

Records and Descriptions of tropical African Crane-Flies (*Tipulidae*, *Diptera*).

BY

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PART IV.

The preceding part under this general title was published in the *Revue Zoologique Africaine*, volume XIV, in 1926. The material discussed at this time is contained in extensive series of African Tipulidae contained in the British Museum, kindly loaned for study by M^r EDWARDS, and in the Museum of the Belgian Congo, through the kind interest of D^r SCHOUTEDEN. A single additional species was included in material from the Museum of Natural History in Paris, received through M. SÉGUY. I wish to extend my deep thanks to all of the above mentioned entomologists, as well as to the individual collectors of the material mentioned hereinafter. The location of the types is mentioned in the case of the individual species. Keys to the Ethiopian species in the genera *Elephantomyia* and *Gnophomyia* are given.

TIPULINAE.

Genus *Tipula* LINNAEUS.

Tipula melanoptera, sp. n.

Subapterous, at least in the female sex; general coloration dark

brown; antennae and maxillary palpi reduced; legs and halteres black; wings black, about twice the length of the halteres.

Female. — Length about 11 mm.; wing 3.3 mm.

Frontal prolongation of head dark brown, relatively short and stout, the nasus represented by a few stout setae; maxillary palpi short, the basal three segments subequal, the last segment reduced to a small oval knob. Antennae (Fig. 1) shorter than the head, apparently only 10-segmented, the outer flagellar segments decreasing in size and becoming greatly crowded; scape obscure brownish yellow, the flagellum passing into dark brown. Head obscure yellow, pollinose surrounding the eye, the remainder of the head dark brown; vertical tubercle very large and conspicuous, narrowed in front, entire. Head closely applied to prothorax, the mouth in an inferior position.

Pronotum narrow, brownish black. Mesonotum uniformly dark brown, the pleurotergite more yellowish brown. Pleura yellowish brown, the reduced sternopleurite variegated with dark brown. Halteres black. Legs with the fore coxae very large, all coxae dark brown; trochanters obscure yellow basally, broadly dark brown at tips; remainder of legs black, short and relatively stout. Wings (♀) reduced in size, somewhat stenopterous, nearly twice the length of the halteres, uniformly blackened; costal margin greatly incrassated and densely setiferous; none of veins behind *R* with macrotrichia; obliterative areas along the cord relatively distinct. Venation greatly distorted but showing $R_2 + 3$ longer than *Rs*; a large cell *1st M*₂ with *m-cu* before midlength; veins beyond the cord in most part quite atrophied.

Abdomen of type gravid with eggs, almost entirely blackened, including the ovipositor; extreme caudal margins of segments pale. Ovipositor with the tergal valves relatively short, nearly straight, only slightly narrowed outwardly to the obtuse tips; sternal valves much shorter and deeper.

Hab. Cape Colony.

Holotype, ♀, Port St. John, Pondoland, October 1923. (R. E. TURNER).

Type in the British Museum, N^o 1923 — 547.

This very curious fly is placed in the genus *Tipula* only provisionally. The other South African subapterous Tipuline crane-flies belong to the genus *Longurio* (*chionoides* ALEXANDER, *micropteryx* ALEXANDER) and it is possible that the present species will likewise be found to belong to *Longurio* or some genus other than *Tipula*. The species is very well distinguished in the female sex by the combination of features diagnosed above.

LIMONIINAE.

Genus *Limonia* MEIGEN.*Limonia (Limonia) infausta*, sp. n.

Belongs to the *metatarsalba* group; mesonotum shiny brownish black; pleura chiefly yellow; posterior tarsi extensively snowy-white; wings with a strong brown suffusion; *Sc* and cell *1st M*₂ long; male hypopygium with the median region of the tergite only slightly produced.

Male. — Length about 7 mm.; wing 6.5 mm.

Rostrum and palpi small, black. Antennae black throughout, moniliform; basal flagellar segments subglobular, with short apical necks that are chiefly dark-colored; outer segments more elongate but small. Head polished black.

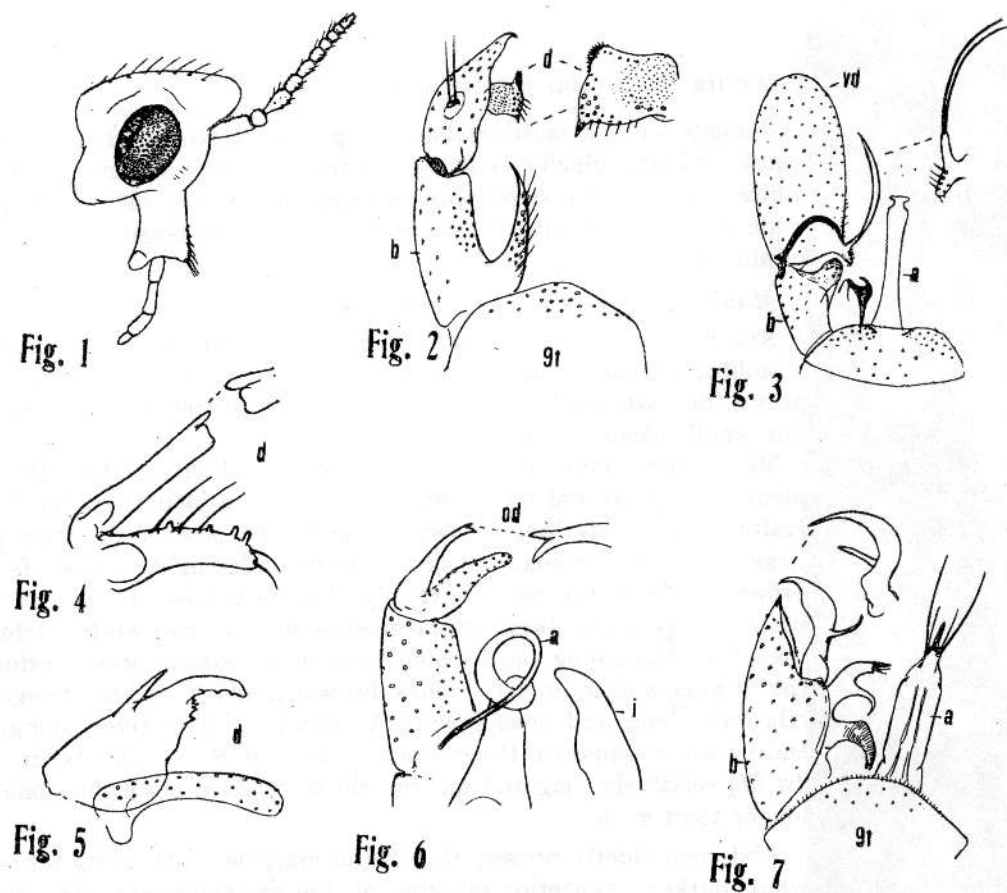
Mesonotum shiny brownish black. Pleura chiefly yellow, the propleura and postnotal pleurotergite dark; dorso-pleural region dusky. Halteres relatively long, brownish black, the base of the stem pale. Legs with the fore coxae dusky, the remainder light yellow; femora brownish black, the bases narrowly obscure yellow; tibiae and tarsi black, the posterior tarsi with segments one and two white, including the setae; claws long and simple. Wings with a strong brown suffusion, the stigma not indicated; veins brownish black; costal fringe (♂) relatively long and conspicuous. Venation: *Sc* relatively long, *Sc*₁ ending about opposite three-fourths the long *Rs*, *Sc*₂ at its tip; cell *1st M*₂ relatively long and narrow, the lower face more than one-half longer than *m-cu*.

Abdomen chiefly brown, the lateral margins of the tergites somewhat darker; posterior margins of the segments narrowly ringed with pale. Male hypopygium (Fig. 2) with the tergal region (g t) large, the caudal median portion protuberant but not produced into an elongate tubercle, as in *firestonei* ALEXANDER. Basistyle (*b*) with the ventro-mesal lobe narrowed to an acute spinous point. Dististyle (*d*) single, as in the group, narrowed to a short chitinous point; the flattened rostral extension has the outer apical margin blackened and serrulate, the inner apical angle produced into a sharp chitinized spine; opposite face of dististyle with a large oval pale area set with two powerful setae. Gonapophyses elongate, narrowed to the subacute tips.

Hab. Belgian Congo.

Holotype, ♂, Stanleyville (Dr MOUCHET).

Type in the British Museum, N^o 1927 — 226.



(Symbols: a = aedeagus; b = basistyle; d = dististyle; i = interbase; t = tergite).

- Fig. 1. — *Tipula melanoptera* sp. n.; head, lateral aspect.
- Fig. 2. — *Limonia (Limonia) infausta*, sp. n.; male hypopygium.
- Fig. 3. — *L. (Geranomyia) errana*, sp. n.; male hypopygium.
- Fig. 4. — *Elephantomyia hargreavesi* sp. n.; male hypopygium, dististyles.
- Fig. 5. — *E. ceratocheiloides*, sp. n.; male hypopygium, dististyles.
- Fig. 6. — *E. pictithorax* sp. n.; male hypopygium.
- Fig. 7. — *Teuchoiabis clitelligera*, sp. n.; male hypopygium.

Closely allied to *L. (L.) metatarsalba* (ALEXANDER) of Cameroun, differing chiefly in the details of coloration of the body, the more elongate *Sc* and the long cell *1st M₂*. The structure of the male hypopygium is distinct from *L. (L.) firestonei* ALEXANDER, of Liberia in the reduction of the tergal tubercle. The hypopygium of the type of *infausta* is slightly injured in the tergal region but it may be affirmed that the median region is merely protuberent, not produced into a long digitiform lobe, as in *firestonei*. The details of structure of the male hypopygium in this group of *Limonia* are of unusual interest, characterized especially by the slenderness of the dististyle and ventromesal lobe of the basistyle, both of which are narrowed into acute chitinous points. Other peculiarities are in the flattened, subquadrate rostral prolongation of the dististyle and the presence on the same organ of two modified enlarged setae, these latter possibly homologous with the usual rostral spines, but, if so, occupying a very unique position.

***Limonia (Limonia) pondoensis*, sp. n.**

General coloration light yellow, the praescutum with a median brown line; dorsal thoracic pleurites darkened; knobs of halteres dark brown; legs yellow; wings yellowish grey, with a heavy dark brown pattern; abdominal segments bicolorous.

Female. — Length about 7 mm.; wing 6.5 mm.

Rostrum and palpi brownish black. Antennae dark brown, the outer flagellar segments paler, more brownish yellow; basal four or five flagellar segments large, subglobular, the succeeding segments more elongate. Front and anterior vertex silvery, the posterior portions of the head more yellowish grey.

Pronotum obscure yellow, darker laterally and in front. Mesonotal praescutum light yellow, with a single median brown stripe that widens slightly behind; scutal lobes light yellow, the median area apparently darker, but injured by the pin; scutellum brownish yellow, broadly darker brown basally; postnotum light brown, the antero-lateral portions darker. Pleura with the dorsal half broadly infuscated to form a longitudinal stripe, the ventral pleurites conspicuously light yellow. Halteres pale yellow, the knobs dark brown. Legs light yellow, the terminal tarsal segments a little darkened; claws nearly simple, except at base. Wings (Fig. 15) yellowish grey, the costal region clearer yellow; a heavy dark brown pattern arranged as in the figure, including major areas at origin of *Rs*, fork of *Sc*, stigma, outer ends of radial cells, seams along cord and outer end of cell *1st M₂* and as marginal seams, the latter in most instances restricted to spots; axillary region darkened; extensive pale brown washes

in cells *R*, *M* and bases of *Cu*, *1st A* and *2nd A*; veins dark brown, *C*, *Sc* and *R* pale yellow. Venation: *Sc*₁ ending about opposite mid-length of *Rs*, *Sc*₂ at its tip; *Rs* strongly angulated at origin; free tip of *Sc*₂ in alignment with *R*₂, both pale, with a short spur of *R*₁₊₂ jutting beyond; *m-cu* shortly before the fork of *M*; vein *2nd* bent rather strongly into the anal margin.

Abdominal segments bicolorous, dark brown laterally and posteriorly except for a very narrow pale caudal margin to each segment beyond the first; median basal areas of segments brownish yellow, the amount decreasing on the outer segments; basal sternites more uniformly light yellow, the outer segments marked more like the tergites. Genital segment yellow, the apex of the basal portion of the tergal valves narrowly darkened; tergal valves slender, gently upcurved; sternal valves powerful and nearly straight, horn-yellow, the bases conspicuously blackened.

Hab. Cape Colony.

Holotype, ♀, Port St. John, Pondoland, November 1923 (R. E. TURNER).

Type in the British Museum, N^o 1924 — 6.

Limonia pondoensis is very distinct from all regional species of the subgenus.

Limonia (Limonia) atrichoptera, sp. n.

General coloration yellow, the praescutum with two narrow dark brown intermediate stripes; head dark-colored; pronotum brownish black, yellow laterally; halteres black; legs black, the femora with narrow, obscure yellow apical and subapical rings; wings yellow, heavily clouded with dark brown and greyish brown; no macrotrichia in cells of wing.

Female. — Length about 10 mm.; wing 9.5 mm.

Rostrum and palpi black. Antennae (♀) black, the base of the second segment obscure yellow; first flagellar segment enlarged, subequal to the second scapal; remaining flagellar segments abruptly smaller the fifth and succeeding flagellar segments elongate-cylindrical; outer segments with very long, unilaterally-arranged black verticils. Head dark, discolored.

Pronotum brownish black, the sides abruptly yellow. Mesonotal praescutum yellow, with two narrow dark brown intermediate stripes that slightly widen before the suture, the space between clearer yellow at this point; posterior lateral portions of praescutum more greyish but without distinct stripes; scutal lobes darkened, the median region yellow; scutellum yellow; postnotum obscure yellow with a brown mark near either side on basal half. Pleura yellow, the pro-

pleura brighter yellow, the pleurotergite and pteropleurite more obscured. Halteres black, the extreme base of stem restrictedly brightened. Legs with the coxae and trochanters yellow; femora black, the extreme bases obscure yellow, the tips and a narrow ring before the tips obscure yellow, the two enclosing a black annulus of approximately three times the width of either pale ring; tibiae black, the genua restrictedly pale; tarsi broken. Wings with the ground-color yellow, the coloration broken into scattered areas by a very heavy brown and greyish brown spotting and clouding; the darker areas include the stigma, a postarcular spot and origin of *Rs*, with an additional area midway between the latter two, tip of *Sc*, cord and outer end of cell *1st M*₂; the paler areas include the wings-apex and clouds in all the cells, the latter in most cells more extensive than the ground-color; veins dark brown, *C* and *Ss* more yellowish. No macrotrichia in cells of wing. Venation: *Sc*₁ ending about opposite three-fifths the length of *Rs*, *Sc*₂ at its tip; *R*₂ subequal to *R*₁₊₂; *m-cu* about one half its length before the fork of *M*.

Abdominal tergites obscure yellow, the caudal margins of the segments narrowly brown, the median region infuscated; sternites yellow. Ovipositor relatively short, the tergal valves yellow, the sternal valves stouter, their bases conspicuously blackened.

Hab. Congo.

Holotype, ♀, Kasai, December 15, 1925 (VAN HEETVELDE).

Type in the Museum of the Belgian Congo.

The wing-pattern of *L. atrichoptera* is almost exactly as in *L. (L.) trichoptera* ALEXANDER, the latter differing conspicuously in the abundant macrotrichia in the distal cells of the wing.

Limonia (Geranomyia) errana, sp. n.

General coloration of mesonotal praescutum fulvous yellow, representing the usual stripes, the interspaces dark; thoracic pleura variegated obscure yellow and brown; wings with a heavy brown pattern, the major areas costal in position, alternating with smaller greyish areas; male hypopygium with the spines of the rostral prolongation of the ventral dististyle very long and slender, arising from a single tubercle.

Male. — Length (excluding rostrum) about 5 mm.; wing 6.5 mm.; rostrum about 2.5 mm.

Rostrum long and powerful, approximately one-half the body, black throughout; maxillary palpi 2-segmented, small, black. Antennae with the scape black; flagellum broken; first scapal segment long. Head dark grey, a little brighter on the anterior vertex, the latter very narrow,

Pronotum dark brown, the posterior notum yellow. Mesonotal praescutum with the ground-color dark, the surface almost covered by four fulvous-yellow stripes; ground-color represented by a capillary median brown stripe that ends far before the suture; interspaces narrower, brown, with a few small setae; lateral margins of sclerite yellow, bordered internally with dusky; scutal lobes extensively infuscated; scutellum chiefly pale, darkened baso-medially; postnotal mediotergite dark brown. Pleura variegated obscure yellow and brown, the latter appearing as a diffuse dark longitudinal stripe; ventral sternopleurite darkened. Halteres variegated, the stem dusky, with the base and outer end pale yellow, the knobs conspicuously dark brown. Legs with the coxae and trochanters pale yellow; remainder of legs broken. Wings almost as in *ornatrix* (ALEXANDER) in the costal pattern, the heavy dark areas non-ocellate, alternating with more greyish marks that are confined to the costal and subcostal cells; radial veins beyond origin of *Rs* more elongate, the interspaces being wider, especially the area above *Rs* which is wider than the dark marking on either side; posterior cord more oblique; *m-cu* only shortly before the fork of *M*; pale areas beyond stigma more extensive than the dark area beyond.

Abdominal segments bicolorous, brownish black, the basal lateral triangles of the tergites conspicuously yellow; on the second tergite more than the basal half of the segment pale; sternites yellow, the caudal margins of the segments broadly darkened. Male hypopygium (Fig. 3) with the ninth tergite transverse, the caudal margin gently emarginate. Basistyle (*b*) small, the ventro-mesal lobe nearly terminal, large. Ventral dististyle (*vd*) very large and fleshy, much larger than the basistyle, the rostral prolongation small, near base with a single long tubercle that exceeds the remainder of the prolongation in length, this tubercle terminating in two very long, gently curved spines, the outer a trifle the longer. Dorsal dististyle a strongly curved chitinized rod, the apex suddenly narrowed into an acute spine. Gonapophyses very small, darkened, the mesal-apical lobe slender. Aedeagus (*a*) elongate, a little expanded just before apex which is again constricted.

Hab. Congo.

Holotype, ♂, Mayumbe, Vounda Buku; August 1, 1926 (A. COLLART). Type in the Museum of the Belgian Congo.

Limonia (Geranomyia) errana is allied to *L. (G.) ornatix* (ALEXANDER) of the Cameroun, differing most evidently in the coloration of the thorax. In *ornatrix* the mesonotum is uniformly brownish grey, without pale markings.

Genus *Pseudolimnophila* ALEXANDER.

Pseudolimnophila (Calolimnophila) comes, sp. n.

General coloration of mesonotum rich brown, the head and thoracic pleura blue-grey; femora yellow with a narrow subterminal brown ring; wings greyish subhyaline with a vague but extensive darker clouding.

Male. — Length about 6 mm.; wing 6 mm.

Rostrum short, blackish grey; palpi dark brown. Antennae with the scape dark brown, the basal segment of the flagellum obscure brownish yellow, the remaining segments dark brown; antennae (♂) of moderate length, if bent backward extending about to the wing-root; flagellum setaceous, the segments cylindrical, the outer ones more elongate; outer verticils longer than the segments. Head light blue-grey, the anterior vertex more infuscated, the occiput paler; head strongly narrowed behind.

Pronotum light grey. Mesonotal praescutum and scutum rich brown, the extreme lateral margins and restricted humeral region of praescutum greyish; a more or less distinct capillary dark brown vitta begins on the posterior pronotum, extending onto the cephalic portion of the praescutum; pseudosutural foveae elongate but pale and scarcely apparent; scutellum darker brown; postnotum heavily pruinose. Pleura clear blue-grey, indistinctly striped longitudinally with blackish, more evidently so on the ventral anepisternum, the sternopleurite and meron less distinctly darkened. Halteres obscure yellowish brown, the base and apex of the stem clearer yellow, the knobs infuscated. Legs with the coxae whitish, the bases of the fore and middle coxae narrowly darkened; trochanters pale yellow; femora yellow with a narrow and relatively ill-defined subterminal brown ring, this subequal to or a little wider than the pale apex beyond; tibiae obscure yellow, the tips narrowly darkened; tarsi dark brown; tibial spurs stout, hairy, weakly bidentate at tips. Wings (Fig. 16) greyish subhyaline, the costal margin somewhat more yellowish; vague but extensive brown clouds at origin of *Rs*, *Sc*₂, along the cord, stigma, outer end of cell 1st *M*₂, surrounding the supernumerary crossvein in cell *R*₃ and the fork of *M*₁₊₂; paler and less evident marginal clouds on the longitudinal veins, more extensive on the anal veins; veins brownish black, more yellowish in the costal region. Costal fringe of moderate length. Venation; *Sc*₁ ending shortly before *r-m*, *Sc*₂ shortly removed from its tip; *R*₂₊₃₊₄ long and gently arcuated; *R*₂₊₃ subequal to *R*₁₊₂; a supernumerary crossvein in cell *R*₃ beyond midlength; inner ends of cells *R*₄ and 1st *M*₂ lying far proximad of cell *R*₅ and nearly on a

level with one another; cell M_1 small, less than its petiole; *m-cu* from one-third to one-half its length beyond the fork of M ; vein *2nd A* gently sinuous, at apex bent rather abruptly into the margin anterior arculus preserved.

Abdominal tergites and hypopygium dark brown, the basal sternites extensively pale yellow.

Hab. Sierra Leone.

Holotype, ♂, Gendema, II-2-1925 (E. HARGREAVES).

Type in the British Museum.

I have adopted the manuscript name given by Mr EDWARDS. *Pseudolimnophila comes* is very distinct from the two species of the subgenus *Calolimnophila*, *princeps* ALEXANDER and *rex* ALEXANDER, in the small size and diagnostic features listed above (Compare key to the Ethiopian species of *Pseudolimnophila*, ALEXANDER, Arkiv för Zoologi, Band 16, N° 18: 4 — 7; 1924).

***Pseudolimnophila (Pseudolimnophila) compta*, sp. n.**

General coloration brown, including the thoracic pleura; femora yellow with a narrow brown subterminal ring; wings yellowish grey, the costal margin broadly brighter yellow, the surface variegated by abundant brown spots and clouds; cell *1st M₂* with the inner end strongly pointed; cell M_1 subequal to its petiole; distal section of Cu_1 about as long as cell *1st M₂*.

Male. — Length about 6.5 mm.; wing 7 mm.

Rostrum and palpi dark brown. Antennae of moderate length, if bent backward ending a short distance before the wing-root; first flagellar segment black, second segment dark brown, paler basally; first flagellar segment yellow, the remaining segments black; flagellar segments gradually decreasing in length and passing into setaceous, with long conspicuous verticils. Head yellowish grey.

Pronotum obscure yellow. Mesonotal praescutum light brown, with a yellowish pollen; a capillary brown median vitta; an oblique brown area behind the pseudosutural foveae, extending from the lateral margin of the sclerite dorsad and slightly cephalad; pseudosutural foveae extensive but relatively indistinct because of the color; scutum blackened, yellowish grey pruinose; scutellum and pronotum black, with a grey pruinosity. Pleura extensively dark brown, vaguely marked with paler. Halteres yellow, the base of the knobs a little darkened. Legs with the coxae and trochanters obscure yellow; femora yellow, with a narrow brown subterminal ring that is only about one-half as wide as the pale apex beyond; tibiae and tarsi yellow, the terminal segments of the latter passing into dark brown; tibial spurs stout, hairy, at apex asymmetrically bifid, the inner

spine powerful and bent at a right angle. Wings (Fig. 17) yellowish grey, the prearcular and costal regions bright yellow, especially the latter, where the color appears as an increasingly widened area to vein R_4 ; the major darkened areas include the following: arcular; origin of R_s ; stigma and fork of R_{2+3+4} , sending a seam to costa; end of veins R_3 and R_4 ; extensive but pale brownish grey clouds on all the veins and as marginal clouds at ends of all longitudinal veins; veins Cu and *2nd A* surrounded by yellow membrane; cell *2nd A* with the axillary margin extensively grey; veins yellow, darker in the clouded and infuscated areas. Costal fringe relatively long and conspicuous. Venation: Sc_1 ending just before the fork of R_s , Sc_2 not far from its tip; R_s arcuated at origin; cell *1st M₂* with the inner end strongly pointed and lying proximad of the other elements of the cord; first section of M_{1+2} subequal or longer than the second section; *m-cu* at or near midlength of cell *1st M₂*, a trifle proximad of the level of *r-m*; cell M_1 subequal or a little longer than its petiole; distal section of Cu_1 about equal to cell *1st M₂*; anterior arculus preserved.

Abdominal tergites dark brown, the disk of the segments vaguely brightened; sternites dark, the caudal margins narrowly pale yellow; hypopygium dark.

Hab. Uganda.

Holotype, ♂, Menjo, II-1-1921 (H. HARGREAVES).

Type in the British Museum.

Pseudolimnophila compta is most closely allied to *P. cinctifemur* (ALEXANDER) of Southern Nigeria, differing in coloration and venation.

Genus ***Elephantomyia*** OSTEN SACKEN.

The numerous species of this genus in the Ethiopian fauna may be separated by the following key:

A KEY TO THE AFRICAN SPECIES OF THE GENUS.
ELEPHANTOMYIA OSTEN SACKEN.

1. R_s nearly if not quite in alignment with its posterior branch, the basal deflection of the latter entirely obliterated or very short 2.
- Basal deflection of R_s distinct, subequal to or longer than *r-m*, R_s being nearly in alignment with its anterior branch . . . 4.
2. Mesonotal praescutum dusky, with three paler, brownish yellow stripes (Fig. 18). (Sierra Leone) *hargreavesi*, sp. n.
- Mesonotal praescutum pale, with one or more darker stripes. 3.

3. Mesonotal praescutum with a single median dark brown stripe; thoracic pleura yellow, conspicuously variegated with dark brown (Fig. 19). (Belgian Congo: Katanga)
pictithorax, sp. n.
— Mesonotal praescutum with three yellowish grey stripes; thoracic pleura ferruginous. (Ivory Coast)
flaveola PIERRE.
4. Both branches of *Rs* extending generally parallel to one another to wing-margin, cell R_2 at margin thus being very wide, in most species much wider than cell R_4 ; in *neavei*, the branches are slightly more divergent and cell R_2 is only about one-half wider at margin than R_4 5.
— Anterior branch of *Rs* relatively short, diverging strongly from the posterior branch, cell R_2 at margin being narrower than cell R_4 10.
5. Wings with a heavy brown pattern along cord and outer end of cell *1st M*₂ 6.
— Wings hyaline or subhyaline, the cord not or scarcely seamed with darker 7.
6. *m-cu* shortly beyond fork of *M*; wing-pattern very diffuse, no dark clouds in the bases of cells *R* or *M* or in the anal field. (Seychelles-Nyasaland)
insularis EDWARDS.
— *m-cu* about its own length beyond the fork of *M* or about opposite one-third the length of cell *1st M*₂; wing-pattern more clearly defined, with dark clouds in the post-arcular region and in the anal field. (Cape Colony)
pseudosimilis ALEXANDER.
7. Branches of *Rs* divergent; *m-cu* before the fork of *M* (Fig. 8). (Nyasaland)
neavei ALEXANDER.
— Branches of *Rs* extending nearly parallel to wing-margin; *m-cu* at or beyond the fork of *M* 8.
8. Mesonotal praescutum shiny black, only the humeral region paler; (pleura with a black dorsal spot; legs dark brown; abdominal tergites dull yellow, the bases and apices of the segments narrowly infuscated. (Fig. 9). (Nigeria)
nitidithorax ALEXANDER.
— Mesonotal praescutum with the ground-color pale, yellowish or grey, with distinct stripes 9.
9. Mesonotum yellow with a brown median line extending to the base of abdomen; pleura yellow; legs pale testaceous; abdominal tergites annulated brown and yellow, the basal half

- of each segment brown, theapical halfyellow). Cape (Colony; Caffraria).
wahlbergi BERGROTH.
- Mesonotal praescutum grey, with three brownish black stripes; posterior sclerites of mesonotum blackened; pleura plumbeous; legs black.(Fig. 20). (Belgian Congo: Katanga)
schwetzi, sp. n.
10. Anterior branch of *Rs* very short, gently sinuous, cell R_2 at margin very narrow, not exceeding one-fifth that of cell R_2 ; *m-cu* at or just before the fork of *M*. (Fig. 10). (Sierra Leone)
ceratocheiloides, sp. n.
— Anterior branch of *Rs* longer, nearly straight, cell R_2 at margin wider, a little less than cell R_4 ; *m-cu* beneath cell *1st M*₂. (Cape Colony)
aurantiaca ALEXANDER.

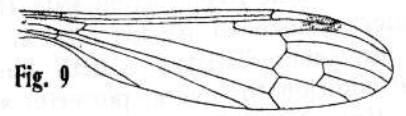


Fig. 8. — *Elephantomyia neavei* ALEXANDER; wing.
Fig. 9. — *E. nitidithorax* ALEXANDER; wing.
Fig. 10. — *E. ceratocheiloides*, sp. n.; wing.

***Elephantomyia hargreavesi*, sp. n.**

General coloration obscure yellow, the praescutal stripes pale; pleura obscure yellow with a dark brown girdle; knobs of halteres infuscated; legs brownish yellow; wings whitish subhyaline, stigma nearly circular, dark brown; elements of cord in approximate alignment; abdomen bicolorous, brown, the apices of the segments yellow.

Male. — Length, excluding rostrum, about 5.8 mm.; wing 6.2 mm.; rostrum about 4 mm.

Female. — Length, excluding rostrum, about 8 mm.; wing 6.2 mm.; rostrum about 4.2 mm.

Rostrum and palpi dark throughout. Antennae black. Head grey. Pronotum dark medially, obscure yellow on sides. Mesonotal praescutum with the ground-color dusky, the color almost concealed by three broad brownish yellow stripes; a brownish spot on sides of praescutum before the suture; scutal lobes extensively dark brown; scutellum dark brown, paler apically; postnotum dark plumbeous brown. Pleura obscure yellow, with a narrow, slightly oblique, dark brown girdle extending from behind the fore coxae, across the anterior sternopleurite and anepisternum to the wing-root. Halteres pale, the knobs weakly infuscated. Legs with the fore coxae and trochanters dark brown; middle and hind coxae pale yellow; remainder of legs pale brownish yellow, the tarsi somewhat clearer yellow; segments of legs with relatively conspicuous erect setae; tibial spurs small but evident. Wings (Fig. 18) whitish subhyaline, the nearly circular stigma dark brown, conspicuous; wing-apex very narrowly seamed with darker; veins dark brown. Costal fringe of male a little longer and more conspicuous than in female. Venation: Elements of cord about in alignment, the base of $R_2 + 3 + 4$ subperpendicular, the outer end nearly straight; cell R_2 at margin about one-fourth wider than cell R_4 ; cell $1st M_2$ nearly square; $m-cu$ at or close to the fork of M .

Abdomen bicolorous, the bases of the segments brown, with about the apical half yellow; a subterminal black ring (δ); hypopygium yellow. Male hypopygium with the outer dististyle (Fig. 4) relatively short, blackened, weakly bifid at apex, the outer arm a small straight spur. Inner dististyle a little longer, with four or five erect spines, in addition to several powerful setae.

Hab. Sierra Leone.

Holotype, δ , Sembahun, at light, November 15, 1924 (E. HARGREAVES).

Allotype, δ , Taninahun, February 14, 1925 (E. HARGREAVES).
Type in the British Museum.

I take great pleasure in naming this species in honor of the collector, as suggested by M. EDWARDS.

Elephantomyia pictithorax, sp. n.

General coloration yellow; mesonotal praescutum with a median dark brown stripe, the usual lateral stripes yellow; thoracic pleura yellow, conspicuously variegated with dark brown; wings greyish white, the stigma large, subcircular; abdominal segments bicolorous, black, the broad caudal margins yellow.

Male. — Length, excluding rostrum, about 6 mm.; wing 7.3 mm. rostrum about 4.5 mm.

Rostrum light brown. Antennae black throughout. Anterior vertex light grey, the posterior portions of head apparently darker grey.

Pronotum dark brown, obscure yellow laterally. Anterior lateral pretergites light yellow. Mesonotal praescutum obscure yellow with a median dark brown stripe, very narrow in front, widened behind to include the interspaces just before the suture; lateral stripes clear yellow; an oval dusky area on lateral portions of praescutum just behind the pseudosutural foveae; scutum chiefly obscure yellow, the mesal portion of each lobe dark brown, confluent across the mid-line; scutellum paler brown; postnotal mediotergite blackened, narrowly paler medially. Pleura obscure yellow, conspicuously variegated with dark brown on the anterior sternopleurite, anepisternum and posterior portion of the pleurotergite, the pteropleurite and posterior portion of the sternopleurite remaining pale; dorso-pleural region pale yellow. Halteres pale yellow, the knobs dusky. Legs with the coxae and trochanters pale yellow; remainder of legs obscure yellow, the terminal tarsal segments broken. Wings (Fig. 19) greyish white, iridescent, the base and costal region slightly more yellowish; stigma large, subcircular; veins pale brown. Venation: Sc_1 ending about opposite three-fourths the length of R_s , Sc_2 at its tip; basal section of R_5 nearly lacking; cell R_2 at margin wide, exceeding cell R_4 ; $m-cu$ at fork of M ; cell $1st M_2$ subequal in length to vein M_4 beyond it.

Abdominal segments conspicuously bicolorous, the apices broadly yellow, the bases more narrowly blackened; a dark subterminal ring; hypopygium yellow. Male hypopygium (Fig. 6) with the outer dististyle (od) blackened, the apex conspicuously bidentate. Inner dististyle subequal in length, but stout and fleshy, pale, with conspicuous setae. Aedeagus (a) of moderate length only, not produced into a long coiled penefilum as in many species of the genus. Interbasal plate (i) flattened, pale, shaped about as in the figure.

Hab. Belgian Congo.

Holotype, δ , Postie, Katanga, altitude 1700 meters, September 24, 1925 (Dr J. SCHWETZ).

Type in the British Museum, No 1926 — 73.

The unique type appears to be slightly immature.

Elephantomyia schwetzi, sp. n.

General coloration of mesonotum grey, the praescutum with three brownish black stripes; pleura chiefly plumbeous; legs black; wings

with a dusky tinge, the long oval stigma darker brown; branches of *Rs* long, extending generally parallel to one another to margin; cell *1st M*₂ rectangular; *m-cu* more than two-thirds its length beyond the fork of *M*; vein *2nd A* short; abdominal segments bicolorous.

Female. — Length, excluding rostrum, about 6.5 mm.; wing 7 mm.; rostrum about 5.8 mm.

Rostrum elongate, only a little shorter than the body, black. Head brownish grey, the posterior vertex marked with brown on either side of the median line; anterior vertex relatively narrow, approximately equal in width to the diameter of the scape.

Mesonotal praescutum grey, with three brownish black stripes, the interspaces more infuscated; remainder of mesonotum black, the median region of the scutum a little paler. Pleura chiefly plumbeous, the propleura and dorso-pleural region paler. Halteres brownish black, the basal third of the stem yellow. Legs with the coxae reddish brown; trochanters black; remainder of legs black, the outer tarsal segments a little paler. Wings (Fig. 20) with a dusky tinge, the long oval stigma darker brown; very narrow to scarcely apparent brown clouds at origin of *Rs*, along cord and outer end of cell *1st M*₂ and at wing-tip in the radial field; veins brownish black. Venation: *Sc* long, *Sc*¹, ending shortly before the fork of *Rs*, *Sc*₂ at its tip; *Rs* long, arcuated at origin; basal portion of anterior branch of *Rs* sinuous beneath stigma; branches of *Rs* long, extending generally parallel to one another to the margin, cell *R*₂ thus wider than cell *R*₄; cell *1st M*₂ rectangular; *m-cu* more than two-thirds its length beyond the fork of *M*; vein *2nd A* very short, the cell narrow.

Abdomen bicolorous, the basal ring of the tergites black, the broader posterior ring infuscated, the postero-lateral angles obscure yellow, brighter outwardly; sternites yellow, the segments very narrowly darkened at base; subterminal segments black. Valves of the ovipositor long and straight, horn-color, the sternal valves blackened at base.

Hab. Belgian Congo.

Holotype, ♂, Postie, Katanga, altitude 1700 meters, September 24, 1925 (Dr J. SCHWETZ).

Type in the British Museum, No 1926 — 73.

This interesting crane-fly is named in honor of the collector.

***Elephantomyia ceratocheiloides*, sp. n.**

General coloration of mesonotum light castaneous, without distinct markings; wings faintly tinged with brown; stigma lacking; anterior

branch of *Rs* unusually short and sinuous, cell *R*₂ at margin being very narrow; male hypopygium with a conspicuous coiled penefilum.

Male. — Length, excluding rostrum, about 3 — 3.6 mm.; wing 3.2 — 4.2 mm.; rostrum 2.3 — 3 mm.

Female. — Length, excluding rostrum, about 5.5 mm.; wing 4.5 mm. rostrum about 3.3 mm.

Rostrum stout, black, exceeding half the length of the body in both sexes. Antennae with the scapal segments pale, the outer segments darker; flagellar segments short and crowded, the elongate verticils very conspicuous. Head greyish black, smooth.

Mesonotum shiny light castaneous, without distinct markings, the pleura somewhat more yellowish; dorso-pleural region dusky. Halteres pale, the knobs infuscated. Legs with the coxae and trochanters yellowish testaceous; femora yellowish brown, the tips darker, the fore femora more uniformly darkened, except at base; tibiae obscure yellow, the tips narrowly darkened; tarsi pale brownish yellow, the terminal segments darker; setae of legs simple, as in the genus. Wings (Fig. 10) with a very faint brown tinge; stigma lacking; veins light brown, the prearcular veins and costa more yellowish. Costal fringe (♂) relatively conspicuous. Venation: *Sc*₁ ending about opposite midlength of the nearly straight *Rs*; anterior branch of *Rs* unusually short, gently sinuous; cell *R*₂ at margin very narrow, not exceeding one-fifth cell *R*⁴; cell *1st M*₂ small, rectangular to nearly square, much shorter than any vein issuing from it; *m-cu* at or just before the fork of *M*.

Abdomen brown, with a conspicuous black subterminal ring in the male; hypopygium yellow; basal sternites brownish yellow. Male hypopygium with the outer dististyle (Fig. 5) short and blackened, broad-based, narrowed to a slender point, the lower or ventral edge with a group of small acute spinulae; outer margin at near midlength with a conspicuous subappressed spine. Penefilum very long and conspicuous, extending as a coil beyond the genital chamber. Valves of ovipositor very long and slender, nearly straight.

Hab. Sierra Leone.

Holotype, ♂, Gendema, February 11, 1925 (E. HARGREAVES).

Allotopotype, ♀.

Paratopotype, ♂.

Type in the British Museum.

The general resemblance of the present species to *Ceratocheilus* is most striking but the structure of the hypopygium and the simple vestiture of the legs indicate that the present generic reference is correct.

Genus *Clydonodozus* ENDERLEIN.*Clydonodozus cinereithorax*, sp. n.

General coloration of head and thorax light ashy grey; basal segment of antennae yellow, the remainder black; legs black, the femoral bases narrowly and abruptly pale; wings whitish subhyaline, heavily irrorate with brown spots and dots on all the longitudinal veins; a series of supernumerary crossveins in cell *C*; $R_2 + 3 + 4$ long, about twice *m-cu*; cell *1st M*₂ long.

Female. — Length about 15 mm.; wing 11 mm.

Rostrum and palpi black. Antennae with the basal segment of scape yellow, slightly pruinose above; second segment of scape and the flagellum black; basal segments of flagellum short, suboval, the outer segments more elongate-fusiform; verticils of the flagellar segments beyond the fifth becoming conspicuous, on the outer segments exceeding the segments themselves. Head light ashy grey, the anterior vertex a little darkened; anterior vertex wide.

Pronotum light ashy grey. Mesonotal praescutum pale grey with four vaguely darker brownish grey stripes; pseudosutural foveae reduced at a sublateral black point, with a lunate impressed line extending cephalad from it; no tuberculate pits; scutal lobes grey, the central portions a trifle darker; posterior sclerites of mesonotum dark grey with a vague median brown vitta. Pleura light ashy grey, with vague indications of darker longitudinal stripes on the dorsal pleurites and on the ventral sternopleurite. Halteres relatively short, dirty white, the knobs darkened, the base of the stem paler. Legs with the coxae and trochanters ashy grey; femora dark brown, the extreme base narrowly and abruptly whitened; remainder of legs brownish black, the terminal tarsal segments black. Wings (Fig. 21) whitish subhyaline, with an abundant brown spotting and dotting in all the cells, much as in *Conosia*; in cell *C* the markings are narrow and darker brown, surrounding the supernumerary crossveins in the cell; the major dark areas include the following: post-arcular; origin of *Rs*; stigmal, the latter more or less confluent as a broad broken crossband with areas along the cord and outer end of cell *1st M*₂; tip of vein *R*³; wing-apex; end of vein *2nd A* and the axillary region; all of the veins have conspicuous rows of brown dots, mostly separate, a few confluent; veins pale, darkened in the infuscated areas. Venation: a series of about 12 to 14 supernumerary crossveins and spurs in cell *C*; *Rs* relatively short, strongly arcuated at origin, in alignment with $R_2 + 3 + 4$, the latter elongate, about twice *m-cu*; *R*₂ about one-half the arcuated $R_2 + 3$; *R*₄ bent only

slightly caudad at outer end; *r-m* just beyond one-third the length of cell *1st M*₂; cell *M*₁ subequal to its petiole; cell *1st M*₂ elongate, its inner end pointed; *m-cu* less than its own length beyond the fork of *M*.

Abdominal tergites dark brown, the basal segment cinereous except on caudal margin; genital segment dark; tergal valves dark horn yellow, strongly upcurved; sternal valves black.

Hab. Belgian Congo.

Holotype, ♀, Abimva, Haut-Uelé, 1925 (L. BURGEON).

Type in the Museum of the Belgian Congo.

Clydonodozus cinereithorax is very distinct from all described species of the genus. The ashy-grey coloration of the head and thorax, abundantly spotted wings, with supernumerary crossveins in the costal cell, and the blackened legs, distinguishes the species from allied forms. In the supernumerary crossveins, the fly agrees with *C. puncticosta* ALEXANDER (Sierra Leone), an otherwise entirely distinct species.

Clydonodozus fumicostata, sp. n.

General coloration obscure brownish yellow; antennae beyond the basal segment black; mesonotal praescutum with four brownish stripes; pleura brownish yellow, with two narrow but conspicuous black girdles; femora blackened beyond base, with a very vague fulvous subapical ring; wings greyish yellow, the costal margin conspicuously dark brown; longitudinal veins behind *R*₄ broadly seamed with greyish brown; abdominal sternites narrowly trivittate with black.

Female. — Length about 14 mm.; wing 10.2 mm.

Rostrum black, reddish beneath; palpi black. Antennae with the basal segment obscure reddish basally and beneath, black above; remainder of organ black. Head shiny brownish yellow. Anterior vertex narrower than width of one eye.

Pronotum brownish yellow, a little darkened dorso-medially. Mesonotal praescutum obscure yellow, with indications of four brown stripes; posterior sclerites of mesonotum a little more pruinose. Pleura brownish yellow with two narrow brownish black transverse girdles, the more anterior occupying the propleura, extending from the pseudosutural foveae to the base of the fore coxae; the second transverse area includes the posterior margin of the anepisternum and sternopleurite, extending from just in front of the wing-root to the base of the middle coxae; metapleura darkened ventrally. Hal-

teres chiefly pale brown, the base of the stem restrictedly brighter. Legs with the coxae obscure yellow, the fore coxae darkened basally; trochanters obscure yellow; femora black, the bases yellowish; a very vague fulvous ring just before the femoral tips; tibiae brown; tarsi passing into black. Wings (Fig. 22) greyish yellow, the costal margin broadly and conspicuously dark brown; a clearer yellow area behind this dark margin in the radial field; dark costal border including all of cells *C* and *Sc*, the prearcular region, beyond the stigma becoming narrower and obsolete at the wing-apex; broad diffuse greyish brown seams on all the longitudinal veins behind *R*₅ and *R*₄; veins dark brown, *R*₅ and *R*₄ conspicuously pale yellow. Venation: *R*₂₊₃ perpendicular at origin, transverse, nearly in alignment with *R*₂ and only a little longer; *R*₃ and *R*₄ nearly parallel for most of their length, thence divergent; cell *M*₁ about one-half longer than its petiole; cell 1st *M*₂ relatively short-hexagonal, the inner end strongly pointed, lying proximad of the other elements of the cord; *m-cu* more than its own length beyond the fork of *M*.

Abdominal tergites obscure yellow, more infuscated outwardly, the basal tergites more infuscated laterally; sternites obscure yellow, clearer at base of abdomen, very narrowly trivittate with black lines, the median line interrupted at base and apex of each segment, the lateral lines more continuous. Ovipositor with the genital shield brownish fulvous, the valves dark basally, more yellowish outwardly, the tips of the tergal valves narrowly blackened.

Hab. Belgian Congo.

Holotype, ♀, Tuku, Haut-Uelé, March 1919 (P. VAN DEN PLAS).

Type in the Museum of the Belgian Congo.

By the author's key to the African species of *Clydonodozus* (Rev. Zool. Afr., II, fasc. I: 10-11; 1923), *C. fumicostata* runs to couplet 6, disagreeing with both included species, *pallidistigma* ALEXANDER and *C. brevicellula* ALEXANDER, in the pattern of the body and wings and in the venation.

Genus *Gnophomyia* OSTEN SACKEN.

The species included in the accompanying key appear to be the only ones described in the genus *Gnophomyia* that actually pertain to this genus.

A KEY TO THE AFRICAN SPECIES OF THE GENUS *GNOPHOMYIA* OSTEN SACKEN.

1. No macrotrichia in cells of wing 2.
— Macrotrichia present in distal cells of wing 4.

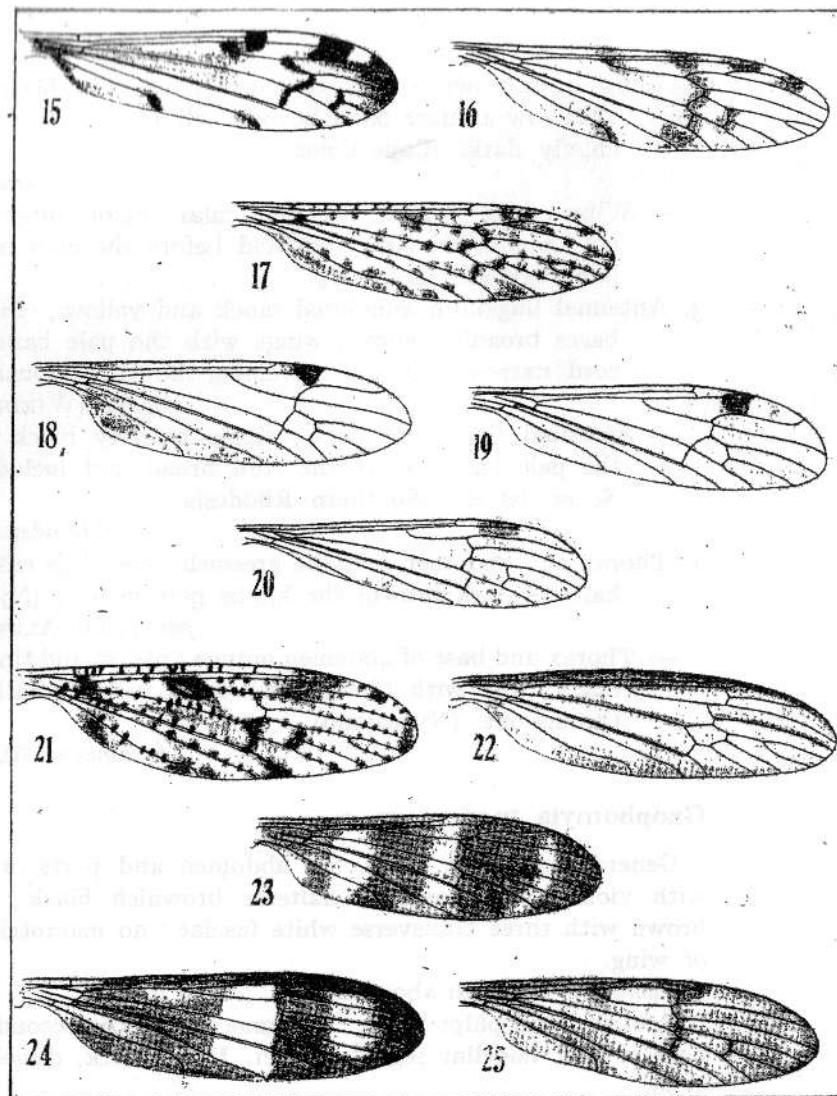


Fig. 15. — *Limonia (Limonia) pondoensis*, sp. n.; wing.
Fig. 16. — *Pseudolimnophila comes*, sp. n.; wing.
Fig. 17. — *P. compta*, sp. n.; wing.
Fig. 18. — *Elephantomyia hargreavesi*, sp. n.; wing.
Fig. 19. — *E. pictithorax*, sp. n.; wing.
Fig. 20. — *E. schwetzi*, sp. n.; wing.
Fig. 21. — *Clydonodozus cinereithorax*, sp. n.; wing.
Fig. 22. — *C. fumicostata*, sp. n.; wing.
Fig. 23. — *Gnophomyia turneri*, sp. n.; wing.
Fig. 24. — *G. chirindensis*, sp. n.; wing.
Fig. 25. — *Teucholabis clitelligera*, sp. n.; wing.

- 2. Wings dark brown with three conspicuous white fasciae, including a narrow arcuate band beyond cell *1st M*₂; prearcular region chiefly dark. (Cape Colony)

turneri, sp. n.

— Wings dark brown, the prearcular region bright yellow; a conspicuous whitish crossband before the cord but no crossband beyond cell *1st M*₂ 3.

- 3. Antennal flagellum annulated black and yellow; tibiae with the bases broadly yellow; wings with the pale band before the cord narrow, entirely traversing the wing. (South-east Africa)

elegans (WIEDEMANN).

— Antennal flagellum black; tibiae entirely black; wings with the pale band before the cord broad, not including cells *C*, *Sc* or *1st A*. (Southern Rhodesia)

chirindensis, sp. n.

- 4. Thorax and abdomen metallic greenish blue; legs entirely black; halteres dark brown, the knobs pale yellow. (Nyasaland)

perelegans ALEXANDER.

— Thorax and base of abdomen orange; pleura and tip of abdomen black; legs with the femoral bases yellow; halteres orange throughout. (Nyasaland)

peramoena ALEXANDER.

Gnophomyia turneri, sp. n.

General coloration black, the abdomen and parts of the thorax with violaceous reflexions; halteres brownish black; wings dark brown with three transverse white fasciae; no macrotrichia in cells of wing.

Female. — Length about 10 mm.; wing 9 mm.

Rostrum and palpi black. Antennae black, the second scapal and base of first flagellar segment paler. Head black, discolored in the type.

Thorax entirely dull black, the pleura, especially, with violaceous reflexions. Halteres brownish black. Legs with the coxae and trochanters black, sparsely pruinose; remainder of legs broken. Wings (Fig. 23) dark brown, with three transverse white fasciae, the basal one broadest and more irregular; outer band narrowest, arcuate, lying beyond cell *1st M*₂; additional whitish areas at outer ends of cells *1st A* and *2nd A*, the latter in the axilla; prearcular costal cell pale; veins brownish black, somewhat paler where traversed by the pale fasciae. No macrotrichia in cells of wing. Venation: *Sc*₁ ending shortly before fork of *Rs*, a little less than twice *m-cu*; *R*₂ just beyond

the fork of *R*₂ + *3* + *4*; cell *1st M*₂ elongate; *m-cu* less than its length beyond the fork of *M*; cell *2nd A* broad.

Abdomen violaceous, including the bases of the ovipositor; tergal valves horn-yellow, blackened at base.

Hab. Cape Colony.

Holotype, ♀, Port St. John, Pondoland, November 1923 (R. E. TURNER).

Type in the British Museum, No 1924-6.

This beautiful crane-fly is named in honor of the collector, Mr R. E. TURNER.

Gnophomyia chirindensis, sp. n.

General coloration black; antennal flagellum black; halteres orange; legs with the coxae and trochanters orange-yellow; femora yellow, the broad tips and remainder of legs black; wings dark brown, the prearcular region narrowly yellow; a broad incomplete yellowish white band before the cord; no macrotrichia in cells of wing; abdomen orange, the terminal four segments, with the hypopygium, black.

Male. — Length about 8.5 mm.; wing 8.5 mm.

Rostrum black; maxillary palpi pale brown, the first and second segments paler basally. Antennae (♂) relatively elongate, if bent backward extending about to the halteres; scapal segments black above, yellow beneath; first flagellar segment narrowly obscure yellow at base; remainder of organ black; basal flagellar segments with the ventral face a little protuberent; segments clothed with a dense erect pale pubescence and verticils on the outer face that are shorter than the segments. Head polished black, with faint violaceous reflexions; frons grey pruinose.

Prothorax dull black. Mesonotal praescutum polished black; posterior sclerites of mesonotum black, with vague violaceous reflexions. Pleura black, heavily pruinose. Halteres orange throughout. Legs with the coxae and trochanters orange-yellow; femora yellow the tips broadly black, the amount about equal on all the legs; tibiae and tarsi entirely black. Wings (Fig. 24) with the pattern much as in *elegans* (WIEDEMANN), dark brown, the prearcular region conspicuously light yellow, with a broad, more whitish fascia before the cord; the prearcular region is much more restricted, barely crossing the arculus; the discal blotch is shorter and broader, not completely traversing the wing, cells *C*, *Sc* and *1st A* being dark; a vague pale area in the cells beyond the outer end of *1st M*₂, appearing as pale central streaks in cells *R*₃ to *M*₃ inclusive; a vague pale area in cell *R* just before origin of *Rs*; veins dark brown, pale in the yellowish areas. No macrotrichia in cells of wing. Venation: *Sc*₁ ending

nearly opposite the fork of R_s , Sc_1 alone about two and one-half times $m-cu$; cell $1st M_2$ small, $m-cu$ at near one-third to one-fourth its length.

Abdomen orange, segments six to nine entirely black.

Hab. Southern Rhodesia.

Holotype, ♂, Chirinda Forest, October 1926.

Type in the British Museum, ex Rhodesia Museum, No 383.

Genus **Teucholabis** OSTEN SACKEN.

Teucholabis (Teucholabis) clitelligera, sp. n.

General coloration orange-yellow, the praescutum polished black; head black; halteres and legs black; wings dusky, with a darker pattern; abdomen bicolorous.

Male. — Length about 7-8 mm.; wing 7-8 mm.

Rostrum black, somewhat shorter than the remainder of head; palpi black. Antennae black; flagellar segments decreasing in size outwardly. Head black, the anterior vertex and front pruinose.

Pronotum orange-yellow. Mesonotal praescutum and the adjoining cephalo-lateral portions of the scutal lobes polished black, contrasting with the orange-yellow remainder of the mesonotum; humeral region of praescutum orange-yellow; postnotum with a median black vitta, this becoming narrowed and finally obliterated at cephalic end. Pleura orange-yellow. Halteres black throughout. Legs with the fore coxae obscure yellow, the other coxae more darkened; trochanters obscure brownish yellow; remainder of legs entirely black. Wings (Fig. 25) with a dusky tinge, variegated with darker areas; cell C and especially Sc infused; clouds at origin of R_s , along the cord from the slightly darker stigmal area, outer end of cell $1st M_2$ and the narrow wing-apex; paler brown clouds at ends of anal veins; veins black. Venation: Sc_1 ending about opposite one-third the length of R_s , Sc_2 slightly beyond this origin; R_2 less than its length beyond the fork of R_s ; $m-cu$ nearly in alignment with the other elements of the cord.

Abdominal tergites bicolorous, the basal ring of the segments brownish yellow, the broader posterior portion black, the extreme caudal margin again pale; subterminal segments and hypopygium black; sternites more extensively yellow, the basal segments with a subterminal blackish ring. Sternal pouch on fifth segment very distinct. Male hypopygium (Fig. 7) with the caudal margin of the tergite (9d) evenly rounded. Basistyle (b) slightly produced into a point. Dististyles subterminal, inserted on mesal face of basistyle,

shaped as in figure. Aedeagus (a) broad, at and near apex with four long setae, the dorsal pair longest.

Hab. Southeast Africa.

Holotype, ♂, Eshowe, Zululand, May 6-31, 1926 (R. E. TURNER); B. M. No 1926 - 232.

Paratype, ♂, Port St. John, Pondoland, March 18-31, 1924 (R. E. TURNER); B. M. No 1924 - 191.

Type in the British Museum.

Teucholabis clitelligera is a very distinct species of the genus that requires no comparison with the other known Ethiopian species.

Genus **Podoneura** BERGROTH.

Podoneura brevifurcata, sp. n.

General coloration ochreous; head ochreous, the vertex with a large blackened area; mesonotal praescutum buffy, with a single narrow median black line; pleura pale yellow, the ventral sclerites more infuscated; apical fork of vein $2nd A$ short; ovipositor with the valves horn-yellow.

Female. — Length about 4 mm.; wing 5 mm.

Rostrum and palpi black. Antennae with the second scapal segment light honey-yellow; flagellum broken. Head ochreous, the vertex with a large blackened area.

Pronotum yellow, with a black median line. Mesonotal praescutum buffy grey, the lateral and humeral regions more yellowish; a single narrow brownish black median line, broadest in front, narrowed to a point before the suture; pseudosutural foveae elongate, pale; scutal lobes brownish grey, each with a narrow dusky line near the middle; scutellum pale yellow, the median region at base narrowly infuscated; postnotal mediotergite brownish grey, the cephalo-lateral portions yellow. Pleura pale yellow, the ventral sternopleurite and the meron more infuscated. Halteres yellow, the knobs broken. Legs with the coxae pale yellow; trochanters darker; remainder of legs broken. Wings creamy white, with a sparse brown pattern that is arranged about as in *anthracogramma* but more restricted and distinct; washes between the dark spots only faintly indicated. Venation as in *anthracogramma* but vein $2nd A$ more gently sinuous, the apical hoof-like fork short, the cell at wing-margin less than cell Cu .

Abdominal tergites yellow, with a broad median infuscation; sternites pale. Ovipositor with the valves horn-yellow, the tips rather strongly upcurved, acute.

Hab. Belgian Congo.

Holotype, a broken ♀, L. Kivu, Cheff, N'Gwese (CARLIER).

Type in the Museum of the Belgian Congo.

Generally similar to *Podoneura anthracogramma* BERGROTH, differing especially in the details of coloration and the short apical fork of vein 2nd A.

Genus *Styringomyia* LOEW.

Styringomyia serristylata, sp. n.

General coloration yellow, the anterior half of mesonotal praescutum black; wings yellow, the dark pattern relatively extensive; vein 2nd A angulated and vaguely spurred; male hypopygium with the ninth sternite deeply bifid at apex; outer lobe of dististyle with a series of peg-like spines along the central half.

Male. — Length about 6.5 mm.; wing 4.3 mm.

Rostrum pale; basal two segments of palpi yellow, the distal half dark brown; terminal two segments of palpi yellow. Antennae with the basal segment yellow, narrowly lined laterally with dark brown; second segment dark above, paler beneath; flagellum yellow. Head pale brownish yellow, the anterior vertex narrowly infuscated, the posterior vertex a little greyish; occiput with two dusky spots.

Pronotum yellow, the anterior notum in front variegated with brown. Mesonotal praescutum with the cephalic half almost covered by a black shield-shaped area that sends four points behind, two representing the anterior ends of the lateral stripes, the others the lateral margins of the broad median stripe; posterior portion of praescutum yellow; scutum yellow, each lobe with two brownish black spots, the posterior pair more mesal in position and slightly larger; scutellum black, except medially at base; postnotum black. Pleura yellow, variegated with brownish black on the anepisternum. Halteres pale. Legs with the femoral and tibial dark rings relatively narrow but distinct, especially on the dorsal surface. Wings with a strong yellow ground-color; dark pattern conspicuous, including a large discal blotch on *r-m* and adjoining veins, this area extending to near two-thirds the length of *R*_s; other conspicuous spots on *m-cu*, fork of *M*₂ + ₂ and *M*₃, fork of *M*₃ + ₄ and at the bend of 2nd A; other smaller marginal clouds at ends of medial, cubital and anal veins; veins yellow, darker in the infuscated areas. Venation: *R*₁ nearly perpendicular; cell 2nd *M*₂ sub-sessile to very short petiolate; vein 2nd A weakly angulated and vaguely spurred.

Abdomen yellow, the basal segments nearly immaculate; on outer tergites, the caudal margins of the segments with a broad dark triangle. Male hypopygium (Fig. 11) with the tergite (9t) broad at base,

the setuliferous apical lobe very long, narrowed to the obtuse apex, longer than wide. Ninth sternite (9s) deeply bifid at apex by a U-shaped notch, each lobe with a conspicuous apical seta. Basistyle with the apical spine relatively short and stout. Outer lobe of dististyle (d) with a conspicuous series of peg-like spines along its central half, the subapical seta very long; second lobe of dististyle elongate, the margin bordered by a series of short peg-like spines; the smaller lobes of the dististyle shaped as in figure.

Hab. French Congo.

Holotype, ♂, Libreville, 1898 (C. CHALOT).

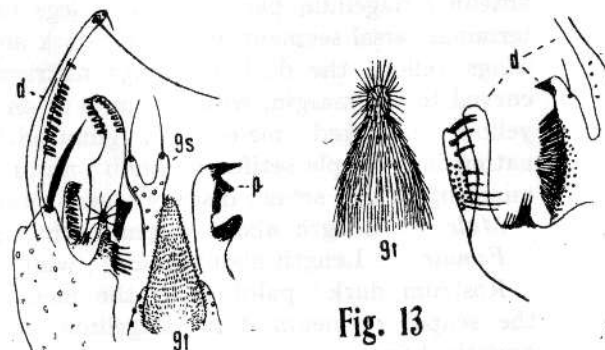


Fig. 11

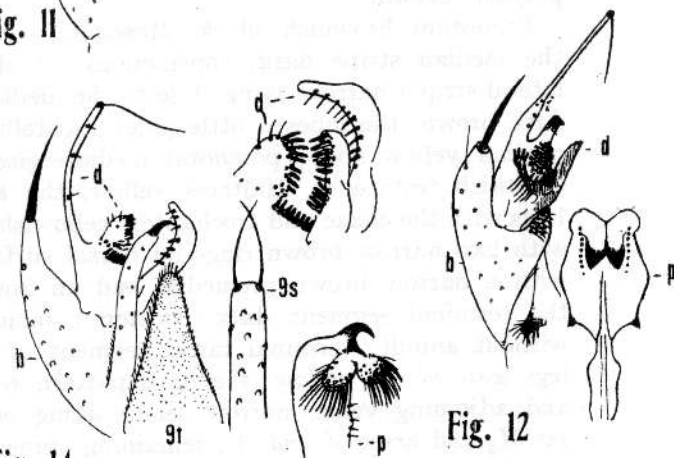


Fig. 12

Fig. 13

Fig. 14

(Symbols: b = basistyle; d = dististyle; p = phallosome; s = sternite; t = tergite).

Fig. 11. — *Styringomyia serristylata*, sp. n.; male hypopygium.

Fig. 12. — *S. schoutedeni*, sp. n.; male hypopygium.

Fig. 13. — *S. schoutedeni*, sp. n.; male hypopygium, details.

Fig. 14. — *S. edwardsiana*, sp. n.; male hypopygium.

Type in the Natural History Museum, Paris.

Styryngomyia serristylata is very distinct from all known species of this difficult genus in the series of peg-like spines along the face of the outer lobe of the dististyle. By EDWARDS' key (1914), I would run the species to *S. variegata* EDWARDS, which has a somewhat similar bilobed ninth sternite but a very different tergite and dististyle.

***Styryngomyia schoutedeni*, sp. n.**

General coloration yellow, the head and mesonotum chiefly dark ; antennal flagellum pale ; posterior legs uniformly yellow, only the terminal tarsal segment darkened ; dark annuli of other legs narrow ; wings yellow, the dark markings restricted ; vein *2nd A* strongly curved to the margin, without spurs or angulation ; abdomen chiefly yellow, unmarked ; male hypopygium with the ninth tergite terminating in a simple setiferous knob ; ninth sternite very narrow, terminating in two setae ; dististyle very complex, the basal arm bifid.

Male. — Length about 6 mm. ; wing 4.5 mm.

Female. — Length about 6 mm. ; wing 4.4 mm.

Rostrum dark ; palpi dark, the incisures paler. Antennae with the scapal segments dark, flagellum obscure yellow. Head dark greyish brown.

Pronotum brownish black. Mesonotal praescutum light brown, the median stripe dark, conspicuous, divided before the suture ; lateral stripes narrow, lying close to the median area ; scutum chiefly dark brown, the lobes a little paler ; scutellum black, with a small median yellow spot ; postnotal mediotergite black. Pleura chiefly yellowish testaceous. Halteres yellow, the knobs weakly infumed. Legs with the coxae and trochanters yellowish ; middle femora yellow with two narrow brown rings on dorsal surface only ; tibiae yellow with a narrow brown premedial and an apical ring ; tarsi yellow, the terminal segment dark ; posterior femora and tibiae yellow, without annuli ; terminal tarsal segment of hind leg broken ; fore legs lost. Wings yellow, the dark pattern restricted, including *r-m* and adjoining veins, narrow seams along *m-cu*, outer end of cell *1st M₂* and apex of *2nd A* ; remaining veins yellow. Venation : Cell *2nd M₂* barely sessile ; *m-cu* about its own length beyond the fork of *M* ; vein *2nd A* strongly curved into the anal margin, without angulation or spurs.

Abdomen yellow, the incisures of the basal tergites vaguely darker ; subterminal tergites more extensively darkened ; hypopygium chiefly yellow. Male hypopygium (Fig. 12) with the apex of the basistyle (*b*) only a little produced, bearing a single stout seta ; mesal-cephalic

angle of basistyle darkened, strongly setiferous. A single highly complex dististyle (*d*) with three arms ; outer arm the usual very long straight rod, bearing a very long apical seta that is approximately one-half as long as the arm itself ; intermediate arm produced into a blackened point, the face with a dense cushion of black setae, the outer ones passing into spines ; basal arm bifid, one lobe a smooth paddle-like blade, the second lobe provided with subapical spines and a group of long setae nearer the base. Phallosome (*p*) terminating in two parallel blackened points. Ninth tergite (*t*) broadest at base, the apex narrower, terminating in a rounded knob, the basal portion of apex with a mantle of long recurved setae, the actual tip with more outspreading setae (Fig. 13). Ninth sternite (not shown in figures) very narrow apically, not emarginate, tipped with two long setae.

Hab. Belgian Congo.

Holotype, ♀, Banana, August 2, 1920 (Dr H. SCHOUTEDEN).

Allotopotype, ♂, August 3, 1920.

Type in the Museum of the Belgian Congo.

I take great pleasure in naming this interesting species in honor of Dr SCHOUTEDEN. *Styryngomyia schoutedeni* is distinct from all described species in the details of structure of the male hypopygium, especially the bifid nature and armature of the basal arm of the dististyle.

***Styryngomyia edwardsiana*, sp. n.**

Size relatively large (wing, ♂, over 5 mm.) ; general coloration of thoracic dorsum pale ; femoral dark rings relatively narrow and ill-delimited ; wings yellow, washed with darker, especially evident as seams on veins *Cu₁* and *2nd A* ; vein *2nd A* gently curved to margin ; male hypopygium with a long slender lobe on dorsal face of basistyle near base, this terminating in an acute blackened spine.

Male. — Length about 7.5 mm. ; wing 5.3 — 5.5 mm.

Female. — Length about 6 mm. ; wing about 5 mm.

Rostrum yellow ; palpi brownish black. Antennal scape dark brown, the first segment with a yellow dorsal line ; flagellum pale yellow. Head yellow, the vertex with four brown spots, the anterior pair larger ; postgenae somewhat darkened.

Pronotum pale yellow, slightly darkened laterally. Mesonotal praescutum chiefly occupied by three obscure yellow stripes, the posterior interspaces conspicuously darkened, provided with erect black setae, lateral margins darkened ; scutal lobes chiefly yellow, darkened posteriorly and laterally ; scutellum and postnotal mediotergite chiefly darkened, with a yellow median line. Dorsal thoracic

pleura darkened, the ventral sclerites abruptly pale yellow. Halteres obscure brownish yellow, the knobs darkened. Legs with the coxae and trochanters yellow; femora yellow, the dark annuli relatively narrow and ill-delimited, on all legs much narrower than the broad pale apex; tibiae yellow, the tip narrowly darkened; basal four tarsal segments yellow, the tips narrowly darkened; terminal segment uniformly dark brown. Wings with a yellow tinge, especially the bright yellow costal margin; the usual dark brown marks are here replaced by vague dusky washes, located at *r-m*, along the outer medial veins, *m-cu* and as more conspicuous washes along veins *Cu* and *2nd A*; veins yellow, darker in the clouded areas. Venation: Anterior branch of *Rs* unusually long and gently arcuated; vein *2nd A* curved gently to the margin.

Abdomen chiefly darkened, the caudal and basal portions of the segments brown, the central portions more yellowish. Male hypopygium (Fig. 14) with the ninth tergite (*ct*) elongate, narrowed gradually to the slender obtuse apex, the surface with abundant setae. Ninth sternite (*cs*) stout, nearly parallel-sided, setiferous nearly to apex, culminating in a curved seta at each angle. Basistyle (*b*) with the outer angle produced into a lobe that bears a stout flattened bristle, as usual in the genus; at base of style on dorsal face a stout pale lobe that terminates in an acute black spine; opposite face of style at base with a slender pale lobe (not figured) that terminates in a tuft of seven or eight stout setae. Dististyle (*d*) as in the figure. Aedeagus (*p*) a compressed pale blade that terminates in a pair of blackened two-pronged plates, immediately laterad of which are elongate oval lobes that bear long brushes of dark setae.

The type female has the dark femoral rings even less distinct and the basal abdominal tergites more uniformly darkened. Ovipositor with the valves unusually elongate, yellow.

Hab. South Africa.

Holotype, ♀, Kloof, Natal, altitude 1500 feet, September 1926 (R. E. TURNER); B. M. No 1926 - 404.

Allotype, ♂, Port St. John, Pondoland, July 10-31, 1923 (R. E. TURNER); B. M. No 1923 - 398.

Paratypes, 2 ♂♂, with the allotype, July, September 1923, one without hypopygium; 1 ♂, Eshowe, Zululand, April 1-22, 1926 (R. E. TURNER).

Type in the British Museum.

I take great pleasure in dedicating this very distinct species to Mr FRED W. EDWARDS, whose revision of the group in 1914 must always remain a model in the family Tipulidae. Mr EDWARDS placed the species in my hands for description, with an indication of its very

distinct character. The fly is somewhat similar to *S. marshalli* EDWARDS and allies in the darkened wash in cell *M* over the cubital vein but differs in numerous regards from all known species. The elongate lobe of the basistyle is quite distinct from all other known Ethiopian species.

The Zululand paratype is considerably darker than the other types, this including not only the body and legs, but also the wings and veins. The structure of the hypopygium is identical, however, and the specimens are undoubtedly conspecific.