,  $\bf 19$ : 26.

Length 3,5-4 mm. Breadth 0,8-1 mm.

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Ghana, Congo (Yangambi).

### [Sosylus alveatus POPE.]

Sosylus alveatus Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:27.

Length 3,7-3,9 mm. Breadth 0,8 mm.

This species has the anterior pronotal border strongly arcuate and the disc rather sparsely punctured. The elytra are similarly carinate to those of *S. planifrons*, but the carinae are much more strongly raised and broader, especially on the disc. The costulae of the even elytral intervals are confined to the basal third of the elytra.

The male has a glabrous, punctate clypeus; the female has a clypeal sculpture composed of small granules and the clypeus is setiferous.

Holotype: A male in the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Congo (Yangambi).

### [Sosylus minutus POPE.]

Sosylus minutus Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., **19**: 28.

Length 3,6 mm. Breadth 0,9 mm.

The male is the only sex of the species at present known. The broadening of the carinae of the third elytral intervals is the most characteristic feature of this small species. The elongate pronotum is closely punctured; the costulae of the even elytral intervals are well-marked from the bases to the beginning of the apical declivities.

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Congo (Yangambi, Nioka).

#### [Sosylus intermedius POPE.]

Sosylus intermedius Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:30.

Length 5,2-5,5 mm. Breadth 1,4-1,5 mm.

The pronotum of this species is very characteristic, being very like that of *S. puncticollis* (p. 68), but smaller and without a longitudinal median carina. The elytra have the seven intervals distinctly, though shallowly costulate from their bases to the beginning of the apical declivities.

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Uganda, Congo (Yangambi, Bitale, Kivu).

### [Sosylus maynei Pope.]

Sosylus maynei Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19: 29.

Length 3 mm. Breadth 0,6 mm.

This is an unusually elongate species. The elytra are similar to those of *S. minutus* (p. 69), but do not have the carinae of the third intervals broadened in the same way. The pronotum is sparsely punctured and the prosternal process is transverse behind the anterior coxae.

Holotype: A male in the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Congo (Yangambi, Bitale, Kivu).

## [Sosylus variabilis POPE.]

Sosylus variabilis Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:31.

Length 5,5-5,7 mm. Breadth 1,15-1,3 mm.

S. variabilis is at once distinct from all other known African species of the genus in that it has the lateral borders of the head raised to form a pair of ridges and has prominent eyes. The pronotum is elongate (13:9) and has completely rounded anterior angles. The male has the lateral ridges on the head much less strongly raised than they are in the female.

Holotype: A male in the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Congo (Yangambi, Luki, Bassin Lukuga, Haut-Uele: Watsa).

## [Sosylus spectabilis Grouvelle.]

Sosylus spectabilis Grouvelle, 1914, Ann. Soc. Ent. Fr., 83: 156.

Length 4,5-7 mm. Breadth 1-2 mm.

A very common and widespread African species. The interruption of the carinae of the third elytral intervals is very characteristic. In larger specimens the interruption is almost always complete, whereas in some smaller examples the apical tubercles are only partially separated from the main carinae.

Holotype: In the Muséum d'Histoire Naturelle, Paris. Sierra Leone.

Distribution. — Ghana, Uganda, Tanganyika Territory (Ukerewe Id.), Ruanda, Congo (Yangambi, Nioka, Haut-Uele: Watsa, Moto, Lulua: Kapanga, Équateur: Flandria, Kongolo, Bambesa, Rwankwi, Kivu: Busegerenye (Rutshuru), Kivu: Mulungu, Bitale, Mongbwalu, Lisala Territory, Lukawe, Élisabethville, Mweka, Bassin Lukuga, Parc National de l'Upemba).

### Sosylus bistriatus FAIRMAIRE.

(Fig. 18.)

Sosylus bistriatus Fairmaire, 1891, Ann. Soc. Ent. Fr., 60: 235.

Pycnocephalus angustus Kraatz, 1895, Dtsch. ent. Z., p. 161.

Sosylus eichelbaumi Grouvelle, 1914, Ann. Soc. Ent. Fr., 83: 155 (syn. nov.).

Length 3,4-4,2 mm. Breadth 0,8-1 mm.

Derm black to piceous, very feebly shining. Head with clypeus and anterior part of frons flattened, vertex convex; anterior clypeal border almost truncate, anterior angles well-marked, obtuse; surface very finely granulose, granules much smaller than eye facets and separated by about one diameter or slightly less, intervals shining; frontoclypeal suture scarcely visible, arcuate, strongly so laterally; frons granulose anteromedially, granules similarly spaced to those of clypeus, elsewhere with extremely closely set, coarse, umbilicate, frequently confluent punctures giving a reticulate appearance, punctures of a similar size, but progressively more widely separated toward occiput; eyes very little produced. Pronotum slightly elongate or quadrate; convex; anterior border arcuate, anterior angles rounded, posterior angles briefly rounded, slightly obtuse; basal convergent carinae on disc clearly marked, confined to basal fourth; disc with elongate, umbilicate, shallow punctures, separated by rather more than one diameter, punctures less elongate toward anterior margin, those along margin distinctly smaller than those on disc, separated by their diameter or slightly more, punctures along lateral margins also smaller than those of disc, separated by slightly more than their own diameter, intervals strongly sericeous. Elytra slightly less than three times as long as their greatest combined breadth (11:4); parallel-sided, lateral borders evenly rounded apically to slightly arcuate apical borders; sutural carinae shallowly raised, entire, very feebly raised along apical declivities; carinae of third intervals strongly raised from bases to within a short distance of apical borders, more strongly raised toward and particularly along apical declivities than elsewhere, ending abruptly; carinae of fifth intervals less strongly raised than those of third intervals, entire to bases, stopping apically shortly after beginning of apical declivities; carinae of seventh intervals similarly raised to those of fifth intervals, entire from bases to apices, briefly sinuate immediately before apices; carinae of ninth intervals entire and forming lateral borders of elytra; even intervals very feebly costulate in basal third only; carinae

of alternate intervals very finely and sparsely punctured; even intervals each with a double row of very fine punctures, separated longitudinally by up to four or five diameters. Prosternal process very broadly triangular behind anterior coxae and with a small additional posteromedian lobe.

Holotype: ? In the Muséum d'Histoire Naturelle, Paris. Gaboon.

Distribution. — See catalogue (p. 6).

1 example.

1 ex. : II/gd/4, 7.VII.1952, H. De Saeger, nº 3757, savane herbeuse, arbre mort sur pied, pas encore décomposé (Parinari curatellifolia).

## [Sosylus angustion GROUVELLE.]

Sosylus angustior Grouvelle, 1914, Ann. Soc. Ent. Fr., 83: 153.

Length 3 mm.

This species is known to the present author from its description alone. Its position in the key to species is based upon this description.

Holotype: In the Muséum d'Histoire Naturelle, Paris, Sierra Leone.

## [Sosylus sjöstedti Grouvelle.]

Sosylus sjöstedti Grouvelle, 1910, in Sjöstedt's Kilimandjaro-Meru exped., 1:324.

Length 6,5-7 mm. Breadth 2 mm.

This species is similar in general appearance to *S. validus* but appears in a different section of the key to species as the carinae of the fifth and seventh intervals on the elytra are not joined apically. The pronotal punctures are larger and more conspicuous in *S. sjöstedti* than in *S. validus* and, as in *S. bistriatus*, the postcoxal portion of the prosternal process bears an additional posteromedian lobe.

Holotype: In the Naturhistoriska Riksmuseum, Stockholm. Kibonoto, Kilimandjaro, Tanganyika Territory.

Distribution. — This species is known from the type locality only.

# BOTHRIDERINI.

# KEY TO AFRICAN GENERA.

1.	Anterior coxae narrowly separated (fig. 34)
_	Anterior coxae more or less broadly separated (fig. 35) (4)
2.	Apex of prosternal process broadly expanded laterally (fig. 32); anterior coxae usually less prominent; pronotum trapezoidal in outline; basal segment of hind tarsi not longer than second segment
_	Apex of prosternal process expanded into a lobe behind anterior coxae (fig. 34), sometimes notched apically; anterior coxae more prominent; basal segment of hind tarsi slightly longer than second segment  Antibothrus Sharp, p. 75.
_ 3.	Pronotum longitudinally carinate; head with a median longitudinal ridge; tibiae very little expanded toward apices
-	Pronotum without longitudinal carinae; head without a longitudinal median ridge; tibiae markedly expanded toward apices
4.	Antennae less than eleven-segmented; postcoxal ridges present at least on first abdominal segment and sometimes on metasternum (5)
	Antennae eleven-segmented; postcoxal ridges present or absent on first abdominal segment and metasternum
5.	Postcoxal ridges on metasternum almost entire; pronotum longitudinally carinate laterally
_	Postcoxal ridges on metasternum very brief or absent; pronotum without longitudinal carinae
б.	Antennae nine-segmented; even elytral intervals confusedly puntured; anterior angles of pronotum sometimes produced
	Antennae ten-segmented, last segment sometimes much reduced (fig. 7); even elytral intervals, if noticeably punctured, then with punctures arranged in longitudinal rows; anterior pronotal angles produced
	Pronotum with distinct longitudinal carinae and with a deep, transverse fovea interrupting the admedian pair of longitudinal carinae (8)  Pronotum not longitudinally carinate (9)

8.	Anterior tibiae not expanded toward apices and with a feebly-marked external apical, spur; metasternum and first abdominal segment with postcoxal ridges; admedian pronotal carinae feebly raised; intermediate pair of pronotal ridges very strongly raised and broadly arcuate
_	Anterior tibiae expanded toward apices, with a well-marked external apical spur; metasternum and first abdominal segment with or without postcoxal ridges; pronotum with admedian and intermediate pairs of longitudinal carinae more or less equally prominent
9.	Body set with squamiform setae, sometimes arranged in tufts; intercoxal process of prosternum much broader than coxal diameter  Dastarcus Walker, p. 94.
_	Body glabrous or with fine setae; prosternal process not broader between anterior coxae than coxal diameter
10.	Pronotum hexagonal; small insects, less than 3 mm long (11)
	Pronotum cordiform or trapezoidal; larger insects, more than 3 mm long
11.	Testaceous, matt; metasternum and first abdominal segment without postcoxal ridges [Pseudantibothrus Pope. S. Africa, Congo].
_	Black or testaceous, but shining; metasternum and first abdominal segment with short postcoxal ridges [Chinikus Pope. Congo].
12.	Metasternum and first abdominal segment with postcoxal ridges; basal tarsal segment not longer than second segment
	Metasternum and first abdominal segment without postcoxal ridges; basal segment of at least middle and hind tarsi somewhat longer than second segment
13.	Basal segment of hind tarsi as long as the two following together; pronotum with raised lateral borders absent or confined to posterior half; eyes prominent; third elytral intervals as broad as second intervals, feebly carinate
	Basal segment of hind tarsi only slightly longer than the one following; lateral borders of pronotum well-marked, entire; eyes not prominent; third elytral intervals much narrower than second intervals, sharply carinate

## ANTIBOTHRUS SHARP.

Antibothrus Sharp, 1885, Journ. Linn. Soc., Lond., 19: 124.

Type species: Antibothrus carinatus Sharp.

Small, moderately convex; matt or shining. Head with eyes moderately or strongly produced; antennae eleven-segmented with a two-segmented club; antennal grooves on underside of head well-marked. Pronotum hexagonal in outline, more or less convex, sometimes with a longitudinal median groove; lateral margins bordered; anterior angles sometimes produced. Elytra more or less parallel-sided, rounded or sinuate to apicosutural angles; declivous along apical third; alternate intervals between striae carinate; even intervals plane or concave, usually punctate. Prosternal process behind anterior coxae expanded into a simple lobe. Legs with tibiae expanded toward apices; tarsi with basal segment longer than the one following, sometimes as long as the two following together.

Antibothrus, established for the single species, A. carinatus from Ceylon, is a genus tending to bridge the gap between the Bothriderini and the Derataphrini. Although it has narrowly separated anterior coxae and the prosternal process is expanded behind the anterior coxae to form a simple lobe, the intercoxal process of the first abdominal segment is clearly truncate apically and so the genus is included within the Bothriderini.

#### KEY TO AFRICAN SPECIES.

- 4. Carinae of fifth elytral intervals approaching more closely to apices than those of third intervals; anterior pronotal angles strongly produced. (Punctures of even elytral intervals separated transversely on basal half of elytra by considerably more than one diameter. Length 3-3,2 mm) ... [sulcicollis Pope], p. 78.
- Carinae of third elytral intervals approaching more closely to apices than those of fifth intervals; anterior angles of pronotum not, or slightly produced
- 5. Head with a sharp median longitudinal carina bordered laterally by broad sulci; eyes prominent; mediolateral angulation of pronotum well-marked; carinae of third elytral intervals divergent along apical declivities, interrupted there to form tubercules ... [propinguus Pope], p. 78.

angustior n. sp., p. 79.

## Antibothrus elongatus n. sp.

(Fig. 13, 23.)

Length 3,5-4 mm. Breadth 0,9-1 mm.

Male: Surfaces testaceous to piceous, shining. Head with a sharp longitudinal median ridge between eyes; anterior clypeal border excised medially; clypeus and frons depressed laterally in front of eyes; antennae (fig. 13) eleven-segmented with penultimate segment larger than eleventh segment and having distal margin emarginate; punctures of head smaller than eye facets, separated by a little more than one diameter. Pronotum slightly elongate; anterior border arcuate medially, sinuate toward anterior angles; posterior border arcuate medially, sinuate toward obtuse posterior angles; lateral margins narrowly bordered, angled very slightly in front of middle, sinuate behind angulation; surface less convex longitudinally than tranversely, depressed and concave anterolaterally; punctures of disc considerably larger than those on head, separated by rather more than one diameter; a shallow median sulcus beginning at basal border and extending forward for basal third of pronotum. Scutellum almost circular, flattened basally, convex, impunctate. Elytra 2,6 times as long as their combined greatest breadth; strongly convex; almost parallel-sided for basal three

fourths; apical declivities confined to apical fourth; sutural carinae complete from bases to apices; carinae of third intervals entire to bases, stopping shortly before reaching apices of elytra, progressively more strongly raised from bases to apices; fifth intervals with carinae similar to those of third intervals, but with carinae approaching less closely to apices and less strongly raised in apical half; carinae of seventh intervals entire, feebly raised for basal two thirds; carinae of ninth intervals similar to those of seventh intervals; even intervals faintly costulate, especially toward bases, each with a double row of punctures separated longitudinally by somewhat more than one diameter, rows confused on apical declivities.

Female: Very similar to male but the head lacks a median ridge and frontal depressions and the pronotum is not excavate antero-laterally.

Holotype: A male in the British Museum (Nat. Hist.), London. [Ukerewe Id., Tanganyika Territory (CONRADS).]

Paratypes: [3  $\sigma$ , 1  $\circ$  with same data as holotype. 1  $\sigma$  Luebo, Congo, 21.VIII.1921 (H. SCHOUTEDEN). 1  $\circ$  Rwankwi, Congo, III.1951 J. V. LEROY).

1  $\delta$  : Ndelele/3, 18.VI.1952, H. DE SAEGER, n° 3649, éboulis rocheux, dans un arbre mort sur pied.

## [Antibothrus elegans POPE.]

Antibothrus elegans Pope, 1955, Expl. Parc Nat. de l'Upemba, fasc. 38(2):39.

Length 3,5-3,8 mm. Breadth 0,9-1 mm.

A. elegans is very closely related to A. elongatus, but may be distinguished by the characters referred to in the key to species. Also the punctures of the elytral striae are usually smaller and more sparsely arranged than those of elongatus and the sutural carinae are less strongly raised on the disc.

The male has a well-marked frontoclypeal suture, a shallow median frontal fovea and a median basal frontal protuberance. In the female the fovea and protuberance are absent and the suture is feebly indicated.

Holotype: A male in the British Museum (Nat. Hist.), London. Ukerewe Id., Tanganyika Territory.

Distribution. — Tanganyika Territory (Ukerewe Id.), Kenya, Ghana, Spanish Guinea, Congo (Parc National de l'Upemba).

#### [Antibothrus clavatus POPE.]

Antibothrus clavatus Pope, 1953 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:39.

Statement ... " mengalization between " ... sandaria

Length 2,7-3,2 mm. Breadth 0,9-1,1 mm.

Although with a black and shining derm, this species has more the facies of *A. sulcicollis* and *A. propinquus* (p. 78). The form is more flattened and less elongate than either *A. elongatus* or *A. elegans* and it also differs from these species as explained in the key to species.

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Mulungu, Congo.

Distribution. — Congo (Mulungu).

## [Antibothrus sulcicollis POPE.]

(Fig. 34.)

Antibothrus sulcicollis Pope, 1952 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:41.

Length 3-3,2 mm. Breadth 1-1,1 mm.

Derm testaceous, moderately shining. Head with a median longitudinal impression on frons. Pronotum with very close, coarse punctures, separated by less than half of one diameter. Elytra with carinae of third intervals replaced on apical declivities by a row of shallow tubercles apical declivities coarsely and confusedly punctured.

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Congo (Yangambi, Nioka, Valley near Bunyakivi).

## [Antibothrus propinquus POPE.]

Antibothrus propinquus Pope, 1951 (1953), Ann. Mus. Congo Belge, sér. in-8°, Sci. Zool., 19:44.

Length 3 mm. Breadth 1 mm.

This species is very closely related to A. sulcicollis, differing as indicated in the key to species.

Holotype : In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo.

Distribution. — Congo (Yangambi).

## Antibothrus angustior n. sp.

Length 3 mm. Breadth 0,95 mm.

Derm castaneous, faintly shining, sericeous. Head with anterior clypeal border truncate; frontoclypeal suture clearly visible, arcuate; clypeal punctures small, separated by about one diameter, intervals finely reticulate; frons with a narrow, longitudinal median ridge; frontal punctures elongate, separation variable, usually by about one narrower diameter, intervals more shining than those of clypeus. Pronotum hexagonal, quadrate; anterior border truncate, anterior angles slightly produced; posterior border arcuate, faintly sinuate toward obtuse hind angles; lateral margins entirely bordered, their angulation about three sevenths from anterior border; disc with a broad, longitudinal median sulcus, more deeply marked near base and bordered there by two ridges each bounded externally by a shallow fovea; pronotal punctures shallow, coarse, elongate, umbilicate, separated by much less than one diameter. Scutellum almost circular, flattened basally. Elytra twice as long as their greatest combined breadth, almost parallel-sided for basal seven eighths, evenly rounded to apicosutural angles; slightly flattened on disc; apical declivities confined to about apical third; carinae of sutural intervals entire; carinae of third and fifth intervals entire to bases, but stopping shortly before reaching apical borders; carinae of seventh intervals entire; carinae of ninth intervals joined to those of seventh intervals shortly before apices; second and fourth elytral intervals each with a double row of coarse punctures, those of second intervals coalescing transversely on apical declivities giving a scalariform appearance.

Holotype: In the British Museum (Nat. Hist.), London. [Ukerewe Id., Tanganyika Territory (CONRADS).]

#### Paratypes:

1 ex.: PpK/8/9, 15.VII.1952, H. DE SAEGER, n° 3787, galerie forestière dégradée, dans les arbres morts sur pied ( $Voacanga\ obtusa$ ); 4 ex.: II/gc/8, 30.IV.1952, H. DE SAEGER, n° 3405, tête de source faiblement boisée, dans des arbres morts en décomposition.

This species is intermediate in form between the *elongatus* and *sulcicollis* types. The facies are those of the *sulcicollis* group, but the elytral carinae are more complete and the species is more elongate.

#### SHEKARUS gen. n.

Type species: Shekarus ornatus n. sp.

Small, elongate, convex, tapering anteriorly and posteriorly; shining. Head with antennae eleven-segmented, antennal club two-segmented; frontoclypeal suture well-marked, arcuate, impressed; eyes not prominent; head not constricted at neck. Pronotum elongate, trapezoidal; anterior angles acute, slightly produced; lateral margins distinctly and entirely bordered; posterior angles well-defined, somewhat produced; posterior margin unbordered; surface with a deep, median basal impression, connected to hind edge by a groove bordered laterally by a pair of shining, raised ridges; basal margin briefly excavate outside shining ridges and immediately inside posterior angles leaving a pair of peg-like prominences (fig. 4). Scutellum small, flat, sunken, slightly transverse. Elytra convex; briefly narrowed near shoulders which are produced anteriorly; lateral borders very faintly sinuate, rounded to apicosutural angles; alternate intervals between striae of elytra carinate, even intervals punctate. Prosternal process narrow and sharp between closely set anterior coxae. Metasternum and first abdominal segment without raised, postcoxal ridges. Legs with tibiae expanded toward apices; basal three tarsal segments subequal, fourth segment about as long as the first three together.

This genus belongs to the group within the Bothriderini including Antibothrus (p. 75) and Erotylathris Sharp. In the former the pronotum is typically hexagonal in outline and the tibiae are relatively little broadened toward their apices. Shekarus is readily distinguished from Erotylathris as the latter has prominent postcoxal ridges on the metasternum and first abdominal segment and has longitudinal carinae on the pronotum.

#### Shekarus ornatus n. sp.

(Fig. 4, 32.)

Length 2,3-3,75 mm. Breadth 0,6-0,88 mm.

Derm testaceous to dark ferrugineous, shining. Head with anterior clypeal border truncate, anterior angles briefly rounded, lateral borders oblique, abruptly convergent near antennal insertions; clypeal punctures coarse, separated by a little less than one diameter; frontal punctures considerably larger than those of clypeus, further increasing in size toward occiput, punctures separated by about half of one diameter; eye facets not large, eyes not prominent; antennae with a 2-segmented club of broad, flat segments, apical border of last segment strongly arcuate, fringed with golden setae, apical border of penultimate segment much less strongly arcuate. Pronotum elongate (41:9); punctures of disc about as large as coarsest

punctures of head, separated as a rule by less than one diameter and bearing minute, golden setae; intervals sericeous. Elytra more than twice as long as their combined breadth (7:3); narrowed from level of hind coxae to acute apicosutural angles; sutural intervals broadly raised from bases to apices, each bearing a single row of punctures separated by

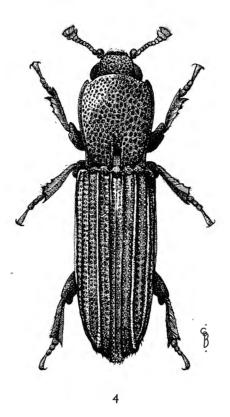


Fig. 4. - Shekarus ornatus n. sp.

more than one diameter and bearing minute setae; third elytral intervals more sharply carinate than sutural intervals, entire, junction with apical borders interrupting their curvature when viewed from above, carinate divergent on apical declivities; fifth and seventh intervals sharply carinate from near apices to bases, a little less strongly raised than carinae of third intervals, carinae of seventh intervals approaching apical borders more closely than those of fifth intervals; carinae of ninth intervals more strongly raised toward bases and apices than medially, joining carinae of third intervals shortly before apices, junctions laterally protuberant; carinae of third and fifth intervals each with a double row of punctures, those of

seventh and ninth intervals each with a single row; even intervals each with a double row of coarse punctures, larger than those of alternate intervals and separated by slightly more than one diameter; apicosutural angles each produced into a short spine; elytral punctures bearing short, golden setae, somewhat longer near apices; intervals sericeous. Legs with anterior and middle tibiae each bearing two external teeth as well as apical spurs. Prosternum closely and coarsely punctured, punctures separated by much less than one diameter. Metasternum and abdominal segments as coarsely, but slightly less closely punctured than prosternum, intervals sericeous.

Holotype: In the British Museum (Nat. Hist.), London. [Ghana, 1949 (G. H. THOMPSON).]

Paratypes: [9 ex. with same data as holotype. 6 ex.: Yangambi, Congo, XI-XII.1952 (C. Donis) (C.E.B.C.). 1 ex.: Yangambi, Congo, XII.1952 (C. Donis) (C.E.B.C.). 2 ex.: Ghana, II.1946 (G. H. Thomson). 2 ex.: Haut-Uele: Moto, Congo, IV.1922, VI-VII.1923 (Burgeon). 1 ex.: Albert-ville, Congo, I.1933 (Burgeon). 1 ex.: Ogbomosho, Nigeria, IX.1948 (Malkin). 1 ex.: Illugun, Abekouta Province, Nigeria, II.1945 (Malkin). 2 ex.: Ukerewe Id., Tanganyika Territory (Conrads).]

1 ex.: II/id/9, 31.X.1951, H. De Saeger, n° 2692, galerie forestière dégradée, troncs de Voacanga obtusa morts; 3 ex.: II/hc/8, 9.II.1952, H. De Saeger, n° 3115, tête de source à boisement dégradé, dans les arbres morts; 1 ex.: II/gc/8, 30.IV.1952, H. De Saeger, n° 3405, tête de source faiblement boisée, dans des arbres morts en décomposition; 1 ex.: Nagero, 10.V.1952, H. De Saeger, n° 3502, galerie forestière de la Dungu, dans des bois en décomposition très avancée; 2 ex.: II/gd/11, 30.VI.1952, H. De Saeger, n° 3721, marais à Marantacées, végétation dense, eau à courant faible, fond boueux, profondeur maximum 0,10 m; 2 ex.: II/id/9, 2.VII.1952, H. De Saeger, n° 3722, galerie forestière à Erythrophloèum, dans les écorces de « Gemba » sur pied, écorces en décomposition; 1 ex.: PpK/8/9, 15.VII.1952, H. De Saeger, n° 3787, galerie forestière dégradée, dans les arbres morts sur pied (Voacanga obtusa).

#### TRIBODERUS GROUVELLE.

Triboderus Grouvelle, 1894, Ann. Soc. Ent. Belg., 38: 463.

Type species: Triboderus andrewesi GROUVELLE.

Oblong or oblong-oval, convex or subdepressed, glabrous. Head with eyes not very convex; antennae of ten segments, last segment sometimes much reduced (*T. nitidus* POPE). Pronotum trapezoidal; finely bordered laterally; anterior angles moderately produced; posterior angles obtuse; anterior border sinuate toward anterior angles; posterior border arcuate medially; disc characteristically with two impressions disposed along the midline, the anterior being the broader of the two. Elytra elongate,

parallel-sided or somewhat elliptical, almost evenly rounded together apically; convex or subdepressed on disc; striate-punctate, alternate intervals carinate. Prosternum with anterior coxae more or less broadly separated; prosternal process broadly impressed between coxae. Postcoxal ridges on first abdominal segment almost entire. Legs with tibiae moderately broadened toward apices; anterior tibiae each with an apical spur and several fine teeth along external edge; tarsi with basal segment no longer than second segment, basal three segments together about as long as fourth segment.

With the exception of *T. nitidus* POPE, *Triboderus* is a very homogeneous group of species. The type species, occurring in India, is very closely related to the species found in Africa.

## KEY TO AFRICAN SPECIES.

1.	Antennae with segment much reduced in size; (fig. 7) carinae of third and fifth elytral intervals joined at their bases, carinae feebly raised on disc
	Antennae with tenth segment relatively much larger than in <i>T. nitidus</i> (fig. 10); carinae of third and fifth elytral intervals ending separately at bases of elytra, carinae more strongly raised on disc
2.	Second elytral intervals with four quite distinct rows of punctures along each, the marginal rows little smaller than medial rows and not much less regular; pronotal punctures usually closer, often separated by less than half of one diameter
_	Second elytral intervals with two regular rows of punctures on each and occasional, isolated punctures outside these; pronotal punctures usually more sparsely set, often separated by their own diameter  [capicola (Péringuey)], p. 85.
3.	Pronotal punctures separated toward middle of disc by about their own diameter, impunctate area between medial foveae brief, transverse; punctures on elytral carinae of similar size to marginal rows of second intervals
- Thinasa	Pronotal punctures separated on middle of disc by much less than one diameter, impunctate area between discal foveae distinctly elongate; punctures along elytral carinae much smaller than marginal rows of second intervals
4.	Elytra strongly shining between punctures [kraatzi Hetschko], p. 86.
	Elytra sericeous, feebly shining between punctures

## [Triboderus nitidus POPE.]

(Fig. 7.)

Triboderus nitidus Pope, 1954, Publ. Cult. Cia. Diamant. Angola, 23:114.

Length 2,5-2,63 mm. Breadth 0,9 mm.

This species is unique among the members of the genus by virtue of its antennal structure and its black, shining derm. It is also distinguished by its broader, more elliptical form and by the extremely finely marked lateral borders of the pronotum.

 ${\tt Holotype}$  : In the British Museum (Nat. Hist.), London. Villa Salazar, Angola.

Distribution. — Angola.

#### Triboderus tessmanni GROUVELLE.

Triboderus tessmanni Grouvelle, 1919, Mittl. Zool. Mus. Berlin, 9:211.

Length 2-3,5 mm. Breadth 0,1-1,2 mm.

Derm testaceous, shining. Head with clypeal punctures about as large as eye facets, separated by one diameter; frontoclypeal suture almost straight, slightly impressed; from with larger punctures than clypeus separated by from much less than to about one diameter; eyes moderately prominent; antennae with first segment of club cupuliform, apical segment a little narrower than the one preceding. Pronotum slightly elongate (5:4), broadest very shortly behind acute, produced anterior angles; anterior border straight medially, arcuate laterally, briefly sinuate to anterior angles; lateral margins finely, but distinctly bordered; posterior angles well-formed, slightly obtuse; posterior margin unbordered; disc with anterior fovea broad, occupying about one third of the total pronotal breadth measured across midline of fovea; posterior fovea smaller, punctiform, occupying about one sixth of total pronotal breadth measured across middle of fovea; a depressed, impunctate band present between foveae; punctures of disc and margins very large, up to about twice the diameter of frontal punctures, round or slightly elongate, separated by about half a diameter toward margins, by more toward and particularly in anteromedian fovea; basal fovea connected to basal border of pronotum by a broad, shallow sulcus. Elytra about twice as long as their combined greatest breadth, parallel-sided, tapered for apical fourth, obtusely rounded to apicosutural angles; disc with sutural carinae distinctly raised, entire; carinae of third intervals raised from bases almost to apical borders; carinae of fifth intervals entire to bases, stopping apically a little less than halfway down apical declivities; carinae of seventh intervals entire to bases and apices, joining carinae of ninth intervals at bases and shortly before apical borders; second intervals almost flat, strial punctures slightly larger than eye facets, separated longitudinally by more or less one diameter; two rows of strial punctures present on each interval, separated from one another by a little less than two diameters, between each row of strial punctures and carinae of first and third intervals there is a further row of punctures, slightly smaller than those of striae, separated longitudinally by from one to three diameters; other even intervals each with a double row of strial punctures only; carinae of alternate intervals each with a double row of punctures similar in size to external rows of second intervals.

Holotype: In the Zoologisches Museum, Berlin. Spanish Guinea.

Distribution. — See catalogue (p. 7).

28 examples.

9 ex.: II/gd/Camp, 28.II.1951, H. De Saeger, n° 1301 (Lannea kerstingii), bois utilisé pour les constructions du Camp, essence ligneuse qui n'existe pas dans la région; 6 ex.: I/c/1, 14.I.1950, H. De Saeger, n° 97, savane herbeuse, ramassage devant un feu de brousse; 1 ex.: II/gc/5, 30.III.1951, H. De Saeger, n° 1489, savane de vallée, ex fruits de Kigelia aethiopica; 6 ex.: II/gd/4, 10.IV.1951, H. De Saeger, n° 1627, savane arborescente (hors Parc), obtenus des mêmes bois que le n° 1301; 2 ex.: II/gd/Camp, 8.VIII.1951, H. De Saeger, n° 2227, bois sec introduit (Cassia siamea), utilisé pour les constructions; 1 ex.: II/fd/7, 5.IX.1951, H. De Saeger, n° 2364, galerie forestière dense, troncs d'arbres en décomposition; 2 ex.: II/gd/4, 27.IX.1951, H. De Saeger, n° 2480, savane herbeuse à ligneux rares, sur feuilles et tronc (suffrutescent) (Vitex doniana); 1 ex.: II/gd/4, 26 V.1952, H. De Saeger, n° 3519, savane herbeuse à ligneux suffrutescents, dans des branches mortes sur pied.

Prior to this date, nothing has been recorded concerning the biology of *T. tessmani*. On the other hand, what little information there is available concerning the biology of the Bothriderini as a whole would indicate that they are predatory, perhaps even ectoparasitic in habit, certainly not xylophagous. The above record of the species boring in timber and preyed on by Bostrichidae would seem to be therefore a misinterpretation. What is more likely is that *T. tessmanni* lives in the tunnels bored by the bostrichid and preys on the larvae, or adults thereof.

### [Triboderus capicola (Péringuey).]

(Fig. 10. 33.)

Bothrideres capicola Péringuey, 1892, Trans. S. Afr. Phil. Soc., 6(2):111. Triboderus africanus Grouvelle, 1908, Rev. d'Ent. Caen, 27:156 (syn. nov.).

Length 2,6-3,9 mm. Breadth 0,75-1,1 mm.

Having been afforded the opportunity of comparing the type specimens of both species, I have no doubt as to the synonymy recorded above.

Like T. kraatzi and T. elicius, this species is very closely related to T. tessmanni, differing as explained in the key to species.

Holotype: In the South African Museum. No data.

Distribution. — Cape Province, Natal, S. Rhodesia, N. W. Rhodesia, Tanganyika Territory (Ukerewe, Id.), Kenya, Abyssinia, Congo (Yangambi, Mayidi).

## [Triboderus kraatzi (HETSCHKO).]

Bothrideres costatus Kraatz (nec Blackburn), 1895, Dtsch. ent. Z., p. 161. Bothrideres kraatzi Hetschko, 1930, Coleopterorum Catalogus, pars 107, p. 84 (nom. nov.).

Length 4 mm.

An examination of the Kraatz type specimen shows this species to be properly placed in *Triboderus* and not *Bothrideres*. It scarcely differs from *T. elicius* (p. 86) other than by the feature referred to in the key to species.

Holotype. — In the Deutsches Entomologisches Institut, Berlin-Dahlem. Togo.

Distribution. — Ghana, Congo (Mweka, Sankuru: Komi).

#### [Triboderus elicius (HINTON).]

Bothrideres elicius Hinton, 1941, Ann. Mag. Nat. Hist., (11), 7:156.

Length 3,8 mm. Breadth 1,31 mm.

This species was founded upon a single example with the sericeous derm referred to in the key to species. Apart from this character it is practically indistinguishable from an example of *T. kraatzi*.

 $\operatorname{Holotype}$ : In the British Museum (Nat. Hist.), London. Jem-Jem Forest, Abyssinia.

Distribution. — Abyssinia.

#### MACHLOTES PASCOE.

Machlotes Pascoe, 1863, Journ. Ent., 2:36.

Type species: Machlotes porcatus PASCOE.

Small to moderate size; elongate, cylindrical or elliptical; usually with the body covered by a matt layer of a secretion like hardened gum. Head broad; eyes prominent; vertex sometimes angled or longitudinally carinate above eyes; frons sometimes with a more or less distinct longitudinal median carina; tenth antennal segment larger than eleventh segment; surface of head closely punctured. Pronotum trapezoidal; anterior border arcuate medially, sinuate laterally; anterior angles sometimes produced; posterior angles obtuse; posterior border arcuate medially; lateral borders each with a more or less well-developed median tooth; disc with six longitudinal carinae; intermediate pair of carinae often arcuate in anterior half; admedian pair of carinae interrupted near base by a deep, transverse fovea. Elytra elongate; lateral borders parallel or arcuate; apical borders rounded, acuminate or sharply sinuate toward apicosutural angles; disc and lateral margins with well-marked longitudinal carinae; carinae confined to alternate intervals between striae; strial punctures between carinae coarse, sometimes transversely confluent; three discal carinae on each elytron ending freely at or near bases of elytra. Prosternum with a broad or very broad intercoxal process. Both metasternum and first abdominal segment sometimes exhibiting irregularly-formed postcoxal ridges. Underside closely and coarsely punctured. Legs with tibiae expanded toward apices; tarsi with basal segment not longer than second segment, the three basal segments together about as long as fourth segment.

*Machlotes* is a widespread genus, species occurring in Asia, Africa and Australia.

#### KEY TO AFRICAN SPECIES.

- 3. Pronotum with sublateral and admedian carinae joined over basal third, the sulcus between them quite obliterated for basal third ........ angustatus Grouvelle, p. 89.

	Pronotum with sublateral and admedian carinae separate except at base, the sulcus between them always distinct and concave although sometimes rather shallow for basal third of pronotum
4.	Sublateral pronotal carinae reaching lateral borders very near anterior angles, not interrupted at median dentation of pronotum; species generally larger (4,9-5,4 mm long occidentalis Malkin, p. 90.
_	Sublateral pronotal carinae not reaching lateral borders anteriorly, ending freely at some distance from anterior angles, interrupted at median dentation of pronotum; species generally smaller (less than 3 mm long
5.	Elytral apices markedly sinuate; intervals between pronotal carinae flat, broad; anterior tibiae each with two fine teeth on external edge in addition to apical spur
~	Elytral apices almost evenly acuminate; intervals between pronotal carinae narrow, canaliculate; anterior tibiae without external teeth apart from apical spurs[houkae Malkin], p. 92.
6.	Elytral apices more strongly sinuate (fig. 29); carinae of third elytral intervals less widely separated on apical declivities than elsewhere; anterior pronotal angles not, or scarcely produced
_	Elytral apices less strongly sinuate (fig. 28); carinae of third elytral intervals not less widely separated on apical declivities than elsewhere; anterior pronotal angles markedly produced hintoni Malkin, p. 92.
7.	Carinae of third elytral intervals thickened and serrated along apical declivities, carinae of ninth intervals strongly serrate for apical third
_	Carinae of third elytral intervals not serrated or thickened along apical declivities, carinae of ninth intervals not serrated along apical declivities

## Machlotes angustatus Grouvelle.

Machlotes angustatus Grouvelle, 1914, Rev. Zool. Afr., 4:136.

Machlotes angustatus Grouv., Malkin, 1953, Rev. Zool. Bot. Afr., 48:151. Machlotes imperfectus Grouvelle, 1919, Mitt. Zool. Mus. Berlin, 9:211 (syn. nov.).

Machlotes imperfectus Grouv., Malkin, 1953, l. c., p. 154.

Machlotes imperfectus Grouv., Malkin, 1952, Publ. Cult. Cia. Diamant. Angola, No. 15: 25.

Machlotes imperfectus Grouvelle, 1919, Mittl. Zool. Mus. Berlin, 9:211

Length 2,6-4,4 mm. Breadth 0,75-1,1 mm.

Derm rufopiceous, sericeous. Head with anterior clypeal border almost truncate, anterior angles obtuse; clypeus convex, punctures small, separated by less than one diameter, intervals sericeous, punctures bearing small, appressed, yellow setae; frontoclypeal suture fine, slightly arcuate, impressed; frons with two broad, longitudinal, paramedian sulci; frontal punctures much coarser than those of clypeus, separated by less than one diameter and bearing setae as on clypeus, intervals sericeous; head swollen behind eyes. Pronotum elongate (57:43); anterior border arcuate; lateral borders almost straight, slightly convergent for anterior fifth, slightly sinuate to posterior angles which are acute, each border with a well-marked, projecting tooth slightly behind middle; discal carinae faintly raised; punctures on carinae and elsewhere similar in size to those of frons, bearing similar setae and separated by less than their diameter; intervals between carinae canaliculate posteriorly from a little before middle; median and admedian intervals markedly deepened at about middle. Elytra slightly more than twice as long as their greatest combined breadth; convex; almost parallelsided for basal two thirds, briefly rounded to shoulders, narrowed for apical third to obtusely rounded apical borders; lateral borders feebly sinuate a little in front of apical borders; sutural intervals feebly carinate from bases to apices; carinae of third intervals sharply and more strongly raised than those of sutural intervals, entire from bases to apices; carinae of fifth intervals slightly less strongly raised than those of third intervals, entire from bases to about halfway down apical declivities; carinae of seventh and ninth intervals sharp, almost as strongly raised as those of fifth intervals, joined at bases and at about two thirds of the way along the apical declivities, combined carinae reaching apical borders, joining carinae of third intervals very shortly before doing so; even intervals each with a double row of coarse punctures, distincly larger than those of pronotum, separated longitudinally by one diameter or more, transversely by rather less than one diameter; sutural intervals each with a single row of punctures smaller than those of pronotum, separated longitudinally by almost one diameter; carinae of other alternate intervals each with a double row of small punctures, separated on third intervals by slightly less than

one diameter, on other intervals by somewhat more than one diameter, punctures bearing small setae as on pronotum.

Holotype: In the Musée Royal de l'Afrique Centrale, Tervuren. Congo da Lemba (R. MAYNÉ).

Distribution. — See catalogue (p. 7).

4 examples.

1 ex.: II/id/9, 31.X.1951, H. De Saeger, n° 2692, galerie forestière dégradée, troncs de *Voacanga obtusa* morts; 1 ex.: II/gd/11, 30.VI.1952, H. De Saeger, n° 3721, marais à Marantacées, végétation dense, eau à courant faible, fond boueux, profondeur maximum 0,10 m; 1 ex.: II/gd/4, 7.VII.1952, H. De Saeger, n° 3757, savane herbeuse, arbre (*Parinari curatellifolia*) mort sur pied, pas encore décomposé; 1 ex.: PpK/8/9, 15.VII.1952, H. De Saeger, n° 3787, galerie forestière dégradée, dans les arbres morts sur pied (*Voacanga obtusa*).

Malkin (1953) indicates that he has not seen any examples of M. angustatus, but implies that he has studied reliably named material of M. imperfectus.

Through the kindness of M. P. Basilewsky, the holotype of M. angustatus and a paratype of M. basilewskyi have been made available to me for study and a comparison of those with material named as M. imperfectus by Malkin leaves no doubt as to the synonymy of the three species. The tibial differences mentioned by Malkin between M. basilewskyi and M. imperfectus are shown by a series of examples to be individual variation.

#### Machlotes occidentalis MALKIN.

Machlotes occidentalis Malkin, 1953, Rev. Zool. Bot. Afr., 48:1952.

Length 4,5-5,4 mm. Breadth 1,3 mm.

Derm dark pitchy-red, sericeous. Head with clypeal punctures about as large as eye-facets, separated by about half of one diameter or slightly more, bearing minute, yellowish-white setae; frontoclypeal suture fine, arcuate; frons with two longitudinal, paramedian impressions on anterior half; frontal punctures larger than those of clypeus, separated by half a diameter or less, bearing minute setae as on clypeus; eyes prominent. Pronotum slightly elongate (22:19); anterior border arcuate medially, sinuate toward acute, produced anterior angles; lateral borders arcuate, sinuate before well-marked posterior angles, each with a blunt, projecting tooth almost at middle, borders bluntly serrate for anterior half; carinae not sharp, but clearly marked and separate, intervals between paramedian and admedian carinae canaliculate at least for basal two thirds, median intervals narrowly, admedian intervals broadly canaliculate; punctures on

carinae coarse, larger than those of frons, bearing similar setae to those of frons, separated by about half a diameter, punctures of intervals between carinae more sparsely arranged, confined to anterior third of pronotum. Elytra little more than twice as long as their greatest combined breadth (45:21); rounded at shoulders, parallel-sided for basal two thirds, acuminately rounded to apicosutural angles; sutural carinae shallowly and bluntly raised from bases to apices; carinae of third intervals sharply raised from bases to apices, those of fifth intervals sharply raised from bases to a little more than halfway down apical declivities; carinae of seventh and ninth intervals sharply raised, joined at bases and shortly before apices, combined carinae reaching apical borders, but joining carinae of third intervals shortly before doing so; even intervals with double rows of punctures separated longitudinally by about one diameter, transversely by a smaller distance; sutural carinae each with a single row of small punctures, slightly smaller than those of pronotum, separated by about one diameter and bearing minute, yellowish-white setae; other alternate intervals each with a double row of punctures similar in size and spacing to those of sutural intervals and bearing similar setae. Legs with tibiae devoid of teeth on their external edges apart from apical spurs.

Holotype: In the British Museum (Nat. Hist.). Njala, Sierra Leone (Hargreaves).

Distribution. — See catalogue (p. 7).

1 example.

1 ex.: II/fd/17, 3.VI.1952, H. De Saeger, nº 3563, galerie forestière claire, dans des branches mortes.

#### [Machiotes mayumbe Malkin.]

Machlotes mayumbe Malkin, 1953, Rev. Zool. Bot. Afr., 48: 156.

Length 2,5-2,9 mm. Breadth 0,75-0,95 mm.

Holotype: In the Musée Royal de l'Afrique Centrale, Tervuren. Luvu (Mayumbe), Congo (COLLART).

Distribution. — Congo (Haut-Uele: Watsa, Moto).

## [Machlotes machadoi MALKIN.]

Machlotes machadoi Malkin, 1952, Publ. Cult. Cia. Diamant. Angola, No. 15:23.

Length 4,3 mm. Breadth 0,7 mm.

The very markedly sinuate apical ends of the lateral borders of the elytra will serve to distinguish this species from all others with double rows of punctures between the elytral carinae.

Holotype: In the Muséum d'Histoire Naturelle, Paris. Serra do Moco, Luimbale (20° 30' S., 15° 10' E.), 2.000 m. Angola (A. DE BARROS MACHADO).

Distribution. — Angola, Congo (riv. Kamitulungu, affl. g. Lusinga, Parc National de l'Upemba, Katanga).

## [Machiotes houkae Malkin.]

Machlotes houkae Malkin, 1953, Rev. Zool. Bot. Afr., 48: 154.

Length 5,1 mm. Breadth 1,4 mm.

Holotype: In the British Museum (Nat. Hist.), London. Ziwama. Tanganyika Territory (MacArthur).

Distribution. — Tanganyika Territory, Kenya.

## Machlotes hintoni Malkin.

(Fig. 28.)

Machlotes hintoni Malkin, 1953, Rev. Zool. Bot. Afr., 48: 157.

Length 3,5-4,3 mm. Breadth 1-1,2 mm.

Derm dark pitchy-red, feebly shining. Head with anterior clypeal border almost straight, anterior angles obtuse, lateral borders oblique, emarginate; clypeal punctures small, separated by from one to two diameters, bearing minute, yellow setae; frontoclypeal suture indicated by a change in sculpture between clypeus and frons; frons with two broad, paramedian sulci; frontal punctures distinctly coarser than those of clypeus, separated by half a diameter or less, sometimes confluent laterally, bearing small setae as on clypeus; eyes prominent. Pronotum elongate (5:4); anterior border feebly arcuate medially, strongly arcuate laterally, sinuate to acute, produced anterior angles; lateral borders almost evenly convergent from shortly behind anterior angles to brief sinuation before posterior angles, median tooth well-marked, lateral borders broadly serrate, less markedly so behind median tooth; carinae of disc and margins all narrow, distinct;

intervals between carinae flat, not canaliculate; punctures scarcely larger than those of head, separated by from one to less than half of one diameter, bearing setae as on head; sublateral carinae joined to lateral borders almost at anterior angles, less strongly raised at level of median tooth than elsewhere. Elytra a little more than twice as long as their greatest combined breadth (22:9); slightly narrowed from shoulders for basal six sevenths, then sinuate to short, broadly rounded apical borders; all carinae sharply raised, except sutural carinae which are bluntly and shallowly raised from bases to apices; carinae of third intervals parallel, or nearly so, entire; carinae of fifth intervals entire from bases to about halfway down apical declivities, slightly less strongly raised than carinae of third intervals; carinae of seventh intervals joined at shoulders, and shortly before apices by carinae of ninth intervals, combined carinae forming sinuate part of apical borders; carinae of sutural intervals each with a single row of punctures, separated longitudinally by about one diameter; carinae of other alternate intervals each with a double row of punctures of similar separation to those of sutural intervals, punctures bearing yellow setae as on head and pronotum; punctures between carinae transverse, a single row occuring between each pair of carinae. Legs with anterior tibiae each having a small denticle on external edge near apex well as an apical spur.

Holotype: In the Musée Royal de l'Afrique Centrale, Tervuren. Moto (Kibali-Ituri), Congo (Burgeon).

Distribution. — See catalogue (p. 7).

3 examples.

2 ex.: II/hc/8, 9.II.1952, H. DE SAEGER, n° 3115, tête de source à boisement dégradé, dans les arbres morts; 1 ex.: PpK/8/9, 15.VII.1952, H. DE SAEGER, n° 3787, galerie forestière dégradée, dans les arbres morts sur pied (Voacanga obtusa).

## [Machlotes brunneus Malkin.]

Machlotes brunneus Malkin, 1953, Rev. Zool. Bot. Afr., 48: 159.

Length 3-4 mm. Breadth 0,7-0,9 mm.

But for the distinctive features mentioned in the key to species, M. brunneus is very like M. obscurus (below). Not withstanding the remarks made by Malkin about the antennae, the head and pronotum are almost identical in the two species, those of M. obscurus appearing to be slightly less coarsely fashioned. The elytra are also very like those of M. obscurus but for the characters mentioned in the key.

Holotype: In the Musée Royal de l'Afrique Centrale, Tervuren. Yangambi, Congo (Donis) (C.E.b.C.).

Distribution. — Congo (Yangambi).

## [Machlotes obscurus MALKIN.]

(Fig. 29.)

Machlotes obscurus Malkin, 1953, Rev. Zool. Bot. Afr., 48: 159.

Length 3,4-4,5 mm. Breadth 0,7-1,1 mm.

Derm piceous-black, scarcely shining. Head as in *M. hintoni* (p. 92). Pronotum with anterior angles only slightly produced, carinae sharply raised, intervals between carinae not canaliculate. Elytra characterised by the features referred to in the key to species.

Holotype: In the Musée Royal de l'Afrique Centrale, Tervuren. Kunungu (Bolobo), Congo (Schouteden).

Distribution. — Spanish Guinea, Tanganyika Territory, Congo (Kunungu, Mayidi, Mongende).

## [Machlotes angolanus MALKIN.]

Machlotes angolanus Malkin, 1952, Publ. Cult. Cia. Diamant. Angola, No. 15: 24.

Length 2,7 mm. Breadth 0,8 mm.

This species characterised by its very unusually elongate pronotum and its small overall size. The elytra are very similar to those of M. obscurus.

Holotype: In the California Academy of Sciences, San Francisco, U.S.A. Villa Salazar, Angola (MALKIN).

Distribution. — Angola.

The holotype is unique.

### DASTARCUS WALKER.

Dastarcus Walker, 1858, Ann. Mag. Nat. Hist., (3), 2:209.

Type species: Dastarcus porosus WALKER.

Of moderate size; elongate-elliptical; not strongly convex; squamiferous. Head much retracted into pronotum; eyes prominent, slightly higher than long; antennal club two-segmented; antennal grooves beneath head reaching to behind hind borders of eyes. Pronotum broad, flat; narrowed to prominent anterior angles; hind margin broadly depressed toward hind angles. Elytra elongate; feebly convex; broadest at shoulders, narrowed to within a short distance of apices then sharply sinuate and almost

truncated to apicosutural angles; deeply striate, punctures bearing squamiform setae often arranged in tufts. Prosternum with anterior coxae separated by much more than their diameter. Metasternum and first abdominal segment without postcoxal ridges. Legs with anterior tibiae slightly expanded toward apices and with an external apical spur; middle and hind tibiae not or scarcely expanded toward apices and with only faint indications of an external apical spur; basal three tarsal segments subequal and together shorter than apical segment.

Dastarcus, erected originally for a species from Ceylon, now includes representatives from Africa, Asia and Australasia.

#### KEY TO AFRICAN SPECIES.

- 1. Pronotum quadrate, lateral borders deeply sinuate at about middle when viewed from one side; elytra with third intervals noticeably carinate ... interruptus (FAIRMAIRE), p. 95.
- Pronotum distinctly transverse, lateral borders almost straight when viewed from one side, elytra with third intervals scarcely raised ......
   [fairmairei Grouvelle], p. 97.

#### Dastarcus interruptus (FAIRMAIRE).

Pathodermus interruptus Fairmaire, 1881, Ann. Soc. Ent. Fr., (6), 1:80.

Dastarcus interruptus (Fairm.), Grouvelle, 1910, Wiss. Ergebn. Exped.

Kilimandjaro-Meru, 1:326.

Length 9-10 mm. Breadth 3,6 mm.

Derm dark red-brown, sericeous. Head with anterior clypeal border broadly emarginate, anterior angles obtuse, lateral borders obliquely emarginate, sharply convergent in posterior half to antennal insertions; anterior margin of clypeus almost impunctate, elsewhere with irregularly formed punctures bearing pale, squamiform setae; frontoclypeal suture faintly indicated; frons very closely and coarsely punctured, punctures larger than eye facets, separated in most instances by from a half to one diameter, bearing setae broader than those on clypeus; antennae with last segment distinctly narrower than tenth, segments three to nine progressively, but slightly increasing in width toward club. Pronotum quadrate; anterior border slightly emarginate medially, strongly arcuate laterally, sinuate to produced anterior angles; pronotum broadest at about one fourth from anterior border, narrowed thence posteriorly, faintly sinuate to posterior angles; lateral borders raised, but obscured by densely-set, squamiform setae; a carina present on each lateral margin running from posterior angles

forward and slightly obliquely inward to within about one fourth from anterior border; disc with two well-marked, lateral tumuli shortly in front of middle, each set with setae similar to those along lateral borders; two smaller, less strongly raised, paramedian tumuli present on basal third of pronotum, set with similar setae to those on lateral margins; disc and margins irregularly punctured, anterior half with closely-set, setiferous punctures along margin and in two longitudinal, paramedian bands, punctures elsewhere on anterior half also setiferous, but more sparsely arranged; posterior half rather similarly punctured, a pair of longitudinal, paramedian bands present and sublateral ridges each with a single row of punctures, punctures elsewhere on posterior half sparse, less closely set than punctures of anterior half, setiferous. Elytra little less than twice as long as their greatest combined breadth, rather feebly narrowed from shoulders to within a short distance of apical borders, then emarginately and strongly narrowed to rounded apical borders; shoulders well-marked, not rounded; sutural intervals broadly, bluntly and shallowly raised from bases to apices; third intervals narrowly carinate from bases to apices, broadened in places along their length and there set with tufts of erect, squamiform setae as on pronotum; carinae of fifth intervals less strongly raised than those of third intervals, entire from bases to shortly before subapical elytral emargination, also broadened in places along their length and there set with tufts of setae; carinae of seventh and ninth intervals similarly raised to those of fifth intervals, carinae of seventh intervals stopping a little nearer to apices than those of fifth intervals, broadened in places and set with tufts of setae, carinae of ninth intervals almost evenly setiferous; even intervals plane, biseriate-punctate, punctures coarse, separated longitudinally by from one to two diameters, laterally by about three diameters, punctures bearing erect, squamiform setae; first striae, next to suture, deeply grooved from bases to apices; intervals sericeous.

Holotype: Should be in the Muséum d'Histoire Naturelle, Paris. Zanzibar (RAFFRAY).

Distribution. — See catalogue (p. 7).

1 example.

1 ex. : Ndelele/3, 18.VI.1952, H. De Saeger, no 3649, éboulis rocheux, dans un arbre mort sur pied.

#### [Dastarcus fairmairei GROUVELLE.]

Dastarcus fairmairei Grouvelle, 1919, Mittl. Zool. Mus. Berlin, 9:212.

Length 6,5-10 mm. Breadth ?-3,6 mm.

This species is very similar in general facies to *D. interruptus*, but may be distinguished therefrom as indicated in the key to species. It also differs from the latter species in the following respects.

The head is more densely setoso-punctate and the eyes more prominent. The pronotum is more strongly narrowed to the anterior angles and has the tumuli and bands of punctures less distinctly marked. The disc is more evenly punctured. The elytra are proportionally shorter and broader (5:3) and their interstrial carinae are broader, with larger and more pronounced tufts of setae.

Holotype: Missing from the Zoologisches Museum, Berlin. Nkolentangan, Spanish Guinea (Tessmann).

Distribution. — Spanish Guinea, Ghana, Ashanti, Congo (Yangambi).

## PSEUDOBOTHRIDERES GROUVELLE.

Pseudobothrideres Grouvelle, 1908, Ann. Soc. Ent. Fr., 77: 438.

Type species: Pseudobothrideres neglectus GROUVELLE.

Small; elongate-elliptical; somewhat depressed; usually shining, glabrous. Head with eyes not very prominent, narrowed toward underside of head; antennae with a two-segmented club, last segment distinctly smaller than penultimate segment; antennal grooves well-marked, extending at least to lowest level reached by eyes and often below this. Pronotum trapezoidal with more or less sinuate lateral borders; anterior angles at least slightly produced; posterior angles sharp; middle of hind border reached by a more or less well-marked longitudinal sulcus joining border with hind part of discal ornamentation; disc variously ornamented, usually with a tubercle enclosed by a well-marked sulcus. Elytra elongate; depressed on disc; apical borders usually slightly to moderately sinuate before apicosutural angles; alternate intervals between striae more or less markedly carinate. Prosternum with a broad intercoxal process, transversely ridged between coxae and expanded into a « T » behind them. Metasternum without postcoxal ridges. First abdominal segment with well-marked postcoxal ridges. Legs with all tibiae bearing a more or less well-marked external apical spur, anterior tibiae more strongly expanded toward apices than middle or hind tibiae; tarsi with the three basal segments subequal and together longer than the fourth segment.

Originally erected for four new species from India, this genus now includes species from India, Larat Island, the Philippines and Africa. When a full revision of *Bothrideres* Erichson is undertaken, it is very likely that several more Asiatic species will be transferred to *Pseudobothrideres*.

#### KEY TO AFRICAN SPECIES.

- 1. Carinae of third and fifth elytral intervals joined at bases .......... (2)
- Carinae of third and fifth elytral intervals not joined at bases ..... (3)
- Discal pronotal tubercle slightly longer than broad; mediobasal pronotal sulcus strongly narrowed to base; fourth elytral intervals acuminate basally; second elytral intervals distinctly broader on disc than third intervals
   [weisei Grouvelle], p. 99.
- Pronotal punctures more closely set, often separated by less than their diameter, especially apicolaterally; carinae of third elytral intervals distinctly narrower near apices than one disc; first and second elytral striae distinctly grooved on disc ..... confossicollis (FAIRMAIRE), p. 99.

#### [Pseudobothrideres evansi Pope.]

Pseudobothrideres evansi Pope, 1954, Publ. Cult. Cia. Diamant. Angola, No. 23: 116.

Length 4-4,9 mm. Breadth 1,25-1,5 mm.

The shape and sculpture of the head and pronotum of this species are very similar to those of *P. conradsi* Pope, but the pronotum has a narrower mediobasal sulcus and mediobasal sulcus and the median discal tubercle is more elongate. The elytral structure of the species will at once distinguish them for as well as the basal junction of intervals one, three and five, the carinae of intervals one, three, five and seven are scarcely raised at all on the disc.

Holotype: In the British Museum (Nat. Hist.), London. 18 miles S.W. of Elisabethville (Evans).

Distribution. — Angola, Congo (18 miles S.W. of Elisabethville).

### [Pseudobothrideres weisei Grouvelle.]

Pseudobothrideres weisei Grouvelle, 1908, Rev. d'Ent. Caen, 27: 155.

Length 4 mm. Breadth 1,6 mm.

The much shorter discal tubercle on the pronotum will at once serve to separate this species from the other described African members of the genus.

Holotype: In the Muséum d'Histoire Naturelle, Paris. Kwai, Tanganyika Territory (WEISE).

Distribution. — Tanganyika Territory, Spanish Guinea.

#### Pseudobothrideres conradsi Pope.

(Fig. 5.)

Pseudobothrideres conradsi Pope, 1959, South African Animal Life, 6:147, Uppsala.

Length 3,75-5 mm. Breadth 1,2-1,6 mm.

This species is very closely related to *P. confossicollis* FAIRM., but is separable as explained in the key to species above.

Holotype: In the British Museum (Nat. Hist.), London. Ukerewe Island, Tanganyika Territory (CONRADS).

Distribution. — See catalogue (p. 7).

10 examples.

3 ex.: I/o/1, 20.XI.1950, H. De Saeger, n° 985, savane arborescente, récolté sous les écorces d'arbres morts; 1 ex.: PpK/51/g/9, 2 IV.1952, H. De Saeger, n° 3276, galerie forestière au dernier stade de dégradation, dans les arbres morts debout et sur le sol; 1 ex.: Iso/II/3, 12.VI.1952, H. De Saeger, n° 3622, savane arborescente, dans les branches et sous les écorces des arbustes; 2 ex.: Ndelele/3, 18.VI.1952, H. De Saeger, n° 3649, éboulis rocheux, dans un arbre mort sur pied; 3 ex.: PFNK/7/9, 28.VII.1952, H. De Saeger, n° 3826, galerie forestière, arbre mort sur pied (Albizzia coriaria) fortement attaqué précédemment sous l'écorce.

#### Pseudobothrideres confossicollis (FAIRMAIRE).

Bothrideres confossicollis Fairmaire, 1883, Ann. Soc. Ent. Fr., (6), 3:91. Bothrideres scutatus Péringuey, 1892, Trans. S. Afr. Phil. Soc., 6:112 (syn. nov.).

Length 4,2-5,1 mm. Breadth 1,2-1,4 mm.

This species is very closely related to *P. conradsi* (fig. 5), but may be distinguished as indicated in the key to species and by the following.

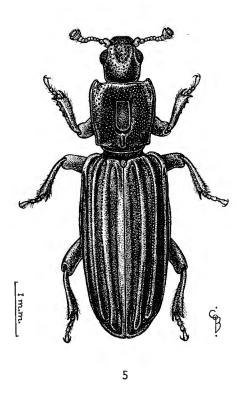


Fig. 5. — Pseudobothrideres conradsi Pope.

The third elytral intervals are scarcely raised on the disc and the discal tubercle on the pronotum is relatively more elongate than it is in the case of *P. conradsi*. In other respects, *P. confossicollis* is scarcely different from the other species.

Holotype: ? In the Muséum d'Histoire Naturelle, Paris. Abyssinia.

Distribution. — See catalogue (p. 7).

1 example.

1 ex.: PpK/52/2, 16.X.1951, H. De Saeger, no 2605, savane faiblement arborée, ramassage sur feuilles et écorces.

#### OGMODERES GANGLBAUER.

Ogmoderes GANGLBAUER, 1899, Käfer Mitteleuropa, 3:899.

Type species: Bothrideres angusticollis Brisour.

This genus is closely related in general facies to both *Pseudobothrideres* and *Ascetoderes* gen. n. (p. 104), but is readily separable from the two as explained in the key to bothriderine genera given in page 73.

The eyes are more prominent than in either of the other genera and neither the metasternum nor the first abdominal segment bear postcoxal ridges.

The elongate basal segment of the tarsi in *Ogmoderes* is an unusual feature for a genus in the *Bothriderini*; it is much more common among the *Derataphrini*. On the other hand there is no doubt that *Ogmoderes* is correctly assigned to the former tribe.

At present only two species are placed in this genus and both of them occur in Africa. One appears to be distributed throughout the drier parts of the continent while the other is more or less confined to the damper, forested areas. It is this latter species that has been collected in the Parc National de la Garamba.

#### KEY TO SPECIES.

- 1. Pronotum with anterior angles produced and with feeble lateral teeth; mediobasal pronotal groove broad, shallow; metasternum with a median longitudinal sulcus in apical half ..... sculpticollis (Thomson), p. 101.
- Pronotum with anterior angles not produced, lateral borders not denticulate; mediobasal pronotal groove deep, narrow; metasternum without a longitudinal median groove ......... [angusticollis (Brisout)], p. 103.

## Ogmoderes sculpticollis (THOMSON).

Bothrideres sculpticollis Thomson, 1858, Arch. Ent., 2:46.
Bothrideres spleniatus Murray, 1867, Ann. Mag. Nat. Hist., (3), 19:337.
Ogmoderes sculpticollis (Thoms.), Pope, 1954, Publ. Cult. Cia. Diamant.
Angola, No. 23:114.

Length 4,5-7,6 mm. Breadth 1,48-2,25 mm.

Derm black to piceous, sometimes with a longitudinal reddish stripe along each elytron. Head shallowly and broadly impressed medially; clypeus emarginate medially, anterior angles briefly rounded, lateral borders obliquely emarginate to above antennal insertions; clypeal punctures smaller

than eye facets, separated by more than one diameter on disc, by about their own diameter toward lateral margins; frontoclypeal suture scarcely discernible; frons with punctures very slightly larger than those of clypeus anteriorly, increasing in size and becoming slightly elongate posteriorly, irregularly spaced medially, more regularly arranged and separated by about one diameter toward margins and across vertex; antennae with apical segment longer than penultimate segment, rounded apically and set, in apical half, with short, fine setae. Pronotum as long as broad, trapezoidal; anterior border slightly emarginate medially, arcuate toward and then sinuate immediately inside acute, produced anterior angles; pronotum broadest at about one fourth from anterior border, very slightly narrowed to anterior angles, more or less regularly and strongly narrowed from broadest point to posterior angles; lateral borders each with a shallow tubercle shortly before middle and a tooth-like prominence a little in front of posterior border; basal margin narrowly bordered, border more distinct medially than elsewhere; disc with a strongly elongate, median longitudinal impunctate area, flattened or slightly biarcuate anteriorly, tapered almost to a point posteriorly, surrounded by a deep, well-marked sulcus and connected to basal border by a shallow, ill-defined sulcus; punctures external to surrounding sulcus coarse, some larger than eye facets, separated by from about half to one diameter, each with a minute, slightly yellow seta, scarcely longer than half the diameter of a puncture; intervals between punctures shining, but very finely and faintly shagreened. Elytra twice as long as their greatest combined breadth, slightly narrowed to rounded shoulders, slightly sinuate before rounded apices; intervals shining. Legs with anterior and middle tibiae strongly widened to apices, hind tibiae less strongly broadened; all tibiae with a well-marked external apical spur, anterior and middle tibiae only with teeth on external margin, anterior tibiae with two such teeth, middle tibiae usually with three teeth, sometimes with some much smaller, supplementary denticles as well.

Holotype: In the Institut royal des Sciences naturelles, Brussels. Gaboon (Thomson).

Distribution. — See catalogue (p. 7).

67 examples.

37 ex.: II/gd/4, 10.IV.1951, H. De Saeger, nº 1627, savane arborescente (hors Parc), Lannea Kerstingii (bois utilisé pour les constructions du Camp), essence ligneuse qui n'existe pas dans la région; 1 ex.: II/fd/17, 9.VI.1951, H. De Saeger, nº 1888, galerie forestière, sur strate arbustive; 1 ex.: II/gd/4, 25 III.1951, H. De Saeger, nº 1453, à la lampe; 1 ex.: II/gd/4, 22.IV.1951, H. De Saeger, nº 1595, à la lampe; 1 ex.: Mabanga, 27.VII.1952, H. De Saeger, n° 3847, savane arborescente, sur une poutre équarrie (construction), volant lorsque le soleil est presque à l'horizon, le soir; 1 ex.: II/fd/15,

22.IX.1951, H. DE SAEGER, n° 2464, marécage à végétation dense, fauchage; 8 ex.: II/gd/4, 27.IX.1951, H. DE SAEGER, n° 2480, savane herbeuse à ligneux rares, sur feuilles et tronc de Vitex doniana; 1 ex.: I/o/1, 12.IV.1950, H. DE SAEGER, n° 399, récoltés à la lampe; 2 ex.: I/o/1, 17.IV.1950, H. DE SAEGER, n° 416, à la lampe; 2 ex.: I/o/1, 24.IV.1950, H. DE SAEGER, n° 551, à la lampe; 1 ex.: I/o/1, 24.IV.1950, H. DE SAEGER, n° 466, à la lampe; 1 ex.: I/o/1, 16.V.1950, H. DE SAEGER, n° 526, à la lampe; 1 ex.: II/e, 18.XII.1950, H. DE SAEGER, n° 995, savane herbeuse (fond de vallée); dans la strate herbeuse, avant le passage des feux; 3 ex.: II/gd/Camp, 28.II.1951, H. DE SAEGER, n° 1301, Xylophages (presumably as predators of xylophagous insects), Lannea Kerstingii, Obs. as for n° 1627, above; 1 ex.: I/c/1, 14.I.1950, H. DE SAEGER, n° 97, savane herbeuse, ramassage devant un feu de brousse; 1 ex.: Ndelele/3, 18.VI.1952, H. DE SAEGER, n° 3649, éboulis rocheux, dans un arbre mort sur pied; 1 ex.: II/gd/4, 31.X.1951, H. DE SAEGER, n° 2704, à la lampe; 3 ex.: II/gd/4, 4.I.1952, H. DE SAEGER, n° 3000, savane herbeuse (Camp), divers bois de construction introduits, recrudescence très caractérisée de l'activité des Bostrychides, dès l'apparition de la saison sèche.

This is a very common species, occuring in most of the wetter parts of Africa. It is interesting to see how many of the 67 examples recorded above came to light and also that one collection record exposes a relationship with bostrychids.

## [Ogmoderes angusticollis (BRISOUT).]

Bothrideres angusticollis Brisout, 1861, Ann. Soc. Ent. Fr., (4), 1:600.

Ogmoderes angusticollis (Bris.), Ganglbauer, 1899, Käfer Mitteleuropa,
3:900.

Bothrideres distinctus Péringuey, 1892, Trans. S. Afr. Phil. Soc., 6:112 (syn. nov.).

Length 3,5-4,4 mm. Breadth 1-1,25 mm.

O. angusticollis is readily distinguished from O. sculpticollis by the characters referred to in the key to species. In addition, the pronotum of O. angusticollis is elongate and the elytra are two and a half times as long as their greatest combined breadth. The legs are more slender than those of sculpticollis and the anterior tibiae have three, widely spaced external teeth as well as the apical spur.

Holotype : In the Muséum d'Histoire Naturelle, Paris. Perthes, Marne, France. In a cork-oak (Delarouzée).

Distribution. — France, Dalmatia, Sudan, Abyssinia, Kenya, Tanganyika Territory, N. Rhodesia, Bechuanaland, Cape Province.

The synonymy quoted above is based upon a personal examination of the holotype of B. distinctus, very kindly loaned to me by the authorities of the South African Museum, Capetown.

## ASCETODERES gen. n.

Bothrideres Erichson, 1845, Naturg. Ins. Deutschl. Col., 3:288 (pars).

Type species: Bothrideres foveicollis REITTER.

Small to moderate size; elongate-elliptical or cylindrical. Head with eleven-segmented antennae, the last two segments forming a symmetrical club, ultimate segment distinctly smaller than the one preceding; eyes not prominent, ovate, broadest above; antennal grooves beneath head long, clearly marked. Pronotum trapezoidal or more or less cordiform, rarely cylindrical; anterior margin unbordered; anterior angles usually at least slightly produced; lateral margins usually with a distinct and entire lateral border. Elytra elongate, elliptical or parallel-sided; evenly rounded to or slightly sinuate before apicosutural angles; alternate intervals between striae carinate; even intervals punctate, striate, or both. Prosternum with anterior coxae broadly separated by intercoxal process which has a transverse sulcus between coxae (fig. 35). Metasternum without postcoxal ridges. First abdominal segment without postcoxal ridges. Legs with anterior tibiae generally expanded toward apices, apices with a well-marked external spur; intermediate and hind tibiae less broadly expanded toward apices, external spurs frequently less well-marked; tarsi with basal segment sometimes slightly longer than the one following, usually thicker.

Bothrideres was, until now, one of the largest of the Colydid genera, including species from every continent. Erichson, in his original treatment of the genus included B. contractus (Oliv.) from Europe, B. geminatus (Say) from America, B. illusus (Newman) from Australia and B. vittatus (Newman), also from Australia. So constituted, the genus included considerable structural variations of a more or less fundamental nature. Now that many more species have been added to the genus, it is clear that the original conception covered at least two distinct groups of species. These groups are sufficiently different to warrant generic separation.

In the European and American species, the prosternal process, an important structure taxonomically, differs from that of other known species in that it is not thickened and expanded laterally behind the anterior coxae. In fact the anterior coxae overlap the hind border of the prosternum when the insects are viewed directly from below (fig. 36). Also the prosternal process usually shows no transverse division between the coxae as it does in other species. Less constant differences are the absence of lateral borders to the pronotum and the relatively longer antennae of the European and American species.

For these reasons it is clearly necessary to separate the European and American species from the rest of the genus at present called *Bothrideres*.

It is here proposed that the name *Bothrideres* ERICHSON be used in a restricted sense to include only those species with the prosternal characteristics of the European and American species referred to above. A new name *Ascetoderes* is applied above to that group of species, previously assigned to *Bothrideres*, but now removed therefrom in view of their distinct prosternal structure.

## KEY TO AFRICAN SPECIES.

	REY TO AFRICAN SPECIES.
<b>1.</b>	Very elongate, seven times as long as broad; carinae of third, fifth and seventh elytral intervals joined at bases of elytra
	Less elongate, not more than five times as long as broad; carinae of third, fifth and seventh elytral intervals not joined at bases of elytra
2.	Elytral striae grooved(3)
	Elytral striae not grooved(4)
3.	Median pronotal ornamentation an elongate tubercle, all of which is below the level of the pronotal disc; anterior tibiae with four teeth on external edge as well as apical spur; second elytral intervals about as broad on disc as third intervals [festus (HINTON)], p. 106.
	Median pronotal tubercle raised to level of pronotal disc at some part of its length (fig. 19); anterior tibiae each with seven teeth on external edge as well as apical spur; second elytral intervals distinctly narrower on disc than third intervals
4.	Sutural elytral carinae bridged to second carinae at bases; pronotal disc with a single, elongate median tubercle (fig. 20); carinae of fifth elytral intervals joined to those of seventh intervals before reaching elytral apices
	Sutural elytral carinae not bridged to second carinae at bases of elytra; pronotum with a median tubercle, divided before the middle to separate off an almost circular prominence; carinae of fifth elytral intervals ending freely shortly before apical borders
	[foveicollis (Reitter)], p. 108.

## [Ascetoderes filum (GROUVELLE).]

Bothrideres filum Grouvelle, 1915, Festschr. Luxembg. Naturf. Ges., p. 119.

This species is known to me from its description alone and is incorporated in the key using the information contained therein.

Unless the proportions given by Grouvelle are incorrect, this species is remarkably elongate and should be very easily distinguishable if found. Grouvelle comments on its resemblance to a species of *Colydium*, a genus unknown in Africa.

Holotype : In the Musée d'Histoire Naturelle de Luxembourg. Kondue, Congo.

### [Ascetoderes festus (HINTON).]

Bothrideres festus Hinton, 1941, Ann. Mag. Nat. Hist., (11), 7:154.

Length 6 mm. Breadth 1,83 mm.

This species is very closely related to A. watsanus n. sp. (p. 106), differing as explained in the key to species and in the following respects.

The frontal punctures are sometimes confluent and markedly elongate except near vertex. The median pronotal ornament is narrowed medially. The carinae of the third elytral intervals are stopped shortly before reaching the elytral apices which are more obtusely rounded than is the case with *A. watsanus*.

Holotype: In the British Museum (Nat. Hist.), London. Jem-Jem Forest, Abyssinia ca. 9.000 ft. (under bark of dying *Acacia*) (Scott).

Distribution. — The holotype is unique.

#### Ascetoderes watsanus n. sp.

(Fig. 19.)

Length 3,8-7,6 mm. Breadth 1,1-2,1 mm.

Derm black to piceous, not shining. Head with anterior clypeal border broadly and very shallowly emarginate, anterior angles well-marked, obtuse, lateral borders oblique, emarginate; clypeal punctures separated by much less than one diameter, intervals finely shagreened, anterior margin narrowly impunctate; frontoclypeal suture lightly impressed; frontal punctures elongate, often separated by much less than one diameter, less elongate and much more sparsely arranged toward and on vertex, intervals finely and faintly shagreened. Pronotum elongate (49: 43); in outline and discal ornamentation as in figure 19; lateral margins finely and entirely

bordered; discal punctures coarse, feebly elongate, variably separated by up to one diameter, usually by much less; punctures less elongate toward posterior angles; punctures along anterior margin almost round, much smaller than those elsewhere, separated by less than one diameter; mediobasal pronotal sulcus parallel-sided, well-defined and including a median longitudinal carina. Elytra two and one third times as long as their greatest combined breadth, almost parallel-sided for basal three fourths. shoulders rounded, lateral borders feebly sinuate before obtusely rounded apical borders; sutural carinae entire, more strongly raised near apices, joined to carinae of third intervals at bases; carinae of third intervals obtusely raised on disc, sharply raised along apical declivities, almost reaching apical borders; carinae of fifth intervals sharply raised, entire to and ending freely at bases, joined, or almost joined to carinae of seventh intervals near apical borders; carinae of seventh and ninth intervals joined near bases, joined near apices and combined carinae reach apical elytral borders; punctures of striae small, shallow, separated by from one to two diameters; first three striae on each elytron grooved, other striae not grooved; sutural carinae each with an irregular row of punctures, sometimes two punctures wide; other carinae each with a double band of punctures, twice as wide as those of sutural carinae; punctures of carinae much smaller than those of striae.

Holotype: In the Institut des Parcs Nationaux du Congo et du Ruanda-Urundi, Brussels.

 $\rm II/fd/17,~4.IX.1951,~II.~DE~SAEGER,~n\,\circ~2632,~galerie~forestière,~arbres~et~branches~morts~non~tombés~sur~le~sol.$ 

## Paratypes:

6 ex.: with same data as holotype. 1 ex.: II/ge/9, 12.III.1951, H. De Saeger, no 1360, bord de rivière, au sol et sur les arbres (savane herbeuse à ligneux rares au bord de la Nambira); 1 ex.: II/gc/6, 29.VI.1951, J. Verschuren, no 2004, petit ligneux en complète décomposition; [1 ex.: Haut-Uele: Watsa, 1922 (L. Burgeon) (Musée Royal de l'Afrique Centrale, Tervuren)].

#### Ascetoderes conradsi n. sp.

(Fig. 20, 35.)

Length 5,8-9 mm. Breadth 1,7-2,5 mm.

Derm piceous-black, matt. Head with anterior clypeal border shallowly emarginate, anterior angles well-marked, lateral borders oblique, emarginate; punctures almost as large as eye facets, separated by much less than one diameter; frontoclypeal suture impressed, very shallowly arcuate; frons convex, punctures distinctly larger than those of clypeus, increasing in size posteriorly, separated by less than one, often by less than half of one diameter. Pronotum distinctly elongate (43:33); convex; trapezoidal;

anterior border truncate or very slightly emarginate medially, arcuate laterally, sinuate near produced anterior angles; lateral margins entirely and rather finely bordered, convergent near anterior angles; pronotum narrowed posteriorly from very shortly behind anterior angles to very slightly produced, feebly arcuate posterior angles; discal ornementation as in figure 20; mediobasal sulcus deep, clearly formed; sulcus surrounding impunctate median area narrow, sharply defined; discal punctures similar to those of frons, separated by less than one diameter, punctures toward posterior angles a little larger than those on disc, separated by one diameter or more, punctures toward and along anterior margin smaller than those of disc, especially anteromedially where they are much smaller than those of frons, separated by less than one diameter, sometimes by less than half a diameter; punctures each with a minute, golden, recumbent, inconspicuous seta. Elytra two and two thirds times as long as their greatest combined breadth; parallel-sided for basal three fourths, very briefly narrowed to shoulders, lateral borders briefly sinuate before obtusely rounded apical borders; sutural carinae broadly raised, entire from bases to apices; carinae of third intervals more sharply and strongly raised, entire from bases to apical borders; carinae of fifth intervals sharp, entire from bases to apices, joined shortly before apices, first by carinae of seventh and then by carinae of ninth intervals; carinae of seventh and ninth intervals joined at shoulders, carinae of ninth intervals almost obliterated for most of basal half; strial punctures coarse, slightly larger than the largest pronotal punctures, separated on second intervals by less than one diameter, on other intervals by rather more than one diameter; striae separated transversely by slightly more than one diameter; sutural carinae each with a single row of sparse, very fine punctures bearing minute, recumbent setae, other carinae each with two rows of sparse, minute, setiferous punctures.

Holotype: In the British Museum (Nat. Hist.), London. [Ukerewe, Id., Tanganyika Territory (CONRADS).]

#### Paratypes:

[27 ex.: with same data as holotype]. 1 ex.: II/fd/17, 5.IX.1951, H. De Saeger, n° 2364, galerie forestière dense, troncs d'arbres en décomposition; 1 ex.: II/fd/17, 7.V.1952, H. De Saeger, n° 3446, galerie forestière (massif), dans les bois morts en décomposition avancée.

## [Ascetoderes foveicollis (REITTER).]

Bothrideres foveicollis Reitter, 1877, Stett. Ent. Ztg., 38:348.

Bothrideres impressus Pascoe, 1887, Ann. Mag. Nat. Hist., (5), 20:9 (syn. nov.).

Length 4,7-8,7 mm. Breadth 1,4-2,75 mm.

This species is easily distinguishable from the previous one by the characters referred to in the key to species.

Although I have not seen the holotype of REITTER's species, it is clear from the description that he gives that it is conspecific with Pascoe's *B. impressus* — the holotype of the latter being in the British Museum (Nat. Hist.).

 ${\tt Holotype:}$  Probably in the Hungarian National Museum, Budapest. Cape of Good Hope.

Distribution. — Cape Province.

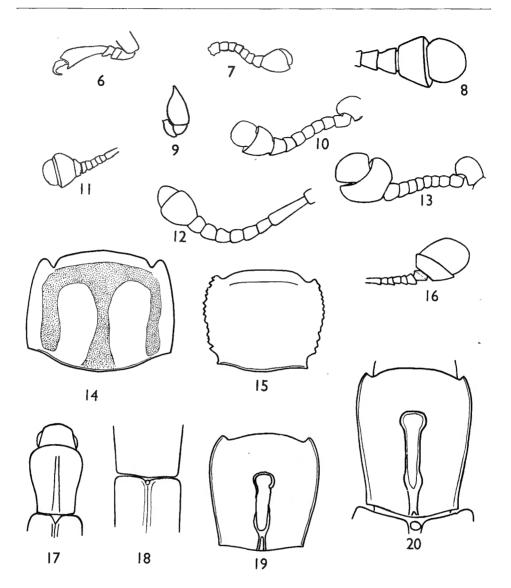


FIG. 6: Pabula africana n. sp.: tarsus, — Fig. 7: Triboderus nitidus Pope: antenna. Fig. 8: Teredolaemus impressipennis Heinze: antennal club. — Fig. 9: Anopidium errans Pope: maxillary palpus. — Fig. 10: Triboderus capicola (Péringuey): antenna. Fig. 11: Teredolaemus problematicus n. sp.; antennal club. — Fig. 12: Pabula africana n. sp.: antenna. — Fig. 13: Antibothrus elongatus n. sp.: antenna. — Fig. 14: Synchita lineatosquamosa Grouvelle: pronotal outline (Fasciae stippled). — Fig. 15: Synchita crenicollis Wollaston: pronotal outline. — Fig. 16: Teredolaemus kraatzi Heinze: antenna. — Fig. 17: Craspedophilus kraatzi Heinze. To show pronotum at base and elytra at shoulders. — Fig. 18: Sosylus bistriatus Fairmaire. To show pronotum at base and elytra at shoulders. — Fig. 19: Ascetoderes watsanus n. sp.: pronotal outline. — Fig. 20: Ascetoderes conradsi n. sp.: pronotal outline.

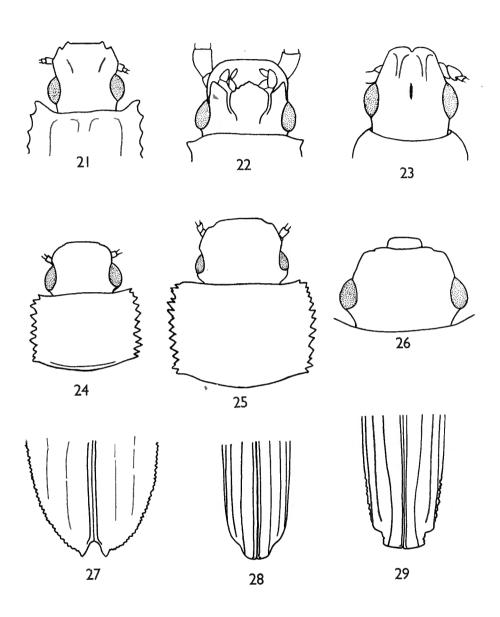


FIG. 21: Microprius decoratus n. sp.: head. — FIG. 22: Rhopalocerus rondanii (VILLA). Underside of head showing lateral extensions. — FIG. 23: Antibothrus elongatus n. sp.: head. — FIG. 24: Sprecodes ater (GROUVELLE): head and pronotum. — FIG. 25: Sprecodes transvalicus (GROUVELLE): head and pronotum. — FIG. 26: Pabula africana n. sp.: head. — FIG. 27: Microprius decoratus n. sp.: elytral apices. — FIG. 28: Machlotes hintoni Malkin: elytral apices. — FIG. 29: Machlotes obscurus Malkin: elytral apices.

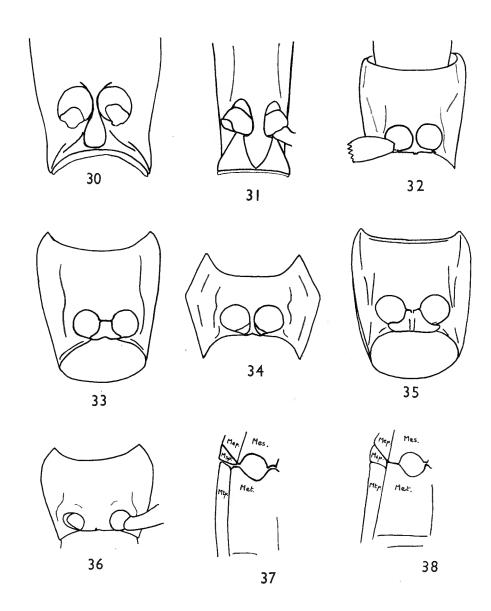


Fig. 30: Mecedanum giganteum (Kraatz): prosternum. — Fig. 31: Aprostoma anguliceps Pope: prosternum. — Fig. 32: Shekarus ornatus n. sp.: prosternum. — Fig. 33: Triboderus capicola (Péringuey): prosternum. — Fig. 34: Antibothrus sulcicollis Pope: prosternum. — Fig. 35: Ascetoderes conradsi n. sp.: prosternum. — Fig. 36: Bothrideres contractus (Olivier): prosternum. — Fig. 37: Ocholissa humeralis Fairmaire: midcoxal cavity. — Fig. 38: Synchita lineatosquamosa Grouvelle: midcoxal cavity. Mes.: Mesosternum; Met.: Metasternum; Mep.: Mesepisternum; Msp.: Mesepimeron; Mtp.: Metepisternum.

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