

LXIII.—*New or little-known Tipulidæ (Diptera).*—III.  
*Ethiopian Species.* By CHARLES P. ALEXANDER, Ph.D.,  
Urbana, Illinois, U.S.A.

THIS paper is a continuation of the preceding parts under this title. The material included herein is based on collections made in Cameroun by the Rev. J. A. Reis and in Eastern Transvaal by Mr. H. K. Munro. In addition, a few species from the Paris Museum sent to me for determination by the Curator of the Diptera, Mons. Eug. Séguéy, have been included. The holotypes are preserved in the collection of the writer, unless stated otherwise.

AMPHILIMNOBIA, gen. nov.

Head moderately large, the eyes separated both above and below. Legs long and slender; tibiæ unspurred; claws small, simple, subterminal, empodia present. Wings with vein  $Sc$  very long,  $Sc_1$  ending opposite cross-vein  $r$ ;  $Sc_2$  far before the tip of  $Sc_1$ , the latter vein alone being about equal to the basal deflection of  $R_{4+5}$ ;  $r$  present, located far before the tip of  $R_1$ , this portion of  $R_1$  beyond  $r$  being a little longer than the deflection of  $R_{4+5}$ ; cell 1st  $M_2$  open by the atrophy of the outer deflection of  $M_3$ ; basal deflection of  $Cu_1$  at the fork of  $M$ ; anal veins long and straight. Male hypopygium with the ninth tergite small, the caudal margin feebly concave; pleurites moderately elongated, the proximal face with a cushion of numerous short spinules; pleural appendages two, the outer appendage shortest, flattened, the apex obtuse; inner pleural appendage larger and more elongated, irregularly twisted, the apex with a few setigerous tubercles; no distinct gonapophyses; penis-guard a subflattened lobe of nearly uniform width for its entire length. Ovipositor with the valves moderately elongate, powerful, the tergal valves much exceeding the rather weak, acutely pointed sternal valves.

Genotype.—*Amphilimnobia leucopeza*, sp. n. (Western Ethiopian Region).

The curious fly that is made the type of the above new genus is represented in the writer's collection by three specimens in poor condition. The fly possesses structural features that preclude its disposition in any genus known at the present time. Although the general appearance of the fly is much like a *Dicranomyia*, the details of structure seem to

place it in a position much nearer *Dicranoptycha* and *Rhamphidia*. The principal generic characters are derived from the claws, the structure of the male and female genitalia, and, especially, the wing-venation. Unfortunately the tips of the antennæ are broken and the number of segments cannot be accurately determined.

*Amphilimnobia leucopeza*, sp. n.

General coloration dark brown; legs dark brown, the tarsi white; wings with a strong brownish tinge; *Sc* long, cell 1st  $M_2$  open.

*Male*.—Wing 7.8 mm.

*Female*.—Length about 8 mm.; wing about 6.4 mm.

Rostrum, palpi, antennæ, and head dark brown.

Thorax dark brown. Head dark brown. Legs brown; fore tarsi, except the basal two-thirds of the metatarsus, pure white; the other legs are all detached; in some the white of the metatarsus is much more restricted, occupying only the narrow apex, in others the entire tarsus is white excepting only the base of the metatarsus. Wings with a strong brownish tinge, the wing-tip more suffused; stigma a little darker brown than the remainder of the wing, elongate-oval; veins dark brown. Venation as described under the generic characterization; *Rs* long, strongly arcuated or even angulated and spurred at origin; *r* on  $R_{2+3}$  nearly twice its length beyond the fork of *Rs*; *r-m* less than one-half the deflection of  $R_{4+5}$ ; petiole of cell 2nd  $M_2$  approximately as long as this cell; the abortive vein behind *Cu* distinct.

Abdomen brown, indistinctly bicolorous; posterior margins of the segments narrowly darker.

*Hab.* Cameroun.

*Holotype*, ♂, Olama, altitude 2000 feet, July 24, 1919 (J. A. Rees).

*Allotopotype*, ♀, in copula with the type.

*Paratopotype*, a fragment.

The type is mounted in balsam.

*Erioptera (Erioptera) carior*, sp. n.

Antennæ with the scapal segments brownish yellow; flagellum dark brown; vertex brownish grey, broadly whitish adjoining the inner margins of the eyes; mesonotum shiny dark brown; legs yellow; wings pale brown, the costal and subcostal cells and a narrow band at the cord light yellow; male hypopygium with the inner pleural appendage unbranched (branched in *carissima*), the head enlarged into

a structure that resembles the head and beak of a crested bird; gonapophyses deeply bifid.

*Male*.—Length about 5 mm.; wing 4.3 mm.

Rostrum and palpi dark brown. Antennæ short, the scapal segments brownish yellow; flagellum dark brown, verticils only moderately elongated. Vertex brownish grey, broadly whitish adjoining the inner margins of the eyes; eyes of the male very large as in this group (*péringueyi* group) of species, broadly contiguous beneath.

Mesonotum shiny dark brown, the præscutum with the three usual stripes confluent, the humeral region and lateral margins a little paler yellowish brown. Pleura dark brown. Halteres brown, the knobs dark brown. Legs with the coxæ and trochanters brown; remainder of the legs light yellow, the distal three tarsal segments and the tips of the others dark brown. Wings pale brown, sparsely marked with dull yellow; the costal and subcostal cells are light yellow; the stigma dark brown, elongate-oval, and very distinct; the cells proximad of the cord are largely pale brown, those distad of the cord dull yellow, the veins broadly seamed with brown; the cord is narrowly margined with yellow. Venation as in *E. carissima*, but the deflection of  $Cu_1$  is more perpendicular.

Abdomen dark brown. Male hypopygium very distinct from either *E. péringueyi* or *E. carissima*; outer appendage slender, as in *carissima*; inner appendage with a short, twisted stem that is inserted in the elongated, transverse head near the middle of its length; this head somewhat resembles the head and beak of a bird with a long, curved crest; of this structure, the compressed, obliquely truncated beak is directed laterad; the curved crest is directed proximad and cephalad, covered with numerous short erect setæ. Gonapophyses deeply bifid, the proximal arm longest, the tips acute and blackened, subdecussate with their fellow of the opposite side; the lateral arm is a little shorter, largely blackened, suddenly narrowed into the short, acute tip.

*Hab.* Eastern Transvaal.

*Holotype*, ♂, "Lot 30, De Kaap Block B," near Kaapmuiden, October 9, 1919 (*H. K. Munro*).

*Erioptera nigrolatera brevipilosa*, subsp. n.

*Female*.—Wing 5–5.1 mm.

Generally similar to typical *nigrolatera*, Alexander (Nyasa-land), differing as follows:—

Legs without the conspicuous erect pubescence found in

*nigrolatera*; this may be a sexual character, however, as only males of typical *nigrolatera* and females of the new variety have been made known. In the present form the pubescence of the legs is very short, appressed, and not at all conspicuous. The wings are much paler, greyish subhyaline; vein *Sc* considerably shorter, ending far before the fork of  $R_{2+3}$ ;  $Sc_2$  is closer to the tip of  $Sc_1$ ,  $Sc_1$  alone being only about two-thirds  $R_{2+3}$ ; in typical *nigrolatera*  $Sc_1$  is longer than  $R_{2+3}$ ; anal veins a little more divergent at the wing-margin. The valves of the ovipositor are short and fleshy as in the group.

*Hab.* Eastern Transvaal.

*Holotype*, ♀, "Lot 30, De Kaap Block B," near Kaapmuiden, October 11, 1919 (*H. K. Munro*).

*Paratype*, ♀, a badly injured specimen, October 10, 1919.

*Molophilus camerounensis*, sp. n.

Rostrum and palpi black; antennæ of the male elongate, the basal segments yellowish; general coloration dark brown, the mesonotal præscutum brighter brown; wings greyish, the veins clothed with long dark-coloured hairs; male hypopygium with three conspicuous chitinized appendages on either side.

*Male*.—Length 4.8 mm.; wing 4.4 mm.

Rostrum and palpi black. Antennæ of the male elongated, almost as in the Nearctic *M. pubipennis*, O.-S., the basal segments light yellow, the distal segments a little more brownish; flagellar segments elongate-cylindrical, clothed with long, pale, outspreading hairs. Head dark brown.

Mesonotal præscutum rather light brown, the remainder of the mesonotum and the pleura dark brown. Halteres dark brown. Legs with the coxæ and trochanters brown; remainder of the legs dark brown. Wings with a strong grey tinge, the costal and subcostal cells more brownish; veins and pubescence dark brown, giving a dark colour to the wings. Venation:  $R_{3+4+5}$  long, about one-half longer than the basal deflection of  $Cu_1$ ; fork of *M* far proximad of the fork of *Rs*; inner ends of cells  $R_3$  and  $R_5$  in alignment; petiole of cell  $M_3$  more than three times the basal deflection of  $Cu_1$  or about two-fifths of vein  $Cu_1$  beyond it; basal deflection of  $Cu_1$  perpendicular, nearly twice as long as the basal deflection of  $M_3$ .

Abdominal segments brown, indistinctly bicolorous. Male

hypopygium with the armature unusually developed even for a member of this genus; three powerful chitinized appendages on either side, the longest and most powerful of which is enlarged apically into a two-edged complicated head.

*Hab.* Cameroun.

*Holotype*, ♂, Olama, altitude 2000 feet, July 24, 1919 (*J. A. Rees*).

#### CERATOLIMNOBIA, gen. nov.

Vertex behind the antennal bases with a flattened white lobe or cornicle. Tibiæ unspurred. Wings with  $Sc$  long,  $Sc_2$  close to the tip of  $Sc_1$ ; tip of  $R_1$  atrophied or nearly so; cell 1st  $M_2$  closed; basal deflection of  $Cu_1$  before mid-length of cell 1st  $M_2$ . Male hypopygium small, with two pleural appendages, the longest recurved into a U, at the bend of which is a cylindrical minutely branched arm.

*Genotype*.—*Ceratolimnobia munroi*, sp. n. (Southern Ethiopian Region).

By means of all existing keys to the Tipulidæ this crane-fly would run to the genus *Gnophomyia*, to which it is obviously not closely allied. *Gnophomyia* is gradually becoming a receptacle for many diverse Eriopterine elements, and it seems advisable to remove the present fly from such an incongruous gathering and erect a separate genus for it. The presence of a snowy-white corniculus, much as in the Ethiopian species of the genus *Ceratocheilus*, Wesché, offers the most ready means for distinguishing this genus from similar crane-flies.

#### *Ceratolimnobia munroi*, sp. n.

Head light grey, with a snowy-white cornicle on the vertex; general coloration dark brown, the mesonotal præscutum narrowly margined laterally with silvery white; legs dark brown, the tips of the femora and tibiæ narrowly white, the fore tarsi largely white; wings dusky, the costal region more yellowish, with six large dark brown blotches; veins beyond the cord broadly seamed with brown.

*Male*.—Length about 2.7 mm.; wing 3.8 mm.

Rostrum and palpi black. Antennæ with the scapal segments black; flagellum broken. Head with a light grey pubescence, the middle of the vertex and the postgenæ more blackish; on the fore part of the vertex immediately behind the antennal bases and between the anterior end of the eyes

is inserted a flattened snowy-white lobe or corniculus that is directed cephalad, very much as in the African species of *Ceratocheilus*.

Pronotum dark brown. Mesonotum dark brownish black, the lateral margins of the præscutum narrowly silvery white, this beginning on the sides of the pronotum, continued backward to the wing-root; tuberculate pits a short distance behind the anterior margin of the præscutum. Pleura and sternum dark brownish black. Halteres pale brown basally, the knobs broken. Legs with the coxæ dark brownish black; trochanters dark brown; femora dark brown, darkest before the tips, which are abruptly and narrowly white; tibiæ brown, the tips narrowly white; fore tarsi with the basal two-thirds of the metatarsus brown, the remainder of the tarsi white; the other legs are detached, but the middle and hind tarsi are presumably uniform brown, and what are probably the hind legs lack the white tibial apices. Wings with a strong brownish tinge, especially on the basal half; beyond the cord the membrane is subhyaline, with the veins broadly seamed with brown; six darker brown costal blotches, the first at the arculus, the second at the origin of  $R_s$ , the third at  $Sc_1$ , the fourth at the tip of  $R_1$ ; the fifth and sixth at the ends of veins  $R_2$  and  $R_3$ ; costal and subcostal cells more yellowish; pale areas occur between the dark costal areas, at the ends of cells  $R$ ,  $M$ ,  $Cu$ , 1st  $A$ , and 2nd  $A$ ; veins dark brown, the pale spaces on veins  $C$ ,  $Sc$ , and  $R$  yellow. Venation:  $Sc$  long, ending about opposite two-thirds the long  $R_s$ ,  $Sc_2$  close to the tip of  $Sc_1$ ,  $Sc_1$  equal to about twice  $Sc_2$ ; tip of  $R_1$  atrophied;  $r$  oblique, inserted at the fork of  $R_{2+3}$ ;  $R_s$  longer than  $R_3$ ;  $R_{2+3}$  a little shorter than  $R_2$ ; inner ends of cells  $R_3$ ,  $R_5$ , and 1st  $M_2$  in direct alignment;  $r-m$  a little longer than the basal deflection of  $R_{4+5}$ ; cell 1st  $M_2$  long and comparatively narrow, longer than vein  $Cu_1$  beyond it; basal deflection of  $Cu_1$  just before mid-length of cell 1st  $M_2$ .

Abdomen dark brown. Male hypopygium small; pleurites rather short and stout, covered with microscopic hairs and a few long setæ; two pleural appendages, the longest strongly recurved into the form of a **U**, the free end directed outward, the tip narrowed and acute; on the side at the bend of the **U** with a conspicuous cylindrical arm that is minutely branched; inner pleural appendage small and flattened, narrowed to the blunt apex, which bears several long setæ; gonapophyses small, flattened, triangular, directed proximad.

*Hab.* Eastern Transvaal.

*Holotype*, ♂, "Lot 30, De Kaap Block B," near Kaapmuiden, October 8, 1919 (*H. K. Munro*).

It is with great pleasure that this interesting new species is dedicated to its discoverer, Mr. H. K. Munro.

*Trentepohlia (Trentepohlia) aurantia*, sp. n.

Generally similar to *T. speiseri*; mesonotal præscutum light orange-yellow, with a delicate reddish-brown median line; legs yellow; posterior tibiæ with two strong black bristles before the tip; abdomen yellowish brown.

*Male*.—Length 7.6 mm.; wing 7 mm.

*Female*.—Length 8.8 mm.

Described from alcoholic specimens.

Rostrum and palpi pale brownish yellow. Antennæ with the scape light brown; flagellum broken. Head brownish.

Mesonotal præscutum light orange-yellow, with a delicate reddish-brown median line, the lateral margins behind the pseudo-sutural foveæ narrowly infuscated; scutal lobes reddish brown, the median area and the scutellum pale; postnotum yellowish brown. Pleura brown, darker on the sternum. Halteres pale, the knobs white. Legs with the coxæ yellow; trochanters dull yellow; femora and tibiæ yellow, the tips not darkened; tarsi broken; posterior femora with a series of six or seven short blackened spinules at the base; tibiæ with two widely separated black bristles before the tip. Wings subhyaline, the costal margin strongly yellowish, the anal cells dusky grey; a rather heavy brown pattern, somewhat as in *T. speiseri*, but more restricted; the blotch at the origin of *Rs* is entirely solid, but comparatively small; the apical mark includes only the veins, the centre of cell *R*<sub>2</sub> yellowish subhyaline; vein *Cu* seamed with darker.

Abdomen yellowish brown, the apical segments darkened.

*Hab.* Reunion.

*Holotype*, ♂, 1903 (*Blanchard*).

*Allotopotype*, ♀.

Type in the collection of the Paris Museum.

This species is, perhaps, closest to *T. speiseri*, Edwards, from which it is told by the bright colour of the mesonotum and the different wing-pattern.

*Tipula ellenbergeri*, sp. n.

Head indistinctly reddish; thorax black; wings with the

costal margin and apical half brownish black, the basal half whitish hyaline; basal abdominal segments reddish, the posterior margins black.

*Sex?* (probably a male).—Wing 14.6 mm.

Described from an alcoholic specimen.

Frontal prolongation of head comparatively short, the sides reddish brown, the dorsum narrowly darker; nasus distinct; palpi dark brown. Antennæ dark brown, the flagellar segments more reddish basally; the flagellum is broken, but detached segments in the vial with the type presumably belong to this species; in these the distal flagellar segments are elongate-oval, slightly constricted basally. Head reddish, darker-coloured between the eyes.

Thorax uniformly deep black, apparently shiny in dried specimens. Halteres black. Legs black, the femora and tibiæ slightly paler basally; legs slender, especially the tarsi; claws reddish, the distal half blackened, at about mid-length with a small, acute, ventral tooth. All of the legs are detached in the vial, and but few still remain. Wings with the costal region and the apical half of the wings black, the basal half conspicuously and abruptly whitish hyaline; the dark apex includes all of the cells beyond the cord as well as the outer ends of cells *R*, *M*, *Cu*, and 1st *A*; stigma small, dark brownish black; veins dark brown. Wings broad.

Abdomen with the first segment black; second segment reddish, the caudal margin narrowly blackened; third segment reddish basally, the apex of the abdomen broken beyond this point.

*Hab.* French Congo.

*Holotype*, sex ♂?, Lambaréné, Ogoway R., 1911 (*R. Ellenberger*).

Type in the collection of the Paris Museum.

This beautiful crane-fly is readily told from all described African Tipulinæ by the beautifully demidiate wings. The claws bear a small, acute, ventral tooth that is only visible when the foot is viewed from the side. The presence of this tooth would indicate that this fly is a male. This interesting species is named in honour of its collector.