

Article II.—A SYNOPSIS OF THE MUTILLIDÆ OF THE BELGIAN CONGO¹

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The present revision of the Mutillidæ of the Belgian Congo is based upon material derived from several sources. The American Museum Congo Expedition collected over one hundred specimens belonging to 24 species and varieties. To these were added a number of specimens obtained by the junior author during 1913–1914 and the extensive, unnamed material of the Congo Museum at Tervueren, Belgium. We were enabled to examine the latter through the kindness of Dr. H. Schouteden, who has also allowed us to study the many types of Congo species recently described by Bischoff. Of the 161 species and varieties of Mutillidæ known from our territory, 135 have been seen by us.

Our work has been greatly facilitated by the recent publication of Bischoff's 'Monograph of African Mutillidæ,'⁴ wherein the widely scattered descriptions are brought together and critically studied, while numbers of new forms are made known. It is on the whole a thorough work making a considerable advance in the knowledge of these insects. Our studies, during which we have examined many of Bischoff's types or specimens named by him, have led us in several instances to different conclusions, but this is largely due to the smaller number of forms we had to deal with, so that we could devote more time to an examination of their structural characters.

We believe that genera should be not only strictly definable but should also cover fairly natural groups of species. Many of the generic groups proposed or accepted by Bischoff do not seem to stand this test, and we have been obliged to reduce some of them to subgeneric rank or to drop them altogether. It is probable that more prolonged study will make further reductions necessary. We also frequently disagree with Bischoff as to his treatment of certain forms as subspecies; when these, as we have found, are amply distinct in structural peculiarities, they should be treated as species. Mere variations of color, which in many cases appear to be purely individual rather than to represent strict geographic races or subspecies, we have ranked as varieties.

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⁴H. Bischoff. 1920–1921. 'Monographie der Mutilliden Afrikas.' Arch. f. Naturgesch., LXXXVI, Abt. A, parts 1–5, pp. 1–830, 1 Map.

Our keys to genera and species are based upon original observations, though in the case of certain forms unknown to us we had, of course, to rely upon Bischoff's work. In the keys to the species we have given preference to structural characters, since their study gives a much greater certitude of identification. These keys also contain a number of forms which have been found near the frontiers of the Belgian Congo and some others which we have studied for comparison with the Congo species. It has seemed unnecessary to reproduce full descriptions since these are all conveniently brought together in Bischoff's 'Monograph.'

NEW NAMES PROPOSED IN THIS PAPER

Odontomutilla quadrilobata, new species. Type locality: Stanleyville; p. 85.

Ctenotilla langi, new species. Type locality: Faradje, p. 116.

Smicromyrme (Glossotilla) katangensis, new name; for *Glossotilla kamboveana* Bischoff, not *Smicromyrme (Trogaspidia) kamboveana* (Bischoff); p. 105.

Smicromyrme (Glossotilla) leonina var. *alboannularis*, new name; for *Glossotilla kibomboana* Bischoff, not *Smicromyrme (Trogaspidia) bugalana* var. *kibomboana* (Bischoff); p. 106.

Smicromyrme (Smicromyrme) camporum, new name; for *Smicromyrme mufungwana* Bischoff, not *Smicromyrme (Trogaspidia) mufungwana* (Bischoff); p. 104.

Smicromyrme (Smicromyrme) elisabethæ, new name; for *Smicromyrme congoana* Bischoff, not *Smicromyrme (Pristomutilla) congoana* (Bischoff); p. 103.

APPROXIMATE LOCATION OF LOCALITIES¹

Albertville.—6° S., 29° E.

Angu.—3° 30' N., 24° 20' E.

Ankoro.—6° 50' S., 26° 50' E.

Api.—3° 40' N., 25° 25' E.

Asmara.—15° 20' N., 39° E.

Bahr-el-Salaam.—12° 55' to 13° 50' N.,
36° 10' to 37° 30' E.

Bambili.—3° 45' N., 26° 10' E.

Banana.—6° S., 12° 20' E.

Bangu.—5° 20' S., 14° 30' E.

Bangweolo (L.).—30° S., 10° 40' to 11°
30' E.

Baraka.—4° 15' S., 28° 50' E.

Barumbu.—1° 10' N., 23° 20' E.

Bena Bendi.—4° 15' S., 20° 20' E.

Beni.—0° 20' N., 29° 40' E.

Berbera.—10° 25' N., 45° 5' E.

Bismarckburg.—8° 5' N., 1° 20' E.

Bolama.—11° 35' N., 15° 35' W.

Boma.—5° 50' S., 13° 10' E.

Boma Sundi.—5° 20' S., 12° 50' E.

Bomu (Riv.).—5° 30' to 4° N., 27° to 22°
20' E.

*Bongo-Congo, Belgian Congo
(Mayombe).

Boyenge.—0° 25' N., 18° 45' E.

Brazzaville.—4° 25' S., 15° 20' E.

Bugalla (Isl.).—0° 30' S., 32° 15' E.

Bukama.—9° 15' S., 25° 40' E.

Bumbuli.—3° 20' S., 20° 35' E.

Bunkeya.—10° 25' S., 26° 55' E.

*Catamba, Lourenço Marques.

Chinchoxo.—5° 15' S., 12° 15' E.

Congo da Lemba.—5° 40' S., 13° 40' E.

Delagoa.—26° S., 32° 40' E.

¹Several of the Belgian Congo localities, including some of the type localities, were misspelled in Bischoff's Monograph. These have been corrected in the present paper. Localities not found on any map are marked with an asterisk.

- Dima.—3° 20' S., 17° 20' E.
 Djibuti.—11° 30' N., 43° 15' E.
 Domira Bay.—13° 30' S., 34° 15' E.
 Doruma.—4° 40' N., 27° 35' E.
 Duma.—3° 50' N., 18° 35' E.
 Dungu.—3° 30' N., 28° 30' E.
 Durban.—29° 50' S., 31° E.

 Eala.—0° 1' N., 18° 25' E.
 Edward (Lake).—0° to 0° 30' S., 29° 30' E.
 Elgon (Mt.).—1° N., 34° 30' E.
 Elisabethville.—11° 45' S., 27° 40' E.

 Faradje.—3° 40' N., 29° 40' E.
 Fernand Vaz.—1° 40' N., 10° E.
 Finik.—7° N., 42° 20' E.
 Fort Jameson.—13° 30' S., 32° 15' E.
 Fundabiabo.—9° 50' S., 25° 30' E.
 Fungwe (R.).—9° to 9° 30' S., 26° 20' E.

 Garamba.—4° 10' N., 29° 40' E.
 Garua.—9° 20' N., 13° 20' E.
 Gelani.—7° N., 40° 40' E.
 Ghinda.—15° 35' N., 39° E.

 Ikelemba (R.).—0° 20' N., 18° 15' to 20° 20' E.
 Irumu.—1° 20' N., 30° E.

 Joko.—5° 35' N., 12° 20' E.

 Kabare.—0° 35' S., 29° 30' E.
 Kachiobwe.—9° 50' S., 28° 45' E.
 Kalembe-lembe.—4° 30' S., 28° 40' E.
 Kalengwe.—9° 20' S., 25° 50' E.
 Kalumba.—10° S., 28° 50' E.
 *Kamaiembi, near Luebo.
 Kambove.—10° 50' S., 26° 35' E.
 Kapiri.—10° 15' S., 26° 20' E.
 Karemi.—0° 5' N., 29° 40' E.
 Kasai (R.).—3° to 10° S., 16° to 22° E.
 Kasenga.—10° 15' S., 28° 45' E.
 Kasindi.—0°, 29° 40' E.
 Kasongo.—4° 20' S., 26° 25' E.
 Kasonsero.—1° N., 30° 10' E.
 Katala.—6° S., 12° 45' E.
 Kiambi.—7° 20' S., 27° 55' E.

 Kibimbi.—5° 25' S., 27° E.
 Kibombo.—4° S., 26° E.
 Kigoma.—4° 50' S., 29° 35' E.
 Kikondja.—8° 10' S., 26° 25' E.
 Kilo.—1° 55' N., 30° E.
 Kilwa.—9° 20' S., 28° 25' E.
 Kinda.—9° 5' S., 25° E.
 Kindu.—3° S., 26° E.
 Kinshasa.—4° 20' S., 15° 20' E.
 Kipochi.—11° 45' S., 28° 30' E.
 Kisantu.—5° 10' S., 15° 10' E.
 Kitompo.—9° 10' S., 26° 15' E.
 Kivu (Lake).—2° S., 29° E.
 Klerksdorp.—26° 50' S., 26° 40' E.
 Kondue.—4° 55' S., 23° 15' E.
 Kongolo.—5° 25' S., 27° E.
 Kotakota.—12° 45' S., 34° 15' E.
 Kufuru.—4° 40' N., 23° 30' E.
 Kundelungu.—9° to 10° S., 28° E.
 Kunzulu.—3° 35' S., 16° 10' E.
 Kwa Kitoto.—0° 5' S., 35° 10' E.
 Kwilu (R.).—3° to 9° S., 17° to 20° E.

 Laga.—6° 45' N., 41° 35' E.
 Langenburg.—9° 35' S., 34° 10' E.
 Lanuri.—0° 35' N., 29° 55' E.
 Lemba.—5° 40' S., 12° 45' E.
 Leopold II (Lake).—2° S., 18° 15' E.
 Leopoldville.—4° 25' S., 15° 20' E.
 Lesse.—0° 40' N., 29° 40' E.
 Leverville.—5° 10' S., 18° 40' E.
 Lichtenburg.—26° 10' S., 26° 10' E.
 Loanda.—8° 55' S., 13° 10' E.
 Loangwa (R.).—11° to 16° S., 30° to 33° E.
 Lofoi.—10° 15' S., 27° 30' E.
 Lolodorf.—3° 15' N., 10° 40' E.
 Lourenzo Marques.—26° S., 32° 35' E.
 Lualaba (R.).—1° to 12° S., 25° to 27° E.
 Luali.—5° S., 12° 25' E.
 Luanza.—8° 45' S., 28° 45' E.
 Lubumbashi (R.).—11° 45' S., 27° 40' E.
 Luebo.—5° 25' S., 21° 25' E.
 Lufira (R.).—11° 30' S., 26° 45' E.
 Lufubu (R.).—5° 35' to 4° 10' S., 26° E.
 Lukafu.—10° 35' S., 27° 30' E.
 Lukenge.—4° 55' S., 23° 15' E.
 Lukonzolwa.—8° 50' S., 28° 40' E.

Lukuga (R.).—6° S., 27° to 29° E.
 Lukungu (R.).—5° to 5° 30' S., 14° 15' to 14° 45' E.
 Luluabourg.—6° S., 22° 30' E.
 Lundazi (R.).—12° 20' S., 22° 15' E.
 Lusambo.—4° 55' S., 23° 15' E.
 *Lusindoi, Belgian Congo (Manyema).
 Luvu, Mayombe.—5° 5' S., 13° E.

Madyu, near Moto.

*Makungu, Mayombe, Belgian Congo.
 Malange.—9° 35' S., 16° 25' E.
 Malela, Lower Congo.—6° S., 12° 40' E.
 Malela, Manyema.—4° 15' S., 26° E.
 Manyema.—3° to 5° S., 26° to 29° E.
 Mawambi.—1° 10' N., 28° 45' E.
 Mayombe.—5° S., 13° E.
 Medje.—2° 25' N., 27° 30' E.
 Meru (Mt.).—3° 15' S., 36° 45' E.
 Metit.—3° 45' N., 11° 35' E.
 Mikesse.—6° 45' S., 38° E.
 Milmil.—8° 20' N., 43° 50' E.
 Mlanje.—16° S., 35° 35' E.
 Moero (L.).—9° S., 29° E.
 Mondombe.—0° 35' S., 22° 30' E.
 Morogoro.—6° 50' S., 37° 50' E.
 Moto.—3° N., 29° 30' E.
 Mpala.—6° 45' S., 29° 20' E.
 *Msisi, Uganda (probably Musisi River).
 Mufungwa, see Sampwe.
 Musisi (R.).—1° 15' N., 30° 30' to 31° 20' E.

Ngare Dobash.—2° 20' S., 33° 50' to 35° 30' E.
 Ngombe, Kasai.—0° 35' S., 17° 50' E.
 Niangara.—3° 40' N., 27° 50' E.
 Niamba.—6° S., 28° 30' E.
 Niembo.—4° 30' S., 28° 15' E.
 Nkolentanga.—1° 50' N., 10° 50' E.
 Nyangwe.—4° 15' S., 26° 15' E.

Oshwe.—3° 20' S., 19° 35' E.
 Otjosondou.—21° 15' S., 17° 50' E.

*Pakasa, Northern Rhodesia.
 Panda.—11° S., 26° 50' E.
 Poko.—2° 10' N., 26° 50' E.

Port Natal, see Durban.
 Pretoria.—25° 40' S., 28° 15' E.
 Punga.—11° 40' S., 28° 30' E.
 Pungwe (R.).—18° 45' to 19° 50' S., 33° to 34° 55' E.

*Refunsa, Northern Rhodesia.
 Rikatla.—25° 45' S., 32° 35' E.
 Rutshuru.—1° 15' S., 29° 30' E.
 Ruwenzori (Mt.).—0° 30' N., 29° 50' E.

Sabaki.—3° S., 38° 30' E.
 Salisbury.—17° 45' S., 31° E.
 Sampwe.—9° 30' S., 27° 25' E.
 Sanga (R.).—5° N., to 1° S., 16° to 17° E.
 Sankisia.—9° 30' S., 25° 55' E.
 San Thomé (Is.).—0° 20' N., 6° 43' E.
 Serenje.—13° S., 31° E.
 Sesse (Isl.).—0° 25' S., 32° 30' E.
 Shebeli.—7° to 1° N., 42° to 46° E.
 Sheikh Hussein.—7° 45' N., 40° 45' E.
 Shiloango (R.).—5° S., 12° to 13° E.
 Sokele, see Lukonzolwa.
 Sona Gungu, see Thysville.
 Stanley Pool.—40° 15' S., 15° 30' E.
 Stanleyville.—0° 30' N., 25° 15' E.
 Surunga.—3° 45' N., 27° 25' E.

Tabora.—5° 10' S., 32° 50' E.
 Tanganyika (Lake).—3° to 9° S., 29° to 31° E.
 Taveta.—3° 25' S., 37° 45' E.
 Thysville.—5° 30' S., 15° E.
 Tsavo (R.).—3° S., 38° 25' E.
 Tshikapa.—6° 30' S., 20° 25' E.
 Tschimpondo.—5° 15' S., 12° 40' E.

Ubangi (R.).—0° to 5° N., 18° to 23° E.
 Uele (R.).—3° 30' N., 23° to 30° E.
 Uelleburg.—1° 45' N., 10° 35' E.
 Uere (R.).—3° 30' to 4° 30' N., 27° 30' to 25° 20' E.
 Ukaika.—0° 45' N., 29° E.
 Umfuli (R.).—17° 10' to 18° 25' S., 29° 35' to 31° 30' E.
 Unyoro.—1° 50' N., 31° 35' E.
 Usambara.—5° 50' S., 38° 40' E.

Vieux-Kasongo.—4° 30' S., 26° 35' E.

Volta (R.).—13° to 6° N., 1° W. to 0° 30' E.	Yakoma.—4° N., 22° 20' E.
	Yakuluku.—4° 20' N., 28° 50' E.
	Yambata.—2° 20' N., 22° 5' E.
Walikale.—1° 25' S., 28° E.	
Watsa.—3° N., 29° 40' E.	Zambi.—6° S., 12° 50' E.
Whydah.—6° 20' N., 2° E.	*Zila-Zambi, Belgian Congo (Mayombe).
Wombali.—2° 20' S., 17° 10' E.	Zobe.—5° S., 12° 35' E.

KEY TO THE SUBFAMILIES OF MUTILLIDÆ

In a forthcoming paper on the classification of the Hymenoptera we propose to consider in detail the characters and relationships of the family Mutillidæ. Suffice it is to say that we no longer include in it the Myrmosinæ and Methocinæ, which we believe are rather related to the Typhiinæ. *Bradynobænus* we regard as allied to the Scoliidæ; while the Plumariidæ are not closely allied to the Mutillidæ, the external similarity with certain members of that family being a case of convergence due to similarity in nocturnal habits.

1. Mesosternum with two posterior laminæ overlying the bases of the coxæ. Hypopygium of male uniform. Hind wing with an anal lobe. First tergite reaching the propodeum. Nocturnal, with enlarged eyes and ocelli. Female unknown.
BRACHYCISTINÆ.
- Mesosternum without such laminæ.....2.
2. Hypopygium of male unciform. First tergite not reaching the propodeum, the base of the petiole being formed only by the sternite. Hind wing with an anal lobe. Female with prothorax completely separated by a suture from the mesothorax.....3.
- Hypopygium of male not unciform. First tergite reaching the base of the petiole. Female with the three parts of the thorax completely fused into a highly chitinized box; rarely incompletely divided by non-functional, ankylosed sutures.....4.
3. First and second abdominal segments each nodiform.....APTEROGYNINÆ.
At most only first abdominal segment nodiform at apex.....CHYPHOTINÆ.
4. Hind wing with an anal lobe. Ethiopian females not certainly known, but probably with the pronotum poorly separated from the mesonotum. (Here comes perhaps *Typhoctes* Ashmead, of which the female alone is known).
PHOTOPSIDINÆ.
- Hind wing without an anal lobe. Male rarely apterous or subapterous. Female with thorax of a single piece, rarely with traces of chitinized sutures. Female without ocelli (except *Ephutomma*).....MUTILLINÆ.

The Brachycistinæ and Chyphotinæ are not found in Africa. *Pseudophotopsis*, the only African genus of the Photopsidinæ, is a Palearctic type, a few species of which reach the Anglo-Egyptian Sudan and Eritrea. *Apterogyna*, the only representative of the Apterogyninæ, occurs in North, East, and South Africa; one species has been described from

Northeast Rhodesia, so that the genus may be expected in the Katanga district of the Belgian Congo. Thus far, however, all the Mutillidæ known from our territory, belong to the subfamily Mutillinæ.

Mutillinæ

Key to the Genera of the Ethiopian Region

MALES

In preparing the present key, specimens of the following genera have not been before us: *Labidomilla*, *Odontilla*, *Nanomutilla*, *Apterotilla*, *Hadrotilla*, *Antennotilla*, *Bisulcotilla*, *Cephalotilla*, and *Pseudocephalotilla*. The two last-named genera have not been included. Assuming that the felt grooves are situated on the second tergite, a character not mentioned by Bischoff, they would run to the alternatives under No. 19. In both genera the scutellum is neither pyramidal nor provided with a median keel. In addition they may be characterized as follows:

Cephalotilla. Eyes weakly emarginate. Head unusually large and transverse, the hind angles often spinose. Mandibles unarmed externally. Second segment of flagellum distinctly shorter than the third. Anterior margin of pronotum more or less lobed or toothed. Scutellum flat. Tegulæ large. Seventh sternite mostly simple; the eighth beset with dense and long bristles.

Pseudocephalotilla. Eyes more deeply emarginate. Head as in *Cephalotilla*. Mandibles sometimes toothed on the outer margin. Anterior margin of pronotum at most weakly keeled. Seventh sternite simple; the eighth usually not strikingly beset with bristles.

The males of the following Ethiopian genera are as yet unknown: *Ctenotilla*, *Sulcotilla*, and *Promecilla*.

1. Male wingless.....2.
- Male winged.....6.
2. Dorsum of thorax at most with indistinct segmentation.....*Brachymutilla*.
- Dorsum of thorax with distinct segmentation, strongly contracted in the mesonotal region.....3.
3. Scutellum produced behind into a point.....*Nanomutilla*.
- Scutellum not produced into a point.....4.
4. Head narrower than the thorax.....*Apterotilla*.
- Head large, broader than the thorax.....5.
5. Thorax produced behind on each side into a strong, pointed spine...*Odontotilla*.
- Thorax simply rounded behind.....*Myrmilla*.
6. Second cubital cell petiolate.....*Nanomutilla*.
- Second cubital cell not petiolate.....7.
7. Flagellum of antennæ bipectinate or the apex of each antennal segment produced over the succeeding one. Felted grooves present on both second tergite and sternite.....8.
- Antennæ simple.....9.

8. Flagellum of antennæ bipectinate. *Psammotherma*.
Flagellum of antennæ with the apex of each segment produced over the base of the following one. *Antennotilla*.
9. Nocturnal species, with greatly enlarged ocelli. 10.
Diurnal species, with normal ocelli. 11.
10. Tegulæ very small, scale-like, rounded behind and impunctate. . *Tricholabioides*.
Tegulæ moderately elongate, recurved behind, their surface punctate. *Ephutomma*.
11. Sides of the scutellum forming an overhanging plate and produced posteriorly into an acute, flat tooth, which is either horizontal or slopes downward. . 12.
Scutellum not of this shape; if flattened, its sides are not produced into acute lobes. (In some *Tropidotilla* the hind margin is produced into two upturned lobes; in some *Dasylabris* the sides of the mesonotum are produced into a backward extending lobe on each side of the scutellum). Lateral angles of propodeum rounded. 13.
12. Felted grooves present on the sides of both second sternite and tergite. Lateral angles of the propodeum rounded. *Bisulcotilla*.
Felted grooves present on the sides of the second tergite only. Lateral angles of the propodeum produced into a blunt tubercle, plate, or tooth. *Odontomutilla*.
13. Neither the second tergite nor sternite with lateral felted grooves. Scutellum gibbous or pyramidal. First abdominal segment petiolate. . *Rhopalomutilla*.
Either the second sternite, or tergite, or both with felted lateral grooves. . . 14.
14. Felted grooves on both second sternite and tergite. Flagellum of antennæ with its first segment widened, concave beneath, and ciliate; its second segment as long as the third. *Lophotilla*.
Felted grooves placed either on the second sternite or tergite. 15.
15. Felted grooves on the second sternite. First abdominal segment petiolate and nodose. *Stenomutilla*.
Felted grooves on the second tergite. 16.
16. Eyes broadly oval, not emarginate within. First abdominal segment nodose, strongly differentiated from the second, often petiolate. 17.
Eyes reniform, emarginate. First abdominal segment not nodose, gradually merging into the second from which it may be slightly constricted; never petiolate. 18.
17. Tegulæ small, but punctate and hirsute all over. Second segment of flagellum never more than half the length of the third and as wide as long. Mesonotum produced posteriorly on each side of the scutellum into a tubercle or plate. *Dasylabris*.
Tegulæ cup-like and impunctate behind. Second segment of flagellum usually more than half the length of the third, always longer than wide. Sides of mesonotum not produced posteriorly. *Dasylabroides*.
18. Tegulæ very small, round and not pointed behind, strongly convex, impunctate except along their inner and anterior margin. 19.
Tegulæ elongate, recurved posteriorly, their surface more or less punctate. . . 21.
19. Head very large, much broader than the thorax. *Labidomilla*.
Head of much smaller size. 20.
20. Second segment of flagellum distinctly shorter than the third. . . *Squamulotilla*.

- Second segment of flagellum about as long as the third. *Myrmilla*.
21. Second segment of flagellum not more than half the length of the third and as wide as long; the third always longer than wide. *Smicromyrme*, proper.
 Second segment of flagellum more than half the length of the third, usually as long as or longer than the third and longer than wide; or if no longer than wide then the third is also no longer than wide. 22.
22. First segment of flagellum widened and somewhat concave beneath, usually with a distinct scopa. *Lophotilla*.
 First segment of flagellum of the usual shape. 23.
23. Last sternite with a longitudinal, median keel. *Tropidotilla*.
 Last sternite without longitudinal keel. 24.
24. Scutellum strongly conically elevated or at least with a median keel which slopes upward and is truncate behind. 25.
 Scutellum more or less flat or convex, at most with a median ridge which is not elevated posteriorly. 27.
25. Mandibles armed with a tooth on their external, lower margin.
Smicromyrme subgenus *Trogaspidia*.
 Mandibles unarmed externally. 26.
26. Wings entirely infuscated. Last abdominal sternite unarmed.
Smicromyrme subgenus *Trispilotilla*.
 Wings hyaline at the extreme tip and at the base. Last sternite armed either with a transverse plate or with two tubercles. *Dolichomutilla*.
27. Propodeum medially without a distinct dorsal surface. Last sternite unarmed.
Hadrotilla.
 Propodeum medially with a distinct dorsal surface. 28.
28. Last sternite almost always armed with ridges, tubercles, or lamellæ; its puncturation not uniformly distributed. First tergite slender anteriorly, widened toward the apex, but less so than in *Mutilla* and without a distinct dorsal surface continuous with that of the second. 29.
 Last sternite flat and uniformly punctate, unarmed. First tergite transverse, broadly widened at apex where it has a distinct dorsal surface continuous with that of the second. *Mutilla*.
29. Mandibles unarmed externally. *Smicromyrme* subgenus *Spinulotilla*.
 Mandibles armed with a tooth on their external, lower margin.
Smicromyrme subgenus *Glossotilla*.

FEMALES

We have not seen female specimens of the following genera: *Sulcotilla*, *Liotilla*, *Nanomutilla*, *Tricholabioides*, *Brachymutilla*, *Hadrotilla*, and *Promecilla*. Of these only *Sulcotilla* has been included in our key. The others are not sufficiently characterized that we could, without examination of specimens, insert them in their proper place. We have been unable to find differences of generic value between the females of *Odontomutilla* and *Mutilla*, though in the male sex these two genera are abundantly distinct. It is possible that in this case the two sexes have not been properly associated.

The females of the following Ethiopian genera are as yet unrecognized: *Cephalotilla*, *Pseudocephalotilla*, *Apterotilla*, *Antennotilla*, *Psammotherna*, *Bisulcotilla*, *Lophotilla*, and *Squamulotilla*.

1. First abdominal tergite nodose. 2.
First abdominal tergite not nodose. 4.
2. Felted grooves on the second sternite only. No pygidial area limited by lateral carinæ. *Stenomutilla*.
No felted grooves on the second sternite. 3.
3. Felted grooves on the second tergite. A pygidial area limited by lateral carinæ usually present (except in *D. foxi* Bradley and Bequaert) . . . *Dasylabris*.
No felted grooves on either second sternite or tergite. Pygidium present. *Rhopalomutilla*, in part.
4. No felted grooves on either second sternite or tergite. Antennæ clavate; the segments of the flagellum transverse. First abdominal tergite as broad as second, with a long dorsal surface. *Rhopalomutilla*, in part.
Felted grooves on the second tergite. Antennæ not clavate. 5.
5. A pygidial area limited by lateral carinæ present. 6.
No pygidial area limited by lateral carinæ. 20.
6. A transverse, chitinated suture dividing the propodeum from the mesonotum. Ocelli present. *Ephutomma*.
No suture between propodeum and mesonotum, the division between these two regions at most indicated by a smooth line or an interruption of the sculpture. Ocelli always absent. 7.
7. Pronotum with a deep pit, bordered laterally by a carina. *Sulcotilla*.
Pronotum without such a pit. 8.
8. Second tergite with a pair of discal or basal pubescent spots. 9.
Second tergite without spots, or with one median spot, or with a transverse row of three discal spots. 14.
9. Superior margin of hind face of thorax with a regular, transverse row of tubercles, spines or teeth. *Smicromyrme* subgenus *Pristomutilla*.
Superior margin of hind face of thorax unarmed or if tuberculate the processes are not placed regularly in a transverse row. 10.
10. First tergite greatly broadened at the apex, distinct, transverse, meeting the second at the dorsal surface of the abdomen and usually itself with a distinct dorsal aspect. *Mutilla* (group of *Pycnotilla*).
First tergite moderately widened at apex, hardly transverse, never with a distinct dorsal surface, joining the second on the anterior face of the abdomen. 11.
11. Apical spot on first tergite present. . . *Smicromyrme* subgenus *Trispilotilla*.
No apical spot on first tergite. 12.
12. Second tergite with testaceous integumental spots. *Smicromyrme* subgenus *Viereckia*.
Second tergite without testaceous spots in the integument. 13.
13. Pygidial area with a median lobe, the lateral carinæ stopping abruptly before reaching the apex. *Smicromyrme* subgenus *Trogaspidia*.
Pygidial area without a median lobe, the lateral carinæ not abruptly stopping before the apex. *Smicromyrme* subgenus *Glossotilla*.
14. Second tergite without discal or apical spots. 15.

- Second tergite with one spot or with a transverse row of three discal spots. . . . 18.
15. Upper margin of hind margin of propodeum with several long spines. . . *Ctenotilla*.
Upper margin of propodeum unarmed. 16.
16. Thorax narrowed posteriorly. First tergite transverse, broad at apex and with somewhat of a dorsal aspect behind. *Dasylabroides*.
Thorax not narrowed, often widened behind. 17.
17. First tergite transverse, strongly widened at apex, joining the second at its dorsal surface; its posterior surface usually presenting a distinct dorsal aspect. *Tropidotilla* and *Mutilla* (group of *Pycnotilla*).
First tergite scarcely transverse, less widened behind, joining the second on its cephalic aspect; its posterior surface not dorsal.
Smicromyrme subgenus *Glossotilla*.
18. First tergite very broad, its posterior part with a well-marked dorsal surface.
Odontotilla.
First tergite only moderately broadened behind, joining the second on its cephalic aspect, without any dorsal surface. 19.
19. Dorsal edge of posterior surface of propodeum with long spines. . . *Ctenotilla*.
Dorsal edge of posterior surface of propodeum unarmed. *Smicromyrme*.
20. Last sternite with lateral processes. Second sternite with a median keel.
Dolichomutilla.
Last and second sternites unarmed, or the second sternite with three carinae. . 21.
21. First tergite with an anterior surface, meeting at an angle a distinct posterior dorsal surface which is continuous with that of the second.
Odontomutilla and *Mutilla*.
First tergite curving gradually upward, displaying only an anterior and no distinct dorsal surface. 22.
22. Apex of last tergite tri-lobed; its surface rugulose.
Smicromyrme subgenus *Trispilotilla*.
Apex of last tergite acute; its surface smooth. 23.
23. Mandibles slender, not tapered, ending in two equal teeth. Head large.
Labidomilla.
Mandibles broad; the apex ending in one tooth; with additional smaller teeth or lobes on the inner margin. Head smaller. *Myrmilla*.

MYRMILLA Wesmael

Myrmilla jankisiana (Bischoff)

Glossotilla jankisiana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 466 (♀), Pl. VI, fig. 213.

TYPE LOCALITY.—Sankisia ["Jankisia"], Belgian Congo (J. Bequaert).

An examination of the type specimen reveals the absence of a pygidial area proper, so that we believe that this small species belongs much more naturally in the genus *Myrmilla*.

LABIDOMILLA André

The female type of *Labidomilla bilobata* Bischoff is before us and we find that it could not run to this genus in the key presented by Bischoff in his monograph, since, as noted in the specific description, the propodeum

is not denticulate. Upon comparison with the genotype, *L. tauriceps* (Kohl), we find that *bilobata* nevertheless belongs to *Labidomilla*. The essential characters in the female sex of this genus appear to be: the absence of a margined pygidial area; the much swollen, transversely rectangular head, which is much broader than the pronotum and has a deeply incised hind margin; the long, falcate mandibles; the moderately broad first tergite, which is not constricted from the second; the shape of the thorax, which is distinctly widened posteriorly and is sometimes more or less crenulate along its lateral margins; and the weak comb of the anterior tarsi.

In the female of *L. tauriceps* the clypeus is short, transverse; its entire median portion broadly depressed, the surface raised only toward the condyle of the mandibles; the depressed area extending without elevation to between the bases of the antennæ; anteriorly the margin extends down well beneath the mandibles; its edge appears to be even.

Labidomilla bilobata Bischoff

Labidomilla bilobata BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 1, p. 67, Pl. I, fig. 8 and Pl. IV, fig. 26 (♀).

TYPE LOCALITY.—Leopoldville [“Beo”], Belgian Congo (J. Bequaert).

FEMALE.—Black; with the thorax, a large spot on the upper side of the head, and the base of the antennæ brownish red. There is a large, median, rounded spot of silvery white pile at the apex of the first and second tergites; the second and following tergites with narrow fringes of pale pubescence, which are a little wider in the middle. The antennal tubercles are produced into large lobes. The clypeus is as in *L. tauriceps*, except that it is not quite so much flattened, and is on the sides in front continuous with the gular surface beneath the head; the median portion is a little raised and rounded. Male unknown.

Odontilla Bischoff

In the female of the genotype, *O. bidentata* (André), there is a smooth and impunctate, distinctly bordered, although narrow and rather short pygidial area, notwithstanding Bischoff's statement to the contrary. This is true as well for a specimen named by Bischoff as for another, identical with it, from Albertville.

Odontilla bidentata (André)

Myrmilla bidentata ANDRÉ, 1905, Zeitschr. Syst. Hym. Dipt., V, p. 204 (♀).

Odontilla bidentata BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 1, pp. 71 (♀) and 75 (♂).

Mutilla (Myrmilla) bidentata PÉRINGUEY, 1909, Ann. South African Mus., V, p. 389 (♂).

TYPE LOCALITY.—Transvaal.

BELGIAN CONGO.—Kambove (Neave); Bukama; Sampwe (J. Bequaert); Albertville (R. Mayné).

FEMALE.—Black, with sanguine red thorax; first tergite with an apical round spot of pale hairs; the second with a similar preapical spot; the third with a continuous, transverse band of pale pubescence. The sides of the thorax are acutely carinate along their upper edge and irregularly crenulate; the upper ridge of the propodeum has two long, finger-shaped spines placed some distance away from the lateral angles and its lateral edges are finely denticulate. The male, which we have not seen, is wingless and very similar in color to the female.

SQUAMULOTILLA Bischoff

KEY TO THE KNOWN MALES

1. Some of the abdominal tergites with a fine, raised, longitudinal line 2.
Abdominal tergites without raised line 3.
2. Head rather large, strongly lengthened behind the eyes, with convergent sides.
East Africa *microphatna* (Cameron).
Head less elongate behind the eyes; the sides more strongly convergent. West
Africa *denticollis* Bischoff.
3. Vertex elongate behind the eyes, with strongly convergent sides 4.
Vertex without strongly convergent sides 6.
4. First sternite with a very strong, posteriorly directed tooth. Entirely black.
acanthogastra Bischoff.
First sternite with at most a longitudinal carina. Third intercubital vein entirely
lacking 5.
5. Second tergite shiny, its puncturation being sparse and fine. Edge of the clypeus
with a small, median and two larger, lateral teeth. Thorax reddish yellow;
legs yellowish brown *cerinipes* Bischoff;
Second tergite coarsely punctate. Edge of the clypeus bidentate. Thorax black;
legs yellowish brown *ruwenzoriensis* Bradley and Bequaert.
6. Vertex strongly produced behind the eyes; its sides parallel, so that the lateral
angles are full. Entirely black *jankisiensis* Bischoff.
Vertex not elongate behind the eyes; its sides rounded. Black, with the dorsum
of the thorax brick-red *kapiriensis* Bradley and Bequaert.

Squamulotilla jankisiensis Bischoff

Squamulotilla jankisiensis BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 1, p. 84 (♂).

TYPE LOCALITY.—Sankisia ["Jankisia"], Belgian Congo (J. Bequaert).

Squamulotilla kapiriensis Bradley and Bequaert

Squamulotilla kapiriensis BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 214 (♂).

TYPE LOCALITY.—Kapiri, Belgian Congo (Mission Leplae).

Squamulotilla ruwenzoriensis Bradley and Bequaert

Squamulotilla ruwenzoriensis BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 212 (♂).

TYPE LOCALITY.—Lanuri Valley, western slope of Mt. Ruwenzori (altitude: 2000 meters), Belgian Congo (J. Bequaert).

DASYLABROIDES André

Two forms, known from the Belgian Congo, are regarded by Bischoff as subspecies of *Dasylabroides latona* (Péringuey) = *Mutilla latona* Péringuey, 1898, Ann. South African Mus., I, p. 54 (♀; type locality, Klerksdorp, Transvaal).

Dasylabroides latona var. **neavei** (André)

Dasylabroides neavei ANDRÉ, 1909, Ann. Soc. Ent. Belgique, LIII, p. 99 (♀).

Dasylabroides latona subsp. *neavei* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 1, p. 129 (♀, ♂), Pl. I, fig. 46; Pl. IV, fig. 45.

TYPE LOCALITY.—Bunkeya, Belgian Congo (Neave).

BELGIAN CONGO.—Kalumba to Kilwa; Bunkeya to Kambove (Neave); Kongolo; Kibombo; Bukama, type locality of male; Kitompo (J. Bequaert); Lubumbashi, May 13, 1920, one female (Michael Bequaert).

Dasylabroides latona var. **analis** Bischoff

Dasylabroides latona subsp. *analis* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 1, p. 131 (♂).

TYPE LOCALITY.—Between Fort Jameson and Lundazi, Northeastern Rhodesia.

BELGIAN CONGO.—150 to 200 miles west of Kambove (Neave).

The female of the var. *neavei* (André) is black with red thorax; the apical spot of white pubescence of the first tergite is divided in the middle; second tergite with an apical white fringe, broader in the middle than on the sides; penultimate tergite with a narrow silvery fringe. This form, according to Bischoff, differs from the typical *latona* in having two large, triangular spots of silvery hairs on the vertex, close to the eyes; but these spots are by no means conspicuous in the type which is before us. The color and markings of the male are very similar to those of the female, but there is no trace of silvery spots on the vertex; there is an apical fringe of silvery hairs on the third tergite also and the anal tergite bears white hairs.

The var. *analis* Bischoff is known only in the male sex and is said to differ from the var. *neavei* in having the anal tergite covered with black, instead of white hairs; also the sculpture of the second sternite is denser, not leaving a large, smooth, median area.

TROPIDOTILLA Bischoff**Tropidotilla milmmili** (Magretti)

Mutilla milmmili MAGRETTI, 1898, Ann. Mus. Civ. Genova, XIX, p. 40 (♂).

Tropidotilla milmmili BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 1, p. 159 (♂).

TYPE LOCALITY.—Milmil, Abyssinia.

BELGIAN CONGO.—Sampwe (J. Bequaert).

Known only in the male. Uniformly black, with rather abundant white pile and narrow apical fringes of silvery hairs on the abdominal tergites. The hind margin of the scutellum ends in two obliquely raised lamellæ.

RHOPALOMUTILLA André

KEY TO THE KNOWN MALES

1. Scutellum ending in a sharp point. 2.
Scutellum swollen or flattened convex. 3.
2. Dorsum of thorax, except the propodeum red. *tongaana* (Péringuey).
Dorsum of thorax black. *conifera* Bischoff and var. *basalis* Bischoff.
3. Thorax largely red dorsally. Scutellum much swollen. Vertex raised and obtusely triangular. Processes of the last sternite bifid, but one of the branches longer and narrower. *anguliceps* (André).
Thorax black. Scutellum but little or not swollen. 4.
4. Vertex raised in the middle, the projection squarely truncate at top. Last sternite with two simple, downward projecting lobes, around which its apical margin is reflexed. *cristata* (Bingham).
Vertex not raised in the middle. 5.
5. Vertex with a sharp, transverse carina. *carinaticeps* Bischoff.
Vertex without sharp carina. 6.
6. Clypeus with a strong conical tubercle on its base. Processes of last sternite broad, lamelliform, obtusely pointed and with a posterior, blunt projection. *mlanjeana* Bischoff.
Clypeus with a much lower basal swelling. Processes of last sternite more slender and gradually narrowed to a blunt point, without posterior projection. *clavicornis* (André).

The females are only known for two species, and these may be separated as follows:

1. Pygidium very long and narrowly oval, with about four sharp longitudinal striæ. *anguliceps* (André).
Pygidium elongate, almost smooth and shiny. *clavicornis* (André).

Rhopalomutilla clavicornis (André)

Mutilla (*Rhopalomutilla*) *clavicornis* ANDRÉ, 1901, Zeitschr. Syst. Hym. Dipt., I, p. 323 (♀, ♂).

Rhopalomutilla clavicornis BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 179 (♂).

TYPE LOCALITY.—Salisbury, Southern Rhodesia.

BELGIAN CONGO.—Sampwe; Kikondja; Kasenga; Lukonzolwa, the male (J. Bequaert).

We have elsewhere (1923, Rev. Zool. Afric., XI, pp. 216-217) expressed a doubt concerning the identity of the female specimen from Lukonzolwa referred by Bischoff to *R. clavicornis*. Pending examination of André's type, we leave the question open.

Rhopalomutilla cristata (Bingham)

Rhopalomutilla cristata BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 180 (♂), Pl. IV, fig. 61. BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 217 (♂).

Mutilla cristata BINGHAM, 1911, Trans. Ent. Soc. London, p. 536 (♂).

TYPE LOCALITY.—Salisbury, Southern Rhodesia.

BELGIAN CONGO.—Lukonzolwa (J. Bequaert).

Rhopalomutilla mlanjeana (Bischoff)

Rhopalomutilla clavicornis subsp. *mlanjeana* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 180 (♀, ♂), Pl. IV, fig. 60.

TYPE LOCALITY.—Mlanje, Nyasaland.

BELGIAN CONGO.—Albertville (R. Mayné).

MUTILLA Linnæus

Mutilla LINNÆUS, 1758, 'Syst. Nat.,' 10th Ed., I, p. 582. Genotype: *Mutilla europæa* Linnæus.

Mutilla subgenus *Barymutilla* ERN. ANDRÉ, 1901, Zeitschr. Syst. Hym. Dipt., I, p. 334. Type: *Mutilla pythia* F. Smith.

Pycnotilla BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 182. Genotype: *Mutilla barbara* Linnæus.

We have before us the type species of both *Mutilla* (*europæa*) and *Pycnotilla*. The type of the latter (*barbara*) does not show in the male the distinction in the character of its last tergite which Bischoff uses for separating the two genera, although some of the Central African species do. The shape of this tergite, however, differs so much with the species that we are not convinced that it can be used as indicative of two generic or even subgeneric groups. Nor can we find any other character for separating these groups in the males. In the females we find a transition between the species with and those without a pygidial area. We are therefore constrained to treat *Pycnotilla* as a synonym of *Mutilla*, separating, however, in the females those with a pygidial area from those without as species group.

KEY TO THE CONGO SPECIES

MALES

1. Last tergite punctato-striate; its sides carinate, converging behind and evenly rounded at the apex. Clypeus with its anterior margin produced into a bidentate lobe. Thorax black.....*basidens* (Bischoff).
Last tergite with a transverse depression near its base, punctate, but not striate; its sides not carinate; its postero-lateral angles rather sharp.....2.
2. Entirely black, with bright blue, metallic reflection. The first three tergites with a fringe of white hairs. Clypeus convex in the middle...*cærulea* Bischoff.
Pronotum, mesonotum, scutellum and tegulæ brownish red. First two tergites with a broad apical band of white hairs, interrupted in the middle on the second; the third almost covered by a fascia broadly interrupted medially.
Clypeus with its anterior margin broadly emarginate...*salisburiana* André.

FEMALES

1. Last tergite with a pygidial area delimited by lateral carinae. 2.
Last tergite without defined pygidial area. 8.
2. Third or fourth and succeeding tergites with a median spot of white pubescence. 3.
Third tergite with a continuous fascia of pale pubescence. Fourth at most with scattered pale hairs. 4.
3. Third tergite with a median spot of pale pubescence. Clypeus with its anterior margin bidentate, above which it is transversely depressed; the upper triangular portion with a median tubercle. Head, dorsum, and second tergite rugose-reticulate. *penetrata* var. *agave* Péringuey.
Third tergite with a continuous fascia of pale pubescence. Clypeus broadly depressed, superiorly with a weak transverse ridge ending in the middle above in a tubercle; anterior margin simple. Head, dorsum, and second tergite longitudinally striate. *striata* Bradley and Bequaert.
4. Fifth tergite with a fascia of pale pubescence. *angonina* var. *lualabana* (Bischoff).
Fifth tergite without fascia, at most with a few pale hairs. 5.
5. Clypeus with a straight, transverse, overhanging ledge extending from side to side. Anal tergite with dark pubescence at base. 6.
Clypeus with only a median, curved, inferior ridge terminating near the anterior margin on each side in a lobe or angle. Anal tergite with white pubescence at base. 7.
6. Summit of the clypeus between the bases of the antennæ with two erect lobes. Sculpture of the thoracic dorsum forming distinct longitudinal ribs which occasionally merge and diverge behind. *katangana* (Bischoff).
Summit of the clypeus between the bases of the antennæ unarmed. Dorsum of thorax very coarsely reticulate, the intervals between the meshes running somewhat longitudinally. *andromeda* var. *hecate* Péringuey.
7. Clypeus with a superior median tubercle. *albertwillensis* Bradley and Bequaert.
Superior surface of clypeus unarmed. *bequaerti* (Bischoff).
8. Second sternite with three elongate teeth or sharp, longitudinal carinae, dentate at their apex. 9.
Second sternite unarmed. 13.
9. Clypeus beneath the antennæ with a transverse ridge, the edge of which is serrulate. 10.
Clypeus without such a transverse, serrulate ridge. 11.
10. Head somewhat shorter behind the eyes than the length of the eyes. Transverse ridge of the clypeus composed of a prominent, median tooth and three small teeth on each side. (Type locality: Kigoma, Tanganyika Territory). *kigoma* Bradley and Bequaert.
Head longer behind the eyes than the length of the eye. Transverse ridge of clypeus with a median, rounded tubercle on each side of which is a single tubercle. *bitriangulifera* Bischoff.
11. Upper portion of clypeus with a median, longitudinal carina, acute below. Processes of second sternite erect and high. *triodon* Stadelmann.
Upper portion of clypeus with three tubercles which are not connected by a ridge, the middle one being above the other two. 12.

12. Interrupted band of pale pubescence on third tergite reaching nearly to the extreme lateral margin. *pythia* F. Smith.
 Interrupted band of pale pubescence on third tergite much shortened on the sides. *pythia* var. *radovæ* Saussure.
13. Upper, elevated portion of clypeus terminating below in a transverse, straight or rounded carina or ridge, which is not crenulate. 14.
 Upper, elevated portion of clypeus terminating below in a transverse, crenulate ridge, which may be only discernible from an inferior view. 15.
14. Ridge of clypeus short, its sides abruptly truncate. Head very large, much wider than the thorax, extending more than the length of the eyes behind the latter. Eyes placed well toward the clypeus. Humeral angles spinose. *parallela* André.
 Ridge of clypeus broad, extending almost to the mandibles, its sides sloping gradually down. Head as wide as the thorax, not much extended behind the eyes, which are large and farther removed from the clypeus. Humeral angles not spinose. *astarte* var. *orientalis* Bischoff.
15. Thorax black, narrowed and slightly concave on the sides. *porosicollis* Fairmaire.
 Thorax brownish red. 16.
16. Thorax short and broad, with parallel sides. First and third tergites with an interrupted apical band; the second with two apical spots removed from the sides. 17.
 Thorax much more slender, narrowed and somewhat concave on the sides behind. 18.
17. Thorax bright ferruginous red. Apical spots of second tergite somewhat drawn out toward the sides; interrupted apical band of third tergite not shortened laterally. *dasya* Péringuey.
 Thorax dark red. Apical spots of second tergite almost rounded off and but narrowly connected with the sides; interrupted apical band of third tergite shortened laterally. *dasya* var. *clytemnestræformis* Bischoff.
18. Apical margin of second tergite with two rounded spots which are connected with the very narrow, apical fringe. *diselena* var. *obscurior* Bischoff.
 Apical margin of second tergite with an interrupted fringe which is broadened medially, but does not form two rounded spots. *diselena* Sichel and Radoszkowski.

***Mutilla astarte* F. Smith var. *orientalis* Bischoff**

Mutilla astarte subsp. *orientalis* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 231 (♀).

TYPE LOCALITY.—Usambara, Tanganyika Territory.

BELGIAN CONGO.—Kasonsero (J. Bequaert).

***Mutilla bitriangulifera* Bischoff**

Mutilla pythia subsp. *bitriangulifera* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 219 (♀), Pl. I, fig. 56.

TYPE LOCALITY.—Lake Kivu (probably on the eastern shore; collected by Kandt).

BELGIAN CONGO.—Mpala (Storms); between Kasenga and Kalumba (Neave); between Niembo and Kalembe-lembe, July, 1918 (R. Mayné); along the railroad,

209 kilometers from Kindu (L. Burgeon); Kapiri (Mission Leplae); Lukonzolwa, November 12, 1911 (Stappers); Kundelungu (Mrs. Tinant); between Lake Moero and Lake Bangweolo (Dr. Cheval).

This form is structurally so distinct from *pythia* that we have raised it to specific rank.

***Mutilla cœrulea* Bischoff**

Mutilla cœrulea BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 240 (♂).

TYPE LOCALITY.—Duma (Ubangi), Belgian Congo (Schubotz).

***Mutilla dasya* Péringuey**

Mutilla clytemnestra PÉRINGUEY, 1899, Ann. South African Mus., I, p. 360 (♀), Pl. VIII, fig. 9 (not of Fox).

Mutilla dasya PÉRINGUEY, 1899, *op. cit.*, p. 450.

Barymutilla comparata var. *offecta* BINGHAM, 1911, Trans. Ent. Soc. London, p. 550 (♀).

Mutilla pythia subsp. *dasya* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 220 (♀), Pl. I, fig. 57.

TYPE LOCALITY.—Salisbury, Southern Rhodesia.

BELGIAN CONGO.—Lualaba River, in 2,500–3,500 ft. (Neave).

***Mutilla dasya* var. *clytemnestraeformis* (Bischoff)**

Mutilla pythia subsp. *clytemnestraeformis* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 219 (♀).

TYPE LOCALITY.—Not designated; this form was described from a number of localities in Tanganyika Territory, Northern Rhodesia, and Nyasaland.

BELGIAN CONGO.—Kitompo (J. Bequaert).

***Mutilla diselena* Sichel and Radoszkowski**

Mutilla diselena SICHEL AND RADOSZKOWSKI, 1869, Hor. Soc. Ent. Rossicæ, VI, p. 248 (♀), Pl. VIII, fig. 10. BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 225 (♀), Pl. I, fig. 64.

TYPE LOCALITY.—Senegal.

BELGIAN CONGO.—Surunga (De Greef); Faradje, one female (Lang and Chapin).

***Mutilla diselena* Sichel and Radoszkowski var. *obscurior* Bischoff**

Mutilla diselena subsp. *obscurior* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 227 (♀), Pl. I, fig. 58.

TYPE LOCALITY.—Lake Tanganyika (probably from the eastern shore, in Tanganyika Territory).

BELGIAN CONGO.—Luanza (de Paoli); Lofoi (Verdick); southeastern Katanga, 4,000 ft. (Neave); Kasenga (Stappers); Nyangwe (J. Ghesquière); Albertville (R. Mayné).

Mutilla parallela (André)

Barymutilla parallela ERN. ANDRÉ, 1908, Zeitschr. Syst. Hym. Dipt., VIII, p. 70 (♀).

Mutilla parallela BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 223 (♀), Pl. I, fig. 60 and Pl. IV, fig. 81.

TYPE LOCALITY.—Kwa Kitoto, Tanganyika Territory (lectotype by Bischoff).

BELGIAN CONGO.—Dungu (Hutereau); Garamba, one female; Faradje, one female (Lang and Chapin).

Mutilla porosicollis Fairmaire

Mutilla porosicollis FAIRMAIRE, 1858, in J. Thomson, 'Archives Entomol.' II, p. 263 (♀), Pl. x, fig. 10. BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 232 (♀), Pl. I, fig. 69.

TYPE LOCALITY.—Gaboön.

BELGIAN CONGO.—Kibombo (J. Bequaert); Eala (J. Ghesquière); Tshikapa (H. Schouteden).

Mutilla pythia F. Smith

Mutilla pythia F. SMITH, 1855, 'Cat. Hym. Brit. Mus.', III, p. 18 (♀). BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 217 (♀), Pl. I, fig. 54.

TYPE LOCALITY.—Port Natal.

BELGIAN CONGO.—Faradje, March, 1911, 4 females; Yakuluku, November, 1911, one female (Lang and Chapin).

The specimens which we have seen from the Belgian Congo all belong to the typical form of the species.

Mutilla pythia var. **radovæ** Saussure

Mutilla radovæ H. DE SAUSSURE, 1891, Mitth. Schweiz. Ent. Ges., VIII, 7, p. 255 (♀); 1892, in Grandidier, 'Hist. Nat. Madagascar,' XX, p. 264, Pl. XVIII, fig. 31.

Mutilla pythia subsp. *radovæ* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 218 (♀), Pl. I, fig. 55.

TYPE LOCALITY.—"Madagascar." According to Bischoff this habitat is certainly due to an error and the type specimen must have been collected in British East Africa.

BELGIAN CONGO.—Lufira River, in 3,500 ft. (Neave).

Mutilla salisburiana André

Mutilla salisburiana ANDRÉ, 1903, Zeitschr. Syst. Hym. Dipt., III, p. 141 (♂). BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 220 (♂).

Mutilla salisburyana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 237 (♂).

TYPE LOCALITY.—Salisbury, Southern Rhodesia.

BELGIAN CONGO.—Malela, Manyema (L. Burgeon); Albertville (R. Mayné).

Mutilla triodon Stadelmann

Mutilla triodon STADELMANN, 1897, 'Deutsch. Ost Afr., IV, Hymenopteren,' p. 50 (♀), Pl., figs. 13 and 13a.

Mutilla pythia subsp. *triodon* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 219 (♀), Pl. I, fig. 56.

TYPE LOCALITY.—Tanganyika Territory.

BELGIAN CONGO.—There is in the Congo Museum at Tervueren one female labeled "Katanga," but it is possible that this specimen was obtained in Tanganyika Territory.

This form too appears to us fully entitled to specific rank.

Mutilla (Pycnotilla) albertvillensis Bradley and Bequaert

Mutilla (Pycnotilla) albertvillensis BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 219 (♀).

TYPE LOCALITY.—Albertville, Belgian Congo (R. Mayné).

Mutilla (Pycnotilla) andromeda var. **hecate** (Péringuey)

Mutilla hecate PÉRINGUEY, 1898, Ann. South African Mus., I, p. 74 (♀).

Pycnotilla andromeda subsp. *hecate* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 192 (♀).

TYPE LOCALITY.—Umfuli River, Southern Rhodesia.

BELGIAN CONGO.—Bunkeya to Lukafu (Neave); Kalengwe (J. Bequaert); Faradje, one female (Lang and Chapin).

Mutilla (Pycnotilla) angonina var. **lualabana** (Bischoff)

Pycnotilla angonina subsp. *lualabana* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 194 (♀).

TYPE LOCALITY.—Lualaba River at 2,500 to 4,000 ft. (Neave).

BELGIAN CONGO.—Kambove (Neave).

Mutilla (Pycnotilla) basidens (Bischoff)

Pycnotilla basidens BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 206 (♂).

TYPE LOCALITY.—"Katanga, 1.2.12" (J. Bequaert). Katanga is only the district; but the date, February 1, 1912, fixes the type locality as Kasenga [J. B.].

Mutilla (Pycnotilla) bequaerti (Bischoff)

Pycnotilla bequaerti BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 195 (♀).

TYPE LOCALITY.—Sampwe ["Mufungwa"] (J. Bequaert).

BELGIAN CONGO.—Along the railroad, 345 kilometers from Kindu, one female (Russo).

Mutilla (Pycnotilla) katangana (Bischoff)

Pycnotilla katangana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 195 (♀).

TYPE LOCALITY.—Katanga (J. Bequaert); this is the name of a district, not of a definite locality.

Mutilla (Pycnotilla) penetrata var. **agave** (Péringuey)

Mutilla agave PÉRINGUEY, 1897, Ann. South African Mus., I, p. 76 (♀).

Pycnotilla penetrata subsp. *agave* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 189 (♂).

TYPE LOCALITY.—“? Cape Colony.”

BELGIAN CONGO.—Bunkeya; Kambove to Lukafu (Neave); Garamba, one female (Lang and Chapin).

TANGANYIKA TERRITORY.—Kigoma (R. Mayné).

Mutilla (Pycnotilla) striata Bradley and Bequaert

Mutilla (Pycnotilla) striata BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 218 (♀).

TYPE LOCALITY.—Moto (Madyu), Belgian Congo (L. Burgeon).

ODONTOMUTILLA Ashmead

KEY TO THE CONGO SPECIES

MALES

1. Second and last sternites with a prominent tooth.....2.
Second sternite unarmed.....5.
2. Thorax entirely black. First tergite with two apical spots, the third and fourth with a broadly interrupted band of pale pubescence. Hind margin of scutellum not divided into lobes in the middle; its lateral lobes acuminate and curved inwardly.....*callewaerti* Bradley and Bequaert.
Dorsal surface of the thorax partly mahogany red.....3.
3. Abdomen xanthine orange, with bright yellow hairs, without bands or spots of pale pubescence. Thorax above, except propodeum, mahogany red. Scutellum ending posteriorly in four small, widely separated lobes, the two median ones rounded, the two lateral ones with an inwardly curved, subacute apex.....*tellinii* var. *tessmanni* Bischoff.
Abdomen black, with transverse bands of white hairs.....4.
4. Scutellum ending posteriorly in four rounded lobes of about equal size; the lateral ones bluntly pointed. First tergite with two apical spots, the third and fourth with a broadly interrupted band of white pubescence.
calida André.
Scutellum hardly divided into lobes posteriorly in the middle; its lateral lobes acuminate and curved inwardly. First tergite without spots; the second with an apical, interrupted band; the third mostly covered with a subinterrupted band of pale pubescence.....*microcephala* var. *parva* Magretti.
5. Last sternite with three small tubercles. Thorax partly brownish red dorsally. Band of pubescence on third tergite interrupted medially. Fourth segment of antennæ nearly twice as long as the third.....*seminigrita* Bischoff.
Last sternite unarmed.....6.
6. Thorax partly brownish red dorsally. Upper raised portion of clypeus anteriorly emarginate and therefore bluntly bilobed. Band of pubescence on third tergite interrupted medially.....*zimrada* var. *maxima* Bischoff.
Thorax black. Upper raised portion of clypeus not bilobed. Band of pubescence on third tergite continuous.....7.

7. Scutellum regularly quadrilobate, with a sharp and deep median sulcus posteriorly; the four lobes about on the same level; the two median ones broadly rounded; the two lateral ones forming inwardly curved teeth. First tergite without spots of pubescence. *quadrilobata*, new species.
Scutellum differently shaped. 8.
8. Scutellum without median lobes, but deeply depressed behind and seen from above broadly emarginate; the two lateral lobes ending in long, decurved processes. First tergite without spots of pubescence.
maynei Bradley and Bequaert.
Scutellum not emarginate in the middle, but depressed and ending in two median, very short lobes, which, however, seen from above extend as far back as the short, downward recurved lateral lobes. First tergite with apical spots of pubescence. *mocquerysi* André.

FEMALES

1. First tergite without a band or lateral spots of white pubescence. Upper portion of clypeus with a transverse lamella. Front at the lower inner angles of the eyes testaceous. Thorax brownish red. *fracta* var. *unifasciata* Bischoff.
First tergite with two apical spots of white pubescence. 2.
2. Thorax black. Third tergite with a band of white pubescence which is either continuous, or narrowly, or more broadly interrupted in the middle.
mocquerysi André.
Thorax red or brownish red. 3.
3. Apical margin of second tergite with two spots of white pubescence. Head partly red. Last tergite with an indication of pygidial area.
ovata (Sichel and Radoszkowski).
Apical margin of second tergite without spots of pale pubescence. Head black. 4.
4. Fourth tergite with spots of white pubescence. *calida* André.
Fourth tergite without spots of pale pubescence. 5.
5. Spots of first tergite continued laterally into short, apical bands.
zimrada var. *maxima* Bischoff.
Spots of first tergite shortened laterally. *calida* var. *kameruna* Bischoff.

Odontomutilla calida André

Odontomutilla calida ANDRÉ, 1908, Zeitschr. Syst. Hym. Dipt., VIII, p. 66 (♀).
BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, pp. 260 (♀) and 278 (♂), Pl. II, fig. 93 and Pl. V, fig. 102.

TYPE LOCALITY.—"South Africa," as given by André.

According to Bischoff the type specimen came from Malange, Angola.

BELGIAN CONGO.—Mpala (Collector?); Kasongo; Nyangwe, type locality of male; Punga; Leopoldville (J. Bequaert); Kasenga (Stappers; J. Bequaert); between Stanleyville and Kilo; Moto (L. Burgeon) Kapiri (Mission Leplae); valley of the Lukuga River (Schwetz); Fundabiabo (L. Charliers).

Odontomutilla calida var. **kameruna** Bischoff

Odontomutilla calida subsp. *kameruna* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 262 (♀).

TYPE LOCALITY.—Joko, southern Cameroon.

BELGIAN CONGO.—Faradje, 2 females, January, 1912; Garamba, one female, July, 1912 (Lang and Chapin).

Odontomutilla callewaerti Bradley and Bequaert

Odontomutilla callewaerti BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 223 (♂).

TYPE LOCALITY.—Luluabourg, Belgian Congo (Callewaert).

Odontomutilla fracta var. **unifasciata** Bischoff

Odontomutilla fracta subsp. *unifasciata* BISCHOFF, 1920, Arch. f. Naturgesch. LXXXVI, Abt. A, 2, p. 257 (♀).

TYPE LOCALITY.—Refunsa, Northern Rhodesia.

BELGIAN CONGO.—Elisabethville (J. Bequaert).

Odontomutilla maynei Bradley and Bequaert

Odontomutilla maynei BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 221 (♂).

TYPE LOCALITY.—Lemba (Mayombe), Belgian Congo (R. Mayné).

Odontomutilla microcephala André var. **parva** Magretti

Odontomutilla parva MAGRETTI, 1905, Bull. Soc. Ent. Italiana, XXXVII, p. 42 (♀).

Odontomutilla microcephala subsp. *parva* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, pp. 260 (♀) and 278 (♂).

TYPE LOCALITY.—Ghinda, Eritrea.

BELGIAN CONGO.—Vieux-Kasongo (J. Bequaert).

Odontomutilla mocquerysi (André)

Mutilla mocquerysi ANDRÉ, 1895, Ann. Soc. Ent. France, LXIII, (1894), p. 670 (♀, ♂); 1896, Term. Füzetek, XIX, p. 21 (♂).

Odontomutilla mocquerysi BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, pp. 254 (♀) and 275 (♂), Pl. II, fig. 86 and Pl. V, figs. 95 and 116.

TYPE LOCALITY.—Sierra Leone.

BELGIAN CONGO.—Kondue (Luja); virgin forest near Beni (Grauer); Mayombe (R. Mayné); Barumbu, January 13, 1921 (J. Ghesquière); Stanleyville, 3 females and one male (Lang and Chapin); Kamaiembi near Luebo (H. Schouteden).

Odontomutilla ovata (Sichel and Radoszkowski)

Mutilla ovata SICHEL AND RADOSZKOWSKI, 1869, Hor. Soc. Ent. Rossicæ, VI, p. 184 (♀).

Odontomutilla ovata BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 264 (♀), Pl. II, fig. 96 and Pl. V, fig. 106.

TYPE LOCALITY.—Caffraria.

BELGIAN CONGO.—Kufuru, Bomu River (Camer mann).

Odontomutilla quadrilobata, new species

MALE.—Coal black. Calcaria black. Third tergite with a broad, dense, apical band of closely appressed, buff pubescence, which extends very slightly on the sides of the sternite. Body sparsely covered with a mixture of erect, white and black hairs. Wings uniformly, deeply infuscated.

Length, about 14 mm.

Head, seen from above, but slightly produced behind the eyes; the eyes being removed from the occipital margin by less than the width of their posterior lobe. Lateral margins of the occiput scarcely converging and abruptly meeting the posterior margin; the latter convex, slightly prominent medially. Ocelli in an equilateral triangle, the base of which is on the postocular line. Entire upper surface of head coarsely and closely punctate. The antennal grooves deep and strongly margined above, with a prominent lobe overhanging the insertion of the antennæ. Median portion of clypeus elevated, forming between the antennæ a triangle margined by three ridges between which the surface is depressed and minutely roughened; anterior to this the surface minutely roughened and sloping, with indication of another, transverse, weak carina; anterior to that the surface depressed, but little roughened; the margin plain and rounded. Each side of the margin of the buccal cavity with a tooth. Mandibles without external tooth, bent, acute, and toothed within. Second flagellar segment approximately two-thirds the length of the third. Eyes large, deeply emarginate within. Thorax slightly wider than the head; the dorsal surface uniformly convex. Pronotum, mesonotum, and scutellum sculptured like the vertex. Anterior margin of the pronotum subtruncate; its humeral angles sharp, but not mucronate, continued below in a vertical carina. Scutellum regularly quadrilobate, with a sharp and deep median sulcus posteriorly; the four lobes about on the same level; the median ones broadly rounded; the lateral ones forming inwardly curved teeth. Postscutellum medially prominent and capped with a median depression; its sloping sides smooth and impunctate; midway toward the wing with a deep pit. Propodeum alate; very much as in *mocquerysi*: but shallowly reticulate, with three basal meshes larger than the rest; the sides of the propodeum and the apical portion of the posterior face less coarsely reticulate. Abdomen slender. First segment short; as seen from above, its sides divergent except at the apex, where they are for a short distance subparallel and therefore contrasting with the strongly convex sides of the second segment; much narrower at apex than the widest part of the second segment; seen from the side, the under surface is short, the upper surface strongly sloping upward and slightly convex to near the apex of the segment where it turns so as to present a short dorsal aspect continuous with that of the second segment. First tergite and base of second punctured about as coarsely as, but less closely than, the vertex; the rest of the second tergite, especially in the middle, more sparsely punctate; very middle impunctate, polished, and shiny. Following segments finely and somewhat irregularly punctate. Sides of the second segment somewhat constricted before the apex. First sternite with an anterior, blunt tooth and a small, posterior, acute tooth; a poorly developed carina between them. Second sternite unarmed. Last sternite plane, punctate, and unarmed.

HABITAT.—Belgian Congo, one male, Stanleyville, April 30, 1915 (Lang and Chapin).

HOLOTYPE.—In The American Museum of Natural History.

This species finds its nearest relative in *O. mocquerysi* (André), from which it differs in the shape of the scutellum, in the absence of white pubescent spots on the first tergite, and in the clypeus which in *mocquerysi* lacks the triangular, margined basin on its extreme upper portion. It is equally closely related to *maynei* Bradley and Bequaert, from which it differs in the structure of scutellum and clypeus.

Odontomutilla seminigrita Bischoff

Odontomutilla andromache var. *seminigrita* BISCHOFF, 1911, 'Wiss. Ergebn. D. Z. Afr. Exp. (1907-08),' III, p. 215 (♂).

Odontomutilla seminigrita BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 277 (♂).

TYPE LOCALITY.—Mawambi, Belgian Congo (Schubotz).

The type specimen was originally described as a female, but this was evidently due to a clerical error. We have not seen this species and it has been placed in our key on the strength of Bischoff's statement that it is structurally like *O. andromache* (Péringuey), in which the last sternite bears three small tubercles, while the first tergite is unarmed. Whether this is actually the case with *O. seminigrita* we are unable to decide since the description does not mention these structural details.

Odontomutilla tellini (Magretti) var. **tessmanni** Bischoff

Odontomutilla tellini subsp. *tessmanni* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 285 (♂). BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 223 (♂).

TYPE LOCALITY.—"Neu-Kamerun" (region of the Sanga River), French Congo.

BELGIAN CONGO.—Angu (Uere), November 10-11, 1913, one male; Bambili, one male (J. Rodhain).

LOPHOTILLA Bischoff**Lophotilla consors** (André)

Mutilla consors ANDRÉ, 1899, Bull. Soc. Vaudoise Sc. Nat., XXXV, p. 259 (♂).

Smicromyrme consors BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 601 (♂).

TYPE LOCALITY.—Delagoa, Portuguese East Africa.

BELGIAN CONGO.—Lukonzolwa ["Bukonzolwa"]; Kasenga (J. Bequaert); Kibombo, one male, November 1, 1910 (J. Bequaert); Albertville, one male, December, 1918 (R. Mayné).

This species was placed by Bischoff (*op. cit.*, p. 601) in his genus *Smicromyrme*. One of the males, from Kasenga, which this author identified is before us and upon comparison it agrees in every respect with the other specimens here listed. All these examples present the characters given by Bischoff for his genus *Lophotilla*, to which they would lead in his generic key. The second segment of the flagellum is as long as the third; its first segment is densely tufted with long hairs beneath, and the scape bears on the under side a line of dense hairs. The mandibles are armed with a strong, truncate tooth on the under side near their base.

In Bischoff's key to the African species of *Lophotilla* (*op. cit.*, p. 305) these specimens would run to *aspila* Bischoff, having a broadly inter-

rupted band of white pubescence on the third and fourth tergites; but they differ from that species in having in addition two large, oval spots of white pubescence about the middle of the second tergite and in lacking an apical, white fringe on the first tergite. Morphologically the two species appear to be related.

DOLICHOMUTILLA Ashmead

KEY TO THE CONGO SPECIES

MALES

1. Last tergite produced posteriorly, with a strong, longitudinal, median, flattened carina, on the sides of which it is flattened. 2.
Last tergite broadly rounded off at apex, without raised median line. Second sternite unarmed. 3.
2. First tergite with distinct apical fringe of pale pubescence. Second sternite with a median carina, ending beyond the middle of the segment in a posteriorly directed spine. *guineensis* (Fabricius).
First tergite with the apical fringe much reduced or absent.
guineensis var. *sykorax* (Smith).
3. Greater part of surface of last sternite swollen into a strongly raised, transverse tubercle, bluntly triangular when viewed from the side. Second sternite distinctly swollen longitudinally in the middle. Thorax, including propodeum, sanguine red. *bequaerti* Bischoff.
Last sternite almost entirely flat, with a slightly raised, smooth, triangular area at its extreme base. Second sternite with a faintly raised, longitudinal line. Thorax black. *lessensis* Bradley and Bequaert.

FEMALES

1. Thorax black, with a spot of pale pubescence in the scutellar region. Third tergite with a continuous band of white pubescence. 2.
Thorax bright or dark sanguine red, without scutellar spot of pubescence. Band of pale pubescence on third tergite more or less interrupted in the middle. 3.
2. Pronotum without transverse band of pale pubescence. *scutellifera* André.
Pronotum with a distinct transverse band of pale pubescence.
scutellifera var. *primigenia* Bischoff.
3. First tergite with a weak apical fringe of pale pubescence. *guineensis* (Fabricius).
First tergite without pale pubescence near the apex.
guineensis var. *sykorax* (Smith).

Dolichomutilla bequaerti Bischoff

Dolichomutilla bequaerti BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 329 (♂).

TYPE LOCALITY.—Kikondja, Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Sankisia (J. Bequaert).

Dolichomutilla guineensis (Fabricius)

Mutilla guineensis FABRICIUS, 1793, 'Entom. System.,' II, p. 367 (♀).

Dolichomutilla guineensis BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 321 (♀, ♂).

TYPE LOCALITY.—Guinea.

BELGIAN CONGO.—Bukama; Lufubu; Kilwa, type locality of ♂ (J. Bequaert); Kil. 345 on the railroad of Kindu to Kongolo (Russo); Luanza (de Paoli); Sankisia (J. Rodhain); Surunga; Dungu (De Greef); Yakoma (Bomstein); between Watsa and Niangara (L. Burgeon); Faradje; Garamba; Medje; Yakuluku (Lang and Chapin); Api; Kufuru.

Dolichomutilla guineensis var. **sykorax** (F. Smith)

Mutilla sykorax F. SMITH, 1855, 'Cat. Hym. Brit. Mus.,' III, p. 19 (♀).

Mutilla guineensis subsp. *sykorax* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 325 (♀, ♂).

TYPE LOCALITY.—Port Natal.

BELGIAN CONGO.—Katanga (Weyns); region of Lake Tanganyika (Storms); Kilwa (S. Neave); Kiambi (Valdonio); Kapiri; Elisabethville (Mission Leplae); Fundabiabo (L. Charliers); Kasenga (Barthelémy); Kasindi (Bayer); Kabare (J. Bequaert); Mpala; Tshikapa (H. Schouteden).

The difference between this and the typical form is exceedingly slight. Both occur in the Katanga district, though the var. *sykorax* is more commonly found there.

Dolichomutilla lessensis Bradley and Bequaert

Dolichomutilla lessensis BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 225 (♂).

TYPE LOCALITY.—Lesse, Belgian Congo (J. Bequaert).

Dolichomutilla scutellifera (Ern. André)

Mutilla scutellifera ERN. ANDRÉ, 1895, Ann. Soc. Ent. France, LXIII, (1894), p. 672 (♀).

Dolichomutilla scutellifera BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 319 (♀).

TYPE LOCALITY.—Sierra Leone.

BELGIAN CONGO.—Boyenge (Moreels); Lukenge (Fontainas); Kondue (Leonhard); Katanga (Lemaire); Oshwe (J. Maes); between Stanleyville and Kilo (L. Burgeon); Walikale (J. Bequaert).

Dolichomutilla scutellifera var. **primigenia** Bischoff

Dolichomutilla scutellifera form *primigenia* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 320 (♀).

TYPE LOCALITY.—Nkolentanga, Spanish Guinea.

BELGIAN CONGO.—Ukaika (Grauer); Poko (J. Rodhain).

SMICROMYRME Thomson

In a paper on African Mutillidæ recently published in the 'Revue Zoologique Africaine' we have endeavored to show that the genera have been unnecessarily multiplied by Bischoff in the group of *Smicromyrme*. In our estimation *Glossotilla*, *Spinulotilla*, *Trogaspidia*, *Trispilotilla*, *Pristomutilla*, and *Viereckia* cannot be regarded as of more than sub-generic rank. On the other hand we have synonymized *Mimecomutilla* with *Smicromyrme* (proper), *Lobotilla* with *Trogaspidia*, and *Ceratotilla* with *Pristomutilla*. As thus rearranged, the genus *Smicromyrme* will be composed as follows:

1. Subgenus **Smicromyrme** THOMSON.

Smicromyrme THOMSON, 1860, 'Opuscula Entomologica,' p. 208; type, *Mutilla rufipes* Fabricius.

Mimecomutilla BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 496; type, *Mimecomutilla renominanda* Bischoff (not *Mimecomutilla* Ashmead).

MALE.—Without conical scutellum. With short second flagellar segment.

FEMALE.—Usually with unpaired discal spots on second tergite (in *granulipygidialis* paired.) Pygidial area without middle lobe.

2. Subgenus **Glossotilla** BISCHOFF.

Glossotilla BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 454; type, *Mutilla suavis* Gerstäcker.

MALE.—Without conical scutellum. A long second flagellar segment. Mandibles with an external tooth.

FEMALE.—With paired discal spots on the second tergite or with none. Pygidial area present or obsolete, without median lobe.

3. Subgenus **Spinulotilla** BISCHOFF.

Spinulotilla BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 1, p. 160; type, *Mutilla peringueyi* André.

MALE.—Without conical scutellum. No external tooth on mandibles. Second flagellar segment as long as the third.

FEMALE.—Second tergite without discal spots. Pygidial area with a median lobe. Upper margin of propodeum unarmed.

4. Subgenus **Trogaspidia** ASHMEAD.

Trogaspidia ASHMEAD, 1899, Journ. New York Ent. Soc., VII, p. 58; type, *Mutilla medon* F. Smith.

Lobotilla BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 334; type, *Mutilla leucopyga* Klug.

MALE.—With conical scutellum, or at least posteriorly an elevated, median carina thereon. Mandibles toothed externally. Second flagellar segment as long as the third.

FEMALE.—Second tergite with paired, discal spots of pubescence; no spot on apex of first. Pygidial area with a middle lobe. Upper margin of hind face of propodeum unarmed.

5. Subgenus **Trispilotilla** BISCHOFF.

Trispilotilla BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 291; type, *Mutilla africana* André.

MALE.—With conical scutellum. Without external tooth on mandibles. Second flagellar segment as long as the third.

FEMALE.—With paired discal spots of pubescence on second tergite; an apical spot on the first. Upper margin of hind face of propodeum unarmed. Pygidial area with a median lobe, indicated by notches, but the lateral bordering carina sometimes wanting.

We transfer *Trogaspidia junodi* (André) and *T. biseriata* (Saussure) to the subgenus *Trispilotilla*.

6. Subgenus **Pristomutilla** ASHMEAD.

Pristomutilla ASHMEAD, 1903, Canad. Entomol., XXXV, p. 329; type, *Mutilla pectinata* Radoszkowski.

Ceratotilla BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, Heft 4, p. 530; type, *Mutilla dolosa* F. Smith.

MALE.—Unknown.

FEMALE.—With paired discal spots of pubescence on second tergite. Pygidial area with median lobe. Upper margin of propodeum armed with a row of tubercles or spines.

We transfer *Trogaspidia richteri* Bischoff, *T. trigonophora* Bischoff, *T. rufibasalis* Bischoff, *T. lævinotata* (André), and *T. pleuromelæna* Bischoff to the subgenus *Pristomutilla*, on the basis of characters as stated by Bischoff and of a specimen examined of *rufibasalis* and *lævinotata*.

7. Subgenus **Viereckia** ASHMEAD.

Viereckia ASHMEAD, 1903, Canad. Entomol., XXXV, pp. 324 and 329; type, *Mutilla dunbrodia* Péringuey.

MALE.—Unknown. The presumed wingless "male" on which Ashmead based his generic description of that sex was a female.

FEMALE.—With two pale, discal spots in the integument of second tergite. Propodeum unarmed. Pygidial area without a distinct median lobe.

KEY TO THE CONGO SPECIES

MALES

Subgenus **SMICROMYRME**

1. Mandibles without tooth on their external margin.....2.
1. Mandibles toothed externally.....4.
2. Black, with apical fasciæ of yellowish-white pubescence on tergites 2 and 3, broadly interrupted in the middle. Scape of antennæ curved and slightly hollowed out beneath, densely white hairy. Clypeus depressed, flattened, without median tubercle. Length, 12 mm....*granulipygidialis* (Bischoff). Tergites 2 and 3 not with apical, medially interrupted fasciæ of yellowish-white pubescence.....3.

3. Entirely black, with sparse, white pubescence. Clypeus with a central, rounded tubercle. *camporum* Bradley and Bequaert.
Black, with the posterior two-thirds of the abdomen covered with golden yellow, appressed tomentum and bright, cadmium-orange, erect hairs, more sparsely on the ventral side. Clypeus depressed, flattened, without median tubercle. *aurinigra* (Bischoff).
4. Abdomen with the basal segments extensively mahogany red. First abdominal segment constricted at apex. Median area of clypeus slightly raised above, depressed and semi-circularly emarginate at apex.
tolerabilis Bradley and Bequaert.
Abdomen entirely black. 5.
5. Large species, 17 to 20 mm. long. First abdominal segment distinctly bell-shaped; its apex markedly constricted and much narrower than the second tergite. Mesosternum in front of the middle coxæ with a strong, transverse tubercle. First sternite with a heavy, blunt, preapical tooth. Last tergite with a pale, chitinous spot. *albistyla* (Saussure).
Much smaller, not over 12 mm. long. First abdominal segment not bell-shaped, hardly or not at all constricted at its apex. Mesosternum not tuberculate in front of the middle coxæ. 6.
6. Ocellar area raised and projecting behind, sloping anteriorly, and margined on the sides and behind by a sharp U-shaped carina, on the outer sides of which are situated the lateral ocelli. Marginal cell distinctly longer than first submarginal. *galeata* Bischoff.
Ocellar area not or very weakly raised, without U-shaped carina. Marginal cell very broad and short, not or scarcely longer than first submarginal. 7.
7. Vertex with a fine, median, longitudinal ridge, behind the anterior ocellus. Upper edge of mandibles not forming a cup-shaped basin. 8.
Vertex without longitudinal ridge between the ocelli, but with a depressed line or groove. Upper edge of mandibles elevated, forming a cup-shaped basin. Dorsal face of thorax partly brownish red; the propodeum black. 9.
8. Horizontal face of propodeum with a median area bordered by ridges that end posteriorly on each side in an erect, transverse scale. Propodeum brownish red; the remainder of the thorax black. *artotana* (Cameron).
Horizontal face of propodeum without a regular, median area; uniformly reticulate, not ending in two raised scales. Thorax entirely black.
bukamensis Bischoff.
9. Carina of first sternite very prominent, ending posteriorly in a sharp tooth.
varians (André).
Carina of first sternite sharp, but without a long tooth behind.
zairensis Bradley and Bequaert.

Subgenera **TROGASPIDIA**, **SPINULOTILLA**, and **GLOSSOTILLA**

1. Mandibles unarmed externally. Black with two first abdominal segments mahogany red. (*Spinulotilla*) *annulicornis* (Bischoff).
Mandibles armed with a tooth on their external lower margin. 2.
2. Scutellum strongly conically elevated, or at least with a median keel which slopes upward and is truncate behind. (*Trogaspidia*) 3.

- Scutellum more or less flat or convex, at most with a median ridge which is not elevated posteriorly. (*Glossotilla*).....33.
3. Anal tergite with a median ridge which terminates in a carina elevated above the apex of the segment.....4.
- Anal tergite with a median ridge which gradually disappears before the apex of the segment.....13.
4. Dorsum of thorax, except propodeum, dark red. Second tergite with two spots, and third and fourth tergites with an interrupted band of white pubescence. *langenburgensis* (Bischoff).
- Thorax entirely black.....5.
5. Polished disk of clypeus with a preapical, acute, erect tooth. Abdomen partly red, without spots or bands of pale pubescence...*tuberculifera* (Bischoff).
- Disk of clypeus with at most a low tubercle.....6.
6. Anterior margin of clypeus slightly reflexed, somewhat elevated and broadly and squarely truncate, laterally denticulate. Longitudinal swelling of pygidium striate. Abdomen entirely orange rufous...*lukugensis* Bradley and Bequaert.
- Anterior margin of clypeus not so.....7.
7. Anterior margin of clypeus preceded by a row of punctures, above which the disk is broadly flat and polished. Apex of pygidium with a deep, median depression in which is situated a short, sharp median longitudinal keel overhung by an inverted crescent-shaped carina. Abdomen orange rufous. *divisa* (F. Smith).
- Anterior margin of clypeus preceded by a deep, transverse, margined, hirsute fossa; above this the disk of the clypeus is a shallow, polished basin. Apex of pygidium not depressed medially and without carinæ below the apex of the longitudinal swelling.....8.
8. Ground color of abdomen entirely black, with spots and bands of pale pubescence.....9.
- Abdomen with the basal three or more segments red. Sixth sternite with scarcely any indication of tubercles.....12.
9. Sixth sternite without trace of lateral tubercles. Ridges on the eighth sternite low and not distinctly dentate posteriorly.....*medon* var.
- Sixth sternite with lateral tubercles or ridges, which, however, are very small, and in *clarior* might be easily overlooked. Ridges of eighth sternite elevated and spinose posteriorly.....10.
10. At least the sides of the pronotum with white, tomentose spots. Lateral tubercles of sixth sternite forming an inconspicuous flattened and curved ridge. *medon* var. *clarior* (Bischoff).
- No pubescent area on pronotum.....11.
11. Anterior spots of second tergite oblique and united with the apical fascia. Lateral tubercles of sixth sternite forming inconspicuous, curved ridges. *medon* var. *themis* (Péringuey).
- Anterior spots of second tergite rounded and separated from the apical fascia. Lateral tubercles of sixth sternite appearing from the side as small, but sharp, inclined teeth; sometimes minute.....*medon* (F. Smith).
12. Dorsal surface of propodeum with a dense covering of white pubescence. Carinæ of eighth sternite weakly raised, scarcely dentate at apex...*fallax* (Bischoff).
- Dorsal surface of propodeum not tomentose. Carinæ of eighth sternite strongly raised antero-posteriorly.....*salisburyica* (Bischoff).

13. Disk of clypeus broadly flattened, without a median elevated lamella, nose, or longitudinal carina; in case the base of the clypeus slopes anteriorly, the median portion of the disk not separated from the lateral portions by at least weakly raised ridges.....14.
Clypeus shaped differently.....22.
14. Abdomen entirely black, without spots or bands of pale pubescence; at most with apical fringes.....15.
Abdomen entirely yellowish brown or partly reddish; in case it is extensively or entirely black, it possesses striking spots or bands of pale pubescence or it is largely covered with bright yellow hairs.....18.
15. Head and thorax entirely black. Eighth sternite with a continuous, transverse, curved ridge over its middle.....*vetustata* (Bingham).
Thorax partly reddish or brown. Eighth sternite with a short, oblique ridge on each side near its base.....16.
16. Tegulæ red. Propodeum, fore and middle legs also partly tinged with red.
alecto var. *rufisquamulata* (Bischoff).¹
Tegulæ and propodeum black or at most slightly brownish.....17.
17. Seventh sternite with lateral tubercles. Anterior lobe of clypeus preceded by a transverse carina which extends laterally to the condyles of the mandibles. Episterna of mesopleura red.....*alecto* (F. Smith).
Seventh sternite unarmed. Clypeus without a transverse carina as described above. Episterna of mesopleura black.....*bequaerti* (Bischoff).
18. Disk of clypeus densely hirsute, its anterior margin semi-circularly emarginate, with lateral angles dentate. Black, with brownish-red second tergite.
leucopyga var. *leucospila* (Cameron).
Disk of clypeus with at least its median portion impunctate, polished, and nude; the antero-lateral angles not dentate.....19.
19. Abdomen black, with the broad apical margin of the second and the greater part of the third and fourth tergites mahogany brown, but this color hidden by a dense, bright golden pubescence. Lateral carinæ of eighth sternite slightly oblique, much raised behind, where they are sharply truncate.
bunkeyana (André).
At least the whole second tergite, often also the first, third, and fourth more or less sanguine red. Pubescence mostly white, often silvery.....20.
20. Tubercles of the seventh sternite all but obsolete; ridge of the eighth sternite as in *kachiobweana*.....*kachiobweana* var. *jankisiaca* (Bischoff).
Tubercles or ridges of the seventh sternite distinct.....21.
21. Propodeum with a spot of dense, appressed pubescence on its basal, horizontal portion. Ridges of eighth sternite parallel with the lateral margin, elongate, not continuous with those of the seventh, acutely subspinose at their apex which is nearer the apical margin of the segment than usual.
kachiobweana (Bischoff).
Pubescence at the base of propodeum loose and more erect.
tanganjicæ (Bischoff).
22. Disk of clypeus anteriorly with a raised, transversely compressed tongue or lamella.....23.

¹This form from Chinchoxo, at the mouth of the Shiloango River, undoubtedly occurs in the Belgian Congo.

- Clypeus otherwise built; if with a raised tongue or nose, this is not transversely but sometimes longitudinally compressed. 26.
23. Lamella of clypeus broad and high. Abdomen black; first and second tergites with a continuous, pale, apical fringe; the third more or less covered with pale pubescence. *prolongata* (Bischoff).
Lamella of clypeus lower and less broad. Basal segments of abdomen extensively sanguine red. 24.
24. Propodeum slender, decidedly narrowed behind. Ridges on eighth sternite rather straight, though converging posteriorly. Scutellum with white pubescence behind. *odontostoma* (Bischoff).
Propodeum of more compact build. Scutellum without white pubescence. . 25.
25. Ridges of seventh and eighth sternites forming together an almost unbroken, oblique, straight line. Second tergite not abnormally swollen.
mufungwensis (Bischoff).
Ridges of seventh sternite terminating much before the origin of those of the eighth; the latter curving toward each other apically. Second tergite as seen from above with its lateral margin abruptly swollen before its apex; as seen from the side with its dorsal surface medially somewhat gibbous.
ligulifera (Bischoff).
26. Clypeus with a median prominence which, as seen in profile, is more or less nose-like and usually longitudinal. 27.
Disk of clypeus forming a shallow transverse basin separated by at least weak ridges from the lateral portions of the clypeus; these and the upper elevated central part densely white, or yellow hirsute, the hairs curving over and tending to obscure the disk. 29.
27. Nose of clypeus continued upward as an acute carina to between the base of the antennæ. Scutellum in a vertically elevated cone. Seventh sternite unarmed; the eighth with short, obsolescent, oblique ridges. Second sternite with a subacute tubercle beyond its truncate base. Thorax sanguine red.
truncativentris (Bischoff).
Nose of clypeus terminating before the upper punctate portion. Scutellum weakly gibbous, surmounted by a short, almost horizontal, but little raised, median keel. Seventh sternite armed; the eighth with weak, oblique ridges. Second sternite elevated, but not tuberculate nor truncate at its base. Thorax black. 28.
28. Prominence of clypeus compressed laterally. *odontolabris* (Bischoff).
Prominence of clypeus broadened laterally, not very much elevated, but sharply truncated below. *edwardi* (Bischoff).
29. First sternite with a low longitudinal keel ending both anteriorly and posteriorly in a tooth. Abdomen entirely black, with markings of white pubescence.
atricolor (André).
First sternite produced into a single, large, acute, triangular tooth. Abdomen partly or entirely red or reddish. 30.
30. Abdomen orange-yellow or orange-red, at most darkened at base and on the extreme apical segments. Head and thorax densely covered with golden-yellow tomentum. 31.
Abdomen extensively black on the apical segments; some of the others broadly or entirely sanguine red. Head and thorax without golden-yellow tomentum. 32.

31. Discal impression of clypeus not margined anteriorly and therefore not so distinctly basin-shaped.....*aurata* (Bischoff).
 Discal impression of clypeus distinctly margined anteriorly, forming a well-defined basin.....*variipennis* (Bischoff).
32. Disk of clypeus with a distinct, concave, and margined base; the anterior lobe of clypeus occupied by a transverse depression and raised on each side to a blunt, upward projecting tooth. Propodeum without basal spot of white pubescence.....*bugalana* (Bischoff), var.
 Disk of clypeus very slightly concave, with very weak diverging lateral margins, not very basin-like; separated from the anterior lobe by transverse, aciculate carinulae; the anterior lobe without lateral, raised teeth.
propodealiformis (Bischoff).
33. Last tergite flattened or depressed toward the apex, its terminal margin broadly truncate or produced into a rounded tip.....34.
 Last tergite with a median, raised portion which is vertically truncate before the apical margin of the segment and ends in an area enclosed by fine carinae.35.
34. Clypeus raised medially into a blunt, roof-shaped, longitudinal swelling, the sides of which are impunctate and polished. Under side of second, third and fourth segments of flagellum partly dirty white. Scutellum without indication of a smooth longitudinal line. Black, with white pubescence; head and thorax without golden-yellow tomentum...*obesa* var. *uellensis* (Bischoff).
 Clypeus not raised and roof-like, with a small, median, depressed basin, bordered by distinct lateral ridges, but slightly margined below. Flagellum underneath entirely black. Scutellum with a median, longitudinal, not entirely impunctate line. Abdomen mostly orange-yellow; head and thorax densely covered with golden-yellow tomentum.....*garuana* (Bischoff).
35. Disk of clypeus broadly, transversely flattened.....36.
 Disk of clypeus with an elevated, median area, the summit of which is a slightly depressed, polished basin.....38.
36. Processes of the eighth sternite in the form of raised, subtriangular, smooth and polished plates elevated above, but decumbant over, the surface; their inner edges parallel and close to each other; their tips slightly before the middle of the segment. Abdomen partly red.....*nyanguensis* (Bischoff).
 Processes of eighth sternite in the form of ridges, the apices of which are more or less curved toward each other or united. Abdomen entirely black.....37.
37. Ridges of last sternite united posteriorly. Second sternite without depressed preapical basin or transverse ridges....*malelensis* Bradley and Bequaert.
 Ridges of last sternite not united posteriorly. Posterior half of second sternite forming a shallow, impunctate, median basin, limited by a curved, transverse ridge behind.....*mukongo* Bradley and Bequaert.
38. Entirely black, with markings of pale pubescence. Disk of second sternite slightly depressed with a suggestion of a median tubercle at base.
adelpha (André).
 At least the basal tergites red. Second sternite convex or weakly flattened at base.....39.
39. Abdomen without spots or apical bands of white pubescence; entirely red or the last two segments infuscated.....*leonina* (Bischoff).

Abdomen with white spots or apical bands of pubescence; three or four apical segments infuscated.....40.

40. Second tergite without lateral spots of white pubescence.

leonina var. *alboannularis* Bradley and Bequaert.

Second tergite with lateral, subbasal spots of white pubescence.

leonina var. *congoensis* (Bischoff).

S. kasongoensis (Bischoff), of which we have seen no specimen, appears to run in our key to No. 40. According to the description, it differs from *leonina* var. *alboannularis* in having a shorter, more globular thorax, with broader propodeum. The second tergite has no subbasal spots of pubescence, but the face and pronotum are densely covered with white tomentum.

Subgenus **TRISPILOTILLA**

The five Ethiopian species which we have examined in the male sex, viz., *demaculata*, *acheron*, *melanocephala*, *africana*, and *charaxiformis*, present numerous structural differences and we therefore consider them as specifically distinct. Since we have not seen *monteiroæ*, we provisionally follow Bischoff in regarding *charaxiformis* as a variety of that species.

1. Thorax, except propodeum, brownish red dorsally. Abdomen black; the third and fourth tergites with broadly interrupted bands of pale pubescence. Upper elevated portion of the clypeus with a longitudinal median prominence which is flattened on its summit; above the anterior margin a transverse, impressed basin which is rather distinctly and sharply delimited, especially on the sides.....*demaculata* (Bischoff).

Thorax black.....2.

2. Abdomen entirely black, with a bluish or violet reflection.....3.
Abdomen partly reddish brown.....6.

3. Femora bright red.....*rufofemorata* (F. Smith).
Legs entirely black.....4.

4. Head and thorax with dense, grayish brown, felty pubescence.

acheron var. *canescens* (Bischoff).

Head and thorax with black pubescence; the coxæ with gray hairs. Clypeus with a broad, transverse, smooth and highly polished trough extending from side to side and occupying most of its disk.....5.

5. Anterior edge of clypeus preceded by a strongly elevated, sharp, curved carina.
acheron (F. Smith).

Anterior edge of clypeus preceded by a weakly defined, curved carina, so that the anterior edge appears broadly beveled.....*africana* (André).

6. Superior raised portion of clypeus terminating below in a strongly elevated U-shaped carina. Second tergite almost entirely mahogany-red; first tergite black; the third without pubescent band.....*melanocephala* (Bischoff).

Upper elevated portion of the clypeus with a longitudinal median prominence which is not flattened at its summit; a transverse, impressed, weakly delimited basin above the anterior margin. First and second tergites mahogany red; the third with an interrupted band of white pubescence.

monteiroæ var. *charaxiformis* (Bischoff).

FEMALES

Subgenus **SMICROMYRME**

1. Pygidial area granulate, the granulations formed by beaded longitudinal striæ. Second tergite with two white, discal spots of pubescence; apical bands of second and third tergites broadly interrupted medially and not shortened on the sides. *granulipygidialis* (Bischoff).
Pygidial area not granulate, of if with weakly beaded striæ, the second tergite with three discal spots in a transverse row. 2.
2. Second tergite with three discal spots of white pubescence placed in a transverse row; first tergite usually with a median, apical spot. 3.
Second tergite with one median, discal spot of white pubescence. Thorax red. . 9.
3. Striation of pygidial area either forming regular curves at the base or irregularly vermiculate. Third tergite with a continuous band of white pubescence. . 4.
Pygidial area with longitudinal striæ. 5.
4. Pygidial area with striæ which curve regularly and broadly at the base and are parallel toward the apex. Clypeus with an upper, median tubercle below the base of the antenna. Thorax bright red.
elisabethæ Bradley and Bequaert.
Pygidial area irregularly vermiculate. Median tubercle of clypeus with a bifid apex. Thorax black. *bayeri* Bradley and Bequaert.
5. Pale pubescent band of third tergite continuous in the middle; first tergite with an apical fringe. Thorax red. 6.
Pubescent band of third tergite interrupted in the middle. 7.
6. Second tergite with a small, median, apical spot of pale pubescence; only the third tergite covered with a continuous band of pale hairs.
enippe var. *permacularis* Bischoff.
Apical margin of second tergite only with black hairs; third, fourth, and fifth tergites with a continuous band of rather yellowish hairs.
longigena Bischoff.
7. Thorax dark red. Fifth tergite with an apical fringe of white hairs; the fourth without pale pubescence. *tettensis* var. *quintociliata* Bischoff.
Thorax black. 8.
8. Spots and bands of pubescence yellowish.
tettensis var. *tripunctata* (Radoszkowski).
Spots and bands of pubescence pure white. *tettensis* var. *cretacea* Bischoff.¹
9. Pygidial area smooth and shiny over most of its surface, with weak indications of wrinkles at its base. Second tergite with an apical fringe, widened in the middle; the third with a continuous band. *difficilis* Bischoff.
Pygidial area distinctly, though somewhat irregularly striolate longitudinally. Second tergite without apical fringe; the third, fourth, and fifth with continuous bands. 10.
10. Occiput with a transverse crest which is crenulate and irregularly interrupted in the middle. First tergite with a median, apical spot of pale hairs. Abdomen black. *pruinosa* Bischoff.
Occiput not raised into a transverse crest. An apical fringe on first tergite. First abdominal segment, second sternite, and sides of second tergite reddish.
kitompoana Bischoff.

¹This form has been described from Brazzaville and undoubtedly occurs in the Belgian Congo.

Subgenera **TROGASPIDIA** and **GLOSSOTILLA**

1. Third and fourth tergites with two spots or an interrupted band of pale pubescence; or the hypopygium ending in four lobes.....2.
Fourth tergite without spots or bands of pale pubescence, and the hypopygium not ending in four lobes.....21.
2. Thorax entirely black. Pygidium with rather heavy and regular, longitudinal striae, its apical lobe dull and densely covered with granulations.
medon (F. Smith).
Thorax more or less reddish or brownish-red.....3.
3. Apical lobe of pygidium somewhat raised, smooth, and shiny.....4.
Apical lobe of pygidium not raised above the remainder of the surface and not polished or the pygidium without defined apical lobe.....5.
4. Pygidium roughly striate over its basal half. Lateral furrows of second tergite hairless.....*langenburgensis* (André).
Pygidium very finely granulate. Lateral furrows of second tergite with brownish felt.....*kalumbana* (Bischoff).
5. Pygidium with distinct longitudinal striation, which extends into the apical lobe and frequently reaches the apical margin.....6.
Pygidium either irregularly rugulose or, if longitudinally striate, the striae do not enter the apical lobe.....8.
6. Thorax comparatively slender, bright red; its anterior margin somewhat convex anteriorly.....*kipochiana* (Bischoff).
Thorax of more heavy, compact build.....7.
7. Thorax dark, sanguine red, but slightly widened posteriorly.....*medon* var.
Thorax bright red, much widened posteriorly in the region of the propodeum.
güssfeldti (Bischoff).
8. Hypopygium with four distinct lobes which extend beyond the apex of the last tergite. Pygidium irregularly, longitudinally striolate in its basal half, granulate in its apical portion.....*leucopyga* var. *leucospila* (Cameron).
Hypopygium not ending in four lobes.....9.
9. Pygidium with distinctly longitudinal striae or rugae, which, however, stop short of the apical lobe.....10.
Pygidium irregularly rugulose or if with somewhat longitudinal rugae these are irregular and wavy.....13.
10. Fascia of pale pubescence distinctly abbreviated on the sides of the third tergite.....11.
Fascia of pale pubescence not abbreviated laterally on the third tergite, but continued on the sides at least as a fringe of dense, pale hairs. Pygidium with rather weak and wavy striation.....*unduligera* (Bischoff).
11. Pygidium with rather fine, dense, not very regular, though quite parallel rugae.
mufungwana (Bischoff).
Pygidium with heavier striation, the striae distinctly diverging beyond the middle.....12.
12. Metapleura and sides of propodeum infuscated. Pronotum somewhat produced laterally.....*sampweana* (Bischoff).
Thorax of a much brighter red. Pronotum not so much produced laterally, the region of the propodeum somewhat widened.....*kamboveana* (Bischoff).

13. Pygidial area without distinct apical lobe, its basal two-thirds with strong, very irregular, though somewhat longitudinal rugæ. Thorax red; the pleura but slightly infuscate. *leonina* var. *congoensis* (Bischoff).
Pygidial area with a well-defined apical lobe, the lateral carinæ stopping short of the apex. 14.
14. Pleura more or less infuscated. Pygidium with a few heavier, longitudinal rugæ. Thorax parallel-sided in the middle, very slightly broadened in the region of the propodeum. *aurata* (Bischoff).
Pleura entirely red. 15.
15. Second tergite roughly and densely pitted on the sides near the discal spots and farther back. *jankisiana* (Bischoff).
Sculpture of sides of second tergite much finer and more sparse. 16.
16. Posterior surface of propodeum with a median, small, keel-shaped tubercle in its lower third. *sankuruana* (Bischoff).
Posterior surface of propodeum not tuberculate. 17.
17. Fascia of pale pubescence of second tergite not sharply abbreviated laterally, but continued by a fringe of pale hairs to the lateral margins. 18.
Fascia of pale pubescence of second tergite sharply abbreviated on the sides, at most a few pale hairs laterally on the apical margin. 19.
18. Lateral fringe of second tergite extending forward to beyond the felted grooves. *dunguana* (Bischoff).
Lateral fringe of second tergite not reaching half-way the felted grooves. *brazzavillensis* (Bischoff).¹
19. Sides of the mesonotum somewhat diverging behind and gradually passing into the region of the propodeum. *mpalana* (Bischoff).
Sides of the mesonotum parallel. 20.
20. Region of the propodeum hardly widened on the sides. Thorax of compact build. *graueri* (Bischoff).
Region of the propodeum distinctly widened and rounded off laterally. Thorax more slender. *lufirana* (Bischoff).
21. Second tergite with a pair of discal and a pair of apical spots of pubescence. Second sternite with a strong tooth on each side before the apical margin. Second tergite with fine sculpture. *cyparissa* (F. Smith).
Second tergite with two discal spots of pubescence only. 22.
22. Pygidial area dull at the apex, entirely covered with longitudinal striæ, some of which enter the apical lobe and reach its margin. First tergite with a spot of pale pubescence. *hyperspilota* (Bischoff).²
Apical portion of pygidial area extensively smooth and shiny, without sculpture. First tergite without spot of pale pubescence. 23.
23. Pygidial area without differentiated apical lobe. 24.
Pygidial area with a well-defined apical lobe, the lateral carinæ ending far before the apex. Thorax red, at least dorsally. 30.
24. Thorax entirely black. 25.
Thorax entirely or partly red. Band of pale pubescence of third tergite broadly interrupted in the middle, and more or less distinctly abbreviated on the sides. 26

¹This species, described from Brazzaville, undoubtedly occurs in the Belgian Congo.

²The description of this species was based upon a specimen in the Paris Museum, labeled "Congo." It is probable that it was obtained in the French Congo.

3. Third and fourth tergites with interrupted bands of white pubescence. Teeth of antennal tubercles situated close together.
dolosa var. *septemmaculata* (Bischoff).
Third tergite with a continuous band; the fourth without a band. Teeth of antennal tubercles more remote. *tergacantha* (Bischoff).
4. Pygidial area with its basal two-thirds striate, its apical third polished and impunctate. Third tergite with a continuous band of white pubescence. . . . 5.
Pygidial area either obliquely or longitudinally striate almost to the very apex. Third tergite with an interrupted band of white pubescence. 6.
5. Entirely black. Pubescent markings of abdomen strongly yellowish.
octacantha (Mercet).
Thorax red. Pubescent markings of abdomen only slightly yellowish.
semipolita var. *lembana* (Bischoff).
6. Upper margin of propodeum with a row of 4 or 5 short, blunt teeth on each side of the broadly truncate, slightly raised, median scale. Striæ of pygidial area longitudinal and almost parallel, the middle ones slightly diverging apically. First tergite red. *rufibasalis* (Bischoff).
Upper margin of propodeum with 2 or 3 long, digitiform processes on each side of the median scale which is itself digitiform. First tergite black. 7.
7. Striæ of pygidial area oblique, diverging apically. *congoana* (Bischoff).
Striæ of pygidial area parallel and longitudinal. *dorsidentata* (Bischoff).

Smicromyrme (Smicromyrme) albistyla (Saussure)

Mutilla albistyla H. DE SAUSSURE, 1892, in Distant, 'A Naturalist in the Transvaal,' p. 225 (♂), Pl. iv, fig. 7.

Smicromyrme atropos subsp. *albistyla* BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 596 (♂).

Mutilla creusa PÉRINGUEY, 1899, Ann. South African Mus., I, p. 367 (♂).

Mutilla artemisia PÉRINGUEY, 1899, *op. cit.*, pp. 368 and 450 (♂).

Smicromyrme albistyla BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 234 (♂).

TYPE LOCALITY.—Pretoria, Transvaal.

BELGIAN CONGO.—Nyangwe; Kachiobwe (J. Bequaert); Kinshasa, one male, June 1, 1915 (Lang and Chapin).

Smicromyrme (Smicromyrme) artotana (Cameron)

Mutilla artotana CAMERON, 1910, in Sjöstedt, 'Wiss. Ergebn. Schwed. Zool. Exp. Kilimandjaro,' II, 8, p. 222 (♂).

TYPE LOCALITY.—Lowlands near Mt. Meru, Tanganyika Territory.

BELGIAN CONGO.—Sampwe (J. Bequaert).

Smicromyrme (Smicromyrme) aurinigra (Bischoff)

Mimecomutilla aurinigra BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 502 (♂).

TYPE LOCALITY.—Kambove, 4,000–5,000 ft., Belgian Congo (Neave).

BELGIAN CONGO.—Lufira River, 3,500 ft.; 150 to 200 miles west of Kambove, 3,500–4,500 ft. (Neave); Nyangwe (R. Mayné); Kapiri (Mission Leplae); Rutshuru (J. Bequaert).

Smicromyrme (Smicromyrme) tolerabilis Bradley and Bequaert

Smicromyrme bequaerti BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 592 (♂).

Smicromyrme tolerabilis BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 233 (♂).

TYPE LOCALITY.—Sankisia [“Jankisia”], Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Kasenga (J. Bequaert).

The specimen from Sankisia, recorded by Bishoff as belonging somewhat doubtfully to *exaltata* (F. Smith), is not different from the type of *tolerabilis*.

Smicromyrme (Smicromyrme) bukamensis Bischoff

Smicromyrme bukamensis BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 610 (♂).

TYPE LOCALITY.—Bukama, Belgian Congo (J. Bequaert).

Smicromyrme (Smicromyrme) elisabethæ, new name

Smicromyrme congoana BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 572 (♀), Pl. III, fig. 158 (not *Pristomutilla congoana* Bischoff, 1921, *op. cit.*, p. 525, here placed in *Smicromyrme*).

TYPE LOCALITY.—Elisabethville, Belgian Congo (J. Bequaert).

Smicromyrme (Smicromyrme) difficilis Bischoff

Smicromyrme difficilis BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 577 (♀).

TYPE LOCALITY.—Sankisia [“Jankisia”], Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Kalengwe (J. Bequaert).

Smicromyrme (Smicromyrme) enippe (Péringuey) var. **permacularis**
Bischoff

Smicromyrme enippe subsp. *permacularis* BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 580 (♀), Pl. III, fig. 155.

TYPE LOCALITY.—Lichtenburg, Transvaal.

BELGIAN CONGO.—Kambove, 4,000–5,000 ft. (Neave).

Smicromyrme (Smicromyrme) galeata Bischoff

Smicromyrme galeata BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 615 (♂).

TYPE LOCALITY.—Sankisia [“Jankisia”], Belgian Congo (J. Bequaert).

Smicromyrme (Smicromyrme) granulipygidialis (Bischoff)

Mimecomutilla granulipygidialis BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 499 (♀).

TYPE LOCALITY.—Fernand Vaz, Gaboon.

BELGIAN CONGO.—Banana (Busschodts); Kasai (Crida); Kambove, 4,000–5,000 ft. (Neave); Kunzulu (R. Mayné); Lubu (♀, ♂, *in copula*; A. Collart, October 21, 1923).

Smicromyrme (Smicromyrme) kitompoana Bischoff

Smicromyrme kitompoana BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 585 (♀), Pl. III, fig. 160.

TYPE LOCALITY.—Kitompo, Belgian Congo (J. Bequaert).

Smicromyrme (Smicromyrme) longigena Bischoff

Smicromyrme longigena BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 582 (♀), Pl. III, fig. 154.

TYPE LOCALITY.—Brazzaville, French Congo.

BELGIAN CONGO.—Ankoro (J. Bequaert).

Smicromyrme (Smicromyrme) camporum, new name

Smicromyrme mufungwana BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 613 (♂) (not *Trogaspidia mufungwana* Bischoff, 1920, *op. cit.*, p. 381, here placed in *Smicromyrme*).

TYPE LOCALITY.—Sampwe ["Mufungwa"], Belgian Congo (J. Bequaert).

Smicromyrme (Smicromyrme) pruinosa Bischoff

Smicromyrme pruinosa BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, pp. 584 (♀) and 591 (♂).

TYPE LOCALITY.—Pakasa, Northern Rhodesia.

BELGIAN CONGO.—Albertville (R. Mayné).

Smicromyrme (Smicromyrme) tettensis (Gerstæcker)

var. **quintociliata** Bischoff

Smicromyrme tettensis subsp. *quintociliata* BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 569 (♀).

TYPE LOCALITY.—Langenburg, Tanganyika Territory.

BELGIAN CONGO.—Ngombe, Kasai (H. Schouteden); between Kalembe-lembe and Baraka (R. Mayné).

Smicromyrme (Smicromyrme) tettensis (Gerstæcker) var. **tripunctata** (Radoszkowski)

Mutilla tripunctata RADOSZKOWSKI, 1881, Journ. Sci. Math. Phys. Nat. Ac. Lisboa, VIII, No. 31, p. 217 (♀).

Smicromyrme tettensis subsp. *tripunctata* BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 570 (♀), Pl. III, fig. 152.

TYPE LOCALITY.—Angola.

BELGIAN CONGO.—Zambi (Haas).

Smicromyrme (Smicromyrme) varians (André)

Mutilla varians ERN. ANDRÉ, 1904, Ann. Mus. Civ. Genova, XLI, p. 247 (♂).

Smicromyrme varians BISCHOFF, 1921, Arch. f. Naturgesch., Abt. A, 4, p. 602 (♂).

TYPE LOCALITY.—Bolama, Portuguese Guinea.

BELGIAN CONGO.—Sankisia (J. Bequaert).

Smicromyrme (Smicromyrme) zairensis Bradley and Bequaert

Smicromyrme zairensis BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 231 (♂).

TYPE LOCALITY.—Banana, Belgian Congo (H. Schouteden).

Smicromyrme (Glossotilla) adelpha (André)

Mutilla adelpha ERN. ANDRÉ, 1898, Ann. Soc. Ent. France., LXVII, p. 12 (♂); 1904, Ann. Mus. Civ. Genova, XLI, p. 236 (♀, ♂).

Mutilla schulzi ERN. ANDRÉ, 1903, Ann. Soc. Ent. France, LXXII, p. 422 (♀).

Glossotilla adelpha BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 474 (♀), Pl. VII, fig. 225; 1921, *op. cit.*, 4, p. 482 (♂), Pl. II, fig. 126.

TYPE LOCALITY.—Congo (probably French Congo).

BELGIAN CONGO.—Boma (Tschoffen) and one male (Lang and Chapin); Nyangwe (J. Bequaert).

Smicromyrme (Glossotilla) casignete (Bischoff) var. **gandana** (Bischoff)

Glossotilla casignete subsp. *gandana* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 476 (♀).

TYPE LOCALITY.—Southern Unyoro, Uganda.

BELGIAN CONGO.—Bischoff refers somewhat doubtfully to this form a specimen from southeastern Katanga, 4,000 ft. (Neave).

Smicromyrme (Glossotilla) garuana (Bischoff)

Trogaspidia garuana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 423 (♂).

Smicromyrme (Glossotilla) garuana BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 247 (♂).

TYPE LOCALITY.—Garua, Cameroon.

BELGIAN CONGO.—Garamba, one male (Lang and Chapin).

Smicromyrme (Glossotilla) katangensis, new name

Glossotilla kamboveana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 477 (♀) (not *Trogaspidia kamboveana* Bischoff, *op. cit.*, p. 379).

TYPE LOCALITY.—Kambove, Belgian Congo, 4,000–5,000 ft. (Neave).

Smicromyrme (Glossotilla) kasongoensis (Bischoff)

Glossotilla kasongoensis BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 487 (♂).

TYPE LOCALITY.—50 kilometers east of Kasongo, Belgian Congo (Grauer); this locality is not in former German East Africa, as stated by Bischoff.

Smicromyrme (Glossotilla) leonina (Bischoff)

Glossotilla leonina BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 488 (♂).

Smicromyrme (Glossotilla) leonina BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 248 (♂).

TYPE LOCALITY.—Leopoldville [“Leo”], Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Stanleyville, 3 males (Lang and Chapin).

Smicromyrme (Glossotilla) leonina var. **alboannularis**, new name

Glossotilla kibomboana BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 486 (♂) (not *Trogaspidia bugalana* subsp. *kibomboana* Bischoff, 1920, *op. cit.*, p. 432).

TYPE LOCALITY.—Kibombo, Belgian Congo (J. Bequaert).

Smicromyrme (Glossotilla) leonina var. **congoensis** (Bischoff)

Glossotilla congoensis BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, pp. 464 (♀); 1921, *op. cit.*, 4, p. 489 (♂), Pl. VI, fig. 207.

Glossotilla jokelensis BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 489 (♂).

TYPE LOCALITY.—Bukama, Belgian Congo, ♀ (J. Bequaert).

BELGIAN CONGO.—Kibimbi, type locality of ♂; Sokele ["Jokele"], type locality of *jokelensis*; Kasonsero (J. Bequaert); Niemba River (J. Rodhain).

Smicromyrme (Glossotilla) luctifera (André)

Mutilla luctifera ERN. ANDRÉ, 1903, Ann. Soc. Ent. France, LXXXII, p. 423 (♀).

Glossotilla luctifera BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 470 (♀), Pl. II, fig. 119 and Pl. VI, fig. 218.

TYPE LOCALITY.—San Thomé.

BELGIAN CONGO.—West of Lake Edward, 1,600 meters (Grauer).

Smicromyrme (Glossotilla) malelensis Bradley and Bequaert

Smicromyrme (Glossotilla) malelensis BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 250 (♂).

TYPE LOCALITY.—Malela, Lower Belgian Congo (J. Bequaert).

Smicromyrme (Glossotilla) mukongo Bradley and Bequaert

Smicromyrme (Glossotilla) mukongo BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 249 (♂).

TYPE LOCALITY.—Thysville, Belgian Congo (J. Bequaert).

Smicromyrme (Glossotilla) nyangwensis (Bischoff)

Glossotilla nyangwensis BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 491 (♂).

TYPE LOCALITY.—Nyangwe, Belgian Congo (J. Bequaert).

Smicromyrme (Glossotilla) obesa (André) var. **uellensis** (Bischoff)

Glossotilla obesa subsp. *uellensis* BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 494 (♂).

TYPE LOCALITY.—Uelleburg, Spanish Guinea.

BELGIAN CONGO.—Walikale (J. Bequaert).

Smicromyrme (Glossotilla) stilpnopyga (Bischoff)

Glossotilla stilpnopyga BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 472 (♀), Pl. VI, fig. 222.

TYPE LOCALITY.—Luanza, Belgian Congo (de Paoli).

BELGIAN CONGO—Nyangwe (J. Bequaert).

Smicromyrme (Spinulotilla) annulicornis (Bischoff)

Spinulotilla annulicornis BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 168 (♂).

TYPE LOCALITY.—Kapiri, Belgian Congo (Mission Leplae).

Smicromyrme (Trogaspidia) alecto (F. Smith)

Mutilla alecto F. SMITH, 1855, 'Cat. Hym. Brit. Mus.,' III, p. 17 (♂).

Trogaspidia alecto BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 410 (♂).

Mutilla versuta F. SMITH, 1879, 'Descr. New Spec. Hym. Brit. Mus.,' p. 197 (♂).

Mutilla sordidata TULLGREN, 1904, Ark. f. Zool., I, p. 427 (♂).

Smicromyrme (Trogaspidia) alecto BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 242 (♂).

TYPE LOCALITY.—Sierra Leone.

BELGIAN CONGO.—Kasai (Crida); Banana (Etienne); Bena Bendi; Zobe (R. Mayné); Tshimpondo; Makungu (Verschueren).

Smicromyrme (Trogaspidia) atricolor (André)

Mutilla atricolor ERN. ANDRÉ, 1895, Ann. Soc. Ent. France, LXIII, (1894), p. 675 (♀); 1904, Ann. Mus. Civ. Genova, XLI, p. 232 (♂, ♀).

Glossotilla atricolor BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, pp. 471 (♀) and 494 (♂), Pl. II, fig. 118 and Pl. VI, fig. 220.

TYPE LOCALITY.—Sierra Leone.

BELGIAN CONGO.—Dima (Koller); Luali; Katala (J. Bequaert).

Smicromyrme (Trogaspidia) aurata (Bischoff)

Trogaspidia aurata BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 385 (♀) and 425 (♂).

TYPE LOCALITY.—Ngare Dobash, Tanganyika Territory.

BELGIAN CONGO.—Mawambi (Schubotz); between Mawambi and Irumu (Grauer).

Smicromyrme (Trogaspidia) bugalana (Bischoff)

Trogaspidia bugalana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, pp. 377 (♀) and 430 (♂), Pl. VI, fig. 163.

Smicromyrme (Trogaspidia) bugalana var. BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 246 (♀, ♂).

TYPE LOCALITY.—Bugalla, Sesse Islands, Uganda (♀, ♂).

BELGIAN CONGO.—Beni, ♀, ♂, taken *in copula* (J. Bequaert).

Smicromyrme (Trogaspidia) bugalana var. **brunneipennis** (Bischoff)

Trogaspidia bugalana subsp. *brunneipennis* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 432 (♂).

TYPE LOCALITY.—Northwest of Lake Tanganyika, Belgian Congo (Grauer).

This form is not included in our key, since, in the absence of specimens, it is impossible to decide how it differs from *bugalana*. According to Bischoff the wings are more infusate than in *bugalana* var. *clari-pennis* but less so than in typical *bugalana*. In addition, the pubescence of the last segment, especially its sternite, is mostly brownish and but sparsely black.

Smicromyrme (Trogaspidia) bugalana var. **kibomboana** (Bischoff)

Trogaspidia bugalana subsp. *kibomboana* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 432 (♂).

TYPE LOCALITY.—Kibombo, Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Kondue (Leonhardt); Uele River (J. Rodhain); Kwilu (Vanderijst); Mondombe (R. Mayné); Luluabourg (Callewaert); Stanleyville, 25 males (Lang and Chapin).

Smicromyrme (Trogaspidia) bunkeyana (André)

Mutilla bunkeyana ERN. ANDRÉ, 1909, Ann. Soc. Ent. Belgique, LIII, p. 99 (♂).

Trogaspidia bunkeyana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 418 (♂).

Smicromyrme (Trogaspidia) bunkeyana BRADLEY AND BEQUAERT, 1923, Rev. Zool., Afric., XI, p. 245 (♂).

TYPE LOCALITY.—Bunkeya, Belgian Congo (Neave).

Smicromyrme (Trogaspidia) mufungwana (Bischoff)

Trogaspidia mufungwana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 381 (♀) (not *Smicromyrme mufungwana* Bischoff, 1921, *op. cit.*, p. 613).

TYPE LOCALITY.—Sampwe ["Mufungwa"], Belgian Congo (J. Bequaert).

Smicromyrme (Trogaspidia) cyparissa (F. Smith)

Mutilla cyparissa F. SMITH, 1855, 'Cat. Hym. Brit. Mus.,' III, p. 17 (♂). BISCHOFF, 1911, 'Wiss. Ergebn. D. Z. Afr. Exp. (1907-08),' III, p. 215 (♂).

Trogaspidia cyparissa BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt., A, 3, pp. 405 (♀) and 427 (♂).

TYPE LOCALITY.—Whydah, Dahomey.

BELGIAN CONGO.—Mawambi (Schubotz).

Smicromyrme (Trogaspidia) degreefi Bradley and Bequaert

Smicromyrme (Trogaspidia) degreefi BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 237 (♀).

TYPE LOCALITY.—Uele District, Belgian Congo (De Greef).

Smicromyrme (Trogaspidia) dunguana (Bischoff)

Trogaspidia dunguana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 383 (♀), Pl. VI, fig. 184.

TYPE LOCALITY.—Dungu-Niangara-Doruma, Belgian Congo (Hutereau).

Smicromyrme (Trogaspidia) edwardi (Bischoff)

Trogaspidia edwardi BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 436 (♂).

TYPE LOCALITY.—Plains northeast of Lake Edward, 3,200 ft., Uganda.
BELGIAN CONGO.—Bumbuli (R. Mayné).

Smicromyrme (Trogaspidia) fallax Bischoff

Trogaspidia fallax BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 447 (♂).

TYPE LOCALITY.—Sampwe ["Mufungwa"], Belgian Congo (J. Bequaert).

Smicromyrme (Trogaspidia) graueri (Bischoff)

Trogaspidia graueri BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 388 (♀), Pl. VI, fig. 188.

TYPE LOCALITY.—Northwest of Lake Tanganyika, Belgian Congo (Grauer).

Smicromyrme (Trogaspidia) güssfeldti (Bischoff)

Trogaspidia güssfeldti BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 373 (♀).

TYPE LOCALITY.—Chinchoxo, Portuguese Congo.
BELGIAN CONGO.—Banana (Busschodts).

Smicromyrme (Trogaspidia) jankisiana (Bischoff)

Trogaspidia jankisiana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 383 (♀), Pl. VI, fig. 181.

TYPE LOCALITY.—Sankisia ["Jankisia"], Belgian Congo (J. Bequaert).

Smicromyrme (Trogaspidia) kachiobweana (Bischoff)

Trogaspidia kachiobweana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 419 (♂).

Smicromyrme (Trogaspidia) kachiobweana BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 244 (♂).

TYPE LOCALITY.—Kachiobwe, Belgian Congo (J. Bequaert).
BELGIAN CONGO.—Kalembe-lembe (R. Mayné); Lufira River.

Smicromyrme (Trogaspidia) kachiobweana var. **jankisiaca** (Bischoff)

Trogaspidia tanganyicæ subsp. *jankisiaca* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 423 (♂).

Smicromyrme (Trogaspidia) kachiobweana var. *jankisiaca* BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 245 (♂).

TYPE LOCALITY.—Sankisia ["Jankisia"], Belgian Congo (J. Bequaert).
BELGIAN CONGO.—Region of the Great Lakes (Sagana).

Smicromyrme (Trogaspidia) kalumbana (Bischoff)

Trogaspidia kalumbana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 369 (♀).

TYPE LOCALITY.—Kalumba to Kilwa, Belgian Congo (Neave).

Smicromyrme (Trogaspidia) kamboveana (Bischoff)

Trogaspidia kamboveana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 379 (♀), Pl. VI, fig. 169.

TYPE LOCALITY.—Kambove, 4,000–5,000 ft., Belgian Congo (Neave).

Smicromyrme (Trogaspidia) bequaerti (Bischoff)

Trogaspidia alectosubsp. bequaerti BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 412 (♂) (not *Smicromyrme bequaerti* Bischoff, 1921, *op. cit.*, p. 592).

Smicromyrme (Trogaspidia) bequaerti BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 242 (♂).

TYPE LOCALITY.—Kasenga, Belgian Congo (J. Bequaert).

Smicromyrme (Trogaspidia) kipochiana (Bischoff)

Trogaspidia kipochiana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 375 (♀), Pl. VI, fig. 158.

TYPE LOCALITY.—Kipochi, Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Lusambo (J. Ghesquière).

Smicromyrme (Trogaspidia) langenburgensis (André)

Dolichomutilla langenburgensis ERN. ANDRÉ, 1908, Zeitschr. Syst. Hym. Dipt., VIII, p. 68 (♂).

Trogaspidia langenburgensis BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, pp. 368 (♀) and 443 (♂), Pl. v, fig. 148.

Dolichomutilla neavei BINGHAM, 1911, Trans. Ent. Soc. London, p. 542 (♂).

TYPE LOCALITY.—Langenburg, Tanganyika Territory.

Bischoff records it from "Congo."

Smicromyrme (Trogaspidia) leucopyga (Klug) var. **leucospila** (Cameron)

Mutilla leucospila CAMERON, 1910, in Sjöstedt, 'Wiss. Ergebn. Schwed. Zool. Exp. Kilimandjaro,' II, 8, p. 201 (♀).

Mutilla leucopyga BISCHOFF, 1911, 'Wiss. Ergebn. D. Z. Afr. Exp. (1907–08),' III, p. 215 (♀, ♂) (not of Klug).

Lobotilla leucopyga subsp. leucospila BISCHOFF, 1920, Arch. f. Naturgesch. LXXXVI, Abt. A, 3, pp. 336 (♀) and 339 (♂).

TYPE LOCALITY.—Lowlands near Mt. Meru, Tanganyika Territory.

BELGIAN CONGO.—Kasindi; western foot of Mt. Ruwenzori (Schubotz); Lufubu (♀, ♂, *in copula*); Katanga district: Sampwe ["Mufungwa"]; Kasongo; Lukonzolwa; Bukama; Kongolo (J. Bequaert); Luluabourg (Janssens); Poko (Floridon); valley of the Lukuga (Schwetz); Nyangwe (R. Mayné); Faradje, one male and one female (Lang and Chapin); Kisantu (Vanderijst), one female lacking the interrupted fascia on the fourth tergite.

The male of this species very closely resembles in general appearance *Smicromyrme (Trispilotilla) maculata* var. *melanocephala* (Bischoff), but this close resemblance is really superficial as proved by the absence of an external tooth on the mandibles in *melanocephala* and its very different clypeal conformation.

Smicromyrme (Trogaspidia) ligulifera (Bischoff)

Trogaspidia ligulifera BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 440 (♂).

TYPE LOCALITY.—Bugalla, Sesse Islands, Uganda.

BELGIAN CONGO.—Uele (De Greef); between Beni and Kasindi, one male (J. Bequaert); Stanleyville, 9 males (Lang and Chapin).

We have not seen the type of this species and, while the specimens before us may be recognized by the structural characters employed in our key, the latter are not referred to by Bischoff and we have, of course, no way of ascertaining that they apply to the type specimen.

Smicromyrme (Trogaspidia) lufirana (Bischoff)

Trogaspidia lufirana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 389 (♀), Pl. VI, fig. 109.

TYPE LOCALITY.—Lufira River, 3,500 ft., Belgian Congo (Neave).

Smicromyrme (Trogaspidia) lukugensis Bradley and Bequaert

Smicromyrme (Trogaspidia) lukugensis BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 238 (♂).

TYPE LOCALITY.—Albertville, Belgian Congo (R. Mayné).

BELGIAN CONGO.—Mpala (R. Mayné); Niemba (Pons).

Smicromyrme (Trogaspidia) medon (F. Smith)

Mutilla medon F. SMITH, 1855, 'Cat. Hym. Brit. Mus.,' III, p. 20 (♂).

Trogaspidia medon BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, pp. 371 (♀) and 444 (♂), Pl. v, fig. 152.

TYPE LOCALITY.—Congo.

BELGIAN CONGO.—Bongo-Congo, Zila-Zambi (Cabra); Bangu, Lukungu; Malela, Lower Congo (R. Verschueren); Banana; Zambi; Boma (Lang and Chapin).

Three males from Boma, caught on the 14th, 17th, and 18th of June, 1915, by Lang and Chapin, have the tooth of the sixth sternite smaller than the others and they are themselves small specimens. Another male of the same place, caught June 14, perhaps the smallest and most slender of all, not only has the teeth of the sixth sternite entirely lacking, but the ridges on the ultimate sternite are low and not spinose posteriorly.

Smicromyrme (Trogaspidia) medon var. **clarior** (Bischoff)

Trogaspidia medon subsp. *clarior* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 446 (♂).

TYPE LOCALITY.—Middle Loangwa Valley, Northeastern Rhodesia.

BELGIAN CONGO.—Nyangwe (J. Bequaert; R. Mayné).

Smicromyrme (Trogaspidia) mpalana (Bischoff)

Trogaspidia mpalana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 391 (♀).

TYPE LOCALITY.—Mpala, Belgian Congo.

Smicromyrme (Trogaspidia) mufungwensis (Bischoff)

Trogaspidia mufungwensis BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 449 (♂).

Smicromyrme (Trogaspidia) mufungwensis BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 244 (♂).

TYPE LOCALITY.—Sampwe ["Mufungwa"], Belgian Congo (J. Bequaert).

Smicromyrme (Trogaspidia) odontolabris (Bischoff)

Trogaspidia odontolabris BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 437 (♂).

TYPE LOCALITY.—Sankisia ["Jankisia"], Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Panda, October 2, 1920 (Michael Bequaert).

Smicromyrme (Trogaspidia) odontostoma (Bischoff)

Trogaspidia odontostoma BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 437 (♂).

TYPE LOCALITY.—Uelleburg, Spanish Guinea.

BELGIAN CONGO.—Duma (Schubotz).

Smicromyrme (Trogaspidia) prolongata (Bischoff)

Glossotilla alberti subsp. *prolongata* BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 493 (♂).

Smicromyrme (Trogaspidia) prolongata BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 243 (♂).

TYPE LOCALITY.—Kibombo, Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Yambata (de Giorgi).

Smicromyrme (Trogaspidia) propodealiformis (Bischoff)

Trogaspidia bugalana subsp. *propodealiformis* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 432 (♂).

TYPE LOCALITY.—Lukonzolwa, Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Sampwe; Kongolo (J. Bequaert); Nyangwe (R. Mayné).

Smicromyrme (Trogaspidia) sampweana (Bischoff)

Trogaspidia sampweana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 380 (♀).

TYPE LOCALITY.—Sampwe ["Mufungwa"], Belgian Congo (J. Bequaert).

Smicromyrme (Trogaspidia) sankuruana (Bischoff)

Trogaspidia sankuruana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 384 (♀), Pl. VI, fig. 186.

TYPE LOCALITY.—Bena Bendi, Belgian Congo (Cloetens).

Smicromyrme (Trogaspidia) serenjeana (Bischoff)

Trogaspidia serenjeana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 401 (♀).

TYPE LOCALITY.—Serenje District, Northeast Rhodesia.

BELGIAN CONGO.—Elisabethville (Mission Leplae); Luebo (J. Ghesquière); Kwilu (Vanderijst).

Smicromyrme (Trogaspidia) tanganjicae (Bischoff)

Trogaspidia tanganjicae BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 422 (♂).

TYPE LOCALITY.—Northwest of Lake Tanganyika, Belgian Congo (Grauer).

Smicromyrme (Trogaspidia) tuberculifera (Bischoff)

Trogaspidia tuberculifera BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 452 (♂).

TYPE LOCALITY.—Bugalla, Sesse Islands, Uganda.

BELGIAN CONGO.—Surunga (De Greef).

Smicromyrme (Trogaspidia) unduligera (Bischoff)

Trogaspidia unduligera BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 378 (♀), Pl. VI, fig. 164.

TYPE LOCALITY.—Between Leopoldville and Stanleyville, Belgian Congo (Weyns).

Smicromyrme (Trogaspidia) variipennis (Bischoff)

Trogaspidia aurata subsp. *variipennis* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 426 (♂).

TYPE LOCALITY.—Brazzaville, French Congo.

BELGIAN CONGO.—Wombali (Vanderijst); Leopoldville (Mouchet); Oshwe (J. Maes); Bena Bendi; Bumbuli (R. Mayné); Stanleyville, 5 males; Garamba, 2 males (Lang and Chapin).

Smicromyrme (Trogaspidia) vetustata (Bingham)

Dolichomutilla vetustata BINGHAM, 1911, Trans. Ent. Soc. London, p. 541 (♂).

Trogaspidia vetusta BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 409 (♂).

TYPE LOCALITY.—Petauke, 2,400 ft., Northern Rhodesia.

BELGIAN CONGO.—“Congo” (without more definite locality or collector).

Smicromyrme (Trispilotilla) acheron (F. Smith)

var. **canescens** (Bischoff)

Trispilotilla acheron form *canescens* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 297 (♂).

TYPE LOCALITY.—“Congo” (without more definite locality or collector).

Smicromyrme (Trispilotilla) africana (André)

Mutilla africana ERN. ANDRÉ, 1895, Ann. Soc. Ent. France, LXIII, (1894), p. 673 (♀).

Trispilotilla africana BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, pp. 295 (♀) and 297 (♂), Pl. II, fig. 102.

Smicromyrme (Trispilotilla) africana BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 235 (♀, ♂).

TYPE LOCALITY.—Sierra Leone.

BELGIAN CONGO.—Cataracts of Sona Gungu (Luja); Stanleyville, 2 males (Lang and Chapin); Stanley Pool.

Smicromyrme (Trispilotilla) demaculata (Bischoff)

Trispilotilla demaculata BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 303 (♂).

Smicromyrme (Trispilotilla) demaculata BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 236 (♂).

TYPE LOCALITY.—Brazzaville, French Congo.

BELGIAN CONGO.—Kasonsero, one male (J. Bequaert).

Smicromyrme (Trispilotilla) melanocephala (Bischoff)

Trispilotilla trimacula subsp. *melanocephala* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, pp. 294 (♀) and 299 (♂), Pl. II, fig. 100.

Smicromyrme (Trispilotilla) melanocephala BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 234 (♀, ♂).

TYPE LOCALITY.—Northwestern shore of Lake Nyasa, Tanganyika Territory.

BELGIAN CONGO.—Nyangwe; Vieux-Kasongo; Banana (J. Bequaert); Kasindi (Schubotz); Luluabourg (Janssens); Wombali; Leverville (Vanderijst); Elisabethville (Mission Leplae); Boma, one male (Lang and Chapin).

Smicromyrme (Trispilotilla) monteiroae (Bischoff) var. charaxiformis (Bischoff)

Trispilotilla monteiroæ subsp. *charaxiformis* BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 2, p. 301 (♂).

Smicromyrme (Trispilotilla) monteiroæ var. *charaxiformis* BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 236 (♂).

TYPE LOCALITY.—Kasongo, Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Nyangwe (J. Bequaert); Luluabourg (Callewaert).

Smicromyrme (Pristomutilla) dolosa (F. Smith) var. septemmaculata (Bischoff)

Ceratotilla dolosa subsp. *septemmaculata* BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 533 (♀).

TYPE LOCALITY.—Asmara, Eritrea.

BELGIAN CONGO.—Albertville; between Kalembe-lembe and Baraka (R. Mayné); Lualaba River, 2,500–4,000 ft. (Neave).

Smicromyrme (Pristomutilla) dorsidentata (Bischoff)

Pristomutilla dorsidentata BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 525 (♀).

TYPE LOCALITY.—East Africa.

BELGIAN CONGO.—Albertville (R. Mayné).

Smicromyrme (Pristomutilla) congoana (Bischoff)

Pristomutilla congoana BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 525 (♀) (not *Smicromyrme congoana* Bischoff, 1921, *op. cit.*, p. 572).

Smicromyrme (Pristomutilla) congoana BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 252 (♀).

TYPE LOCALITY.—Kasai, Belgian Congo (Crida).

BELGIAN CONGO.—Nyangwe (J. Bequaert); Faradje (Lang and Chapin).

One female from Faradje we assign to this species with some hesitation for the band on the third tergite is laterally abbreviated, leaving therefore only two spots. It is not, however, so clearly distinct as to warrant description as a new form, on the basis of a single specimen.

Smicromyrme (Pristomutilla) lævinotata (André)

Mutilla lævinotata ERN. ANDRÉ, 1908, Zeitschr. Syst. Hym. Dipt., VIII, p. 79 (♀).

Trogaspidia lævinotata BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 403 (♀).

TYPE LOCALITY.—Lolodorf, Cameroon.

BELGIAN CONGO.—Stanleyville (J. Bequaert).

Smicromyrme (Pristomutilla) octacantha (Mercet)

Mutilla octacantha MERCET, 1903, Bol. Soc. Españ. Hist. Nat., III, p. 99 (♀).

Pristomutilla octacantha BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 528 (♀).

TYPE LOCALITY.—Cameroon.

BELGIAN CONGO.—One female without more definite locality (Christy).

Smicromyrme (Pristomutilla) rufibasalis (Bischoff)

Trogaspidia rufibasalis BISCHOFF, 1920, Arch. f. Naturgesch., LXXXVI, Abt. A, 3, p. 396 (♀).

TYPE LOCALITY.—Kambove, 4,000–5,000 ft., Belgian Congo (Neave).

BELGIAN CONGO.—Elisabethville (Stappers).

Smicromyrme (Pristomutilla) semipolita
(Bischoff) var. **lembana** (Bischoff)

Pristomutilla semipolita subsp. *lembana* BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 529 (♀).

TYPE LOCALITY.—Congo da Lemba, Belgian Congo (R. Mayné).

BELGIAN CONGO.—Faradje, one female (Lang and Chapin).

Smicromyrme (Pristomutilla) tergacantha (Bischoff)

Ceratotilla tergacantha BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 534 (♀).

TYPE LOCALITY.—Sampwe ["Mufungwa"], Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Kinda (L. Charliers).

Ctenotilla Bischoff

KEY TO THE CONGO SPECIES

FEMALES (Males Unknown)

1. Mandibles stout, the upper edge with a broad, basal lobe occupying the entire basal half and forming a huge, erect tooth which covers the greater part of the clypeus when the mandible is closed. Second tergite without apical spots; the third with a pale apical fascia of the integument covered with pale pubescence. Thorax red. *lobognatha* Bradley and Bequaert.
Mandibles of more normal shape, without basal lobe on the upper edge. 2.
2. Lateral margins of thorax with spines. Second tergite with one median spot and no apical spots. *langi*, new species.
Lateral margins of thorax without spines. Second tergite with two apical, more or less triangular spots of pubescence. 3.
3. Third tergite entirely covered with pale pubescence; second tergite with indication of a pale, discal spot. *minuta* Bischoff.¹
Third tergite only with an apical fringe of pale hairs. *katangana* Bischoff.

Ctenotilla katangana Bischoff

Ctenotilla katangana BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 545 (♀).

TYPE LOCALITY.—Kambove, Belgian Congo (Neave).

Ctenotilla lobognatha Bradley and Bequaert

Ctenotilla lobognatha BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 252 (♀).

TYPE LOCALITY.—Congo da Lemba, Belgian Congo (R. Mayné).

Ctenotilla langi, new species

FEMALE.—Black; disk of the dorsum dark red; the legs, under side of the abdomen, mandibles, under side of the head, reddish piceous; third tergite with a transverse testaceous band. Calcaria white. With erect, white setæ, more abundant on the first tergite and toward the apex of the abdomen, and some sparse, erect, black setæ on the head, dorsum, second and third tergites; a round, white, pubescent spot in the middle of the second tergite; a band of appressed, white pubescence occupying the pale area of the third tergite, almost reaching the anterior margin in the middle, and an apical white band on the fourth tergite.

Length, about 5 mm.

Head, seen from above, broader than the thorax, quadrate, but slightly widest behind the eyes, scarcely narrowed at the posterior angles, which are marked by a

¹This species was described from Chinchoxo, at the mouth of the Shiloango River, and undoubtedly occurs in the Belgian Congo.

vertical carina; posterior margin evenly emarginate; the carina of the posterior angles continued on the gular surface, but not produced into a tooth. Head behind the eyes a little longer than the greatest diameter of the eye. Front and vertex densely covered with longitudinal rugæ between which are punctures; the vertex with a more prominent median ruga, beginning as a channel above the antennal tubercles and running almost to the posterior margin. Antennal tubercles with a small tooth, nearly three times as far from the eyes as from each other. Antennal grooves margined by a fine carina. Superior portion of clypeus with a sinuate ridge which curves upward between the bases of the antennæ. Mandibles slender, curved, the upper edge with a large tooth about the distal third; the outer angle of this tooth perpendicular to the mandible; a very small tooth between this and the acute apex of the mandible; a ridge extending from the inner tooth to the condyle. Second segment of flagellum as long as the three following segments united. Dorsum in dorsal view widened posteriorly, with four short teeth along each side, the humeral angles a little rounded; dorsum more coarsely sculptured than the head and with a similar, median, more prominent carina. Upper angle of propodeum with a median and two lateral prominent spines, and a pair of short teeth. Posterior face of propodeum obliquely truncate, its lateral margins not toothed. First abdominal segment curving broadly into the second, without a constriction, but without a dorsal surface. Second segment broadly ovate, its tergite closely, uniformly, but not coarsely striato-punctate. Pygidial area elongate, impunctate, shiny, testaceous; the lateral carinæ diverging and ending as they reach the margins.

HABITAT.—Belgian Congo, one female, Faradje (Lang and Chapin).

HOLOTYPE.—In The American Museum of Natural History.

DASYLABRIS

KEY TO THE CONGO SPECIES

MALES

1. First sternite with a low median carina. Base of second sternite simple. Last sternite impressed medially, at its base with a transverse, weak, slightly sinuate ridge. Second tergite with a broad, discal, transverse band of golden yellow hairs, which extends toward the base in the middle.

schoutedeni Bischoff.

First sternite with an elevated, blunt, median tooth. Base of second sternite with a longitudinal, median ridge. Last sternite flat, with a fine, transverse carina at its base. First and second tergites with apical bands, the second also with a basal median spot of pale pubescence; the third and fourth mostly covered with white hairs, the pronotum with much admixture of gray hairs. *nyctimene* (Péringuey).

FEMALES

1. Occiput with a transverse ridge ending in a lobe on each lateral angle. 2.
Occiput normal. 3.
2. Pygidial area subcircular, with strongly reflexed lateral margins which extend to the apex but are broadly interrupted medially; its surface uniformly covered with short, irregular wrinkles. Vertex without triangular spots of white hairs within the eyes. *inflata* var. *angularis* Bischoff.

- Pygidial area oval, with only moderately reflexed margins; the median lobe produced beyond their apices; its surface covered with longitudinal carinulae some of which are short and not continuous, and the apical ones somewhat irregular. Vertex with triangular spots of white hairs within the eyes. *verticalis* Bischoff.
3. Second tergite with only three small spots of white pubescence. Thorax long and narrow. Pygidial area rather long, obovate, with weakly reflexed marginal carinae; its central portion with few longitudinal, slightly wavy striae becoming indistinct at base and apex. *filum* Bischoff.
- Second tergite with a basal and four preapical spots of white pubescence; the preapical spots, however, sometimes united in pairs so as to form two large, transverse spots. 4.
4. Vertex with a sharply defined, median, silvery spot. *mauræformis* Bischoff.
- Vertex without a median, silvery spot. 5.
5. Pygidial area broad, with rather weakly reflexed lateral margins and about 25 fine, parallel carinulae. First sternite with an acute, triangular median tooth. *stimulatrix* var. *interrupta* Bischoff.
- Pygidial area more circular, with strongly raised marginal carinae and without numerous fine, parallel striae. First sternite with a blunt, median lobe or carina. 6.
6. Large species, about 15 mm. long. Margin of the pygidial area with a distinct notch at the termination of the lateral carinae; its surface with numerous short, high carinae, the lateral ones converging toward the apex, while the middle ones converge toward the base. *subcarinata* Bischoff.
- Small species, about 7 mm. long. Pygidial area with its margin uniformly rounded at the apex, without notch or interruption at the ends of the reflexed lateral margins; its surface with about a dozen high carinae, several of which are short, all parallel and not attaining the margin.
- difficilis* Bischoff.

D. mephitis Bischoff, of which we have seen no specimens, has not been included in the foregoing key. It has a strongly carinate occiput and in the sculpture of the pygidial area it appears to run close to *verticalis*. The body is covered with long, pale yellowish-white hairs, especially on the sides and below; the apical spots of the second tergite are more or less fused into pairs; vertex without triangular spots of white hairs.

***Dasylabris difficilis* Bischoff**

Dasylabris stimulatrix form *difficilis* BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 632 (♀).

TYPE LOCALITY.—Mikesse (Morogoro), Tanganyika Territory.

BELGIAN CONGO.—Karemi (Bayer); western foot of Mt. Ruwenzori (Schubotz).¹

¹This is apparently the specimen which was recorded from that locality by Bischoff in 1911 ('Wiss. Ergebn. D. Z. Afr. Exp. (1907-08)', III, p. 25) as *Dasylabris mephitis* (F. Smith). The occurrence of the South African *mephitis* in the Belgian Congo is uncertain.

***Dasylabris filum* Bischoff**

Dasylabris filum BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 638 (♀), Pl. VII, fig. 241.

TYPE LOCALITY.—Between Lukafu and Bunkeya, Belgian Congo (Neave).

***Dasylabris inflata* (André) var. *angularis* Bischoff**

Dasylabris inflata subsp. *angularis* BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 641 (♀).

TYPE LOCALITY.—Between Domira Bay and Kotakota, Nyasaland.

BELGIAN CONGO.—Kasenga (Barthélémy; J. Bequaert).

***Dasylabris mauræformis* Bischoff**

Dasylabris mauræformis BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 636 (♀).

TYPE LOCALITY.—“Congo” (without more definite locality or collector).

***Dasylabris mephitidoides* Bischoff**

Dasylabris mephitidoides BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 645 (♀).

TYPE LOCALITY.—Boma Sundi, Belgian Congo (Rolin).

***Dasylabris nyctimene* (Péringuey)**

Mutilla nyctimene PÉRINGUEY, 1898, Ann. South African Mus., I, p. 91 (♂).

Dasylabris nyctimene BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 659 (♂).

TYPE LOCALITY.—Umfuli River, Southern Rhodesia.

BELGIAN CONGO.—Kabare, 2 males (J. Bequaert).

***Dasylabris schoutedeni* Bischoff**

Dasylabris schoutedeni BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 669 (♂).

TYPE LOCALITY.—Kitompo, Belgian Congo (J. Bequaert).

***Dasylabris stimulatriz* (F. Smith) var. *interrupta* Bischoff**

Dasylabris stimulatriz form *interrupta* BISCHOFF, 1921, Arch. f. Naturgesch. LXXXVI, Abt. A, 4, p. 632 (♀).

TYPE LOCALITY.—Otjosondú, Southwest Africa.

BELGIAN CONGO.—Kitompo (J. Bequaert); Kasenga (Stappers).

A ♀ from Kinda (L. Charliers) has the four spots of second tergite fused into two transverse spots.

***Dasylabris subcarinata* Bischoff**

Dasylabris inflata subsp. *subcarinata* BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 4, p. 643 (♀).

TYPE LOCALITY.—Lower Loangwa River, Northeast Rhodesia.

BELGIAN CONGO.—Kasenga (Stappers).

- No white pubescence on the last two tergites. Clypeus without a superior transverse tubercle, but with a transverse sinuate ridge extending almost across its entire width. *schulthessi* Bischoff.
3. Hind and middle coxæ, trochanters, and femora red. Clypeus with a transverse, elevated ridge, above which is a transverse, median lobe. . . *rufipes* Bischoff.
Legs entirely black. 4.
 4. Clypeus with a transverse raised ridge, but without a distinct median lobe above it. *congoana* Bischoff.
Clypeus with a distinct median lobe above the transverse, raised ridge. 5.
 5. First segment very slender, at apex not one-third the greatest width of the second segment. *dolichoderoides* Bradley and Bequaert.
First segment less slender, at apex more than one-third the width of the second segment. (?) *atra* Bischoff.

***Stenomutilla albicaudata* Bischoff**

Stenomutilla albicaudata BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 5, p. 692 (♀), Pl. III, fig. 181 and Pl. VII, fig. 259.

TYPE LOCALITY.—Kibombo, Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Elisabethville; Kasenga (J. Bequaert); Albertville (R. Mayné); Niembo to Kalembe-lembe (R. Mayné).

***Stenomutilla atra* Bischoff**

Stenomutilla atra BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 5, p. 703 (♂). BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 258 (♀, ♂).

TYPE LOCALITY.—Pungwe, Guengere, Portuguese East Africa.

BELGIAN CONGO.—Malela, Lower Congo; two males (Lang and Chapin).

The female which we have referred to this species (1923, *op. cit.*, p. 258) was obtained at Malela, Manyema (L. Burgeon), and not, as we formerly believed, in the same locality as the males.

***Stenomutilla bischoffi* Bradley and Bequaert**

Stenomutilla bischoffi BRADLEY AND BEQUAERT, 1923, Rev. Zool. Afric., XI, p. 257 (♂).

TYPE LOCALITY.—Belgian Congo, more definite locality unknown (Gilson).

***Stenomutilla carinulata* Bischoff**

Stenomutilla carinulata BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 5, p. 704 (♂).

TYPE LOCALITY.—Sankisia ["Jankisia"], Belgian Congo (J. Bequaert).

***Stenomutilla clelia* (Péringuey)**

Mutilla clelia PÉRINGUEY, 1899, Ann. South African Mus., I, p. 366 (♂).

Stenomutilla clelia BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 5, pp. 700 (♀) and 707 (♂).

TYPE LOCALITY.—Salisbury, Southern Rhodesia.

BELGIAN CONGO.—Kalengwe, one male bred from the same nest of *Eumenes maxillosus* from which *Stenomutilla congoana* was obtained (J. Bequaert).

Stenomutilla congoana Bischoff

Stenomutilla congoana BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 5, pp. 688 (♀) and 702 (♂).

TYPE LOCALITY.—Kibombo, Belgian Congo (J. Bequaert).

BELGIAN CONGO.—Kongolo; Kibimbi; Kalengwe; Sankisia ["Jankisia"] (J. Bequaert); Boma (Tschoffen). The male from Kalengwe was bred from a nest of *Eumenes maxillosus*.

Stenomutilla rufipes Bischoff

Stenomutilla rufipes BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 5, p. 687 (♀), Pl. III, fig. 177.

TYPE LOCALITY.—South Africa.

BELGIAN CONGO.—Elisabethville (Mission Leplae).

Stenomutilla schultheissi Bischoff

Stenomutilla schultheissi BISCHOFF, 1921, Arch. f. Naturgesch., LXXXVI, Abt. A, 5, p. 689 (♀).

TYPE LOCALITY.—Rikatla, Portuguese East Africa.

BELGIAN CONGO.—Albertville (R. Mayné); Lukuga Valley (Schwetz).



PLATE I

The sand-box tree with nests of *Zarhynchus* from near the bottom of the slope below the laboratory. The tree was 132 feet in height; note the figure of a man at its base.