

**Article VI.—DIPTERA OF THE AMERICAN MUSEUM
CONGO EXPEDITION¹**

PART II.—ASILIDÆ, CONOPIDÆ, PYRGOTIDÆ, MICROPEZIDÆ,
CHLOROPIDÆ, DROSOPHILIDÆ, LONCHÆIDÆ, SAPROMYZIDÆ,
MUSCIDÆ, CALLIPHORIDÆ, AND TACHINIDÆ

BY C. H. CURRAN

In the preceding paper dealing with the Diptera collected by Messrs. Lang and Chapin, members of The American Museum of Natural History expedition to the Belgian Congo, several families were reported upon. In the present paper a number of additional families are covered, leaving only a small number yet to be dealt with. In order to decrease the volume of the report many of the undescribed forms have been characterized in various numbers of the American Museum Novitates, references to the descriptions being given in the present work.

For great assistance in identifying the muscoid Diptera I wish to express my sincere thanks to Dr. J. Villeneuve and also to Dr. H. Zerny, of Natural History Museum of Vienna, for the loan of type material and other specimens. Owing to the fact that no illustrations have accompanied the descriptions of the numerous species of Sarcophagidæ occurring in Africa it has not been possible to report upon the members belonging to this family but it is hoped that arrangements may be made whereby the satisfactory identification of the species may be carried out.

Since several localities not mentioned in the previous paper are given in the records of species discussed, I present a complete list of the localities where collections were made, together with their location.

Aba, 30° 10' E., 3° 50' N.	Coquilhatville, 15° E., 5° 60' S.
Akenge, 20° 50' E., 2° 55' N.	
Avakubi, 27° 31' E., 1° 20' N.	Faradje, 29° 10' E., 3° 40' N.
Bafwabaca, 27° 30' E., 2° 10' N.	Gamangui, 27° 30' E., 2° 10' N.
Bafwasende, 27° 0' E., 1° 10' N.	Garamba, 29° 40' E., 4° 10' N.
Bagboro, 29° E., 4° 18' N.	
Banana, 6° S., 12° 40' E.	Kinshasa, 15° 20' E., 4° 20' S.
Batama, 26° 40' E., 1° N.	Kwamouth, 16° 10' E., 3° 20' S.
Boma, 13° E., 30' N.	
Bumba, 22° 28' E., 2° 10' S.	Leopoldville, 4° 25' S., 5° 20' E.

¹Scientific Results of the American Museum Congo Expedition. Entomology, No. 18.

Lisala, 21° 30' E., 2° 10' N.	Poko, 26° 50' E., 3° 10' N.
Malela, 12° 40' E., 6° S.	Risimu, 26° 45' E., 1° N.
Medje, 27° 15' E., 2° 25' N.	
Mobeka, 19° 48' E., 1° 55' N.	Stanleyville, 25° 10' E., 1° N.
Niangara, 28° E., 3° 40' N.	Thysville, 15° E., 5° 30' S.
Niapu, 26° 48' E., 2° 5' N.	
Nouvelle Anvers, 1° 40' N., 19° 10' E.	Yakuluku, 28° 50' E., 4° 20' S.
Panga, 26° 15' E., 1° 45' N.	Zambi, 6° S., 2° 50' E.

ASILIDÆ

Of this family there are many representatives in the collection from which a number of new species have been described. In some cases there have been too few representatives of certain species to render identification certain.

KEY TO GENERA

- 1.—Marginal cell closed and at least short petiolate.....5.
Marginal cell open or closed in the costa, not petiolate.....2.
- 2.—Pulvilli normal.....4.
Pulvilli absent.....3.
- 3.—Thorax without bristles; posterior femora with abundant, erect, short pile.
Lasiocnemus Loew.
Thorax with bristles; femora with appressed hair.....*Leptogaster* Meigen.
- 4.—Anterior tibiæ with a terminal claw-like spur.....*Neolaparus* Williston.
Anterior tibiæ without such spur.....*Stichopogon* Loew.
- 5.—Antennal arista long, with long rays below.....*Ommatius* Wiedemann.
Antennæ with or without a terminal style or with non-pectinate arista.....6.
- 6.—Antennæ with a long, terminal arista.....12.
Antennæ with or without a terminal style.....7.
- 7.—Sides of metanotum at most haired.....8.
Sides of metanotum with one or more short, stout bristles...*Atractia* Macquart.
- 8.—Marginal cell narrow apically.....9.
Marginal cell bulbous apically where it is broader than at the middle; posterior femora with setigerous tubercles below.....*Hoplistomerus* Macquart.
- 9.—Palpi normal, oval or cylindrical in cross-section.....10.
Palpi flat and extremely thin, leaf-like.....*Lamyra* Loew.
- 10.—Posterior femora with setigerous tubercles below; third antennal segment at least three times as long as the first two combined, its sides parallel.
Nusina Curran.
Posterior femora not tuberculate below.....11.
- 11.—First posterior cell closed and petiolate.....*Lazenecera* Macquart.
First posterior cell open.....*Laphria* Meigen.

- 12.—Lateral slopes of the metanotum without long hairs.....13.
 Lateral slopes of the metanotum with long pile.....*Erax* Scopoli.
 13.—Third section of third vein as long or longer than second section; hypopleura
 with a strong bristle below the spiracle.....*Alcimus* Loew.
 Third section of third vein very much shorter than the second section; hypo-
 pleura at most with coarse hairs.....*Promachus* Loew.

LEPTOGASTER Meigen

Leptogaster ludens Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 1.

A single female from Banana, August.

LASIOCNEMUS Loew

The three described African species are separable as follows:

- 1.—Legs in part pale.....2.
 Legs wholly black (Cape).....*lugens* Loew.
 2.—Femora wholly black or nearly so (Cape).....*obscuripennis* Loew.
 Femora reddish with brown median band, or wholly pale.....*pilipes* Curran.

Lasiocnemus pilipes Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 2.

The original description was based on four specimens: male from Kwamouth, May; female, Faradje, November; another female from Faradje and a female from Garamba, June-July.

NEOLAPARUS Williston

There are five species of *Neolaparus* in the collection. The accompanying key will separate the species known to me.

- 1.—Third antennal segment clubbed; face not shining; pleura not chiefly yellow in ground color, or if so, not black fasciate.....2.
 Third antennal segment long, narrow, not clubbed; face translucent yellow with oval black spot on upper half; pleura yellow, with median and posterior black fasciæ.....*longicornis* Curran.
 2.—Wings hyaline or luteous, not brownish; face partly yellow in ground color or largely pale pollinose.....3.
 Wings rather deep brownish; face black with cinnamon-brown pollen; abdomen black with the second and third segments reddish....*mærens* Wiedemann.
 3.—Pleura largely or wholly pale.....4.
 Thorax black in ground color, the humeri pale.....*banana* Curran.
 4.—Prothorax with black spot on dorsum; pectus largely blackish in ground color..5.
 Prothorax, pleura and pectus wholly pale.....*oralis* Van der Wulp.
 5.—Face about twice as high as wide.....6.
 Face not over one and one-half times as high as wide.....*similis* Curran.
 6.—Black stripe of the thorax very greatly narrowed in front and behind.

ophion Speiser.

Black stripe but little narrowed in front and behind.....*holotænia* Speiser.

Neolaparus longicornis Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 2.

Described from one male, Stanleyville, April.

Neolaparus moerens (Wiedemann)

Dasypogon moerens WIEDEMANN, 1828, 'Ausser. Zweifl.,' I, p. 399.

Male and female, Garamba, May. The male has remarkably hairy legs for a member of this genus, but those of the female are normal. The identification needs verification.

Neolaparus banana Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 3.

Originally described from five males and three females from Banana, July, August, and September, and two females from Kwamouth. There are three other damaged specimens from Banana.

Neolaparus oralis Van der Wulp

VAN DER WULP, 1884, Ann. Soc. Ent. Belg., XXVIII, p. cclxxxix.

Male and female, Faradje, October and November, and a female from Stanleyville, May.

Neolaparus similis Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 4.

Eight males and four females from Stanleyville, April and May.

STICHOPOGON Loew

There are several representatives of two species of *Stichopogon* which I am unable to determine. The African fauna contains many species belonging to the genus but, until they have been carefully worked up, identification will be almost impossible.

HOPLISTOMERUS Macquart

There is a single female belonging to this genus but I am unable to decide concerning its identity.

LAPHRIA Meigen

There are two species belonging to this genus in the collection.

Laphria bipenicillata Bigot

BIGOT, 1891, Ann. Soc. Ent. France, p. 370.

Male, Medje, September; male, Bafwabaca, January; female, Avakubi, October.

A wholly black species with steel-blue reflections, the wings blackish brown with metallic reflections; face with a white-haired spot on either side. The beard is white in the male but black in the female. Length, 18 to 22 mm.

***Laphria superbians* Bezzi**

BEZZI, 1908, Ann. Soc. Ent. Belg., LII, p. 378.

Male, Medje, September; Male, Bafwasende, September.

Legs reddish; pile of the head, thorax, except above and sides of the abdomen on basal third, reddish; wings blackish brown. Length, 19 to 20 mm.

***Laphria consistens*, new name**

This name is proposed for *Laphria carbonaria* Ricardo (1925, Ann. Mag. Nat. Hist., XV, p. 281) not Williston (1896, Kans. Univ. Quart., IV, p. 173).

LAMYRA Loew

This genus is usually separated from its nearest ally, *Laphria* Meigen, by its long, narrow first posterior cell. Obviously this character is one which can be used only to a limited extent and it is not reliable. If the genus is to be maintained and be readily recognized we must use some other character and the rather spatulate, long, flat second palpal segment appears to offer the most satisfactory means of separating it from *Laphria*. This character is quite evident in Loew's figure of *L. gulo* in his 'Dipt. Fauna Sudafrikas.' Perhaps there are actually two genera possessing this palpal character, as we find that at least one species bears longish hair on the lateral slopes of the metanotum, while in others this part is bare. The collection contains two species.

***Lamyra rufibarbis* Fabricius**

Laphria rufibarbis FABRICIUS, 1805, 'Syst. Antl.,' p. 157.

Female, Malela, July.

The head is black, the facial gibbosity and antennæ reddish, the pile rather golden; thorax and abdomen black, the legs reddish; wings brownish, becoming paler posteriorly.

***Lamyra apicalis* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 6.

The original description was based on a single female from Medje, September.

NUSINA Curran

This genus was based upon the following species.

Nusina dymes Walker

WALKER, 1849, 'List. Dipt. Brit. Mus.,' II, p. 377.

Two females, Stanleyville, April.

These specimens agree in all details with Walker's description except that the short golden hair is limited to the mesonotum, scutellum and sides of the abdomen, the dorsum of the abdomen bearing black hair; the pale hair is mostly silvery in one specimen. The sixth and seventh abdominal segments and genitalia are rusty reddish, and sometimes the fifth segment is similarly colored, a detail which Walker could not give since this part of his specimen was either missing or crushed. The wings are brownish with the basal third yellowish hyaline; legs wholly reddish, their hair yellow, the bristles rather reddish. The hypopleura bear long black hair. The scutellum bears two or four very short, upwardly directed marginal bristles on either side. The face is deeply concave in the middle, leaving a strong swelling below.

ATRACTIA Macquart**Atractia arcuata** Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 5.

The original description was based on seven males and twenty-two females from Stanleyville, January to August.

LAXENECERA Loew

The species of which I have seen specimens are separable as follows:

- 1.—Males.....2.
Females.....8.
- 2.—Anterior tibiæ clothed with golden or pale hair dorsally.....3.
Anterior tibiæ clothed with black hair above, the middle tibiæ and tarsi with long silvery white hair dorsally; mystax golden.....*dimidiata* Curran.
- 3.—Mystax pale yellow, white or black, not golden; posterior tarsi with normal yellowish or whitish hairs.....5.
Mystax bright golden; posterior tarsi with abundant silvery pile above.....4.
- 4.—Posterior tibiæ with long silvery pile dorsally.....*chapini* Curran.
Posterior tibiæ with brassy whitish hair in front but black hair dorsally.....*funditor* Curran.
- 5.—Mystax whitish or pale yellow except below.....6.
Mystax black except on the sides and below.....*albicincta* Loew.
- 6.—Mystax entirely pale or the legs partly reddish.....7.
Mystax black along the mouth; legs wholly black.....*tristis* Bigot.

- 7.—Tibiæ and tarsi reddish (Congo) *rufitarsis* Bezzi.
 Legs wholly black *langi* Curran.
- 8.—Anterior tarsi black 10.
 Anterior tarsi reddish 9.
- 9.—Anterior femora wholly short yellow pilose *dimidiata* Curran.
 Anterior femora with black hair below, reddish above . . . *andrenoides* Macquart.
- 10.—Mystax all or almost all pale, not with a median longitudinal band of black . 11.
 Mytsax black in the middle, white on the sides *chapini* Curran.
- 11.—Tarsi pale haired, the posterior ones often black haired apically, the bristles black 12.
 Tarsi all black haired *sororcula* Karsch.
- 12.—Posterior femora black 13.
 Posterior femora reddish on the basal half of the anterior surface.
funditor Curran.
- 13.—Third and fourth abdominal segments with a conspicuous area of black appressed hair in the middle behind *langi* Curran.
 Pale abdominal fasciæ continuous, the segments black haired on the basal third to two-thirds *albicincta* Loew.

***Laxenecera albicincta* (Loew)**

Laphria albicincta LOEW, 1852, Ber. Verh. Kgl. Preuss. Akad. Wiss. Berl., 1852, p. 659.

Thirteen males and three females from Thysville, June; six males and one female, Matadi, June.

***Laxenecera dimidiata* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 7.

The original description was based on six males and fourteen females from Stanleyville, March and April.

***Laxenecera funditor* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 8.

Originally described from four males and two females from Thysville, June.

***Laxenecera chapini* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 9.

Male and five females from Stanleyville, April.

***Laxenecera langi* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 10.

Male and female, Zambi, June.

OMMATIUS Wiedemann

WIEDEMANN, 1821, 'Dipt. Exot.,' p. 213.

Emphysomera SCHINER, 1866, Verh. Zool. Bot. Ges., Wien, XVI, p. 845.

The genus *Emphysomera* Schiner is scarcely tenable as there is every intergradation in the shape of the femora from greatly swollen to rather slender. During recent years several names have been proposed for other segregates of this genus but they seem to be founded upon very unstable characters. The key which follows will separate the species contained in the collection.

- 1.—Abdomen not at all spatulate. 3.
Abdomen coarctate, rather narrow basally, broadened apically. 2.
- 2.—Mystax wholly pale; abdomen black. *conopsoides* Wiedeman.
Mystax containing at least two rows of black bristles. *macquarti* Bezzi.
- 3.—Posterior four coxæ black. 5.
All the coxæ yellow; a black pteropleural bristle. 4.
- 4.—Stigmal cell deep brown on apical half. *annulitarsis* Curran.
Stigmal cell almost wholly pale. *pallidicoxa* Curran.
- 5.—Pteropleural bristle present. 8.
No pteropleural bristle. 6.
- 6.—Anterior coxæ black. 7.
Anterior coxæ reddish. *brevicornis* Curran.
- 7.—Abdominal segments with marginal bristles and longish hair, the bristles and hair on the second to fifth segments mostly yellow. Species No. 1.
Abdominal segments without marginal bristles, the hair wholly dark dorsally, pale laterally. Species No. 2.
- 8.—Anterior four femora reddish posteriorly and basally. 9.
Femora black except the tips. *erythropygus* Curran.
- 9.—Femora largely black, at least with a black stripe. 10.
Femora reddish with black tips. *vittatus* Curran.
- 10.—Third antennal segment three times as long as wide; lower bristles in the mystax white. *varipes* Curran.
Third antennal segment not twice as long as wide; bristles of the mystax wholly black. *tinctipennis* Curran.

Ommatius macquarti Bezzi

BEZZI, 1908, Ann. Soc. Ent. Belg., LII, p. 379.

Two males and seven females, Stanleyville, January to April; male and two females, Malela; female, Akenge, September; and female, Boma, June.

Ommatius annulitarsis Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 10.

Originally described from two females from Stanleyville, April.

Ommatius pallidicoxa Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 11.

Female, Faradje, November; female, Thysville, June; and female, Panga, September.

Ommatius brevicornis Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 12.

A single female, Lisala, May.

Ommatius Species No. 1

There is a single damaged specimen from Medje, September, 1910, which is evidently undescribed.

Ommatius Species No. 2

Three females from Banana, August, September, 1915, represent an undescribed species but they have all been wet and it is impossible to prepare a satisfactory description.

Ommatius erythropygus Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 12.

The type male was from Faradje, November, the female from Garamba, August.

Ommatius vittatus Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 13.

Described from four males and one female from Zambezi, taken in June.

Ommatius varipes Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 14.

The original description was from five males and seven females, Stanleyville, March and April, and one male from Avakubi, October.

Ommatius tinctipennis Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 13.

A single female from Faradje, October.

Promachus Loew

One of the four species of *Promachus* in the collection was undescribed. The species are separable as follows:

- 1.—Legs entirely black.....2.
- Legs mostly reddish.....3.

- 2.—Basal three abdominal segments with transverse apical bands of long white pile. *fasciatus* Fabricius.
 Basal abdominal segments with transverse bands of reddish yellow pile. *robertii* Macquart.
- 3.—Mystax yellowish; anterior four femora with almost complete broad black stripe above. *albicinctus* Ricardo.
 Mystax white; anterior femora with only obscure black spot above apically, the immediate knees black. *bomensis* Curran.

Promachus fasciatus (Fabricius)

Asilus fasciatus FABRICIUS, 1775, 'Systema Entom.,' p. 793.

Two specimens: male, Poko, August, and female, Stanleyville, April.

Promachus robertii (Macquart)

Trupanea robertii MACQUART, 1838, 'Dipt. Exot.,' I, (2), p. 95.

Five females from the following localities: one from Akenge, Sept.; two from Medje, Aug. and Sept.; one, Niangara, Nov.; and one from Stanleyville, April.

Promachus albicinctus Ricardo

RICARDO, 1900, Ann. Mag. Nat. Hist., (7) VI, p. 173.

A single female from Matadi, June 9, 1915, is doubtfully referred here.

Promachus bomensis Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 272,

Described from two males and one female from Boma, June.

ALCIMUS Loew

Miss Ricardo (1922, Ann. Mag. Nat. Hist., (9) X, p. 38) states that the species of this genus are very difficult to separate from each other, all having very similar characters, but this hardly seems to be the case as both male and female genitalia show marked differences in the species examined and I have attempted to illustrate these. The lower terminal valve of the ovipositor varies in shape and the apex of this organ is drawn for each of the species. In the male the upper lobes usually offer distinctive characters and, while there are other quite striking modifications of different organs, only the part mentioned has been drawn for two of the species and the actual differences are more marked than shown in the illustrations as this portion of the genitalia is curved and must therefore be turned in order to show the modifications fully. The species in the collection may be distinguished as follows:

- 1.—Legs black, with narrow bases of the tibiae reddish; posterior cells almost wholly hyaline.....2.
 Tibiæ reddish except the anterior surface; at least the first two posterior cells mostly grayish.....*biseriatus*, new species.
 2.—All the posterior cells hyaline.....*fraternus* Wiedemann.
 Apical half of the first two posterior cells grayish.....*doris* Curran.

***Alcimus biseriatus* Curran**

Figures 1 and 2

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 16.

The original description of this species was based on sixty-seven specimens from the following localities: Stanleyville, March to May; Malela, July; Thysville, June; Poko, August; Kwamouth, May; Faradje, March; Coquilhatville, May; male, Risimu, September and Bafwabaca, January.

***Alcimus doris* Curran**

Figures 3 and 4

CURRAN, 1927, Amer. Mus. Novitates, No. 272, p. 18.

The type male was from Vankerckhovenville, April, the female from Faradje, March.

***Alcimus fraternus* (Wiedemann)**

Figures 5 and 6

Asilus fraternus WIEDEMANN, 1819, Zool. Mag., I, p. 33.

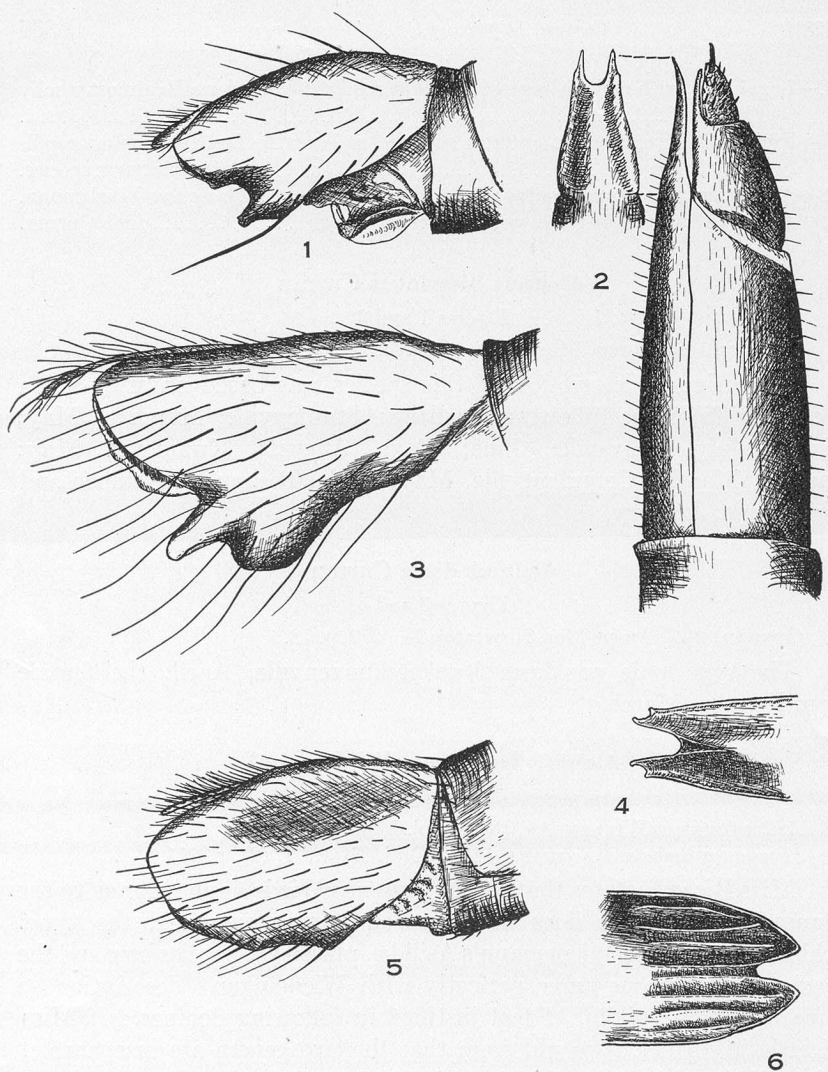
?*Trupanea limbata* MACQUART, 1838, 'Dipt. Exot.,' I, (2), p. 211.

Miss Ricardo states that *Asilus fraternus* Wiedemann belongs to the genus *Philodicus* but does not mention having examined the type. Schiner, who revised Wiedemann's Asilidæ, placed the species here and the specimens before me agree perfectly with Wiedemann's description, so some confusion results. I feel justified in following Schiner. If Miss Ricardo is correct, it would seem that the two genera are inseparable, being distinguished, as they are, by the comparative length of the submarginal cells. The tip of the ventral valve of the ovipositor is shown in Fig. 6.

Six specimens, two males and four females from Banana, July, August and September.

CONOPIDÆ

The collection contains seven species of Conopidæ belonging to the genera *Conops* and *Physocephala*.



Alcimus biseriatus Curran

- Fig. 1. Lateral view of ♂ genitalia.
 Fig. 2. Lateral view of ♀ genitalia and ventral view of apex of ventral plate.

Alcimus doris Curran

- Fig. 3. Lateral view of upper part of ♂ genitalia.
 Fig. 4. Ventral view of apical part of ventral plate of ♀ genitalia.

Alcimus fraternus Wiedemann

- Fig. 5. Lateral view of ♂ genitalia.
 Fig. 6. Ventral view of apical part of ventral plate of ♀ genitalia.

Conops Linnaeus

The five species belonging to this genus may be separated as follows:

- 1.—A roundish black spot on either side of the front below.....2.
No roundish black spot on sides of front below.....3.
- 2.—Wings on the posterior half wholly hyaline.....*braunsi* Kroeber.
Wings conspicuously brown on the posterior half, dark brown in front, grayish
along the broad posterior border.....*rondanii* Bezzi.
- 3.—Wings on the posterior half, hyaline or nearly so, the brown area rather sharply
defined.....4.
Wings grayish only on the posterior border apically, usually almost all brownish.
fuscipennis Macquart.
- 4.—Blackish species; legs for the most part blackish.....*nigricoxalis* Kroeber.
More reddish species; legs reddish.....*bequaerti* Kroeber.

Conops braunsi Kroeber

KROEBER, 1915, Arch. für Naturg., AI, LXXXI, p. 44.

Male and female, Banana, August.

Conops rondanii Bezzi

BEZZI, 1901, 'Fauna Eritrea,' p. 19.

Two males, Banana, July and September.

Conops fuscipennis Macquart

MACQUART, 1849, In Lucas, 'Explor. Scient. de Algerie,' III, p. 472.

Twelve males, Banana, August and September.

Conops nigricoxalis Kroeber

KROEBER, 1916, Arch. für Naturg., AI, LXXXI, p. 57.

Male, Medje, April, female, Stanleyville, April.

Conops bequaerti Kroeber

KROEBER, 1916, Arch. für. Naturg., AI, LXXXI, p. 58.

Nineteen males and ten females, Banana, July to September.

Physocephala Schiner**Physocephala pubescens** Brunetti

BRUNETTI, 1915, Ann. Mag. Nat. Hist., XVI, p. 109.

A single male, Medje, January.

Physocephala vitripennis, new species

Wings hyaline; brownish, the legs reddish ferruginous, the basal half of the tibiae pale yellow, the tibiae above and the posterior pair behind, silvery; anterior tarsi very broad. Length, 10.5 mm.

MALE.—Face, cheeks and the front on the lower three-fifths of the lateral third, pale yellow; front, posterior half of cheeks and much of the occiput, ferruginous, the occiput elsewhere blackish, with pale pollen. Proboscis ferruginous, becoming black apically. Antennæ ferruginous, the first segment paler, the third reddish below, not much over one-third as long as the second; style very short.

Mesonotum, metanotum and pectus blackish, the thorax elsewhere ferruginous, the humeri, lateral and posterior borders of the mesonotum and the scutellum, rusty reddish. Mesonotum with whitish, the anterior border laterally and the pleura and coxæ with silvery pollen; pleura with two broad, thinly pollinose fasciæ, one situated towards the front, the other beneath the wings.

Anterior crossvein situated well beyond the end of the auxiliary vein; second vein joining the costa far before the apex of the discal cell.

Abdomen brownish, the second segment except basally and the basal half of the third, rusty reddish, the second segment very narrow, cylindrical, the third strongly widening apically; narrow apex of second segment and broad apex of the third, white pollinose towards the sides, the third and fourth segments appearing thinly cinereous pollinose in some views. First segment with coarse hair, the others with very short hair which is coarse laterally and on the fifth segment and long on the apex of the genital segments.

TYPE.—Male, Malela, Congo, July, 1915.

PYRGOTIDÆ

The six specimens belonging to the Pyrgotidæ represent four species, two of them undescribed. The family is an extremely difficult one and several of the characters used for generic separation appear to be unreliable owing to their gradual intergradation. Unfortunately, the family is seldom well represented in collections and abundant material will be necessary in order to produce a satisfactory classification.

The African genera are separable as follows:

1.—Ocelli present *Sphenoprosopa* Loew.

Ocelli absent 2.

2.—Antennæ very short, but little projecting beyond the head in profile.

Bromophila Loew.

Antennæ more elongate, standing out from the head 3.

3.—Third and fourth veins divergent apically, the third ending well before the tip of the wing *Diastoneura* Hendel.

Third and fourth veins not strongly divergent apically, the third vein ending in or very close to the apex of the wing 4.

4.—Middle tibiæ with apical spine on inner side; arista short and stout.

Hypotyphla Hendel.

Middle tibiæ without apical spine or the arista long and slender; antennal grooves long, moderately deep, reaching practically to the oral margin.

Campylocera Macquart.

CAMPYLOCERA Macquart

Two species have been described from Africa and both are represented in the collection, as well as an additional one. There may be some doubt about the identification of *C. ferruginea* Macquart, as the species will not trace out to the genus in Hendel's key ('Genera Insectorum,' Fasc. 78) as it does not possess the apical tibial spine and therefore traces to *Hypotyphla*. In this connection it is well to point out that the female possesses, the "long, elongated conical, but not flattened ovipositor" described by Loew. Macquart's description also agrees in this respect and it seems likely that Loew's genus is synonymous with Macquart's. Loew did not include any species in his genus *Hypotyphla* and I see no good reason for recognizing the genus. In 1908 Hendel described *Hypotyphla loewi* from South Africa and therefore should be considered as having established the genus. From the description it seems almost certain that the genotypes of *Campylocera* Macquart and *Hypotyphla* Hendel are congeneric, the only difference I can find being in the length of the arista, which is short and stout in *H. loewi* Hendel and long and slender in *C. ferruginea* Macquart.

The four species are separable as follows:

- 1.—Wings wholly yellowish or with grayish yellow tinge.....2.
Wings grayish or pale brownish with hyaline spots or with brown maculation.3.
- 2.—Arista short and thick.....*Hypotyphla loewi* Hendel.
Arista long and slender, a little thickened basally.....*ferruginea* Macquart.
- 3.—Wings brownish or grayish, with many hyaline spots.

nubilipennis Van der Wulp.

Wings rather luteous, with a large, triangular apical spot and the costa broadly on the basal half, brown.....*varipennis*, new species.

***Campylocera ferruginea* Macquart**

MACQUART, 1843, 'Dipt. Exot.,' II, (3), p. 220.

Male, Mangara, June, and a female, Mabeka, July.

As previously indicated, the middle tibiae do not possess the strong apical bristles found in *nubilipennis* Van der Wulp.

***Campylocera nubilipennis* Van der Wulp**

VAN DER WULP, 1885, Tijdschr. v. Ent., XXVIII, p. 226.

Male and female, Faradje, March.

The size and number of pale spots on the wings is somewhat variable. In one specimen there are three ocellar hairs, while in the other there is only one, so that the value of this character for the separation of species is negligible.

Campylocera varipennis, new species

Wing venation as in *Eupyrgota* Coquillett. Length about 14 mm.

MALE.—Head, except the parafacials, parafrontals and facial depression, dull, the latter, narrow oral margin, clypeus and a vertical stripe below each eye, black; facial carina yellow; parafacials and parafrontals rusty yellow on the orbital half, brownish inwardly; posterior orbits, vertex and upper portion of the occiput, yellowish; lower part of the occiput blackish or brown. No ocellar plate. Palpi reddish, with coarse black hairs. Antennæ reaching the oral margin, dark reddish, the third segment largely dull black, rounded at apex below, as long as the two preceding segments combined, the first segment as broad as long, with brown apex; arista luteous, slender, situated at the outer upper side of the third antennal segment near the basal third. Cheeks two-thirds as wide as eye-height.

Thorax ferruginous, darker in front and behind; pleurites, except their borders, blackish; metanotum black except the lateral ridge; humeri and notopleura luteous; scutellum yellowish with darker base. Bristles of the thorax weak, arranged as follows: one humeral, two notopleural, one presutural, one supra-alar, two post-calar; a very weak pair of dorsocentrals, one mesopleural, sternopleural and pteropleural; a single pair of scutellars. Hair of the thorax black, short, not abundant, the scutellum without hair.

Legs reddish, the femora more or less broadly ferruginous basally; tarsi rather reddish yellow.

Wings rather dark luteous, paler posteriorly, the costal border brown in front of the third vein except broadly near the apical third of the wing, the apical brown spot forming a triangle extending from opposite the large crossvein to the apex of the wing and encroaching upon the anterior half of the first posterior cell; the longitudinal veins are more or less distinctly clouded with brownish; part of the basal half of the discal cell and most of the second basal cell, pure hyaline. Squamæ with pale brown border and very short fringe. Halteres reddish.

Abdomen ferruginous above, with the bases and sides of the segments becoming blackish; each tergite with one or two long, bristly hairs at the posterior angles, the hair elsewhere short, appressed, rather golden. Membrane and sternites black. Genitalia small, reddish.

TYPE.—Male, Stanleyville, April 4, 1915.

DIASTONEURA Hendel

Hendel described this genus in 1908 for the reception of a new species from Africa. The species now described is moderately like the genotype, but may be readily separated from it as follows:

The broad hyaline band extending forward from the apical third of the discal cell reaches to the costa; abdomen black, the fourth sternite, tergite and genitalia rusty yellow; cheeks only three-fourths as wide as eye-height.

variceps, new species.

The broad hyaline band does not pass the fourth vein; all tergites partly or wholly reddish; cheeks as wide as eye-height. *laticeps* Hendel.

Diastoneurus variceps, new species

Black, variegated with whitish, yellowish and rusty reddish. Length, 10 mm.

FEMALE.—Parafacials, broad posterior orbits and dorsally tapering frontal orbits, shining sulphur yellow; cheeks rusty yellow below; a yellow spot between the vertex and the neck. Middle of the face shining brown, the low carina and oral margin narrowly, black; the shallow antennal grooves are separated from the oral margin by a slight production of the latter. A brown spot extends across from below the base of the antennæ to the orbits. Front dark brown, the ocellar triangle polished black, subcordate, extending over halfway to the antennæ, with only one pair of bristles in place of the ocelli; front with short, black hairs; a very weak pair of orbitals; postocellars divergent, weak; verticals weak, convergent; back of head with sparse, bristly, short black hair; face and cheeks bare. Clypeus deep black; palpi rusty reddish, broad apically, their bristly hairs black. Antennæ black, the third segment brownish red on the basal half, about as long as the second segment, rather truncate apically, its sides almost parallel; arista dorsal, situated near the middle of the third segment, tapering, reddish on the basal fifth.

Thorax black; humeri, lateral margins of the mesonotum and the scutellum, translucent brownish red, the humeri with a large yellowish spot behind; scutellum black laterally; a broad, whitish yellow fascia extends down the posterior border of the mesopleura and encroaches upon the sternopleura. The following weak bristles occur on the thorax: one humeral, two notopleural, one supra-alar, one postalar, one pair of dorsocentrals, four scutellars, one mesopleural and one sternopleural. Hair of thorax short and sparse.

Femora reddish with brownish bases, at least on under surface; tibiæ and tarsi rusty brownish red, the latter becoming blackish apically; coxæ brown, the anterior pair reddish except basally. The middle trochanters bear a small, outwardly directed spur at their inner ventral end; the black apical bristles on the middle tibiæ are rather weak; apical fourth of posterior femora with several bristles above.

Wings on the apical half dark brown except the broad hyaline fascia which is situated beyond the middle and extends from the costa to the fifth vein, the costal border almost blackish on the basal half, this color passing halfway across the discal cell behind the small crossvein; discal cell hyaline at the apex and posterior edge; basal and anal cells hyaline; the brown color extends diffusely to the basal fourth of the wing behind. Squamæ with brown margin and fringe. Halteres yellowish.

Abdomen shining black; fourth segment and genitalia rusty reddish, the membrane between the tergites and sternites wholly black. Abdominal hair rather coarse, fairly long laterally, not abundant, black.

TYPE.—Female, Stanleyville, April 12, 1915.

MICROPEZIDÆ

There are three varieties of a species of *Calobata* in the collection, two of which are described for the first time.

CALOBATA Meigen

The forms occurring in western Africa are separable as follows:

- 1.—Wings with three blackish or brownish fasciæ.....2.
Wings with two dark fasciæ.....*respondens* Walker.
- 2.—Posterior femora with three yellow bands or yellow on basal half.....3.
Posterior femora mostly black, with only two yellow bands..*trifasciata* Bigot.
- 3.—Posterior femora with three yellow bands..*trifasciata congensis*, new variety.
Posterior femora with a pre-apical black band and a narrow dark band at apical third.....*trifasciata mobekensis*, new variety.

Calobata trifasciata Bigot

BIGOT, 1857, In Thomson's 'Arch. Entom.,' II, p. 373.

Two males and two females, Stanleyville, January to August; male, Vankerckhovenville, April; male, five females, Malela, July.

The posterior femora bear only two yellow bands, one basal and the other on the apical fifth.

Calobata trifasciata congensis, new variety

Calobata respondens var., WALKER, 1849, 'List. Dipt. Brit. Mus.,' IV, p. 1053.

Differs from the typical form in having a broad yellow band halfway between the basal and pre-apical yellow bands on the posterior femora. This is the same form which Walker described from the Congo as a variety of his *C. respondens*.

Thirteen males, eight females, Stanleyville, April; two males, Malela, July; female, Lukalela, July; male, Zambi, June; female, Nouvelle Anvers, July; female, Boma, June.

Calobata trifasciata mobekensis, new variety

Differs from the typical form in having the legs reddish yellow, the anterior tibiae, base of tarsi and apical half of the anterior femora, black; middle and posterior femora with an apical or subapical brownish band and a narrower brownish band at the apical third; tarsi slightly darkened apically.

Two males, Mobeka, July.

CHLOROPIDÆ

The collection contains only three specimens belonging to this family, each representing an undescribed species. Becker has monographed the African species (1910, Annales Musei Nationalis Hungarici, VIII, p. 377). In order to show the relationships of the new species keys to the related forms are given.

PACHYLOPHUS Loew

Two of the species belong to this genus. The species with black femora may be separated as follows:

- 1.—Halteres blackish or brown.....2.
Halteres pale yellow or whitish.....3.
- 2.—Mesonotum with four grayish vittæ.....*lugens* Loew.
Mesonotum without pollen except a narrow line marking the inner edge of the humeri and the lateral margin in front of the base of the wing.
beckeri, new species.
- 3.—Front produced conspicuously beyond the anterior orbits.....4.
Front not or scarcely produced beyond the anterior edge of the eyes.
proximus Adams.
- 4.—Pleura gray pollinose; frontal triangle almost reaching the anterior margin of the front.....*splendidus* Adams.
Pleura shining black on anterior two-thirds; frontal triangle separated from anterior margin by about one-fifth the frontal length. *bellulus*, new species.

Pachylophus beckeri, new species

At once distinguished from *lugens* Loew by the black head and absence of dorsal vittæ on the mesonotum. Length, 5.5 mm.

FEMALE.—Head black, with the parafacials, upper portion of the cheeks, narrow anterior oral margin and a narrow, incomplete median facial line, reddish yellow in ground color; head brownish gray pollinose except on the front and lateral oral border; frontal orbits narrowly pollinose on the lower two-thirds. Frontal triangle shining with a row of large, submarginal setigerous punctures and a broad median depression reaching three-fourths the distance to the antennæ and including the anterior ocellus, the upper fourth with a strong, short constriction; outside the triangle the color is velvety dark brown, clothed with fine, sparse white hairs similar to those on the punctures of the triangle. Front produced beyond the orbits a distance equal to at least one-fourth the width of the eyes; face retreating. Hair of occiput and cheeks short, whitish. Palpi dull luteous; proboscis reddish brown; antennæ reddish on the inner side, reddish brown externally; third segment elliptical, the densely black pubescent, brown arista situated a little before the tip which is pointed.

Mesonotum æneous, coarsely punctured, white haired. Anterior two-thirds of the pleura shining black except the sternopleura, the posterior third brownish gray pollinose, the metanotum similarly clothed.

Anterior and posterior coxæ and all the trochanters, reddish; broad apices of all the femora and the remainder of the legs, reddish yellow, the anterior tarsi somewhat luteous.

Wings cinereous hyaline, with a large, diffuse brownish cloud towards the apex in front; veins brown; third vein slightly curved backwards apically. Squamæ and fringe pale yellowish; halteres brown with the base of the knob reddish.

Abdomen subshining black, becoming brown apically, the short, sparse, inconspicuous hair yellowish. Sternites linear, the venter wholly pale yellow.

TYPE.—Female, Lukolela, July 16, 1909.

Pachylophus bellulus, new species

Readily distinguished from *splendidus* Adams by the shining pleura, shorter frontal triangle, etc. Length 3.5 mm.

FEMALE.—Head black, except the broad anterior margin of the front, cheeks and the face except the ridges, which regions are reddish or brownish red, the lateral oral margin black; except for the frontal triangle the head is thinly grayish pollinose, the orbits with dense pale yellowish pollen. Frontal triangle rather brownish black, the fine punctures situated on the margin; frontal hairs sparse, black. Front produced not more than one-fifth the width of the eye beyond the orbits; cheeks one-fourth the eye-height, largely shining, the inconspicuous hairs pale on the cheeks, black on the occiput. Face concave in profile, without distinct median carina. Proboscis brown; palpi brownish red. Antennæ blackish, the lower surface and most of the "diamond-shaped" third segment, reddish; second segment elongate, triangular; arista black, densely long black pubescent. The frontal pollen extends thickly between the orbits and the sides of the triangle almost as far forward as the point of the latter.

Mesonotum black, finely granular, with a pair of narrow, broadly separated dorsal gray pollinose vittæ which diverge strongly posteriorly to reach the posterior angles and are a little widened on the outer side in front; the sides are very broadly covered with similar pollen from the inner end of the humeri to a little beyond the suture and a pollinose line extends in from the suture to the dorsal vitta while another extends backwards to join the posterior ends of the dorsal vittæ and there is a narrow band along the lateral margin above the wings which widens and extends around the border of the scutellum while the mesonotum is more or less distinctly gray pollinose in the middle posteriorly. Pleura shining brownish black on the anterior two-thirds, gray pollinose behind, the metanotum similarly clothed. The hairs are inconspicuous except on the sternum where they are whitish. The scutellum is broadly emarginate apically so as to form an angle on either side, either side and the apex of about the same length.

Coxæ blackish with broad reddish apices, the trochanters more or less reddish. Femora black, the anterior four with rather narrow reddish apices; anterior four tibiæ and all the tarsi reddish, the anterior tarsi brownish above.

Wings grayish hyaline; third vein curved a little forwards apically. Squamæ, their fringe and halteres, whitish yellow.

Abdomen shining black with a very thin coating of brownish-gray pollen, the dark hairs inconspicuous. Venter brownish in the middle.

TYPE.—Female, Faradje, January, 1913.

STELEOCERUS Becker

A single undescribed species which may be distinguished from the species described by Becker as shown in the following key.

- 1.—Black or blackish gray species; front tarsi broadened. 2.
Rusty yellow species; front tarsi not broadened. 4.
- 2.—Legs almost all reddish. *lepidopus* Becker.
Legs chiefly black. 3.
- 3.—Coxæ, trochanters, middle tibiæ and first segment of posterior four tarsi, reddish; wings grayish hyaline; black species. *lentus*, new species.

- Only the trochanters and front coxæ reddish; wings blackish gray; blackish gray species. *longicollis* Becker.
- 4.—Arista conspicuously broadened apically; halteres rusty yellow; frontal triangle pointed. *globuliformis* Becker.
- Arista not broadened apically; halteres white; frontal triangle transverse apically. *tenellus* Becker.

Steleocerus lentus, new species

Much darker in color than the other described species. Length, 4.75 mm.

FEMALE.—Head black, the facial orbits, cheeks in front and lateral and interrupted ventral line inside the borders of the facial depression, reddish yellow. Face and occiput thinly grayish pollinose, the orbits with dense grayish yellow pollen except on the upper portion of the front. Proboscis brown; palpi blackish. Antennæ dark reddish, the second segment with a linear blackish border; arista brown, flattened, rounded apically, very short pubescent above and below; face concave, a little prominent below; front produced almost half the greatest eye-width beyond the anterior orbits, frontal triangle densely brownish gray pollinose with the strong marginal ridges steel-blue, the front elsewhere opaque black, bearing three or four short, black bristly hairs on either side. The black occipital cilia are inconspicuous and the whitish hairs on the cheeks are extremely short.

The black thorax is very thinly clothed with grayish pollen which forms a pair of broadly separated, posteriorly diverging, narrow, obscure vittæ. The scutellum is sharply rounded apically with a pair of short, erect marginal bristles near the apex.

Legs as described in the key, the front tarsi more intensely black than other parts of legs, the fourth segment only a little broadened, the fifth segment normal, broader than high.

Third vein practically straight, ending almost in the wing-tip. Squamæ with brown border and fringe. Halteres yellowish with the base broadly brownish.

Abdomen subshining black, very thinly gray pollinose; venter brownish; hairs of abdomen inconspicuous.

TYPE.—Female, Stanleyville, April, 1915.

DROSOPHILIDÆ

There are but two species belonging to this family in the collection, one of them apparently undescribed.

ZAPRIONUS Coquillett

Zaprionus vittiger Coquillett

COQUILLETT, 1902, Proceedings U. S. N. M., XXIV, p. 32.

Eleven specimens of both sexes from Akenge, October, and one female from Stanleyville, March.

LEUCOPHENGIA Mik

Leucophenga bella, new species

Length 3 mm.

FEMALE.—Legs brown, the tarsi wholly, bases of tibiæ, apices of femora, bases of posterior four femora and all the coxæ and trochanters, yellowish or brownish yellow.

- 6.—Wings yellowish hyaline; vibrissæ of normal length. *claripennis* Macquart.
Wings brownish tinged; vibrissæ long and strong. *vibrissifer* Lamb.
- 7.—Only the basal tarsal segment yellow; antennæ reaching below the oral margin;
wings brownish tinged. *lambiana* Bezzi.
Two or more tarsal segments yellow; antennæ not reaching below the oral
margin. 8.
- 8.—Antennæ wholly black. *continentalis* Bezzi.
Second and third antennal segments broadly reddish below. . . *impressifrons* Bezzi.
- 9.—Upper rays of arista almost as long as width of third antennal segment.
plumosissima Bezzi.
Rays of arista much shorter than width of third antennal segment. 10.
- 10.—Terminal abdominal segment of the male as long as the preceding two together,
deeply emarginate apically and clothed laterally with long, abundant
bristly hairs. *excisa* Kertész.
Terminal abdominal segment not emarginate nor especially bristled. 11.
- 11.—Apical two sternites inflated in the male and prominent; scutellum without
marginal hairs. *gibbosa* de Meijere.
Apical sternites not prominent. 12.
- 12.—Small species, not over four mm; more or less bluish. 13.
Over 4.25 mm.; black in color. *ophyroides* Bezzi.
- 13.—Mesopleura with two anterior bristles; at most two pairs of marginal scutellar
hairs in addition to the bristles; male genitalia prominent. . . *mitis* Curran.
Mesopleura with three anterior bristles; more than two pairs of marginal
scutellar hairs; male genitalia hidden. *lævis* Bezzi.

***Lonchæa aurea* Macquart**

MACQUART, 1852, 'Dipt. Exot.,' Suppl. IV, (2), p. 273.

One female from Stanleyville, August.

***Lonchæa impressifrons* Bezzi**

BEZZI, 1920, Bull. Entom. Research, XI, p. 202.

Originally described from Gold Coast: there is a single female taken at Stanleyville in March.

***Lonchæa plumosissima* Bezzi**

BEZZI, 1919, Bull. Entom. Research, IX, p. 247.

Nine specimens from Stanleyville, January to April, and another taken in August which lacks antennæ and may represent a different species. The two males are decapitated but are undoubtedly this species. Also described originally from Gold Coast.

***Lonchæa mitis* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 18.

The original description was based on two males from Stanleyville, January to March.

SAPROMYZIDÆ

There is a single specimen, representing an undescribed species of *Sapromyza*.

***Sapromyza sexvittatus*, new species**

Figure 7

Rusty yellowish; thorax with a very broad median white pollinose vitta limited laterally by a broad brownish vitta; a narrow dark brown vitta extends from the inner end of the humeri to the presutural bristle and there is a brown stripe on the upper edge of the pleura in front of the wings; the dorsum of the scutellum is brown with the broad lateral and narrow apical margin yellow. Length, 3.5 mm.

FEMALE.—Face, occiput and frontal orbits whitish pollinose; cheeks with large reddish brown spot extending from eye to oral margin. Middle of face gently convex; front bare except for the two pairs of orbitals, the upper pair of which is only half as long as the lower. Verticals strong, postocellars as strong as the ocellars. Hairs and bristles of occiput, cheeks and antennæ black. Third antennal segment tapering, straight above, broadly rounded below; arista black except the swollen base, the rays much longer above than below.

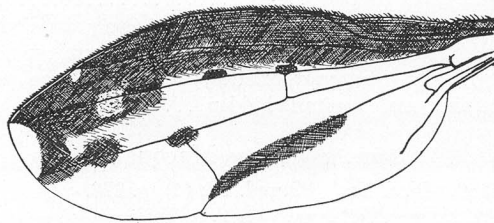


Fig. 7. Wing of *Sapromyza sexvittatus*, new species.

Hair of thorax black; three dorsocentrals; pre-scutellars present; one meso- and two sternopleural bristles. Four scutellars and no hairs.

Anterior femora with three strong bristles posteroventrally and four weaker ones posterodorsally; middle femora with five or six short but strong bristles on the apical third a little below the middle; all tibiae with strong pre-apical bristle.

Wings hyaline and brown as in Fig. 7.

Each abdominal segment with an apical row of widely spaced marginal bristles; abdomen unicolorous, the hair entirely black.

TYPE.—Female, Stanleyville, March, 1915.

MUSCIDÆ

This family contains a number of species which have been extensively studied because of their economic importance in the spread of disease. While certain forms have been carefully studied it is, nevertheless, very difficult to determine the representatives of the family. The characters used to separate the various genera are, for the most part, of

recent application and for this reason it is almost impossible to be certain of determinations, since several genera will be found to contain species which are quite similar in general habitus. There is no satisfactory key to the genera available but Stein's key to the genera of the world and tables of species are of great assistance and without them one can do little. Malloch has placed the classification upon a much firmer basis than has heretofore prevailed, due to his diligent search for new characters, but his promised key to the genera has not yet made its appearance.

The following key contains all the genera represented in the collection and may prove of some assistance in determining material from our region, although there are a great many genera occurring in the Congo which are not included.

- 1.—Arista pectinate.....2.
Arista plumose, pubescent or bare.....4.
- 2.—Rays of the arista simple.....3.
Rays of the arista plumose.....*Glossina* Wiedemann.
- 3.—Palpi not half as long as the proboscis.....*Stomoxys* Geoffroy.
Palpi almost or quite as long as the proboscis.....*Lyperosia* Rondani.
- 4.—Pteropleura hairy.....5.
Pteropleura bare.....14.
- 5.—Fourth vein with a broad curve.....6.
Fourth vein subangularly bent or sharply curved.....*Musca* Linnaeus.
- 6.—Convexity above the posterior spiracle bare or pubescent.....7.
Convexity above the posterior spiracle with long hairs...*Æthiopomyia* Malloch.
- 7.—Palpi strongly broadened and flattened, spatulate.....8.
Palpi normal, somewhat broadened, rounded or oval in cross-section.....9.
- 8.—Only one dorso-central bristle.....*Xenolisma* Malloch.
At least two dorso-centrals.....*Lispa* Latreille.
- 9.—Supra-squamal ridge with long black setulæ.....*Orthelia* Desvoidy.
Supra-squamal ridge bare or pubescent.....10.
- 10.—First vein with several setulæ above; prosternum setulose...*Pyrellina* Malloch.
First vein bare above or the prosternum bare.....11.
- 11.—Tips of third and fourth veins less than one-third as far apart as the greatest width of the apical cell.....12.
Tips of third and fourth veins more than half as far apart as width of apical cell.....13.
- 12.—Middle tibiæ without a strong ventral bristle beyond the middle.
Morellia Desvoidy.
Middle tibiæ with a strong ventral bristle beyond the middle...*Pyrellia* Desvoidy.
- 13.—Apex of the third abdominal segment with stout bristles
Alluaudinella Giglio-Tos
Apex of third segment with hair-like bristles in the middle or with none.
Dichæatomyia Malloch.

14.—Presutural dorsocentral bristles at most but little stronger than the adjacent hairs. *Atherigona Rondani*.

Two pairs of strong presutural dorsocentral bristles; anal vein not reaching posterior margin of wing; third vein setulose at base above.

¹*Mydæa* Desvoidy.

***Atherigona aberrans* Malloch**

MALLOCH, 1923, Ann. Mag. Nat. Hist., XII, p. 181.

A female from each of the following places: Akenge, October; Faradje, November; Garamba, August; Niapu, December; Stanleyville, March.

***Mydæa*, species**

A single female with reddish antennæ, humeri, border of scutellum, sides of abdomen basally and the legs. Its condition is too poor to determine accurately.

***Lispa nuba* Wiedemann**

WIEDEMANN, 1830, 'Ausser. Zweifl.', II, p. 444.

Two males and one female, Boma, June; male, Zambi, June; female, Banana, August.

***Xenolispa niveimaculata* (Stein)**

Lispa niveimaculata STEIN, 1906, Berl. Ent. Zeitschr., LI, p. 68.

Female, Stanleyville, April 27, 1915.

***DICHÆTOMYIA* Malloch**

There are a number of species belonging to this genus in Africa, the two in the collection being apparently undescribed.

***Dichætomyia pallens*, new species**

Length, about 7 mm.

MALE.—Pale yellowish, the second abdominal segment with an incomplete, broadly interrupted posterior fascia, third segment with the apical half, narrowing laterally and not reaching the sides and the fourth except the broad base, black; tarsi brown. Head black, the parafacials and borders of the depression yellowish; front and parafacials white pollinose, the head elsewhere grayish. Frontal vitta obsolete for half its length, the anterior pair of frontals very strong, the others hair-like; ocellars well developed; verticals absent. Proboscis and palpi brownish. Antennæ reddish yellow, the apical half of the third segment with brown tinge; arisal rays half as long as antenna.

¹The vast majority of the Muscid genera will come to couplet 14. They belong to the family Anthomyiidae of authors.

Thorax conspicuously whitish pollinose, shining from posterior view. Dorsocentrals, 2-3; two pairs of strong intra-alars; pre-alar two-fifths as long as following bristle. Hair wholly black.

Posterior tibiae with a single anterodorsal bristle near the middle, in front with three weak bristles. Middle legs missing. Anterior tibiae without posterior bristle.

Wings with slight yellowish tinge, the veins pale brownish except basally, bare. Squamæ and halteres pale yellow.

Third adominal segment with one strong marginal bristle towards either side, the fourth with a row of fine ones. Genitalia normal.

TYPE.—Male, Stanleyville, March, 1915.

PANAGA, new subgenus

Dichætomyia (Panaga) limbipennis, new species

This species is not typical of the genus, having the dorsocentrals 2-4, the space between the suprasquamal ridge and upper edge of the posterior calli setulose and the hypopleura setulose below the posterior spiracle. I propose the subgenus *Panaga* for its reception. Length, 7.5 mm.

FEMALE.—Rusty yellow, the mesonotum more reddish except laterally. Head black, cinereous pollinose, the margins of the facial depression yellowish; front one-fourth as wide as the head, with four pairs of strong bristles, the anterior pair remarkably strong, the upper pair reclinate; ocellars unusually long and strong; verticals long and strong, cruciate, the outer verticals strong. Proboscis, palpi and antennæ reddish yellow, the palpi thick; third antennal segment brownish on the apical half; arista long black plumose.

Thorax thinly yellowish pollinose, with an entire black vitta along the dorso-central row of bristles, the vittæ densely cinereous pollinose; anterior intra-alar bristle strong; prescutellar acrosticals well developed.

Legs reddish, the tarsi becoming brownish apically.

Wings pale brownish, broadly brownish on the apical half in front, somewhat paler on the basal third; veins bare. Upper lobe of the squamæ pale brownish, the lower lobe luteous; suprasquamal ridge with one or two very small setulæ posteriorly. Halteres pale yellow.

Third abdominal segment with a large triangular black spot, the fourth with a black triangle covering most of the dorsum and reaching broadly to the base. Third segment with a row of eight marginals, the fourth with a broadly interrupted median row of discals and an entire row of marginals.

TYPE.—Female, Panga, Sept. 12, 1914.

Alluaudinella congensis, new species

Rusty reddish; a median vitta on the anterior half of the mesonotum, the segmental apices broadly and a median abdominal vitta, black. Length, 12.5 mm.

FEMALE.—Front four times as wide as the ocellar triangle, slightly widening anteriorly, rather brownish on the upper half, the occiput mostly black; face and front yellowish pollinose, the occiput silvery; anterior pair of frontal bristles twice as strong as the others; a pair of strong, divergent, post-ocellars; verticals absent. Palpi, proboscis and antennæ, reddish yellow; arista long plumose.

Thorax thinly yellowish pollinose, rather shining, the black vitta whitish pollinose, narrow. Acrosticals, 0-1; dorsocentrals, 2-4; intra-alars, 2; prealar half as long as the following bristle. Hair black.

Legs reddish, the tarsi slightly darker. Anterior tibiae without bristles behind; posterior tibiae with a single median anterodorsal bristle and two weak bristles beyond the middle in front; middle legs missing.

Wings with brownish tinge on the apical half, almost hyaline basally, the base yellowish; veins bare.

Linear apex of the first abdominal segment brown; second and third segments with very narrow median vitta, the second with the apical fourth, the third with the apical half, black; fourth segment black on the apical three-fourths. Second segment with a pair of very strong median marginals (only one is present in the specimen) the third segment with similar pair and two strong lateral ones on either side; fourth segment with a marginal row and two strong discals on either side. From posterior view the abdomen appears cinereous or pale yellowish pollinose.

TYPE.—Female, Stanleyville, Congo, April 5, 1915.

***Æthiopomyia gigas* Stein**

Spilogaster gigas STEIN, 1906, Berl. Ent. Zeitschr., LI, p. 37.

Female, Stanleyville, May and two females, Medje August.

MORELLIA Desvoidy

Both of the species referable to this genus appear to be undescribed.

***Morellia femorata*, new species**

Related to *M. podagrica* Loew but the middle femora bear only a single row of much shorter, stouter bristles near the apex, the anterior of which is very stout and curved, there is no tubercle on the tibiae and the abdomen bears pale pollinose fasciae on a shining black ground. Length, 5 to 7 mm.

MALE.—Head black, grayish pollinose, the parafrontals bare on the upper half, very narrow; parafrontals below and parafacials, silvery pollinose; frontal vitta obsolete for one-third its length, the bristles all weak. Palpi and antennae blackish.

Thorax bluish black, the broad sides in front of the wings, broad median vitta, triangular vitta on either side behind the suture which does not reach the scutellum, sides of the scutellum and the pleura, whitish pollinose, at least from posterior view. Acrosticals, 0-1; dorsocentrals, 0-2 or 3, the third very weak; 1 intra-alar; 2 marginal scutellars; 3 sternopleurals. Spiracles brown.

Legs black, the tips of the femora and the tibiae largely, reddish brown. Anterior tibiae with short hair beneath, posteroventrally with three longish, fine bristles on the apical half. Middle femora with a strong dorsal subapical production which bears a row of short, stout bristles, the anterior one of which is broadened on its basal two-thirds and curved apically, strongly constricted beyond the swelling. Middle tibiae very narrow at the immediate base, thence of almost equal thickness, the very slight anterodorsal swelling immediately beyond the constriction with a longitudinal row of about six very short, spinose setulae; behind there is a row of about seven short, fine setulae, the median one of which is strongest. Posterior tibiae with an anterodorsal

row of short, fine bristles, a longer bristle near the apical fourth of the posterodorsal surface. Hair of the posterior tarsi normal.

Wings cinereous hyaline, the veins brown. Squamæ yellowish, white basally. Halteres yellow.

Abdomen shining black; second segment rather silvery pollinose on the basal half except medianly, the third pollinose on the basal half except in the middle, the fourth pollinose except on the broad base towards either side. The pollinose bands are inclined to break up into spots owing to a posterior emargination at the lateral third. Hair appressed; erect and coarser on the fourth segment; second and third segments each with two or three fine marginals towards either side.

FEMALE.—Front slightly more than three-fifths as wide as either eye, with whitish sheen about the ocelli, the broad frontal vitta with thin brownish yellow pollen; either side with four or five fine orbitals above; verticals moderately strong; middle femora with a slight preapical anterodorsal swelling which bears a strong and a weak bristle; front tibiae without bristles; posterior tibiae as in the male. Abdominal pollen with a yellowish tinge, denser and somewhat more extensive; hair on the fourth abdominal segment appressed except laterally.

TYPES.—Holotype, Stanleyville, Congo, January–February; allotype, female, Stanleyville, August. Paratypes: male, Boma, June; female, Bafwaboli, Congo, (Lang and Chapin); male, Barberton, S. Africa, May, and female, Port Shepstone, S. Afr., August, (H. K. Munro).

***Morellia pyrellioides*, new species**

Metallic greenish blue, with violaceous reflections; legs black, the tibiae brownish. Length, 5 mm.

FEMALE.—Head black the front narrow, the parafrontals wider anteriorly than the frontal vitta, polished the head elsewhere grayish pollinose; a row of very weak frontals and a few scattered hairs on either side; ocellars distinct; verticals strong. Palpi brownish yellow. Antennæ brown.

Pleura, broad sides of the mesonotum and almost the median third in front of the suture, cinereous pollinose. Acrosticals, 0–1; dorsocentrals, 0–2; intra-alars absent; third sternopleural hair-like. Spiracles blackish.

Legs simple; posterior tibiae with anterodorsal bristle near the apical fifth and three fine anteroventral bristles on the apical third. Front tibiae without bristles.

Wings hyaline; veins pale brownish, yellow basally. Squamæ and halteres pale yellowish.

Fourth abdominal segment with erect black hairs laterally and on the posterior border.

TYPE.—Female, Garamba, Congo, July, 1912.

***Pyrellina unicolor* Malloch**

MALLOCH, 1923, Ann. Mag. Nat. Hist., XII, p. 526.

Male, Stanleyville, March; female (without head), Faradje, November.

Pyrellia Desvoidy

The three species referred to this genus each exhibit characters which might be considered of generic value but it seems wisest at present to place them together, especially since too much stress might easily be placed upon the value of such characters.

- 1.—First vein with two or three setulæ above; prosternum bare. *?distincta* Villeneuve.
First vein bare above.....2.
- 2.—Prosternum setulose; mesonotum with median white vitta in front.
bonnarius, new species.
Prosternum bare; mesonotum unicolorous.....*nana*, new species.

?Pyrellia distincta Villeneuve

VILLENEUVE, 1916, Ann. Soc. Ent., France, p. 148.

Male, Stanleyville, March, 1925.

It is impossible definitely to determine *distincta* from the description since it is not known whether the species belongs to *Orthellia* or *Pyrellia*. Almost all of the species bear rather golden pubescence beneath the first two segments of the posterior tarsi. Since I cannot be sure of the identity of *distincta*, I have referred two distinct species to the name, one of which belongs to the genus *Orthellia*. Both are probably described.

Pyrellia bonnarius, new species

Metallic blue, the head and legs black; thorax with median white vitta on the anterior half. Length, 8.5 mm.

FEMALE.—Occiput on the lower three-fourths, face and lower fourth of the front, argenteous pollinose; front narrow, slightly widening above, the para-frontals shining; frontal vitta opaque black. Frontals fairly strong, convergent; three pairs of orbitals, the middle pair strong; verticals long and strong, the outer verticals absent. Palpi blackish. Antennæ brown; rays of arista two-thirds as long as third antennal segment. Eyes bare.

Broad sides of the mesonotum in front of the suture, a broad median vitta on the anterior half and the pleura, thickly whitish pollinose, the space between the median and lateral vittæ largely dull blackish. A single presutural dorsocentral bristle in front and four or five postsuturals, only the posterior two pairs strong; acrosticals, 0-1; one intra-alar. Spiracles blackish.

Legs black; anterior tibiæ without posterior bristles; posterior tibiæ with a fine posterodorsal bristle near the apical fourth, without distinct anterodorsal bristles. Posterior femora with longish, fine bristles on the basal half of the posteroventral surface, without anteroventral bristles.

Wings hyaline; veins blackish; third vein bristled one-fourth the distance to the small crossvein above and below. Squamæ whitish, the lower lobe brownish on the apical third. Halteres yellow.

Abdomen unicolorous, with appressed short hair which becomes erect and bristly on the sides of the fourth segment. Venter thickly whitish pollinose on the median half.

TYPE.—Female, Stanleyville, Congo, March, 1915.

If there are normally two pairs of presutural dorsocentrals this species is rather close to *spinthera* Bigot but is at once distinguished from this and *abnormis* Malloch by the pollen on the mesonotum.

***Pyrellia nana*, new species**

Metallic bluish or green; anterior spiracle brown in male, yellowish in female. Length, 4.5 to 5.5 mm.

MALE.—Head black, the occiput bluish except below; parafrontals bare on upper third or more. Head grayish pollinose; frontal vitta obsolete for most of its length; frontals all weak; verticals strong. Palpi and antennæ blackish; upper rays of arista almost as long as third antennal segment.

Pollen of the thorax not conspicuous. Acrosticals, 0–1; dorsocentrals, 2–4, the anterior two pairs of postsuturals quite weak; one intra-alar.

Legs brown, the femora more or less metallic. Anterior tibiæ without anterior bristle; posterior tibiæ with a postero-dorsal bristle at the apical fourth, antero-dorsally with a row of weak setulose bristles of which one near the apical third is stronger.

Wings hyaline; veins luteous; third vein setulose dorsally halfway to the small crossvein. Squamæ and halteres yellowish.

Fourth abdominal segment with erect bristly hair, the hair of the dorsum appressed.

FEMALE.—Parafrontals narrow, shining black except on the lowest sixth; two pairs of weak orbitals; ocellars distinct; outer verticals three-fourths as long as verticals; anterior thoracal spiracle brownish yellow.

TYPES.—Male holotype and the allotype, Bafwaboli, Congo. Paratypes: 2 males, same data; 2 males, Garamba, June, 1912, August 20, 1911; male, Faradje, November, 1912.

This species differs from *spinthera* Bigot in having a wider front and pale anterior thoracal spiracle. Malloch has placed *spinthera* Bigot in the genus *Orthellia* following Bezzi's determination. It is impossible to decide the identity of Bigot's species without examining the type, but his statement that the front is narrow is important. *P. nana* differs from *P. mitis* Curran in having darker anterior spiracles, since these are whitish yellow in *mitis*.

ORTHELLIA Desvoidy

There are five species in the collection, separable as follows:

- 1.—With at most one strong presutural dorsocentral bristle.....2.
 With two pairs of strong pre-sutural dorsocentrals.....? *distincta* Villeneuve.
- 2.—Without presutural dorsocentrals.....3.
 With the anterior presutural dorsocentral long and strong... *pura*, new species.

- 3.—With a pair of prescutellar acrosticals.....4.
 Without prescutellar acrosticals.....5.
 4.—Front of male without orbitals; third vein setulose above for more than half of its length.....*vera*, new species.
 Front of male and female with strong proclinate orbitals; third vein bristled less than halfway to small crossvein.....*orbitalis* Stein.
 5.—Costal border of the wing broadly dark brown.....*limbata* Villeneuve.
 Costal border not or scarcely darkened.....*nudissima* Loew.

***Orthellia nudissima* (Loew)**

Pyrellia nudissima LOEW, 1852, Berl. Akad., Berl., p. 660.

Four males, 3 females, Stanleyville, March; 6 males, 12 females, Akenge, October; male, 5 females, Faradje, November; 2 females, Garamba, June, July.

***Orthellia orbitalis* (Stein)**

Pyrellia orbitalis STEIN, 1913, Ann. Mus. Nat. Hung., XI, p. 470.

Female, Stanleyville, April.

?*Orthellia distincta* (Villeneuve)

Pyrellia distincta VILLENEUVE, 1916, Ann. Soc. Ent. France, 148.

Two males from Stanleyville, March, agree with the description. The species was originally described from the Belgian Congo. See the remarks under *Pyrellia distincta*.

***Orthellia pura*, new species**

Metallic greenish blue, with slight violaceous tinge; acrosticals, 0-1; dorso-centrals, 1-4; spiracles black. Length, 9 mm.

FEMALE.—Front shining black except near the vertex, the lowest fifth, face and occiput grayish pollinose, the occiput only thinly so, black in ground color except near the vertex. A strong, proclinate orbital near the upper two-fifths of the front; frontal vitta dull blackish, three times as wide as parafrenal; all the frontal bristles fairly strong; outer verticals long. Palpi and antennæ blackish, the rays of the arista very long, three-fourths as long as third antennal segment.

Pleura moderately cinereous pollinose; anterior two pairs of postsutural dorso-centrals weak; sternopleurals, 1-3.

Legs black; anterior tibiae without posterior bristles; posterior tibiae with a row of very fine short, anterodorsal bristles and a single long posterodorsal. Posterior femora with two long fine bristles on the basal half of either edge of the ventral surface and three or four coarser ones on the apical third of the antero-ventral surface.

Wings strongly tinged with luteous, becoming hyaline behind; third vein setulose on more than the basal half above; veins brownish. Squamæ brownish yellow, pale yellowish basally. Halteres yellowish.

Abdomen with violaceous tinge on apical half; fourth segment with a broadly interrupted median row of discals and a row of marginals, the third segment with marginals laterally.

TYPE.—Female, Stanleyville, Congo, April 27, 1915.

***Orthellia vera*, new species**

Very similar to *orbitalis* Stein but readily distinguished by the setulose third vein and the absence of orbitals in the male. Length, 6.5 to 8 mm.

MALE.—Head green, face and cheeks black, thickly grayish pollinose, the pollen extending on to the lowest sixth of the parafrontals; occiput thinly pollinose except above. Front twice as wide as third antennal segment, the black frontal vitta three times as wide as either parafrontal; frontals all rather weak; ocellars weak; verticals strong. Palpi and antennæ brown; rays of arista hardly two-thirds as long as the gray pubescent third antennal segment.

Mesonotum strongly cupreous except laterally and posteriorly, the pleura thinly cinereous pollinose. Acrosticals, 0-1; dorsocentrals, 0-3; the anterior one quite weak; one intra-alar; sternopleurals, 1-3. Spiracles blackish.

Legs black; front tibiæ without posterior bristles; posterior tibiæ with a bristle near the apical fourth and two or three very weak ones on the apical half of the posterodorsal surface, anterodorsally with a row of short, very weak bristles, anteroventrally with two short bristles on the apical half. Posterior femora with two long, fine posteroventral bristles on the basal half and about six on the opposite side of the ventral surface.

Wings hyaline, the veins luteous or brownish; third vein setulose above on most of its length. Squamæ luteous, with the basal third whitish. Halteres yellowish.

Abdomen green, largely cupreous on the apical half above; third segment with a row of erect fine marginals, the fourth with erect bristly hair.

FEMALE.—Front rather wide, the vitta twice as wide as parafrontal; two pairs of proclinate orbitals, the upper pair weak; outer verticals strong. Body not at all cupreous. Squamæ with scarcely any luteous tinge. Third abdominal segment without marginals, the fourth with two or three discals on either side and a row of marginals.

TYPES.—Male, holotype, Stanleyville, March, 1915; allotype, Risimu, September 7-8, 1909.

***Musca* Linnæus**

There are only four species of *Musca* in the collection. The genus is an important one owing to the dissemination of disease by the adults and has received great attention from medical entomologists for a great many years. Probably the most astonishing fact concerning the genus is that no two students arrive at the same conclusions in regard to the identification of the various species, of which a great many have been described. Malloch has recently adopted characters which will eventually serve to clear up the identity of many species, but since he worked with determined specimens and had not access to the types of the older species, verification of his identifications is necessary. I have followed him in the identification of the African species which have come to hand, since he is the only one who has presented satisfactory characters for the differentiation of the species.

I present here a table of species of the African *Musca* before me. Many of the species are not determined but it is hoped that some one having access to the types may indicate the identity of the various forms and correct any errors in determination. Doctor Villeneuve has determined the Congo material but the species which he determined as *nebulo* Fabricius I call *spectanda* Wiedemann and I do not think that *nebulo* occurs in Africa. In the key I have not made use of the various subgenera or genera, but it seems that some of the subgenera recognized by Malloch should be recognized as valid genera. Certainly many of the genera in the family are based upon much less reliable characters.

- 1.—Eyes bare, or rarely with short, sparse hairs above in male.....5.
Eyes of both sexes conspicuously hairy.....2.
- 2.—Dorsocentrals 2-3.....*vitripennis* Meigen.
Dorsocentrals 0 or 1-1 or 2.....3.
- 3.—No presutural dorsocentral bristle.....4.
Dorsocentrals 1-2; parafrontals bare on upper half or less.....Species.
- 4.—Dorsocentrals 0-1; frontal orbits bare on upper half or less...*interrupta* Walker.
Dorsocentrals 0-2; frontal orbits of female wholly shining black.
dasyops Stein.
- 5.—Propleura hairy in the middle.....6.
Propleura bare in middle.....8.
- 6.—Abdomen entirely pale yellow; posterior tibiæ with a single anteroventral
bristle beyond the middle.....*ventrosa* Wiedemann.
Abdomen with the base, apex or broad median vitta blackish.....7.
- 7.—Dorsocentrals 2 or 3-4, the posterior ones all strong; eyes of male broadly
separated.....*domestica* Linnæus.
Dorsocentrals 2 or 3-5 or 6, the anterior three or four of the postsuturals very
much weaker than the two pairs immediately in front of the scutellum;
eyes of the male narrowly separated.....*spectanda* Wiedemann.
- 8.—Suprasquamal ridge bare or pubescent.....10.
Suprasquamal ridge with distinct hairs.....9.
- 9.—Median pale mesonotal vitta brownish behind the suture in the male, golden
brownish in the female.....*natalensis* Villeneuve.
Median vitta whitish in both sexes, at most pale yellowish behind the suture.
lusoria Wiedemann.
- 10.—Suprasquamal declivity with several setulose black hairs at the lower anterior
extremity.....11.
Suprasquamal declivity bare.....12.
- 11.—Under surface of the third vein bristled scarcely halfway to the small crossvein.
scatophaga Malloch.
Third vein bristled below on almost its whole length...*leucomelas* Wiedemann.
- 12.—At least two presutural dorsocentral bristles.....13.
Dorsocentrals 0 or 1-3.....*tempestatum* Bezzi.
- 13.—Without setulose hairs in front of or immediately below the posterior thoracal
spiracle.....14.
With setulose hairs in front of or immediately below the posterior spiracle...17.

- 14.—Second abdominal segment, when viewed from behind, apparently shining black dorsally.....*tempestiva* Fall.
 Second abdominal segment mostly pale pollinose above.....15.
 15.—Dorsocentrals 2-2; small species.....16.
 Dorsocentrals 2-4; length, 7 mm.....Species.
 16.—Third vein below with two or three setulæ basally.....Species.
 Third vein without setulæ below.....Species.
 17.—Mesonotum from dorsal view with a median vitta and at least a short one on either side along the anterior half of the dorsocentral rows.....18.
 Mesonotum from anterodorsal view cinereous pollinose with a broad median black vitta.....*eutæniata* Bigot.
 18.—Squamæ with conspicuous luteous tinge in female, quite luteous in male.
humilis Wiedemann.
 Squamæ white or practically so (*eutæniata* female?).....Species.

***Musca ventrosa* Wiedemann**

WIEDEMANN, 1830, 'Ausser. Zweifl.,' II, p. 656.

A single female, Stanleyville, January-February.

***Musca spectanda* Wiedemann**

WIEDEMANN, 1830, 'Ausser. Zweifl.,' II, p. 419.

Over 200 specimens from Akenge, Yakuluku, Garamba and Faradje, August to November.

The females of this species are rather difficult to separate from *M. domestica* Linnæus, although all are distinctly smaller than normal *domestica* and there is a tendency for the mesonotal vittæ to fuse. Dr. Villeneuve determined the species as *nebulo* Fabricius but that species is only about 5 mm. long and probably belongs to the subgenus *Biomyia*.

***Musca humilis* Wiedemann**

WIEDEMANN, 1830, 'Ausser. Zweifl.,' II, p. 418.

Twenty males, 44 females: Stanleyville; Medje, August; Garamba, July, August; Poko, August; Boma, June; Akenge, October; and Faradje, November and January.

***Musca* species**

Two females, Akenge, October, and female, Vankerekhovenville, April.

I am unable to place this species, which has the abdomen chiefly yellowish and a quadrivittate thorax.

STOMOXYS Geoffroy

There are three specimens belonging to this genus, representing two or perhaps three species but I am unable to determine them with the scanty material at my disposal. There are fifteen species recorded from Africa.

GLOSSINA Wiedemann

The Tse-tse flies, which are responsible for the dissemination of the so-called "sleeping-sickness," are represented by three species. The following table separates the four species represented in my collection.

- 1.—At least the fourth and fifth segments of the anterior four tarsi with their apices broadly brownish.....2.
Anterior four tarsi wholly reddish yellow.....*pallidipes* Austen.
- 2.—Bulb of proboscis brownish; abdomen with very broad, interrupted brown fasciae.....3.
Bulb of the proboscis yellowish; abdomen rusty reddish, the incisures somewhat darker.....*fusca* Walker.
- 3.—Posterior tarsi wholly brownish.....*palpalis* Desvoidy.
Posterior tarsi with the basal two or three segments reddish yellow.
morsitans Westwood.

Glossina fusca (Walker)

Stomoxys fusca WALKER, 1849, 'List Dipt., Brit. Mus.,' III, p. 862.

Three males, 4 females, Medje, April to September; female, Poko, August; 2 females, Avakubi, October and February; male, Batama, September; and female, Niapu,

Glossina morsitans Westwood

WESTWOOD, 1850, Proc. Zool. Soc. London, XVIII, p. 261.

Six males, 2 females, Faradje, January, February; 3 males, 4 females, Yakuluku, August and September; 3 males, 3 females, Garamba, July to September; 2 males, Vankerckhovenville, April; female, Bag-boro, October.

Glossina palpalis (Desvoidy)

Nemorhina palpalis DESVOIDY, 1830, 'Myiodaires,' p. 390.

Thirteen males, 23 females, Målela, July; 13 males, 13 females, Lukolela; 7 males, 8 females, Banana, August; 9 males, 12 females, Garamba, June to September; 2 males, 8 females, Faradje, February; male, 3 females, Nouvelle Anvers, July; male, female, Coquilhatville, May; 5 females, Zambi, June; 2 females, Lisala; male, female, Panga,

September; female, Medje, April and May; male, Bumba, May; female, Mobeka, July; 2 males, Uelle; female, Stanleyville, April; female, Leopoldville, May.

CALLIPHORIDÆ

Up to the present time there has been no attempt made to present analytical tables for the separation of the African genera and species of this family and for this reason identification of the described forms has been very difficult. Moreover, the descriptions, until quite recently, have been very incomplete, being based chiefly upon color, and most of the described species are unrecognizable. Through the kindness of Dr. Villeneuve, who examined specimens of each species in the collection, and of Dr. H. Zerny, of Vienna, who loaned types of many species for comparison, I have been able to arrive at definite conclusions regarding the species belonging to most of the genera. In some cases, however, it has been necessary to adopt the use of names as at present recognized for the species of older authors. Some of these will probably be found to be misapplied, but the increased interest being manifested in the family should lead to an early improvement in the classification. I have prepared a key to the genera known to me, and also to the species belonging to several of the genera.

KEY TO GENERA

- 1.—Radial vein setulose behind before the humeral crossvein.....11.
 Radial vein not setulose behind before the humeral crossvein.....2.
- 2.—Lower lobe of squamæ pilose above.....*Calliphora* Meigen.
 Lower lobe of squamæ bare above.....3.
- 3.—Median portion of propleura with fine hairs.....7.
 Middle of propleura bare.....4.
- 4.—Three pairs of anterior acrosticals; sternopleurals 1-1; abdomen mostly yellowish, short and broad, without conspicuous marginals on third segment.....*Tricyclodes* Curran.
 At most two pairs of presutural acrosticals; sternopleurals 2-1 or 1-1; abdomen rusty reddish or metallic.....5.
- 5.—Only the prescutellar acrosticals present; sternopleurals 1-1; third abdominal segment with a pair of stout marginals; parafacials hairy.
 Bengalia Desvoidy.
 One or two pairs of presutural acrosticals; third abdominal segment with row of strong marginals; parafacials bare.....6.
- 6.—Sternopleurals 2-1; rusty reddish species.....*Ochromelinda* Villeneuve.
 Sternopleurals usually 1-1; metallic green, blue or bronze species, the apex of the abdomen usually reddish.....*Pericallimyia* Villeneuve.
- 7.—Squamal ridge bare.....9.
 Squamal ridge black setulose.....8.

- 8.—Posterior coxæ with sparse hair behind.....*Lucilia* Desvoidy.
 Posterior coxæ bare behind.....*Phumonesia* Villeneuve.
- 9.—Only one or two pairs of presutural acrosticals; sternopleurals usually 2-1;
 abdomen much longer than wide.....10.
 Three pairs of presutural acrosticals; sternopleurals usually 1-1; abdomen short
 and broad.....*Tricyclea* Van der Wulp.
- 10.—Antennæ contiguous basally or appearing so.....*Phumonia* Desvoidy.
 Antennæ separated by a distinct carina.....*Paratricyclea* Villeneuve.
- 11.—Lower lobe of squamæ bare or pubescent dorsally.....13.
 Lower lobe of squamæ hairy above.....12.
- 12.—Two pairs of anterior acrosticals; a row of short bristles along the lower edge of
 oral margin; facial ridges with short coarse hairs on lower third.
Pachychæromyia Villeneuve.
- Presutural acrosticals absent; no bristles along lower edge of oral margin;
 facial ridges without stout hairs on lower third.....*Chrysomyia* Desvoidy.
- 13.—Arista bare or pubescent.....14.
 Arista plumose or pectinate.....18.
- 14.—Apical cell open.....15.
 Apical cell petiolate.....*Pararhynchomyia* Beck.
- 15.—At least two pairs of dorsocentral bristles.....16.
 Only the prescutellar pair of dorsocentrals.....*Stegosoma* Loew.
- 16.—Suprasquamal ridge bare or pubescent.....17.
 Suprasquamal ridge setulose at least posteriorly.....*Eurhynchomyia* Malloch.
- 17.—Middle of propleura hairy.....*Metalea* Van der Wulp.
 Middle of propleura bare.....*Rhynchomyia* Desvoidy.
- 18.—Arista plumose.....21.
 Arista pectinate (with rays only above).....19.
- 19.—Apical cell open or closed in line with the fourth vein.....20.
 Apical cell closed in line with the third vein.....*Rhinia* Brauer and Bergenstamm.
- 20.—Facial carina flat, concave on much of its length.....*Stomorphina* Rondani.
 Facial carina sharp, concave only on upper edge.
Idiella Brauer and Bergenstamm.
- 21.—Two or three pairs of strong presutural dorsocentrals.....22.
 At most a single strong presutural dorsocentral bristle....*Cosmina* Desvoidy.
- 22.—Apical cell open.....23.
 Apical cell closed and petiolate.
- 23.—Second abdominal segment but little longer than the third.....24.
 Second abdominal segment very much longer than the third, especially in the
 ♀; oral margin not produced; three pairs of presutural acrostical bristles.
Auchmeromyia Brauer and Bergenstamm.
- 24.—Auxiliary vein dorsally with one or two black setulæ near the humeral cross-
 vein.....*Anna* Malloch.
 Auxiliary vein bare.....25.
- 25.—Two pairs of anterior acrosticals; oral margin produced; antennæ separated by a
 carina.....*Thelychæta* Villeneuve.
 Three pairs of presutural acrosticals; oral margin not produced; antennæ not
 separated.....*Chæromyia* Roubaud.

TRICYCLEA Van der Wulp

There are three species belonging to the genus *Tricyclea* in the collection. The described African species, together with those belonging to *Tricyclodes*, are separable as follows:

- 1.—Four postsutural dorsocentral bristles. 2.
Three posterior dorsocentrals. *Tricyclodes verticella* Villeneuve.
- 2.—Costal border with one or more brown spots or wholly brown. 8.
Wings wholly hyaline, with or without costal spine. 3.
- 3.—Fourth abdominal segment with an apical black spot on either side. 6.
Fourth abdominal segment either with a dark median vitta, wholly reddish or brownish and reddish, never with sharply defined apical spots. 4.
- 4.—Costal spine very weak or absent; mesonotum chiefly pale; median portion of propleura bare. 5.
Costal spine strong; mesonotum almost wholly black, cinereous pollinose; propleura with fine hair. *palliventris* Curran.
- 5.—Ocellar bristles normally well developed; metanotum and mesonotum usually wholly pale; outer genital forceps about half as broad as long; disc of scutellum wholly pale. *Tricyclodes difficilis* Curran.
Ocellar bristles not differentiated; metanotum broadly black on either side; outer genital forceps three times as long as wide; disc of scutellum with brown tinge. *Tricyclodes pallens* Curran.
- 6.—Abdomen with entire, medianly broadened posterior black fasciæ on segments, two and three and transverse apical spots on segment four. 7.
Abdominal segments two and three each with median rounded apical black spot and lateral brownish fasciæ; fourth segment with two round apical black spots. *ferruginea* Van der Wulp.
- 7.—Mesonotum with a median dark vitta lying between the dorsocentral bristles.
evanida Villeneuve.
Mesonotum with two (sometimes geminate) dark vittæ lying outside the acrostical bristles. *latifrons* Curran.
- 8.—Mesonotum black behind the suture, with the lateral margins broadly pale. . . . 9.
Mesonotum chiefly pale behind the suture. 12.
- 9.—Wings with two brown spots. 11.
Wings with only one brown spot situated on the apical half. 10.
- 10.—The costal cloud begins at the apex of the first vein; palpi broader than the third antennal segment. *fasciata* Macquart.
The cloud begins far beyond the apex of the first vein; palpi narrower than third antennal segment. *unipuncta* Curran.
- 11.—The postsutural black area is produced forwards to the anterior margin of the mesonotum and extends outside the dorsocentral bristles. *distigma* Curran.
The presutural black vitta extends forwards between the acrostical bristles. *perpendicularis* Villeneuve.
- 12.—Fourth abdominal segment with transverse apical brown spot on either side. . 13.
Third and fourth abdominal segments mostly black. . . *semithoracica* Villeneuve.
- 13.—Brown costal region broken into two spots; parafacial hairs in two rows.
nigroseta Curran.
Brown costal border entire or indistinctly interrupted; parafacial hairs in a single orbital row. *bivittata* Curran.

Tricyclea unipuncta Curran

CURRAN, 1927, Ann. Mag. Nat. Hist., XIX, p. 518.

The original description was based on a male from Faradje, November, 1912.

Tricyclea distigma Curran

CURRAN, 1927, Ann. Mag. Nat. Hist., XIX, p. 520.

Two of the type specimens were from the Belgian Congo: Boma, June 16, 1915 and Faradje, November, 1912.

Tricyclea nigroseta Curran

CURRAN, 1927, Ann. Mag. Nat. Hist., XIX, p. 522.

Originally described from a single female from Medje, September, 1910.

PERICALLIMYIA Villeneuve

The six species belonging to this genus are separable as follows:

- 1.—Apex of the abdomen reddish. 2
 Abdomen wholly metallic bluish or bronzed, with pale pollinose bands.
munroi Curran.
- 2.—Wings but little darkened anteriorly. 4.
 Costal border broadly brownish. 3.
- 3.—Squamæ white; blue-green in ground color, not at all violaceous.
versicolor Villeneuve.
 Squamæ brown on most of the lower lobe; abdomen with strong violaceous
 tinge. *marginalis* Villeneuve.
- 4.—Sternopleurals 2-1; bend of fourth vein at almost right-angle. 5.
 Sternopleurals 1-1; bend of fourth vein moderately rounded.
curvineura Villeneuve.
- 5.—Segments two and three without discals; costal spine absent; robust species.
majuscula Villeneuve.
 Third segment with one pair of discals; costal spine moderately strong; slender
 species. *spinigera* Villeneuve.

Pericallimya versicolor Villeneuve

VILLENEUVE, 1915, Bull. Soc. Ent. France, p. 269.

The collection contains eleven males and four females from Stanleyville, March and April.

PARATRICYCLEA Villeneuve

There are two species in the collection while three others are recorded from the Congo. The following key will serve to separate them.

- 1.—Sternopleurals 2-1.....3.
Sternopleurals 1-1.....2.
- 2.—Suboval, robust species; second and third abdominal segments without median bristles at the sides.....*bicolor* Bezzi.
Elongate species; second and third abdominal segments with lateral discals.....*lutescens* Villeneuve.
- 3.—Three postsutural dorsocentrals.....4.
Four pairs of postsutural dorsocentrals.....*imitans* Villeneuve.
- 4.—Posthumeral bristle absent.....*stabulans* Bezzi.
Posthumeral bristle strong.....*vittata* Curran.

Paratricyclea bicolor (Bezzi)

Tricylea bicolor BEZZI, 1908, Bull. Soc. Ent. Belg., LII, p. 383.

Two males and one female from Akenge. Originally described from the Congo.

Paratricyclea vittata Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 248, p. 7.

The original description was based on a single male from Faradje, November, 1912.

PHUMOSIA Desvoidy

This genus is close to *Paratricyclea* Villeneuve, the characters of the apparently contiguous first antennal segments and the wholly metallic color being the only ones I can find for their separation and the first of these is probably of little value.

Phumosia pseudolucilia (Villeneuve)

Paratricyclea pseudolucilia VILLENEUVE, 1916, Ann. Soc. Ent. France, p. 156.

Three specimens, Stanleyville, March and April, 1915.

PHUMONESIA Villeneuve

VILLENEUVE, 1914, Bull. Soc. Ent. France, LXXXIII, p. 307.

Luciliella MALLOCH, 1926, Ann. Mag. Nat. Hist., XVII, p. 507, (subgen. of *Lucilia*).

In describing this genus Villeneuve compared it with *Phumosia* and *Hemilucilia*. I do not think that it can be retained as distinct from *Lucilia*, although the wings are deep brown in front. The two species which I have seen differ in chaetotaxy, indicating that this is not a sufficient basis upon which to separate the genus from *Phumosia* and *Lucilia*. Malloch's disposition of the group as a subgenus of *Lucilia* seems to be the most satisfactory.

Phumonesia villeneuvei Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 248, p. 4.

Originally described from two females from Stanleyville, March and April, 1915.

LUCILIA Desvoidy

The collection contains only two species belonging to this genus. The African species examined may be separated as follows:

- 1.—Supraspiracular convexity with long black hairs.....2.
Supraspiracular convexity with pubescence only.....4.
- 2.—Fourth abdominal segment with rather indistinct white pollen or the acrosticals 2-3; green species.....3.
Fourth abdominal segment strongly white pollinose; acrosticals 2-2; usually blue-green or violaceous-blue.....*currei* Townsend.
- 3.—Acrosticals 2-2.....*tæniops* Bigot.
Acrosticals 2-3.....Species.
- 4.—Base of radial vein bare below.....8.
Base of radial vein setulose below.....5.
- 5.—Parafacials bare above.....6.
Parafacials with setulæ descending at least to the apex of the second antennal segment, these sometimes fine and yellowish; costal border broadly blackish, the black at the base occupying almost the whole width of the wing (subgenus *Phumonesia* Villeneuve).....7.
- 6.—Costal border blackish.....*nigricosta* Malloch.
Costal border not black.....*cæsar* Linnæus.
- 7.—Second abdominal segment white pollinose.....*infernalis* Villeneuve.
Second abdominal segment not conspicuously white pollinose.....*villeneuvei* Curran.
- 8.—Three intra-alars, the anterior one weak but quite distinct...*cuprina* Wiedemann.
Two intra-alars, the anterior one not at all evident or scarcely stronger than the surrounding hairs.....*sericata* Meigen.

Lucilia cuprina (Wiedemann)

Musca cuprina WIEDEMANN, 1830, 'Ausser. Zweifl.,' II, p. 654.

?*Musca varians* WIEDEMANN, 1830, 'Ausser. Zweifl.,' II, p. 655. (Villeneuve.)

Lucilia argyricephal MACQUART, 1843, 'Dipt. Exot.,' Suppl. I, p. 198.

Ten males, 14 females, Akenge, October; two males, one female, Stanleyville, August, March, and April; male, three females, Faradje, November; female, Vankerckhovenville, April; four females, Poko, August.

Dr. Villeneuve suggests the possible synonymy of *varians* Wiedemann.

Lucilia tæniops Bigot

BIGOT, 1859, Ann. Soc. Ent. France, p. 542.

Three males, three females, Stanleyville, March and April; two females, Boma, June; and three females, Akenge, October.

CHRY SOMYIA Desvoidy

I have before me eight species of *Chrysomyia* from the Belgian Congo, as well as examples of several other African species, and I present herewith a table for their separation. The genus is distinguished from the remainder of the Calliphoridae by the absence of cilia on the stem vein, dorsally pilose lower squamal lobe and the absence of anterior acrostical bristles and bristles along the sides of the oral opening.

- 1.—Apical abdominal segment wholly yellowish pilose. *marginalis* Wiedemann.
Upper surface of the fourth abdominal segment largely or wholly black haired. 2.
- 2.—Face and cheeks wholly yellowish in ground color; costal margin dark brown,
the brown tapering apically. 3.
Face and cheeks usually black in ground color; if not, the costal border is not
deep brown. 4.
- 3.—Post-humeral and anterior sublateral bristles present. *inclinata* Walker.
Post-humeral and sublateral bristles absent. *laxifrons* Villeneuve.
- 4.—Costal border brown or blackish; post-humeral and sublateral bristles absent. 5.
Costal border but little darkened or the anterior sublateral bristle is present. 6.
- 5.—No anterior dorsocentral bristles; front of ♂ wide; cheeks with a bare, shining
black spot. *polymita* Villeneuve.
One or more anterior dorsocentrals; front of male linear; cheeks at least
thinly pollinose. *costata* Villeneuve.
- 6.—Costal border deep brown; a single sublateral bristle. *sensua* Curran.
Costal region never deep brownish. 7.
- 7.—Thorax with a conspicuous transverse, dull black fascia immediately behind the
suture and with a strong whitish sheen in front. 9.
Thorax wholly without whitish sheen and lacking a definite black fascia. 8.
- 8.—Parafrontals of female white pollinose and pilose on lower half. *verticalis* Adams.
Parafrontals of female white pollinose and pilose on not more than the lower
third, from lateral view. *albiceps* Wiedemann.
- 9.—Thorax in front of the suture with a roughly L-shaped dull black spot on either
side; one anterior dorsocentral (*houghi* Adams). *chloropyga* Wiedemann.
Thorax not so marked; two or three anterior dorsocentrals. 10.
- 10.—Thorax with four narrow, abbreviated cupreous vittæ. *albiceps* Wiedemann.
Thorax with only two cupreous vittæ in front of the suture. *putoria* Wiedemann.

Chrysomyia marginalis (Wiedemann)

Musca marginalis WIEDEMANN, 1830, 'Ausser. Zweifl.,' II, p. 395.

The collection contains two males and thirteen females: Faradje, January to April, and one male, ten females, Yakuluku, September.

The broad apices of the abdominal segments practically lack the white pollen so that the abdomen, from certain views, appears fasciate. The fourth abdominal segment is wholly clothed with fine yellow pile. The eyes of the male are contiguous for half the length of the front and the upper facets are very large.

***Chrysomya inclinata* Walker**

WALKER, 1860, Trans. Entom. Soc. London, p. 311.

In the collection are six males and nine females from Stanleyville, March and April, 1915.

***Chrysomya laxifrons* Villeneuve**

VILLENEUVE, 1914, Bull. Soc. Ent. France., p. 178.

Three males and five females from Stanleyville, March and April; one female, Akenge, October; and female, Yakuluku, October.

***Chrysomya costata* (Villeneuve)**

Chrysomya megacephala costata VILLENEUVE, 1914, Bull. Soc. Ent. France, p. 180.

There are thirteen males, forty-three females, Akenge, October, and one female, Stanleyville, March.

Specimens have been compared with the type. The head is black in ground color and the subcostal cell blackish. There are no sub-lateral or posthumeral bristles and two or three anterior acrosticals.

***Chrysomya verticalis* (Adams)**

Paracompsomyia verticalis ADAMS, 1906, Kans. Univ. Sc. Bull., III, p. 202.

Six females from Faradje, April, 1911.

This species is very similar to *albiceps* Wiedemann but is readily distinguished by the absence of white pollen on the mesonotum, and in the female, by the much more extensively white pollinose and pilose front. I have examined the types of both species.

***Chrysomya albiceps* (Wiedemann)**

Musca albiceps WIEDEMANN, 1818, Zool. Mag., III, p. 38; 'Ausser. Zweifl.,' II, p. 404.

Three specimens of each sex from Stanleyville, February, March, April, 1915.

There is some variation in the density of the pollen on the mesonotum and this may sometimes appear to be almost wanting. However, the pollen is much less evident than in *putoria* Wiedemann. The outer

pair of cupreous vittæ on the mesonotum may sometimes be absent. There are two or three pairs of presutural dorsocentrals: the sublaterals and posthumeral are absent.

***Chrysomya putoria* (Wiedemann)**

Musca putoria, WIEDEMANN, 1830, 'Ausser. Zweifl.,' II, p. 403.

Over 400 specimens of both sexes from the following localities: Stanleyville, March; Akenge, October; Garamba, July; Faradje, April and November; Boma, June; Zambi, June; Vanderekhovenille, April; Ngayu, December; and Medje, November.

THELYCHÆTA Brauer and Bergenstamm

There are several species of this genus in the collection. The following table will separate most of the described species occurring in Africa.

- 1.—Thorax black or metallic in ground color.....2.
Rusty reddish species.....*pallens* Curran.
- 2.—Fourth abdominal segment without discal bristles, or at least they are not strongly differentiated from the long hair.....3.
Fourth abdominal segment with a row of strong discals which may be interrupted in the middle.....8.
- 3.—At least the tibiæ reddish.....5.
Legs wholly black; bristles above the anterior coxæ surrounded by yellow pile.4.
- 4.—Under surface of the male abdomen thinly tawny pilose; shining black spot on the cheeks very broadly separated from the oral bristles; mesonotum dull bronze-green.....*jactatrix* Villeneuve.
Under surface of the abdomen almost all black pilose; black spot on the cheeks narrowly separated from the oral bristles; mesonotum shining blue-green to violaceous.....*villeneuvei* Curran.
- 5.—Femora black.....6.
Legs testaceous (Rhodesia).....*oculosa* Villeneuve.
- 6.—Abdomen blackish or metallic in ground color.....7.
Abdomen of a reddish ground color (East Africa).....*grossa* Villeneuve.
- 7.—Æneous green, the thorax pale pollinose.....*pubera* Villeneuve.
Blackish, grayish pollinose; thorax vittate.....*connivens* Villeneuve.
- 8.—Black or blackish species, more or less densely pale pollinose.....9.¹
Metallic green, bronzed or blackish species.....12.
- 9.—Tibiæ reddish.....10.
Tibiæ black or brown.....11.
- 10.—Wings strongly clouded on the apical third; fourth abdominal segment of the male with lateral patch of coarse, short bristles.....*caudata* Curran.
Wings only weakly clouded in front; fourth segment of male not fasciculate.
cinerascens Villeneuve.
- 11.—Fourth abdominal segment of male with lateral tuft of short, black bristles; a single pair of presutural acrosticals.....*fasciculata* Villeneuve.

¹Cf. *longicauda* Villeneuve.

This species was described from sixteen specimens of each sex taken at Stanleyville in March, April and July, 1915.

***Thelychæta caudata* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 248, p. 6.

Described from four males and three females from Stanleyville, March and April, 1915.

***Thelychæta fasciculata* Villeneuve**

VILLENEUVE, 1917, Ann. Soc. Ent. France, LXXXV, p. 346.

From Stanleyville there are five males and three females, all taken from *Bembex* species in March, 1915.

***Thelychæta cinerascens* Villeneuve**

VILLENEUVE, 1917, Ann. Soc. Ent. France, (1916), LXXXV, p. 349.

Three males and two females, Stanleyville, March and April; female, Faradje, January.

***Thelychæta nitida* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 248, p. 6.

Originally described from ten males and three females from Stanleyville, March, 1915.

***Thelychæta versipellis* Villeneuve**

VILLENEUVE, 1917, Ann. Soc. Ent. France, (1916), LXXXV, p. 344.

Three females from Faradje, November, 1912.

***Thelychæta dubiosa* Villeneuve**

VILLENEUVE, 1917, Ann. Soc. Ent. France, (1916), LXXXV, p. 350.

Twenty-one males and 14 females, Stanleyville, March and April; male, Avakubi, November; male, Faradje, January; and male, Garamba, August.

***Thelychæta terminata* (Wiedemann)**

Musca terminata WIEDEMANN, 1830, 'Ausser. Zweifl.,' II, p. 414.

Female, Garamba, July, 1912.

***Thelychæta distinguenda* Villeneuve**

VILLENEUVE, 1917, Ann. Soc. Ent. France, (1916), LXXXV, p. 352.

Three males, two females, Stanleyville, March and April; male, Thysville, June.

AUCHMEROMYIA* Brauer and Bergenstamm**Auchmeromyia luteola* (Fabricius)**

Musca luteola FABRICIUS, 1805, 'Syst. Antl.,' p. 286.

Six females from Vankerekhovenville, April, and one from Yakuluku, August.

RYNCHOMYIA Desvoidy

There are only two species in the collection, but many others must occur in the region.

Rhynchomyia cassotis (Walker)

Tachina cassotis WALKER, 1849, 'List Dipt. Brit. Mus.,' IV, p. 761.

A single female, Vankerckhovenville, April, 1912.

In the male the legs are usually all black, with the tibiæ sometimes obscure reddish. In the female the legs are reddish with the apical third of the femora, posterior four tibiæ except an apical band and most of the basal segment of their tarsi, reddish, the anterior tibiæ brownish red with blackish apex and tarsi. The face and cheeks are wholly yellow pollinose and the thorax is densely grayish yellow or cinereous pollinose.

Rhynchomyia dasyops Bezzi

BEZZI, 1908, Ann. Soc. Ent. Belg., LII, p. 382.

Male and female, Banana, September, 1915.

Originally described from the Congo. A large species with the lateral margins, apex and median vitta on the abdomen black, the median vitta sometimes weak or absent in the female.

COSMINA Desvoidy

The collection contains only a single specimen belonging to this genus. A key for the separation of the species known to me follows:

- 1.—Tibiæ reddish.....2.
- Tibiæ black or brown.....*punctulata* Wiedemann.
- 2.—Frontal black spots of the female large, irregularly placed, more or less confluent; apical cell usually short petiolate; costal spine weak.

gracilis Curran.

Frontal black spots in the female arranged in three rows, not confluent except at the orbits below; apical cell broadly open; costal spine conspicuously developed.....*ænea* Fabricius.

Cosmina gracilis Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 2.

A female paratype was from Matadi, June 9, 1915.

RHINIA Brauer and Bergenstamm

There are four species in the collection, while a fifth probably occurs

- 1.—Femora black.....2.
- Femora reddish on the basal third or more.....4.
- 2.—Abdomen black, with three pairs of yellowish spots.....3.
- Abdomen reddish yellow, with obscure dark markings.....*pallidula* Curran.

- 3.—Pectus black; mesonotum with five weak black vittæ.....*cribrata* Bigot
 Pectus pale pollinose; mesonotum trivittate.....*tricincta* Bigot.
 4.—Pleura wholly pale pollinose.....*deceptor* Curran.
 Pleura with a broad, shining black vitta below.....*apicalis* Wiedemann.

***Rhinia pallidula* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 1.

Originally described from a single male, Stanleyville, April 8, 1915.

***Rhinia tricincta* Bigot**

BIGOT, 1891, Ann. Soc. Ent. France, p. 379.

Three males, one female, Stanleyville, March; female, Akenge, September, 1913.

***Rhinia deceptor* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 2.

The original description was from 38 females from Stanleyville, March and April, 1915.

***Rhinia apicalis* (Wiedemann)**

Idia apicalis WIEDEMANN, 1830, 'Ausser. Zweifl.,' II, p. 354.

Male and 23 females, Stanleyville, March and May; male, Manati, April; male, Banana, September; male, Bengamisa, September; and male, Faradje, November.

STOMORHINA Rondani

RONDANI, 1861, 'Dipt. Ital. Prod.,' IV, p. 9 (*Stomatorrhina* auct.).

Idiella BRAUER AND BERGENSTAMM, 1889, Denkschr. Akad. Wien, LVI, p. 154.

Brauer and Bergenstamm separated their genus *Idiella* from *Stomorhina* Rondani by the fact that the facial carina of the former is acute while in the latter it is flattened, broad and sulcate on its upper portion. This character is not to be considered as of generic value, as the many species which I have seen show a gradual intergradation and it seems advisable to unite the two groups and thus avoid confusion in the case of several species. There are about fifteen African species belonging to this genus as here accepted, three of them falling into *Idiella* in the narrow sense. Some of those described may prove to be synonyms, but undescribed forms are certain to be found. The following table will distinguish the species I have been able to determine.

- 1.—Femora wholly black.....2.
 Femora very broadly reddish basally.....3.
 2.—Anterior coxæ of the male with a patch of dense black bristles at the middle of the anterior surface (*fasciculata* Curran).....*armatipes* Malloch.

- Anterior coxæ simple.....*lunata* Fabricius.
- 3.—Facial carina reaching the middle of the face, rather sharp; thorax almost evenly grayish pollinose; small species.....*sikoræ* Villeneuve.
- Facial carina reaching the lower third of the face or the sternopleura scarcely pollinose above; large species.....4.
- 4.—Sternopleura with the pollen almost as dense as on the mesopleura; facial carina extending to the lower third of the face.....*elongata* Bezzi.
- Sternopleura with the pollen much thinner than on the mesopleura; facial carina not reaching below the middle of the face.....*albitarsis* Macquart.

***Stomorhina elongata* Bezzi**

BEZZI, 1908, Ann. Soc. Ent. Belg., LII, p. 383.

Two males, three females, Stanleyville, March and May; three males, Medje; male, N. Gayu, December; and five females, Gamangui, February.

TACHINIDÆ

The collection contains a large number of representatives of this family, many of which were found to be undescribed, the descriptions having been published in American Museum Novitates during 1927. The members of the family are most beneficial, being parasites upon lepidopterous larvæ and to a less extent upon adult beetles and the larvæ of other insects. One species occurring in Africa is parasitic upon the larva of a species of Syrphidæ, but whether it was found attacking a beneficial form is not known. A key for the separation of the genera found in the collection is given.

- 1.—Propleura bare on median portion (i. e., between the supracoxal area and the humeri).....5.
- Median portion of propleura hairy.....2.
- 2.—Palpi normal.....3.
- Palpi minute or absent.....*Cylindromyia* Meigen.
- 3.—Palpi very long and slender, not broadened apically; abdomen with very stout bristles; arista never long pubescent or plumose...*Dejeania* Desvoidy.
- Palpi shorter, usually broadened apically; bristles normal; arista often with long rays.....4.
- 4.—Arista bare or microscopically pubescent; no facial carina.
- Chromatophania* Brauer and Bergenstamm.
- Arista with long rays on all surfaces; facial carina well developed at least above.
- Gymnodezia* Brauer and Bergenstamm.
- 5.—Palpi well developed.....8.
- Palpi much reduced or absent.....6.
- 6.—Eyes bare.....7.
- Eyes pilose.....*Linnæmyia* Desvoidy.
- 7.—Parafacials with two strong bristles below.....*Cuphocera* Macquart.
- Parafacials without strong bristles below.....*Cylindromyia* Meigen.

- 8.—Eyes bare, without trace of hairs 16.
Eyes pilose 9.
- 9.—Facial ridges with weak, bristly hairs on less than the lower half 13.
Facial ridges with strong bristles on lower half or more, or at least with bristly hairs 10.
- 10.—Head twice as high as long; parafacials extremely narrow 11.
Head longer; parafacials not sublinear 12.
- 11.—Abdomen with discals; male with orbitals *Pararoubaudia* Villeneuve.
Abdomen without discals; male without orbitals *Anacamptomyia* Bischoff.
- 12.—Ocellars usually absent; frontal vitta much less than half as wide as either parafrontal *Phorinia* Desvoidy.
Ocellars usually present; frontal vitta more than half as wide as either parafrontal *Phorocera* Desvoidy.
- 13.—Parafacials haired 14.
Parafacials bare or with only a few hairs immediately below the frontals . . . 15.
- 14.—Pleura clothed with fine, pale, silky hair *Sericophoromyia* Austen.
Pleura clothed with black pile *Winthemia* Desvoidy.
- 15.—Bend of fourth longitudinal vein with an appendage *Thricolyga* Rondani.
Bend of fourth vein without appendage *Zenillia* Desvoidy.
- 16.—Facial ridges with bristly hairs on less than the lower half, these decreasing in length above, rarely with appressed hairs on more than the lower half in which case the antennæ are very long 19.
Facial ridges bristled on lower half or more 17.
- 17.—Penultimate arisal segment not over twice as long as wide 18.
Penultimate arisal segment elongate *Dolichocolon* Brauer and Bergenstamm.
- 18.—Posterior tibiæ ciliate antero-dorsally; third antennal segment at most two and one-half times as long as the second *Podomyia* Brauer and Bergenstamm.
Posterior tibiæ not ciliate; third antennal segment more than four times as long as the second *Degeeria* Meigen.
- 19.—Facial depression not separated from oral margin by a long clypeal region . . . 20.
Facial depression separated from the oral opening by a long clypeal region *Microphthalma* Macquart.
- 20.—First longitudinal vein bare 22.
First vein setulose 21.
- 21.—Arista short plumose *Thelaira* Desvoidy.
Arista short pubescent *Actia* Desvoidy.
- 22.—Frontal bristles descending below the base of the antennæ 26.
No frontal bristles arising below the base of the antennæ 23.
- 23.—Oral vibrissæ absent; oral margin not produced 24.
Oral vibrissæ present or the oral margin produced 25.
- 24.—Apical cell closed and petiolate *Clara* Brauer and Bergenstamm.
Apical cell open near the wing-tip *Paraclara* Bezzi.
- 25.—Oral margin produced; antennæ short *Epineura* Brauer and Bergenstamm.
Oral margin not produced; antennæ as long as face *Hermysia* Desvoidy.
- 26.—Posterior tibiæ not closely ciliate antero-dorsally with closely placed bristles, the bristles sparse and not of equal length 27.
Posterior tibiæ ciliate antero-dorsally with closely placed bristles *Sturmia* Desvoidy.

- 27.—Bend of fourth vein with long, strong appendage or fold. 28.
 Bend of fourth vein with very short appendage or none. 29.
- 28.—Abdomen laterally compressed, higher than wide; frontal bristles not descending below base of third antennal segment. *Mintho* Desvoidy.
 Abdomen broader than deep; frontal bristles descending below base of arista. *Exorista* Meigen.
- 29.—Antennæ not extending below the lowest fifth of the face. 30.
 Antennæ extending to or below the anterior oral margin. 31.
- 30.—Oral margin conspicuously produced. *Ocypteromima* Townsend
 Face gently and evenly receding, the oral margin not produced. *Hermysia* Desvoidy.
- 31.—Apical cell ending at least moderately before the apex of the wing. 32.
 Apical cell ending practically in the wing-tip; bend of fourth vein broadly curved *Actia* Desvoidy.
- 32.—Apical abdominal segment much deeper than high. 33.
 Apical abdominal segment but little deeper than high, normally broader at its base than its depth. *Viviania* Desvoidy.
- 33.—Ocellars absent. *Ceromasia* Rondani.
 Ocellars long and strong. *Lydeolina* Villeneuve.

***Thelaira palliventris*, new species**

Rather similar to *T. nigripes* Fabricius, but the abdomen has only a narrow median black vitta which is widened at each end, sometimes obsolete on the second and third segments, and the thorax and scutellum are evenly grayish pollinose so that the vittæ are much more distinct and the apex of the scutellum is yellow in ground color. The abdomen is rusty reddish yellow, with similar pollen to that of *nigripes*. The front of the male of *palliventris* is at least three-fifths as wide as either eye (in *nigripes* one-third as wide), while the face is distinctly wider than in specimens of *nigripes* of the same size. The length of *palliventris* varies from 9.1 to 11 mm.

The female differs even less from *nigripes*, but has a wider front.

As the two species show no other trenchant differences a more complete description is unnecessary, especially since *nigripes* is usually well represented in collections.

The above description is from the following specimens: type male, Garamba, Congo, June–July, 1912; allotype, ♀, and ♂ paratype, Que Que, Rhodesia, Sept. 4, 1921 (J. D. Wakefield); paratype, male, Pretoria, South Africa, February 15, 1915 (H. K. Munro).

CYLINDROMYIA Meigen

There are three species belonging to this genus in the collection. A revision of the African species is being published elsewhere.

***Cylindromyia insolitum* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 248, p. 1.

Described from two males from Stanleyville, March and April, 1915.

Cylindromyia pedunculata Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 248, p. 2.

A single female, Stanleyville, March, 1915.

Cylindromyia completa Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 248, p. 3.

The original description was based on a male from Faradje, November, 1912.

Ocypteromima Townsend**Ocypteromima polita** Townsend

TOWNSEND, 1916, Ann. Mag. Nat. Hist., XVII, p. 175.

Male, two females, Boma, June; male, Medje, July.

Asboleola Villeneuve**Asboleola elegans** Villeneuve

VILLENEUVE, 1916, Ann. So. Afr. Mus., XV, p. 504.

Four males, three females from Stanleyville, March and April, 1915 and male, Bengamisa, September 28, 1914.

Mintho Desvoidy**Mintho flavicoxa** Bezzi

BEZZI, 1912, Bull. Lab. Portici, VI, p. 63.

Female, Medje, July 9-15, 1910.

Microphthalma europæa Egger

EGGER, 1860, Verh. Zool. Bot. Ges., Wien, X, p. 801.

One male and three females, Stanleyville, April; male, Faradje, February.

These specimens appear to be, without question, identical with European specimens determined as *europæa* Egger. This species is not as closely related to *M. disjuncta* Wiedemann as it is to *Dexiosoma caninum* Fabricius. I consider that the two genera are synonymous.

Gymnodelxia Brauer and Bergenstamm

The five species belonging to this genus have recently been described. They may be separated as follows:

- 1.—Cilia of the posterior tibiæ long and strong and so closely placed as to appear almost solid; female never with presutural acrostical bristles.

villeneuvei Curran.

- Posterior tibiae with the cilia shorter, finer and not touching each other; female, if dark colored, with one pair of presutural acrosticals. 2.
- 2.—Abdomen rusty yellow, with rather narrow black fasciae and slender median vitta. 5.
- Abdomen usually black, sometimes partly dull reddish beneath the grayish pollen. 3.
- 3.—Black abdominal fasciae interrupted in the middle, widest towards the middle. 4.
- Black abdominal fasciae not interrupted in the middle but widest in the middle; mesopleura broadly brown above. (Female.) *versicolor* Curran.
- 4.—Male frontal vitta wider above than either parafrontal; cilia of the posterior tibiae rather long and strong. *interrupta* Curran.
- Male frontal vitta narrower above than either parafrontal; cilia on posterior tibiae fine. *decisa* Curran.
- 5.—Head white pollinose; pleura with a broad, dull brown fascia above in front of the wing. *lateralis* Curran.
- Head yellow pollinose; pleura wholly yellowish pollinose. *versicolor* Curran.

Gymnodexia villeneuvei Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 5.

The original description was based upon eleven males and one female taken at Stanleyville in March, 1915.

Gymnodexia versicolor Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 7.

Originally described from four males from Stanleyville, March, 1915.

Gymnodexia interrupta Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 8.

One male, Stanleyville, March, 1915.

Gymnodexia decisa Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 7.

Three males and one female from Stanleyville, March and April, 1915, were included in the type series.

Gymnodexia lateralis Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 6.

Originally described from three males and one female, Stanleyville, March, 1915.

EPINEURA Brauer and Bergenstamm

The limits of this genus are not well defined and it will probably be necessary to unite several of the related genera. The species which I consider as belonging here are tabulated below.

- 1.—Scutellum at most reddish on the apical half; mesonotum not pale in the middle posteriorly.....2.
Scutellum reddish; mesonotum with a large, prescutellar reddish spot.
helva Wiedemann.
- 2.—Posterior femora reddish on at least the basal half.....3.
All the femora almost wholly black.....Species.
- 3.—Posterior tibiæ black (Bogosia).....*similis* Villeneuve.
Posterior tibiæ reddish for most of their length.....*tæniata* Wiedemann.

***Epineura helva* (Wiedemann)**

Phasia helva WIEDEMANN, 1820, Zool. Mag., II, p. 45.

I have examined the type of this species, which is in excellent condition. It differs from *tæniata* as indicated in the key and in addition has a very broad, pale pollinose prescutellar fascia which leaves only a narrow black fascia. The wings are pale yellowish with the apex rather broadly brown.

***Epineura tæniata* (Wiedemann)**

Phasia tæniata WIEDEMANN, 1818, 'Analecta Entom.,' p. 42.

This species is quite variable both as to size and color. In the female the wings are blackish brown, somewhat paler posteriorly and some males are similar while in others there is a large whitish area filling out most of the discal and apical cells and the submarginal cell on its apical half except the tip. This area varies so that often the pale color is obsolete although the costal cell is luteous. In the female the base and apex of the abdomen, a broad median vitta and narrow segmental apices are black. The male varies greatly, the broad apex of the abdomen normally being blackish, as is also a slender median vitta and the segmental apices, and is thinly covered with whitish pollen which is conspicuous in some views. The squamæ are slightly infuscated with the base broadly white exteriorly.

The type is from Cape of Good Hope. There are three specimens from Congo: male and female, Stanleyville, July and March; and Garamba, July. I have seen also many other specimens from various parts of Africa, including a large, almost wholly blackish female from Nyasaland.

***Epineura similis* Villeneuve**

Bogosia similis VILLENEUVE (*in litt.*).

Female, Stanleyville, April, 1915.

I can find no good character for the separation of this species generically from the two previously discussed.

HERMYIA Desvoidy

There are two species in the collection, one of them showing two varieties.

Hermymia ditissima (Speiser)

Liancosmia ditissima SPEISER, 1910, 'Kil.-Meru Exped.,' X, p. 157.

Three males and one female, Stanleyville, March and April; male, Medje, September.

Hermymia diabolus (Wiedemann)

Tachina diabolus WIEDEMANN, 1819, Zoöl. Mag., III, p. 26.

The collection contains sixteen males and one female from the following localities: Medje, August and September; Stanleyville, March and April; and Poko, August.

Hermymia diabolus hottentota Desvoidy

DESVOIDY, 1830, 'Myodaires,' p. 277.

Five males and four females from Stanleyville, March and April.

This variety possesses a pair of anterior discals and a pair of submarginals on the second abdominal segment, the submarginals being absent in the typical form. In addition, it is slightly more slender and the abdomen of the female is much more thickly pollinose, especially apically.

Hermymia diabolus, variety

A single male from Bengamisa, September, lacks dorsal bristles on the second abdominal segment and has the abdomen much more thickly pollinose than in the two preceding forms.

PARACLARA Bezzi**Paraclara magnifica** Bezzi

BEZZI, 1908, Boll. Soc. Ent. Firenze, XXXIX, p. 86.

Male, Stanleyville, April 9, 1915.

ACTIA Desvoidy

The following table will separate the species recorded from the Congo. There are many other species occurring in Africa.

- | | |
|---|---------------------------|
| 1.—First vein bristled..... | 2. |
| First vein bare..... | <i>heterochæta</i> Bezzi. |
| 2.—Fifth vein bristled; legs reddish..... | <i>varichæta</i> Curran. |
| Fifth vein bare; legs black..... | <i>nigripes</i> Curran. |

***Actia varichæta* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 6.

The type male was taken at Faradje in October.

***Actia nigripes* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 6.

The single specimen upon which the description was based was from Boma, June.

DEGEERIA* Meigen**Degeeria apicalis* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 8.

Male, Stanleyville, March.

***THRICOLOGYA* Rondani**

The males belonging to this genus may be separated as follows:

- 1.—Frontal bristles descending only to about the level of the arista. 2.
Frontals descending to the middle of the third antennal segment; posterior forceps with a large basal hollow filled with coarse, inwardly directed yellow hair; second abdominal segment with marginals. *sorbillans* Wiedemann.
- 2.—Posterior forceps clothed with sparse, black hair. 4.
Posterior forceps convex basally, clothed with dense reddish or reddish brown pile on most of their length, the borders with longer black hair. 3.
- 3.—Posterior forceps, in profile, with the lateral margin evenly convex, the basal median part but little protruding above the lateral margins. *creole* Curran.
Posterior forceps, in profile, with the basal median swelling protruding strongly above the lateral margins on the basal half. *sessitans* Curran.
- 4.—Posterior forceps narrow, long, the hair fairly dense. *abdominalis* Curran.
Posterior forceps broad, narrow on apical fourth, the hair rather sparse.
neta Curran.

Thricolyga sorbillans* (Wiedemann)Tachina sorbillans* WIEDEMANN, 1830, 'Ausser. Zweifl.,' II, p. 311.

Male, Stanleyville, April 27, 1915; male, Panga, September, 1914.

***Thricolyga creole* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 1.

The type series consisted of four males and one female from Stanleyville, taken in March, April, and July.

***Thricolyga sessitans* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 2.

Three males and one female from Stanleyville, March.

Thricolyga abdominalis Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 8.

Originally described from six males and four females from Stanleyville, March and April, 1915.

Thricolyga neta Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 2.

The type male was taken at Stanleyville in March, 1915.

EXORISTA Meigen

This genus is represented by three females taken at Stanleyville in March and April. I am unable to determine the species without the male sex.

ZENILLIA Desvoidy

The African species which I have identified may be separated by the key which follows.

- 1.—Metallic green or bluish; thorax and abdomen without pale pollen; arista long pubescent.....*insolita* Curran.
Blackish, often more or less reddish on abdomen and scutellum.....2.
- 2.—Sternopleurals 1-1.....3.
Three or four sternopleurals.....6.
- 3.—Female with strong, curved piercing ovipositor.....*devastator* Curran.
Female without piercing ovipositor.....4.
- 4.—Ocellar bristles long.....5.
Ocellars scarcely evident.....*fuscicosta* Curran.
- 5.—Palpi black.....Species.
Palpi reddish yellow.....*evolans* Wiedemann.
- 6.—Sternopleurals 2-1.....7.
Sternopleurals 2-2.....*distans* Villeneuve.
- 7.—Third antennal segment not over three times as long as second.....8.
Third antennal segment five or six times as long as second, convexly swollen basally.....*angulicornis* Villeneuve.
- 8.—Facial ridges with sparse bristles on lowest third.....*sordida* Villeneuve.
- 9.—Facial ridges with bristly hairs on less than lowest fourth.....9.
9.—Posterior tibiae rather closely ciliate.....*tenor* Curran.
Posterior tibiae with sparse but evenly long bristles on anterodorsal surface.
illita Villen.

Zenillia evolans (Wiedemann)

Tachina evolans WIEDEMANN, 1830, 'Ausser. Zweifl.,' II, p. 321 (*Parexorista* Brauer and Bergenstamm).

Male and female, Stanleyville, April. These agree perfectly with the type.

Zenillia fuscicosta Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 4.

The original description was based on a male taken at Stanleyville in March, 1915.

Zenillia tenor Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 5.

Originally described from a male from Stanleyville, March.

Zenillia insolita Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 5.

Described from two males from Stanleyville, March.

Zenillia (Zenilliana) devastator Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 3.

Two of the three specimens, including the type, upon which this description was based were from Stanleyville, March and April.

SERICOPHOROMYIA Austen

The collection contains a single representative of this genus.

Sericophoromyia marshalli Villeneuve

VILLENEUVE, 1916, Ann. So. Afr. Mus., XV, p. 480.

Female, Stanleyville, March.

PHOROCERA Desvoidy

In this genus I have placed species which would fall into several genera in the classification of Brauer and Bergenstamm, as I can find no character of sufficient value for their separation. The species in the collection fall into the genera (!) included in the following table.

- 1.—Abdomen without discals on the intermediate segments.....2.
Abdomen with discals.....*Phorocera* Desvoidy.
- 2.—Second abdominal segment with very short marginals or none...*Pales* Desvoidy.
Second abdominal segment with long marginals.....3.
- 3.—Bristles of the facial ridges long, strong, widely spaced.
Ctenophorocera Brauer and Bergenstamm.
Bristles of the facial ridges shorter, fine, rather closely spaced.
Pseudoperichæta Brauer and Bergenstamm.

TABLE OF SPECIES

- 1.—Sternopleurals 2-1.....5.
Sternopleurals 1-1.....2.
- 2.—Occiput with black hair, sometimes some pale hair near the neck.....3.
Occiput with whitish pile.....4.

- 3.—Ocellars scarcely longer than the surrounding hairs; wings brownish in front and along the veins.....*sallax* Curran.
Ocellars twice as long as surrounding hairs; wings cinereous hyaline.
nestor Curran.
- 4.—Fourth abdominal segment wholly shining black.....*nigrocauda* Curran.
Fourth abdominal segment mostly pale pollinose.....species.
- 5.—Fourth abdominal segment black in ground color.....6.
Fourth abdominal segment wholly reddish.....*rufocauda* Curran.
- 6.—Second abdominal segment usually with long marginals, the third segment always broadly pollinose basally.....7.
Second abdominal segment with very short marginals; shining black species with the third abdominal segment very narrowly white pollinose basally, the second and fourth usually broadly so from posterior view.
seminitida Villeneuve.
- 7.—Posterior tibiae evenly though somewhat sparsely ciliate, with one larger bristle in the row.....8.
Posterior tibiae not ciliate, with two or three strong bristles before the middle anterodorsally.....*sarcophagiformis* Jænnicke.
- 8.—Abdomen not at all or scarcely tessellate.....9.
Abdomen conspicuously tessellate from some views; posterior tibiae rather closely short ciliate; third antennal segment three times as long as the second.....*experta* Brauer and Bergenstamm.
- 9.—Abdomen evenly and rather thinly cinereous pollinose, usually reddish laterally; third antennal segment two to three times as long as the second.
blepharipa Brauer and Bergenstamm.
Abdomen thickly cinereous pollinose, the apices of the segments broadly dark; third antennal segment twice as long as the second.....*senex* Curran.

Phorocera sallax Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 11.

Described from two males taken at Stanleyville in March.

Phorocera nestor Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 12.

Originally described from a male from Stanleyville, March.

Phorocera nigrocauda Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 10.

The type was a male from Stanleyville.

Phorocera species

A single female from Stanleyville, having only two sternopleurals and very strong marginals on the second abdominal segment, differs from any of the species in the collection.

Phorocera seminitida Villeneuve*Pales seminitida* VILLENEUVE (*in litt.*).

Four males and one female from Stanleyville, March and April, 1915.

A shining black species, with thin, pale pollen on the abdomen.

Phorocera rufocauda Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 9.

The type female was taken at Stanleyville, March.

Phorocera senex Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 10.

Six males from Stanleyville, February and March.

PHORINIA Desvoidy**Phorinia verritus** (Walker)*Phorocera verritus* WALKER, 1829, 'List Dipt., Brit. Mus.,' IV, p. 774.

Six specimens of each sex from Stanleyville, March and April, and a female from Poko, August.

STURMIA Desvoidy

There are over thirty species belonging to *Sturmia* in the collection, and many others probably occur in the region. I present a key to the species known to me from Africa.

MALES

- 1.—Sternopleurals 2-1-1, the third nearer the fourth than the first.....2.
Sternopleurals, if arranged 2-1-1, with the third situated nearer the first than the fourth.....21.
- 2.—Third segment with sexual patch on venter.....3.
Without sexual patch.....*negator* Curran.
- 3.—Parafacials bare on lower third or more.....4.
Parafacials with hair on whole length.....*femineum* Curran.
- 4.—Middle tibiae with only one antero-dorsal bristle.....7.
Middle tibiae with two antero-dorsal bristles.....5.
- 5.—Parafacials bare below the lowest frontals.....6.
Parafacials setose halfway below the lowest frontals.....*rex* Curran.
- 6.—Arista thickened to beyond the middle; sexual patch not visible from dorsal view.....*atropivora* Desvoidy.
Arista thickened on basal third; sexual patch extending far onto the dorsum.....*completa* Curran.
- 7.—A row or at least half a row of setulae behind the occipital cilia.....8.
At most a few isolated setulae behind the occipital cilia on the upper half....18.

- 8.—Sexual patch roundish, oval or cordate, or the occiput without a complete row of setulæ behind the cilia.....11.
Sexual patch transverse, subrectangular; occiput with a complete row of setulæ behind the cilia.....9.
- 9.—Parafacials somewhat narrowed below, on most of their length narrower than the third antennal segment.....10.
Parafacials not narrowed below, wider than the third antennal segment.
ugandana Curran.
- 10.—Ocellars and marginals on second segment long and strong .. *potina* Curran.
Ocellars and marginals on second segment short.....*lavinia* Curran.
- 11.—Row of occipital setæ entire or nearly so.....12.
Row of setulæ interrupted near the middle for at least one-third the length of the eye.....16.
- 12.—Abdominal pollen never golden yellow.....13.
Pollen all golden yellow; palpi black; no small marginals on second abdominal segment.....*pulchra* Curran.
- 13.—Parafacials normally with yellow tinge; front scarcely more than half as wide as either eye.....14.
Parafacials pure white; front three-fourths as wide as either eye.
inconspicua Meigen.
- 14.—Segmental pollen poorly limited behind, the apical half of the segments appearing black from most views.....15.
Abdominal pollen sharply limited, less than apical fourth of the segments black; sexual patch large, cordate; bristles on first and second abdominal segments usually inconspicuous.....*cordata* Curran.
- 15.—Palpi brown on basal half or more; length 12 mm.....*gilvodes* Curran.
Palpi brown only at the base; length under 9 mm.....*gilva* Hartig.
- 16.—Parafacials narrowed below, in part narrower than the third antennal segment.....17.
Parafacials not narrowed below, as wide or wider than third antennal segment; palpi black with the apical bare area reddish.....*dilabida* Villeneuve.
- 17.—Palpi wholly deep black; ocellars long and strong.....*munroi* Curran.
Palpi mostly pale reddish; ocellars short and weak.....*bimaculata* Hartig.
- 18.—Front three-fourths as wide as either eye (in female as wide as eye).....19.
Front about half as wide as eye (in female three-fourths as wide as eye); abdominal pollen with at most slight yellowish tinge; apical half of second abdominal segment shining medianly.....*zonata* Curran.
- 19.—Mesonotum with ashy white pollen and shining black vittæ.....20.
Mesonotum with yellowish cinereous pollen and narrow, dull vittæ..*laxa* Curran
- 20.—Palpi reddish; third antennal segment over twice as long as second.
partitor Curran.
Palpi black; third antennal segment about one and one-half times as long as the second.....*masakesnsis* Curran.
- 21.—With three or more sternopleurals.....23.
With only two sternopleurals.....22.
- 22.—Legs reddish.....*anaphe* Curran.
Legs black.....*instabilis* Curran.
- 23.—Sternopleurals 2-1 or more than three in number.....24.

- Sternopleurals 1-2. *aureiventris* Villeneuve.
- 24.—Femora black. 27.
Femora reddish. 25.
- 25.—Wings hyaline, sometimes yellowish basally. 26.
Wings yellowish basally in front, brownish at least along the veins.
lætabilis Villeneuve.
- 26.—Parafacials almost twice as wide as third antennal segment. *rufina* Curran.
Parafacials about as wide as third antennal segment. *anaphe* Curran.
- 27.—Second abdominal segment with long, strong marginals. 28.
Second segment with at most short marginals. 35.
- 28.—Pollen cinereous or grayish yellow; face whitish. 29.
Pollen dark cinnamon-brown; face deep golden yellow. *vivax* Curran.
- 29.—Ocellars long and strong. 30.
Ocellars short and weak; sternopleurals 2-1. 32.
- 30.—Sternopleurals 2-1; front almost as wide as either eye. 31.
Sternopleurals 1-1-1; in an almost straight line; front little more than half as wide as either eye. *angustifrons* Villeneuve.
- 31.—Parafacials setose on upper half. *instabilis* Curran.
Parafacials bare below lowest frontals. *semilestacea* Villeneuve.
- 32.—Sexual patch restricted to the under surface. 33.
Sexual patch extending distinctly on to the dorsum. *scutellata* Rondani.
- 33.—Parafacials setose above. 34.
Parafacials bare below lowest frontals. *alacris* Curran.
- 34.—Wings broadly brownish in front on basal half. *rex* Curran.
Wings hyaline. *analis* Curran.
- 35.—Males without sexual patch; pulvilli small. 36.
With sexual patch on ventral portion of third segment. 37.
- 36.—Third antennal segment about five times as long as the second. *dorina* Curran.
Third antennal segment less than three times as long as second. *chapini* Curran.
- 37.—Pulvilli large. 40.
Pulvilli small. 38.
- 38.—Ocellars short and weak; parafacials setose above. 39.
Ocellars long and strong; parafacials bare. *angustifrons* Villeneuve.
- 39.—Parafacials almost one and one-half times as long as third antennal segment, prominent in profile. *vulnerata* Curran.
Parafacials scarcely wider than third antennal segment, not prominent in profile.
imitator Curran.
- 40.—Abdomen rarely metallic green beneath the pollen, but if partly so the pollen paler and the apex of the abdomen more or less reddish. 41.
Abdomen very strongly metallic green beneath the cinnamon-brown pollen, the apex black; unless moistened the abdomen may show only slight metallic green reflections in dried specimens. *versatalis* Villeneuve.
- 41.—Mesonotum grayish or grayish yellow pollinose, the sides cinereous or with grayish yellow pollen. 44.
Mesonotum cinnamon-brown or ochreous brown pollinose, the sides never grayish. 42.
- 42.—Face golden yellow pollinose; abdominal pollen white. 43.

- Face white pollinose; abdominal pollen rather ochreous. *arrogans* Curran.
- 43.—Pollinose band on third abdominal segment narrow, interrupted. *intensica* Curran.
Pollinose band on third segment entire, wide in the middle, narrowed laterally. *aurifrons* Villeneuve.
- 44.—Parafacials bare on lower third or more. 46.
Parafacials haired on whole length or nearly so. 45.
- 45.—Third antennal segment at least four times as long as second; front with two strong orbitals on either side. *Afrostermia orbitalis* Curran.
Third antennal segment not over three times as long as second; male without orbitals. *setifacies* Curran.
- 46.—Palpi reddish except basally, broadened on apical fourth or more. 49.
Palpi blackish or brown, usually not strongly broadened apically. 47.
- 47.—Sexual patch not extending distinctly on to the dorsum, rather thin. 48.
Sexual patch large and dense, extending slightly on to the dorsum; middle tibiae with one long and one short anterodorsal bristle. *fuscicosta* Curran.
- 48.—Parafacials entirely without hairs; middle tibiae with two strong anterodorsal bristles. *melita* Curran.
Parafacials with many hairs, golden yellowish; middle tibiae with only one strong anterodorsal bristle. *congolensis* Villeneuve.
- 49.—Sexual patch very large and moderately dense. 50.
Sexual patch rather small and thin and not well defined. *congolensis* Villeneuve.
- 50.—Costal border broadly brown. *grandis* Curran.
Wings cinereous hyaline, the costal border not brown. *abana* Curran.

FEMALES

- 1.—Sternopleurals 2-1-1, the third nearer the fourth than the first. 2.
Sternopleurals 3; if four are present they are not arranged 2-1-1 or if so the third is nearer the first than the fourth. 22.
- 2.—Parafacials bare below lowest frontals. 13.
Parafacials setose on upper third or more. 3.
- 3.—Parafacials bare on lower half or more. 4.
Parafacials with sparse hairs on whole length. *femineum* Curran.
- 4.—Third vein with a single basal seta. 5.
Third vein with three basal setae. *rex* Curran.
- 5.—With a row or at least half a row of setae behind the occipital cilia. 8.
With only a few scattered setae behind the occipital cilia behind the upper half of the eyes. 6.
- 6.—Front about four-fifths as wide as either eye. 7.
Front as wide as either eye. *laxa* Curran.
- 7.—Ocellar triangle strongly ochreous. *zonata* Curran.
Ocellar triangle with slight yellowish tinge. *partitor* Curran.
- 8.—Parafacials not or only slightly narrowing below where they are as wide as the third antennal segment. 9.
Parafacials conspicuously narrowing below, much narrower below than the third antennal segment. 11.
- 9.—Arista thickened on less than the basal half. 10.
Arista thickened on more than the basal half. *dilabida* Villeneuve.

- 10.—Palpi black.....*ugandana* Curran.
Palpi reddish.....*gilvodes* Curran.
- 11.—Large, over 12 mm. in length.....*gilvodes* Curran.
Under 11 mm.....12.
- 12.—*S. gilva* Hartig, *bimaculata* Hartig and *inconspicua* Meigen come here.
- 13.—Middle tibiae with a single anterodorsal bristle.....14.
Middle tibiae with two anterodorsal bristles.....*atropivora* Desvoidy.
- 14.—Base of third vein with a single seta.....18.
Base of third vein with two or more setae.....15.
- 15.—Costal border not broadly brownish in front.....16.
Costal border broadly brownish on basal third.....*negastor* Curran.
- 16.—Ocellars much longer and stronger than the postocellars.....17.
Ocellars not stronger than the postocellars.....Species.
- 17.—Palpi black.....*completa* Curran.
Palpi reddish.....Species.
- 18.—With a row or half row of setae behind the occipital cilia on upper half...20.
Without setae behind occipital cilia on upper half.....19.
- 19.—Mesonotal vittae shining, paired.....*masakensis* Curran.
Mesonotal vittae dull, not approximated to form pairs.....*munroi* Curran.
- 20.—At least the apical third of the third abdominal segment shining.....21.
At most the apical fourth of the third segment shining.....*pulchra* Curran.
- 21.—Third antennal segment narrow.....*lavinia* Curran.
Third antennal segment wide.....*cordata* Curran.
- 22.—Femora black.....25.
Femora reddish.....23.
- 23.—Parafacials bare below lowest frontals.....24.
Parafacials setose on upper half.....*laetabilis* Villeneuve.
- 24.—Parafacials twice as wide as third antennal segment.....*rufina* Curran.
Parafacials not one and one-half times as wide as antennae...*anaphe* Curran.
- 25.—Wings not broadly yellow in front on basal third.....27.
Wings broadly yellow in front on basal third or more.....26.
- 26.—Parafacials bare.....*natalensis* Curran.
Parafacials setose on upper third.....*picturata* Curran.
- 27.—Sternopleurals arranged 1-2.....*aureiventris* Villeneuve.
Sternopleurals not arranged 1-2.....28.
- 28.—Middle tibiae with two or more anterodorsal bristles.....31.
Middle tibiae with a single anterodorsal bristle.....29.
- 29.—Parafacials bare on lower third or more.....30.
Parafacials setose on practically the whole length.....*setifacies* Curran.
- 30.—Head silvery white pollinose; sternopleurals 1-1-1..*angustifrons* Villeneuve.
Head with the pollen having yellowish tinge; sternopleurals 2-1..*grandis* Curran.
- 31.—Parafacials setose below the lowest frontals.....40.
Parafacials bare.....32.
- 32.—Size over 10 mm.....34.
Size under 9 mm.; mesonotum never ochreous brown pollinose.....33.
- 33.—Wings largely brown.....*dorina* Curran.
Wings cinereous hyaline.....*melita* Curran.
- 34.—Row of setae behind occipital cilia obsolete on upper third or more.....36.

- Row of setæ complete 35.
- 35.—Ocellars as long as median frontals *chapini* Curran.
 Ocellars not nearly as long as median frontals *arrogans* Curran.
- 36.—Fourth abdominal segment largely or wholly reddish 37.
 Fourth abdominal segment wholly black 39.
- 37.—Second abdominal segment with strong marginals 38.
 Second abdominal segment without strong marginals Species.
- 38.—Hair of cheeks almost all sparse and rather coarse *semitestacea* Villeneuve.
 Hair of cheeks almost all fine and short *alacris* Curran.
- 39.—Mesonotum ochreous brown pollinose; length, 9.5 mm Species.
 Mesonotum grayish pollinose *scutellata* Rondani.
- 40.—Second abdominal segment with a pair of long, strong marginals 41.
 Second segment with at most short marginals 49.
- 41.—Ocellars much shorter than median frontals 42.
 Ocellars much longer than median frontals Species.
- 42.—Abdomen, when viewed from behind, with at most weak metallic green reflections 44.
 Abdomen, from posterior view, with strong metallic green reflections; thorax cinnamon-brown pollinose 43.
- 43.—Ocellars indistinct *versatilis* Villeneuve.
 Ocellars as long as postocellars *vivax* Curran.
- 44.—Thorax cinereous or grayish ochreous pollinose 45.
 Thorax ochreous-brown pollinose 51.
- 45.—Mesonotal pollen dull ochreous to cinereous; length usually over 13 mm. 46.
 Mesonotal pollen rather golden ochreous; length 11 to 12 mm.
aurifrons Villeneuve.
- 46.—Costal border broadly brown on basal half 47.
 Costal border at most somewhat luteous *instabilis* Curran.
- 47.—Third antennal segment little more than twice as long as the second 48.
 Third antennal segment three times as long as the second Species.
- 48.—Middle tibiæ with three very strong anterodorsal bristles *rex* Curran.
 Middle tibiæ with two strong and a weaker anterodorsal bristle basally.
fuscicosta Curran.
- 49.—Large species, over 11 mm. in length 50.
 Small, under 9 mm. (Parafacials bare?) *melita* Curran.
- 50.—Palpi yellow *imitator* Curran.
 Palpi brown *congolensis* Villeneuve.
- 51.—Pollen of third abdominal segment occupying about the basal three-fourths, not narrowed towards the middle Species.
 Pollen of third segment, towards the middle, occupying little more than the basal half *intensica* Curran.

***Sturmia negator* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 15.

Originally described from two males from Stanleyville, March and April.

***Sturmia atropivora* Desvoidy**

DESVOIDY, 1830, 'Myodaires,' p. 171.

A single male, Stanleyville, April.

***Sturmia rex* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 14.

The original description was based on eight males and twelve females taken at Stanleyville in March and April.

***Sturmia ugandana* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 16.

The type female was from Stanleyville, April.

***Sturmia lavinia* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 14.

The type male and female were taken at Stanleyville in March.

***Sturmia pulchra* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 16.

The four females of this species recorded in the original description were collected at Stanleyville in March and April. The males were from Uganda.

***Sturmia inconspicua* Meigen**

MEIGEN, 1830, 'Besch. Eur. Dipt.,' VI, p. 369.

Two males and two females, Stanleyville, March.

***Sturmia cordata* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 12.

Described from six males and four females from Stanleyville, March.

***Sturmia gilva* Hartig**

HARTIG, 1838, Jahr. Fortschr. Forstwiss., I, p. 288.

Male, Stanleyville, March. There is some doubt about the determination being correct.

***Sturmia dilabida* Villeneuve**

VILLENEUVE, 1916, Ann. So. Afr. Mus., XV, p. 478.

Two males, Stanleyville, March and July.

***Sturmia bimaculata* (Hartig)**

Tachina bimaculata HARTIG, 1838, Jahr. Fortschr. Forstwiss., I, p. 286.

Male and female, Stanleyville, March.

***Sturmia læstabilis* Villeneuve**

VILLENEUVE (*in litt.*)

Three males and two females, Stanleyville, March.

This species is readily recognized by the largely reddish abdomen, red femora and brownish wings, which have the base broadly yellow.

***Sturmia vivax* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 15.

Originally described from three specimens of each sex from Stanleyville, March and April.

***Sturmia angustifrons* Villeneuve**

VILLENEUVE, 1916, Ann. So. Afr. Mus., XV, p. 478.

Male and female, Boma, June, and female, Malela, July.

***Sturmia chapini* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 11.

The original description was drawn from twenty-one males and thirteen females from Stanleyville, March and April.

***Sturmia vulnerata* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 13.

Described from a single male taken at Stanleyville, April.

***Sturmia imitator* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 13.

Originally described from nine males and three females from Stanleyville, February to April.

***Sturmia versatilis* Villeneuve**

VILLENEUVE, 1910, Wien. Ent. Zeitschr., XXIX, p. 253.

Four males and four females, Stanleyville, March and April; male, Boma, June; and male, Faradje, November. I have also seen specimens from Uganda and Nigeria.

In this species the abdomen is mostly metallic green in ground color, but this color is only evident in more or less moistened specimens, although I suspect that it is very conspicuous in life, as is the case with

the thorax of *Phorinia verritus* Walker. The male has only slight traces of marginals on the second abdominal segment but the female has very strong ones.

***Sturmia arrogans* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 16.

Originally described from three specimens from Stanleyville, March and April.

***Sturmia setifacies* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 12.

The type male and female were taken at Stanleyville, March.

***Sturmia fuscicosta* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 10.

Fourteen males and ten females, Stanleyville, March and April.

***Sturmia intensica* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 17.

Three males and four females taken at Stanleyville, March and April.

***Sturmia melita* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 12.

Originally described from two males and one female from Stanleyville, March.

***Sturmia congolensis* Villeneuve**

VILLENEUVE, 1910, Wien. Ent. Zeit., XXIX, p. 253.

Fifteen males and 19 females from Stanleyville, March and April.

Villeneuve described this form as a new variety without indication of its relationship except to compare it with *cursitans* Rondani and *imberbis* Wiedemann, from which it differs in having the parafacials clothed with sparse, appressed, short black hairs on the upper half. The sides of the abdomen in the male are usually broadly reddish while the first two segments lack dorsal bristles in both sexes.

***Sturmia grandis* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 13.

The description was based on three males taken at Stanleyville in March and April, 1915.

***Sturmia femineum* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 14.

Originally described from a female from Stanleyville, captured on April 7, 1915.

***Sturmia(?) dorina* Curran**

Sturmia? doris CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 18.

Sturmia? dorina Curran, 1927, Bull. Ent. Research, XVIII, p. 126.

Originally described from three males and four females from Stanleyville, March.

PODOMYIA Brauer and Bergenstamm

This genus has much the facies of *Sturmia* Desvoidy and *Exorista* Meigen. The eyes are bare or practically so, and the facial ridges are bristled on the lower half or more, the posterior tibiæ closely ciliate anterodorsally. The posterior forceps of the male genitalia are split in two of the species but in *P. langi* they resemble those of *Thricolyga* Rondani.

MALES

- 1.—Second abdominal segment with at most very short marginals; palpi brown. . 2.
Second abdominal segment with strong marginals; palpi reddish. *setigera* Corti.
- 2.—Ocellar bristles long and stout; ocellar triangle as long as wide. *langi* Curran.
Ocellars short and weak; ocellar triangle wider than long. . . *ocellaris* Curran.

***Podomyia setigera* Corti**

CORTI, 1895, Ann. Mus. Genova, XXXV, p. 135.

Three males and one female, Stanleyville, April and May.

The male of this species is easily recognized by the large sexual patch on the third abdominal segment which, while not sharply limited, is quite conspicuous.

***Podomyia langi* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 9.

Three males from Stanleyville, March.

***Podomyia ocellaris* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 246, p. 9.

Originally described from two males from Stanleyville, March.

PARAROUBAUDIA Villeneuve

I am not at all sure of the status of the genus *Roubaudia* Villeneuve. *Pararoubaudia* was described as a subgenus, differing in possessing

orbitals in both sexes. I doubt if the genus can be maintained as distinct from *Anacamptomyia* Bischoff, in which there are no outstanding discals on the intermediate abdominal segments but there are inconspicuous ones.

Pararoubaudia bisetosa (Villeneuve)

Roubaudia (*Pararoubaudia*) *bisetosa* VILLENEUVE, 1914, Rev. Zool. Afr., IV, p. 125.

One male, Stanleyville, March. I have also specimens from Gold Coast and Nigeria.

ANACAMPTOMYIA Bischoff

Anacamptomyia africana Bischoff

BISCHOFF, 1904, Verh. Zool. Bot. Ges., Wien, LIV, p. 81.

Female, Boma, June.

This species is rather variable as to color and a specimen determined as *Roubaudia rufescens* var.? by Dr. Villeneuve is a female of this species and quite typical. I have seen several specimens from South Africa.

LYDELLINA Villeneuve

This genus was erected for the species listed below.

Lydellina caffra (Macquart)

Masicera caffra MACQUART, 1846, 'Dipt. Exot.,' p. 162.

There are ten males and 26 females from Stanleyville, March and April.

ERYCIA Desvoidy

This genus is represented by a single female specimen which I am unable to identify.

VIVIANIA Desvoidy

Viviania aureofasciata Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 8.

The type male was taken at Stanleyville in March.

CEROMASIA Rondani

I am not certain that the following species belongs here. It should probably be placed in a new genus.

Ceromasia rufiventris Curran

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 7.

Described from a single female from Stanleyville, April.

LINNÆMYA Desvoidy

- Linnæmya* DESVOIDY, 1830, 'Myodaires,' p. 52.
Bonnetia DESVOIDY, 1830, 'Myodaires,' p. 55.
Bonellia DESVOIDY, 1830, 'Myodaires,' p. 56.
Marshamia DESVOIDY, 1830, 'Myodaires,' p. 57.
Micropalpus MACQUART, 1834, 'Hist. Nat. Dipt.,' p. 316.
Amphisia DESVOIDY, 1863, 'Posth.,' I, p. 129, II. (*Nec* Curtis, 1828.)
Homæonychia BRAUER AND BERGENSTAMM, 1889, Denkschr. Akad. Wien, LVI, p. 133.
Tachinomima BRAUER AND BERGENSTAMM, 1891, Denkschr. Akad. Wien, LVIII, p. 383.

I find myself unable to recognize several of the genera included in the above synonymy. Some of them possess infra-squamal setulæ but they are often so fine as to be extremely difficult to perceive and seem to be of no value in one or two species. *Tachinomima* is distinguished by the very long proboscis, but this character is wholly evanescent and therefore of no value. There are about twenty-five species referable to this genus, as here limited, in Africa.

- 1.—Pleura clothed with fine yellowish pile. 2.
 Pleura, or at least most of the mesopleura, black pilose. 4.
- 2.—Second abdominal segment without strong discals. 3.
 Second abdominal segment with one pair of discals. *affinis* Corti.
- 3.—Mesonotum almost wholly pale yellow pilose. *angulicornis* Speiser.
 Mesonotum with coarse black hair except laterally. *alboscutatus* Speiser.
- 4.—Scutellum reddish. 5.
 Scutellum whitish yellow. *alboscutatus* Speiser.
- 5.—Wings with the basal third orange yellow, the following third brown, the apex gray. *pictipennis* Curran.
 Wings yellowish basally, elsewhere grayish or somewhat brown. *conformis* Curran.

Linnæmya affinis (Corti)

- Micropalpus affinis* CORTI, 1895, Ann. Mus. Genova, XXXV, p. 137.
 Female, Boma, June.

Linnæmya angulicornis (Speiser)

- Micropalpus angulicornis* SPEISER, 1910, 'Kil.-Meru, Exped.,' X, p. 138.
 I have before me a specimen from Stanleyville.

Linnæmya alboscutatus (Speiser)

- Micropalpus alboscutatus* SPEISER, 1910. 'Kil.-Meru Exped.,' X, p. 138.
 Five males and four females from Stanleyville, February and March.

***Linnæmya pictipennis* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 19.

The original description was based on two females taken at Stanleyville in March.

***Linnæmya conformis* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 19.

The type of this species was taken at Stanleyville in March, 1915.

CUPHOCERA Macquart

Only one species is in the collection. It occurs commonly in Europe.

***Cuphocera ruficornis* (Macquart)**

Micropalpus ruficornis MACQUART, 1835, 'Hist. Nat. Dipt.,' II, p. 83.

Male and two females, Stanleyville, March and April.

CHROMATOPHANIA Brauer and Bergenstamm***Chromatophania fenestrata* Villeneuve**

VILLENEUVE, 1913, Rev. Zool. Afr., III, p. 42.

Five males and 12 females from Stanleyville, January to April, and one female, Medje, September.

In this species the abdomen is variable in color, being sometimes wholly black, or often with the apical segment and the broad sides of the others reddish. The fourth segment is often conspicuously whitish or pale yellowish pollinose or is at least obscurely brownish pollinose, while there is at most a trace of a very narrow basal fascia on the third segment; some specimens appear to entirely lack abdominal pollen dorsally, but this does not seem to be of any real significance.

DEJEANIA Desvoidy***Dejeania pertristis* Villeneuve**

VILLENEUVE, 1913, Rev. Zool. Afr., III, fasc. 9, p. 25.

The collection contains nine males and five females, all from Stanleyville, March and April. The abdomen shows some variation in color, being castaneous in teneral specimens.

***Dejeania certima* Curran**

CURRAN, 1927, Amer. Mus. Novitates, No. 258, p. 20.

Male, Stanleyville, March.