

New or little-known *Tipulidae* from tropical Africa

Diptera. Part I ⁽¹⁾

by CHARLES P. ALEXANDER.

In this initial part of a projected series of papers on the *Tipulidae* of Tropical Africa, I am considering in part materials from various parts of IFAN sent to me by Dr. André VILLIERS, now in the Museum of Natural History in Paris, as well as some further interesting species and records derived from other sources. It is hoped that further collections from IFAN may become available since it seems evident that it remains one of the most interesting yet least known regions in Africa.

Nephrotoma fulvomedia n. sp. (figs. 1, 6).

General coloration of body yellow or orange, praescutum with three darker stripes, the median one paling to fulvous on the anterior third or more; pleura patterned with more reddish areas; antennal flagellum black; occipital brand not or scarcely differentiated; fore femora chiefly blackened; wings with cell M_1 sessile; abdomen orange, posterior borders of segments two and three with broad brownish black rings, subterminal segments blackened, hypopygium orange; male hypopygium with the outer basal region of the inner dististyle produced into a curved spine; gonapophyses broad, strongly divergent.

♂. Length about 10-11 mm; wing 11 mm; antenna about 4.5 mm.

♀. Length about 14-15 mm; wing 11-12 mm.

Frontal prolongation of head orange; nasus elongate; palpi pale basally, outer segments darker, extreme tip of terminal seg-

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ment paler. Antennae of male moderately long, as shown by the measurements; scape and pedicel obscure orange yellow, flagellum black; flagellar segments moderately incised, longer than the verticils. Head orange; vertical tubercle very slightly notched at summit; occipital brand not or scarcely differentiated, concolorous with the ground.

Pronotum yellow, more reddened on sides. Mesonotal praescutum polished yellow, with three stripes, the median one reddish or fulvous on the anterior third or more, darker behind, lateral stripes blackened, their outer ends outcurved and shiny: scutal lobes very extensively blackened, central area narrowly pale yellow; scutellum reddish brown to testaceous; mediotergite yellow, the posterior border more or less reddened. Pleura light yellow, variegated with reddish areas on the ventral anepisternum and ventral sternopleurite; pleurotergite whitish, more reddened ventrally. Halteres with stem light brown, knob darker. Legs with all coxae and trochanters reddish; femora obscure yellow basally, passing through light brown to brownish black, fore femora chiefly blackened, only their bases narrowly pale; tibiae and tarsi passing through brown to black; claws of male toothed. Wings (fig. 1) weakly tinged with brown, cells *Sc* and *Cu*₁ slightly darker; stigma still darker brown, oval, with numerous trichia; wing tip more or less seamed with darker; veins dark brown. Venation: Cell *M*₁ broadly sessile; *m-cu* about one-fifth to one-sixth its length before fork of *M*.

Abdomen with the first tergite orange, darkened medially; succeeding two tergites yellow, the posterior border broadly brownish black to black; segments four and five orange, each with a darkened apical spot; tergites six and seven blackened, forming a narrow ring, segments eight and nine fulvous orange; sternites chiefly fulvous orange, including the outer segments, the eighth sternite with the disk darkened, margins yellow. Male hypopygium (fig. 6) with the tergite, *t*, transverse, the posterior margin convexly rounded, with a deep median notch, lateral lobes less evidently emarginate and provided with two groups of blackened spicules on upper surface, with others on the lower face. Outer dististyle, *d*, long and narrow, broadest at near midlength, thence narrowed to the subacute tip. Inner dististyle with the beak obtuse, lower beak blackened, scooplike; dorsal crest abrupt at both ends, higher posteriorly; a curved spine in region of the outer basal lobe. Phallosome, *p*, including very large flattened apophyses that diverge strongly, slightly widened at the obtuse tips. Eighth sternite with

its posterior border nearly truncate to very feebly emarginate, without lobes or setal brushes.

Holotype, ♂, Dakar, Sénégal, September 1949 (A. Villiers). *Allo-topotype*, ♀, jardin de Hann, près Dakar. *Paratopotypes*, ♂♀, June to September 1949 (A. Villiers) ; 1947-1951 (Mérey, Villiers). *Paratype*, ♀, Sangalkam, Sénégal, January 14, 1952 (A. Villiers).

In its general coloration, with broad complete black bands on the abdomen, the present fly comes closest to species such as *Nephrotoma tigrina* ALEXANDER, *N. tricineta* ALEXANDER, and others, differing in the coloration and structure of the male hypopygium. It evidently is a common species in the immediate vicinity of Dakar.

***Nephrotoma festiva* (WALKER).**

Tipula festiva WALKER. List Dipt. Brit. Mus., 1 : 73 ; 1848.

Nephrotoma festiva ALEXANDER. Ruwenzori Expedition 1934-35, 1, No 7, *Tipulidae*, p. 138, 1956.

The species was based on a single male specimen from Sierra Leone, collected by the Reverend D. F. Morgan.

IFAN : Mont Tonkoui, Côte d'Ivoire, in primaeval forest, 900-1 200 m, September 20-30, 1946 (A. Villiers) ; ♂♀, in poor condition.

The present material is believed to represent this species despite certain colorational differences. Besides WALKER's very brief description, I have a few supplementary notes concerning the pattern of the abdomen of the type male, provided by Dr. Paul FREEMAN. The praescutal disk is not uniformly blackened, as implied by WALKER's definition, but has three broad black stripes that greatly restrict the ground, as do the major markings on the scutal lobes ; mediotergite and pleurotergite distinctly patterned with black. Wings with the costal border darkened ; cell M_1 short-petiolate. The abdominal pattern in the male is as described by Freeman, with broad blackened rings on tergite one, at posterior borders of tergites two and three, and with a broader black subterminal ring. In the female, the abdomen is even more evidently banded, with rings on tergite one, posterior borders of two to six, inclusive, and with segment seven entirely blackened. The male hypopygium is generally as in *Nephrotoma fulvomedia* n. sp., differing especially in the inner dististyle, where the dorsal crest is longer and the region of the outer basal lobe is unarmed.

Tipula (Acutipula) gola (figs. 2, 7).

Size large (wing of male over 15 mm) ; head orange, patterned with polished black on the anterior vertex ; mesonotal praescutum and scutum shiny black, scutellum and center of mediotergite orange ; pleura chiefly orange ; all coxae and trochanters orange ; male hypopygium large, the posterior border terminating in two broad low lobes that are set with numerous black spicules ; outer dististyle narrow, inner style bispinous.

♂. Length about 17 mm ; wing 15.3 mm ; antenna about 5 mm.

Frontal prolongation of head orange, nasus short and stout, tufted with long yellow setae ; palpi dark brown, terminal segment black. Antennae moderately long, as shown by the measurements ; scape brownish orange, pedicel light brown, flagellum black ; flagellar segments subcylindrical, slightly enlarged at base, the verticils and segments subequal in length. Head orange ; anterior vertex on either side of midline with a polished black area, narrowly interrupted at the midline.

Pronotum medially broadly orange, brownish black on sides. Mesonotal praescutum and scutum almost uniformly black, the surface shiny or subnitidous ; scutellum orange, parascutella brown ; mediotergite with the extensive central part orange, virtually encircled by brownish black, narrowly interrupted medially in front and with a pair of gray spots at posterior border, pleurotergite brownish black. Pleura almost entirely orange, the dorsal-posterior part of anepisternum and dorsal half of the pteropleurite dark brown ; ventral sternopleurite and meron narrowly and vaguely infuscated. Halteres with stem brown, knob brownish black. Legs with all coxae and trochanters orange ; remainder of legs broken. Wings (fig. 2) with a brownish tinge, the prearcular field and cells *C* and *Sc* darker brown ; stigma relatively small, still darker ; veins brown, $R_1 + 2$ pale. Venation : *Rs* and $R_2 + 3$ subequal, straight ; petiole of cell M_1 and *m* subequal ; cell *1st M*₂ relatively small, pentagonal ; *m-cu* at or just beyond the fork of $M_3 + 4$; cell *2nd A* relatively broad.

Abdomen with basal segment brownish black ; second tergite with basal ring and sides of posterior half orange yellow, the posterior margin with a broad velvety black ring, the central part of the posterior ring paler brown ; succeeding segments with conspicuous black terminal rings, the remainder of the disk brownish nacreous, lateral borders broadly yellow ; fifth and succeeding

segments more uniformly blackened, the subterminal ring more conspicuously so ; hypopygium orange. Male hypopygium (fig. 7) with the tergite, *t*, narrowed posteriorly, terminating in two broad low lobes that are set with abundant blackened spicules, the lobes separated by a narrow notch. Outer dististyle, *d*, unusually long and narrow, boomerang-shaped, the length approximately five times the greatest width, clothed with abundant setae, longer on the upper margin. Inner dististyle with the beak relatively short, microscopically notched at tip ; lower margin of style with two acute spines, the basal one shorter and more acute ; margin of style at base of longer spine fringed with long yellow setae.

Holotype, ♂, Diale, Liberia, 1948 (Mission P. L. Dekeyser et B. Holas).

The nearest ally is *Tipula* (*Acutipula*) *vanstraeleni* n. sp., described hereinafter in order to validate the name. This has the thoracic pleura and the legs, including the coxae and trochanters, brownish black to black, differing further in various features of coloration, venation and structure of the male hypopygium. There is no question of the close relationship of the two species. The specific name of the present fly, *gola*, is that of a native Liberian tribe.

***Tipula* (*Acutipula*) *vanstraeleni* n. sp.**

General coloration of thorax and abdomen opaque black, the praescutum, scutal lobes and basal rings of the abdominal segments polished nacreous ; head orange ; thoracic pleura dark brown, variegated by a large yellow area on the ventral pteropleurite ; halteres and legs dark brown or brownish black ; claws of male bidentate ; wings light brown, cell *Sc* and the stigma darker brown ; male hypopygium with the tergite terminating in two broad lobes that are provided with abundant blackened spicules.

♂. Length about 17 mm ; wing 14 mm ; antenna about 4.2 mm.

♀. Length about 21 mm ; wing 15 mm.

Frontal prolongation of head relatively short, somewhat as in *Nephrotoma*, orange ; nasus broad, dull orange ; palpi brown. Antennae with scape, pedicel and base of first flagellar segment orange, the remainder of the organ dark brown ; flagellar segments subcylindrical, the basal enlargement scarcely developed ; verticils conspicuous, the longest about equal in length to the segment ; terminal segment much reduced, thimble-shaped ; (Antenna of female broken). Head orange, on dorsum with a major black

area on either side of the anterior vertex, only narrowly interrupted at the midline, broadly touching the eye exteriorly.

Pronotum brownish black, restrictedly brightened medially, more so in the female. Mesonotal praescutum and scutum, with the postnotum, dark brown or brownish black, the scutellum abruptly testaceous yellow, parascutella pale brown; mediotergite with a vague obscure yellow central area, chiefly on the cephalic half of the sclerite; praescutum with the ground more opaque and slightly darker than the three polished nacreous stripes, the centers of the scutal lobes extensively polished in a similar manner; vestiture of notum lacking. Pleura dark brown, variegated by a large yellowish area occupying the ventral pteropleurite; dorsopleural membrane and restricted areas adjoining on the praescutum and pretergites yellow. Halteres brownish black. Legs with the coxae and trochanters brownish black; remainder of legs dark brown. the femoral bases more obscure brownish yellow, the tips passing into black; tibial spur formula 1-1-2; claws of male weakly bidentate, the outer tooth especially small. Wings broad, slightly more so in the female, where the costal border is more or less arcuated; ground color light brown, including the prearcular field; cell *Sc* more brownish yellow; cell *Sc* and stigma dark brown; a vaguely indicated dusky cloud over the anterior cord; veins brown. Veins beyond cord almost glabrous, excepting the distal section of $R_4 + 5$ which has an almost complete series of macrotrichia; a very few scattered trichia on vein M_1 . Venation: *Rs* relatively short, less than *m-cu*; vein $R_1 + 2$ very short, its outer end tending to become pale and atrophied; petiole of cell M_1 longer than *m*; cell *2nd A* very broad.

Abdomen of male with the basal segment yellow, broadly bordered posteriorly with opaque black; segments two and three more reddened, more or less nacreous, the posterior borders similarly blackened; segment four brown, nacreous, the border black; succeeding segments more uniformly blackened, the paler nacreous bases less evident; hypopygium abruptly orange. The female has the first segment opaque black; segments two to seven, including both tergites and sternites, with the bases broadly nacreous, the apices broadly opaque black; ovipositor and genital segment fiery orange; cerci slender, tips gently decurved; hypovalvae short but much higher than the cerci, compressed-flattened. Male hypopygium more or less broken but the essentials of structure discernable. Tergite and sternite fused into a ring; tergal region with the posterior border produced into a broad lobe that is slightly bilobed by

a minute U-shaped notch, the lateral lobes with abundant microscopic peglike spinules ; dorsal surface with abundant long yellow setae. Outer dististyle unusually long and narrow, the greatest width only about one-seventh the length ; surface with abundant black and yellow setae. Inner dististyle with the margin of the expanded blade fringed with very long golden yellow setae ; near base of style a straight acute spine and a much longer strongly curved arm or blade that gradually narrows to an acute point.

Holotype, ♂, Eala, Belgian Congo, September 1935 (J. Ghesquière).

Allotopotype, ♀, October 1935.

Part of the Ghesquière collections of the Institut des Parcs Nationaux du Congo belge.

This interesting fly is named in honor of Dr. V. VAN STRAELEN, President of the Institut des Parcs Nationaux du Congo belge. The most nearly allied species is *Tipula (Acutipula) gola* n. sp., which differs in the characters discussed earlier under the description of this fly. A third species that may likewise be found to fall in this group, despite its different appearance, is *T. (A.) ellenbergeri* ALEXANDER, described from Lambaréné, on the Ogooué River, Gabon, French Equatorial Africa. All of these flies bear a superficial resemblance to large species of the genus *Nephrotoma* but are actually members of *Tipula* and evidently may be placed in the subgenus *Acutipula* ALEXANDER.

***Limonia (Limonia) lophema* n. sp. (fig. 8).**

General coloration of thorax brown, the praescutum with three stripes ; antennae black basally, the flagellum slightly paler ; flagellar segments with unusually long verticils, unilaterally distributed ; legs brown ; wings strongly tinged with brown ; stigma oval, slightly darker brown ; Sc_1 ending nearly opposite the fork of Rs , Sc_2 at its tip ; cell $1st\ M_2$ elongate, subequal to the distal section of $M_1 + 2$; male hypopygium with the rostral spines two, strongly curved, arising from the summit of a slender tubercle ; accessory lobule of the ventral dististyle pale apically, terminating in a single seta ; aedeagus stout, terminating in two large lobes.

♂. Length about 7.5 mm ; wing 8.5 mm.

Rostrum and palpi black. Antennae with the scape and pedicel black, flagellum slightly paler ; basal flagellar segments oval, outer ones progressively more elongate ; terminal segment narrowed

outwardly, about one-fourth longer than the penultimate ; a single very long verticil on each segment, unilaterally arranged, additional to the shorter normal bristles. Head dull black, sparsely pruinose ; anterior vertex very narrow, less than the width of two rows of ommatidia ; vertex with long black setae.

Pronotum light brown. Mesonotal praescutum almost covered by three medium brown stripes, the lateral borders slightly more darkened, passing into reddish brown ; median region of scutum, with the scutellum, conspicuously light yellow, parascutella darker ; postnotum dark brown, the central part of the mediotergite vaguely brightened. Pleura dark reddish brown, metapleura more yellowed. Halteres broken. Legs with the coxae reddish brown ; trochanters obscure yellow ; remainder of legs brown, unpatterned ; (broken beyond the tibia). Wings strongly tinged with brown ; stigma oval, slightly darker brown ; veins brown. Venation : Sc long, Sc_1 ending nearly opposite the fork of Rs , Sc_2 slightly longer, at its tip ; free tip of Sc_2 and R_2 in approximate transverse alignment ; Rs slightly more than three times the basal section of R_{4+5} ; cell $1st\ M_2$ clongate, nearly equal to the distal section of vein M_{1+2} ; $m-cu$ close to the fork of M , longer than the distal section of Cu_1 ; vein $2nd\ A$ gently sinuous.

Abdominal tergites dark brown, sternites somewhat paler ; male hypopygium brownish yellow, the dististyle darker. Male hypopygium (fig. 8) with the tergite, t , transverse, its posterior border very slightly emarginate. Basistyle, b , with the ventromesal lobe large. Dorsal dististyle a curved sickle. Ventral dististyle, d , small, its area scarcely one-half that of the basistyle, pointed at apex which bears a single seta ; rostral prolongation slender, spines two, strongly curved, placed close together at the summit of a slender tubercle ; an accessory lobule on face of style, narrowed to the pale apex which terminates in a single strong seta ; the style provided with numerous unusually long and coarse setae. Gonapophysis, g , narrowed outwardly, terminating in a small curved point. Aedeagus glabrous, stout, ending in two large lobes.

Holotype, ♂, broken, IFAN : Mont Tonkoui, Côte d'Ivoire, in primaeval forest, 900-1 200 m, September 20-30, 1946 (A. Villiers).

The type of male hypopygium shown here, with a conspicuous accessory or tail-like lobe on the face of the ventral dististyle, is found in various African species. *Limonia* (*Limonia*) *lophema* is evidently allied to *L. (L.) illiterata* ALEXANDER and others that have two rostral spines, differing from all in the details of structure of the hypopygium.

***Limonia (Dicranomyia) neoguttula* n. sp. (figs. 3, 10).**

Belongs to the *punctulata* group ; general coloration of mesonotum gray, the praescutum with a broad central darker stripe ; antennae black throughout ; anterior vertex very narrow ; legs brownish yellow ; wings faintly darkened, with a sparse dotted and spotted pattern, including dots in cell *C* and others along the veins before the cord ; *Rs* short and straight ; cell *1st M*₂ long-rectangular, *m* and basal section of *M*₃ subequal ; male hypopygium with a single rostral spine, placed on outer margin of the prolongation ; gonapophysis a simple blackened spine.

♂. Length about 6 mm ; wing 6,5 mm .

Rostrum and palpi black. Antennae black throughout ; first flagellar segment elongate, succeeding ones oval, passing into long oval, nearly equal in length to their longest verticils. Head gray ; anterior vertex reduced to a narrow strip, only a little wider than a single row of ommatidia.

Pronotum brown. Mesonotal praescutum brownish gray, with a broad central darker brown stripe, the usual lateral stripes lacking ; scutal lobes brown, the mid area, with the scutellum, testaceous or pale gray ; postnotum light gray. Pleura brownish gray, clearer gray behind. Halteres relatively long, stem whitened, knob infuscated. Legs with the fore and middle coxae infuscated, posterior pair paler ; trochanters pale yellow ; remainder of legs brownish the terminal tarsal segments darker ; claws elongate, with a straight slender basal spine. Wings (fig. 3) faintly darkened, with a sparse pale brown pattern, arranged as in the *punctulata* group ; a few dots in cell *C*, with still fewer along veins *M* and *Cu*, outer veins almost free from dots ; more evident darkenings at stigma, cord and outer end of cell *1st M*₂ ; two darkenings on vein *2nd A*, as common in the group ; veins light brown, darker in the patterned areas. Venation : *Sc*₁ ending about opposite origin of *Rs*, *Sc*₂ near its tip ; *Rs* relatively short and straight, subequal to or a little shorter than the more arcuated basal section of *R*₄₊₅ ; vein *R*₁ beyond *Rs* arched cephalad ; cell *1st M*₂ long, rectangular, slightly widened outwardly, *m* and basal section of *M*₃ subequal or the latter slightly longer ; *m-cu* at or close to fork of *M*.

Abdomen dark brown, hypopygium more yellowish brown. Male hypopygium (fig. 10) with the tergite transverse, the posterior border shallowly emarginate, the thickened margins of the broad lobes with numerous pale setae. Basistyle, *b*, relatively

small, the ventromesal lobe proportionately still smaller, with long setae. Dorsal dististyle a very strongly curved sickle that narrows very gradually into a long black spine. Ventral dististyle, *d*, moderately large, its area about one-third greater than that of the basistyle; rostral prolongation slender, with a single long gently curved spine at near midlength of outer face. Gonapophysis, *g*, with the mesal-apical lobe a simple gently curved blackened spine.

Holotype, ♂, Mount Hampden Hostel, Southern Rhodesia, April 23, 1956 (H. C. Brayne); received through Courtenay N. Smithers.

The present fly is quite distinct from the only other described regional member of the *punctulata* group, *Limonia* (*Dicranomyia*) *guttula* (ALEXANDER), of Mozambique and Madagascar, differing in the coloration of the body and wings and, especially, in the structure of the male hypopygium. There are numerous species in the group in the Oriental-Australasian fauna, all best separated by differences in structure of the male hypopygium.

***Antocha* (*Orimargula*) *schmidi* n. sp.**

Size small (wing of male about 4 mm); antennae short; head gray; general coloration of praescutum and scutal lobes light fulvous, the posterior sclerites of the notum and the pleura paler; legs brown; wings subhyaline; male hypopygium with the dististyles separate, the outer style narrowed very gradually to the tip; gonapophyses appearing as slender blades.

♂. Length about 3.5 mm; wing 4 mm; antenna about 0.6 mm.

Rostrum testaceous yellow; palpi elongate, dark brown. Antennae short, as shown by the measurements; scape and pedicel slightly paler than the black flagellum; flagellar segments long-oval, shorter than the longest verticils; terminal segment larger than the penultimate. Head gray.

Pronotum small, light brown. Mesonotal praescutum and scutal lobes light fulvous, posterior sclerites testaceous, the mediotergite slightly darker behind. Pleura light fulvous yellow. Halteres with stem pale, knob weakly infuscated. Legs with the coxae and trochanters testaceous or pale brown; fore femora brownish black, paler basally, remaining femora paler brown; tibiae and tarsi light brown, the outer segments blackened; claws with about four developed spines, the outermost largest. Wings subhyaline, the

prearcular and costal regions light yellow; veins pale brown. Venation: Cell M_3 broad, at margin about as extensive as cell M_2 ; $m-cu$ almost twice its length before the fork of M .

Abdomen brown, the outer segments somewhat darker. Male hypopygium with the tergite transverse, its posterior border virtually truncate, with numerous setae along the margin. Dististyles two, separated; outer style glabrous, narrowed very gradually to the subacute tip; inner style a little longer, stouter, with abundant setae, a few on lower face near apex longer. Gonapophysis appearing as an unusually slender blade, the tip obtuse. Aedeagus narrow, the central area of the apex pale.

Holotype, ♂, Souapiti, French Guinea, May 1-15, 1955 (F. Schmid).

I take great pleasure in dedicating this species to Dr. Fernand SCHMID, to whom I am indebted for many interesting *Tipulidae* from French Guinea, Iran and the western Himalayas. The fly differs evidently from the other known Ethiopian species in the small size, general fulvous coloration, short antennae, and details of structure of the male hypopygium. The Tropical African species have been considered in a recent paper by the writer (Ruwenzori Report, 1934-35, 1, No. 7: 243-247; 1956).

***Paradelphomyia (Oxyrhiza) megacera* n. sp.**

Size small (wing of male 4.2 mm); general coloration dark brown; antennae of male elongate, nearly one-half as long as the wing; legs brown; wings strongly darkened, the prearcular and costal fields, with the stigma, slightly darker; abundant macrotrichia in cells of the outer third of wing; male hypopygium with the gonapophyses narrowed on outer half, terminating in a simple acute point.

♂. Length about 3.6 mm; wing 4.2 mm; antenna about 2 mm.

Rostrum and palpi dark brown. Antennae brownish black throughout, elongate in male, nearly one-half the length of the wing; flagellar segments elongate, their lower faces slightly more protuberant; pubescence of segments abundant, erect; a single verticil on each segment, becoming much longer on the outer segments where they are virtually equal to the segment in length; terminal segment about two-thirds as long as the penultimate. Head dark brown; anterior vertex broad.

Thorax almost uniformly dark brown, the posterior sclerites of the notum and the ventral pleurites a trifle paler. Halteres infus-

cated, base of stem restrictedly yellow. Legs with the coxae and trochanters brownish yellow; remainder of legs brown, femoral bases restrictedly more brightened; vestiture of legs conspicuous, suberect; tibial spurs present; claws very small. Wings strongly darkened, the prearcular and costal fields more strongly so; stigma oval, darker brown; veins brown. Abundant macrotrichia in cells of outer third of wing, including cells beyond cord and the outer ends of cells *Cu* and *1st A*. Venation: Sc_1 ending opposite fork of R_s , Sc_2 near midlength of R_s , Sc_1 subequal to $R_2 + 3 + 4$; R_2 very faint, bisecting the stigma; veins R_3 and R_4 divergent, cell R_3 at margin about twice cell R_4 ; *m-cu* about one-half its length beyond the fork of *M*; Anal veins only moderately incurved into the margin.

Abdomen, including the hypopygium, brownish black. Male hypopygium with the outer dististyle unusually short, widened outwardly, terminating in two outer apical and one inner apical teeth. Inner dististyle with a small axillary lobule. Gonapophysis broadest on basal part, the outer half or less narrowed and incurved, the narrow tip acute.

Holotype, ♂, Kindia, French Guinea, April 28, 1955 (F. Schmid).

By means of recent keys to the Tropical African species of the genus, the present fly runs to *Paradelphomyia* (*Oxyrhiza*) *ugandae* RIEDEL, from which it differs conspicuously in the small size, elongate antennae of the male, strongly darkened and unpattered wings, and in the details of structure of the male hypopygium, particularly the outer dististyle and gonapophyses.

***Limnophila* (*Elæophila*) *smithersi* n. sp. (fig. 4).**

General coloration black, praescutum with four dark gray stripes; antennae of male very long, approximately two-thirds the length of body, basal flagellar segments bicolored; legs yellow, femora with a nearly terminal black ring; wings whitish, with a very abundant brown dotted and spotted pattern; male hypopygium with the outer dististyle broad, outer spine large, inner apical angle rounded; aedeagus slender.

♂. Length about 6.5 mm; wing 7 mm; antenna about 4.3 mm.

Rostrum and palpi black. Antennae of male unusually long, approximately two-thirds the body; scape black, pedicel paler; basal flagellar segments bicolored, the bases brownish black, the tips pale yellow; on the first segment the two colors subequal in amount, the amount of pale color decreasing outwardly, the bico-

lored nature lost at about the seventh flagellar segment, remaining segments uniformly brownish black ; flagellar segments elongate-cylindrical, with long outspreading setae that are approximately one-third as long as the segments. Head dark brown, vaguely patterned with paler pollinose areas ; anterior vertex broad.

Prothorax dark brown. Mesonotal praescutum dark brown, the disk chiefly covered by four dark gray stripes that are confluent or virtually so, the intermediate pair separated in front by a capillary brownish black line ; a paler spot on side of praescutum at the suture ; posterior sclerites of notum black, pruinose, more heavily so behind. Pleura and pleurotergite black. Halteres with stem brownish yellow, knob dark brown. Legs with the coxae brownish black ; trochanters obscure yellow, the tips narrowly blackened ; femora obscure yellow, with a conspicuous black nearly terminal ring ; remainder of legs light yellow, the outer tarsal segments vaguely darker. Wings (fig. 4) with the ground whitish, with a very abundant spotted and dotted brown pattern ; even the larger spots are relatively small and inconspicuous, at origin of R_s , supernumerary crossvein in cell M , stigma, and over the cord, the stigmal area largest ; dots only a trifle paler, very abundant in all cells, least so in the general vicinity of the stigma ; veins brown, paler in the very restricted ground. Venation : Sc_1 ending nearly opposite the fork of R_s , Sc_2 a short distance from its tip ; R_2 and $R_2 + 3$ subequal ; cell M_1 subequal to its petiole ; cell 1st M_2 small, rectangular, with $m-cu$ at midlength.

Abdomen brownish black to black. Male hypopygium with the inner dististyle broad, the outer spine large, subappressed, the four or five remaining spines very small ; inner apical angle rounded, glabrous. Inner dististyle broadly obtuse at apex. Aedeagus slender.

Holotype, ♂, Salisbury, Southern Rhodesia, at light, April 5, 1956 (C. N. Smithers).

I am pleased to dedicate this interesting fly to Mr. Courtenay N. SMITHERS, specialist in the *Corrodentia*, to whom I am indebted for numerous interesting crane-flies from Southern Rhodesia. The most similar species is *Limnophila* (*Elaeophila*) *dubiosa* ALEXANDER, of South Africa, which has the antennae much shorter than in the present fly, and with the wing pattern quite distinct.

***Limnophila* (*Elaeophila*) *villiersi* n. sp. (figs. 5, 9).**

General coloration of mesonotum reddish brown to brownish gray, the praescutum and scutal lobes patterned with darker ;

dorsal thoracic pleura blackened ; antennae of male short, light yellow ; legs light yellow ; wings whitened, with a heavy brown spotted pattern, the areas restricted to the vicinity of the veins ; vein *2nd A* bent strongly into the wing margin.

♂. Length about 5.5 mm ; wing 6 mm ; antenna about 1.2 mm.

Rostrum dark brown, palpi black. Antennae of male short, as shown by the measurements, light yellow (broken beyond the ninth segment but presumably of this same color throughout) ; flagellar segments oval, shorter than the longest verticils. Head dark gray.

Pronotum brownish gray. Mesonotal praescutum reddish brown to brownish gray, with four poorly defined darker brown stripes, the lateral ones far removed from the intermediate pair, the dark pattern better defined in the holotype ; scutal lobes each with a brown central spot ; posterior sclerites of notum brownish gray, with a more or less clearly differentiated central stripe. Pleura brownish gray, very heavily patterned longitudinally with brownish black, including a broad dorsal stripe, the ventral pleurites narrowly lined with gray. Halteres with stem brownish yellow, knob brownish black. Legs with coxae brownish black ; trochanters obscure yellow ; femora and tibiae clear light yellow, unpatterned ; tibial spurs black, conspicuous ; tarsi broken. Wings (fig. 5) with the ground whitish, with a heavy brown spotted pattern, the areas confined to the vicinity of the veins, distributed as follows : A broken band at level of origin of *Rs*, including the supernumerary crossvein in cell *M* and the tip of vein *2nd A* ; a comparatively narrow band over the cord ; other brown areas at and near arculus, at near one-fourth the length of cells *C* and *Sc*, over *Sc*₂, and at stigma ; a further series of darkened marginal areas, heaviest over *R*₃ and *R*₄, very restricted on the medial and cubital veins ; a series of slightly paler brown submarginal spots in cells *R*₄ to *1st A*, inclusive, rounded and conspicuous in the outer radial and medial cells ; other darkenings occur at outer end of cell *1st M*₂ and fork of *M*₁₊₂ ; veins brownish yellow, darker in the patterned areas, more yellowed in the prearcular and costal interspaces. Wing broadest opposite termination of vein *2nd A*. Venation : *Sc*₁ ending nearly opposite the fork of *Rs* ; *R*₂ from two to three times *R*₂₊₃ ; cell *M*₁ about twice its petiole ; *m-cu* about one-fourth its length beyond the fork of *M* ; vein *2nd A* bent very strongly to the wing margin.

Abdomen brown, the posterior and lateral margins of the segments darkened ; hypopygium somewhat paler. Male hypopy-

gium (fig. 9) with the outer dististyle, *d*, broadly flattened, the outer apical angle with denticles, the terminal one largest, appressed, the others smaller. The inner dististyle is broken in the paratype studied.

Holotype, ♂, grotte des Parachutistes, French Guinea, April 17, 1954 (A. Villiers). *Paratopotype*, 1 broken ♂.

This distinct crane-fly is named in honor of Dr. André VILLIERS, to whom I am greatly indebted for the opportunity to study various species of *Tipulidae* from IFAN. The fly is readily told from all other regional members of the subgenus by the unusually short yellow antennae, yellow legs, and pattern of the wings, where the dark markings all are restricted to the vicinity of the veins. The most similar regional ally is *Limnophila* (*Elæophila*) *marmoratæformis* (RIEDEL), which differs in the longer antennae and the abundantly dotted pattern of the cells of the wing.

Gnophomyia (Eugnophomyia) perlæta n. sp. (figs. 11, 15).

Head and outer four abdominal segments black, thorax and base of abdomen orange; antennae relatively long in both sexes; legs black, the femoral bases yellow, broadest on the posterior legs; wings blackened, with two major white discal areas before cord, additional to a vague subterminal brightening; abundant macrotrichia in wing cells; male hypopygium with the small inner dististyle with microscopic setulae.

♂. Length about 8.5-9 mm; wing 7.5-9 mm; antenna about 4.2-4.5 mm.

♀. Length about 10 mm; wing 9 mm; antenna about 3.5 mm.

Rostrum and palpi black. Antennae relatively long in both sexes; scape dark brown, pedicel and base of first flagellar segment more reddened, remainder of organ black; flagellar segments in male suboval, becoming more elongate outwardly; verticils short, restricted to the outer face, the somewhat bulging lower surface with a short dense white pubescence. Head black.

Thorax orange, the disk of the praescutum and the scutal lobes slightly darker or fulvous. Halteres orange. Legs with the coxae and trochanters orange; remainder of legs black, the femoral bases orange, including about the proximal third on the fore and middle legs and nearly the proximal two-thirds on the hind legs. Wings (fig. 11) with the ground blackened, the base yellowed; conspicuous white discal areas beyond arculus and before cord; a

much less evident whitening in the subapical cells ; veins dark brown, brighter in the pale fields. Abundant macrotrichia in the cells (their position shown in the figure by stippling), lacking or virtually so in the whitened area before the cord. Venation : *Sc* long, *Sc*₁ ending about opposite fork of *Rs*, *Sc*₂ removed from tip ; *R*₂ at or close to fork of *R*₂ + *3* + *4* ; *m-cu* approximately one-third to one-half its own length beyond the fork of *M*.

Abdomen orange, the sixth and succeeding segments, including the hypopygium, black. Male hypopygium (fig. 15) with the tergite transverse, the posterior border emarginate, the edge very thin and its exact limits probably variable. Basistyle, *b*, with the outer part produced caudad into an obtuse lobe. Dististyles, *d*, apparently two, including a large outer one that comprises a major blackened inner lobe and a more slender lateral spine, its tip acute ; inner style small, pale, covered with microscopic setulae. Aedeagus long and powerful, provided with long strong setae, as figured.

Holotype, ♂, Diani Beach, Kenya at sea-level, July 1951 (Noël L. H. Krauss). *Allotopotype*, ♀. *Paratopotypes*, 2 ♂♂.

Gnophomyia (*Eugnophomyia*) *perlæta* is most similar to *G. (E.) peramæna* ALEXANDER, of Nyasaland, differing especially in the coloration of the body, as the uniformly orange pleura, the wing pattern, and the more elongate antennae.

***Gonomyia* (*Idiocera*) *bistylata* n. sp. (fig. 16).**

Size relatively large (wing of male 7 mm) ; general coloration of mesonotum gray pruinose, the praescutum with two intermediate pale brown stripes ; antennal flagellum weakly bicolored, the segments brown with slightly paler tips ; knobs of halteres dark brown ; legs brownish yellow, terminal tarsal segments passing into black ; wings brownish yellow, restrictedly patterned with brown ; *Sc* short, *Sc*₁ ending opposite or just beyond the origin of *Rs* ; *m-cu* more than its own length before the fork of *M* ; male hypopygium with two dististyles ; apex of lobe of basistyle very obtuse ; aedeagus expanded and recurved at apex.

♂. Length about 5.5 mm ; wing 7 mm.

Rostrum and palpi brownish black. Antennae with scape and pedicel light yellow ; basal flagellar segments weakly bicolored, brown, the tips slightly paler, the outer segments more uniformly darkened. Head with anterior vertex buffy, posterior vertex gray pruinose.

Pronotal scutum brownish gray, paler on sides ; scutellum and pretergites pale yellow. Mesonotal praescutum gray pruinose, with two pale brown intermediate stripes that are separated by a ground vitta of subequal width ; lateral borders of the dark stripes slightly indented by the pale pseudosutural foveae ; humeral region of praescutum pale yellow ; scutum gray, the lobes patterned with pale brown ; scutellum pale brown, its posterior border yellow ; mediotergite brownish gray, the anterolateral part narrowly yellow, pleurotergite chiefly yellow, the ventral border narrowly brownish gray. Pleura yellow, indistinctly striped with more reddish brown, including a dorsal stripe from the propleura across the anepisternum, and a more ventral area, chiefly on the ventral sternopleurite. Halteres with stem yellow, knob dark brown. Legs with the coxae and trochanters yellow ; remainder of legs brownish yellow, the terminal tarsal segments passing into black. Wings with a weak brownish yellow tinge, the prearcular and costal fields somewhat clearer yellow ; a restricted brown pattern, as follows : Arculus ; origin of *Rs* and tip of *Sc* ; cord and *m-cu* ; fork of $M_1 + 2$ and end of vein *2nd A* ; paler brown suffusions at stigma and over the tips of the outer radial veins ; veins light brown to yellow, dark brown in the patterned areas. Venation : *Sc* short, *Sc*₁ ending nearly opposite to shortly beyond the origin of *Rs*, *Sc*₂ not far from its tip ; *Rs* square or strongly angulated at origin ; anterior branch of *Rs* more or less angulated at about one-third its length and, in cases, with a slight indication of *R*₂ ; vein *R*₃ erect, straight, vein *R*₄ longer, strongly upcurved on outer third ; cell *2nd M*₂ about one-half longer than its petiole ; *m-cu* more than its own length before the fork of *M*.

Abdominal tergites dark brown, the incisures and especially the posterior borders of the segments, narrowly pale ; sternites pale yellow ; hypopygium brownish yellow. Male hypopygium (fig. 16) with the lobe of the basistyle, *b*, stout, obtuse at apex, with numerous strong setae to the very tip. Only two dististyles, *d*, the outer one blackened, bifid into two unequal arms, the outer about twice the length of the inner, very gradually narrowed to the acute tip. Inner style a slender simple rod, its ventral margin with about six stout spinous setae, before apex with two longer and more delicate bristles from somewhat larger tubercles. Aedeagus, *a*, of distinctive conformation, the stem slender, at apex expanded into a more flattened portion that is strongly decurved, the truncated apex microscopically serrulate ; before tip with an acute spinous point.

Holotype, ♂, Elgon Sawmill, Camp II, Mount Elgon, Kenya, altitude 2470 m, December 1932 (Omo Expedition); Paris Museum.

Paratopotypes, ♂, one badly broken specimen, presumed to be a ♀ from its larger size. The personnel of the Omo Expedition to Kenya and Mount Elgon, 1932-33, included Messrs. C. Arambourg, P. A. Chappuis and R. Jeannel.

Gonomyia (Idiocera) bistylata is readily distinguished from all other Tropical African members of the subgenus by the weakly patterned wings and, especially, the structure of the male hypopygium.

***Gonomyia (Idiocera) spuria* BERGROTH.**

Gonomyia spuria BERGROTH, *Ent. Tidskr.*, **9** : 134-135, 1888.

IFAN : Malika, Sénégal, April 1950 (A. Villiers).

The species hitherto was known only from Southeastern Africa (Mozambique, Transvaal, Natal, Cape Province) so the present great extension of range is noteworthy.

***Trentepohlia (Trentepohlia) melanoleuca* n. sp.**

Size small (wing of female 5 mm or less) ; general coloration of thorax fulvous, paler yellow behind ; antennae with scape and pedicel yellowish brown, flagellum black ; femora dark brown, tibiae and tarsi abruptly snowy white ; wings faintly tinged with gray, unpatterned ; vein R_3 suberect, apical fusion of veins Cu_1 and 1st A short ; abdomen yellow, the pleural membrane dark brown.

♀. Length about 5.8-6 mm ; wing 4.6-5 mm.

Rostrum light yellow ; labial palpi light brown ; maxillary palpi with first segment obscure yellow, outer segments black. Antennae relatively long, if bent backward extending about to the root of the halteres ; scape and pedicel yellowish brown, flagellum black ; flagellar segments subcylindrical, a little longer than the verticils. Head dark brown, paling to brownish yellow behind ; anterior vertex very narrow, carinate.

Pronotum and cervical region darkened above, paler on sides. Mesonotal praescutum brownish yellow to fulvous, the posterior sclerites of notum pale yellow. Pleura, including the dorsopleural region, brownish yellow, the posterior sclerites, including the pteropleurite, meron, and metapleura, paler yellow. Halteres with

stem yellow, knob weakly infuscated. Legs with the coxae fulvous, posterior pair paler; trochanters yellow; femora dark brown, the bases a trifle brighter; tibiae and tarsi abruptly snowy white, the terminal tarsal segment darkened. Wings faintly tinged with grey, the prearcular and costal fields a trifle more yellowed; veins pale brown, unusually glabrous. Venation: R_s a little longer than the basal section of R_5 ; $R_2 + 3 + 4$ about one-third longer than $R_3 + 4$, vein R_3 suberect; $m-cu$ just before the fork of M ; apical fusion of veins Cu_1 and $1st A$ short.

Abdomen yellow, the pleural membrane dark brown.

Holotype, ♀, Kindia, French Guinea, May, 25, 1955 (F. Schmid).

Paratopotypes, 3 ♀♀, on a single pin.

The most similar regional species is *Trentepohlia* (*Trentepohlia*) *hyalina* ALEXANDER, of the Cameroons, which is readily told by the pale yellow legs and other characters.

Erioptera (Podoneura) apphicion n. sp. (figs. 12, 17).

General coloration of thorax gray, the praescutum with three narrow black stripes, scutellum extensively yellow; antennae black, scape and pedicel yellow; thoracic pleura black, gray pruinose, variegated by yellow areas; knobs of (halteres brownish black; legs black; wings alternately white and pale brown, with a heavy darker brown pattern; male hypopygium with the gonapophysis blackened, the outer spine well-developed.

♂. Length about 4.5 mm; wing 4.8-5 mm.

♀. Length about 5 mm; wing 5.5 mm.

Rostrum and palpi brownish black. Antennae with the scape and pedicel light yellow, flagellum black; flagellar segments long-oval, shorter than the verticils. Head dull black; eyes large.

Pronotum light yellow, darkened medially. Mesonotal praescutum gray with three narrow but conspicuous black stripes, the central one slightly widened on anterior third; humeral region obscure yellow, pseudosutural foveae black; posterior sclerites of notum brownish black, presumably more pruinose in fresh specimens; scutellum broadly yellow behind. Pleura black, gray pruinose, with a conspicuous yellow area on sternopleurite and ventral pteropleurite and another on the metapleura; dorsopleural membrane conspicuously pale. Halteres with stem yellow, knob brownish black. Legs with coxae dark brown; trochanters yellowish brown; remainder of legs black unpatterned. Wings

(fig. 12) with the ground alternately white and pale brown, with a further heavy darker brown pattern ; white areas more extensive on anterior half of wing, at base and apex of cell R , most of R_1 , and in outer cells, with other pale areas in $1st\ M_2$ and the Anal cells ; the dark brown areas lie at origin of R_s , Sc_2 , cord, outer end of cell $1st\ M_2$, and as marginal spots at $R_1 + 2$, R_3 , Cu and the Anal veins, the marks at the wing tip very small or lacking ; veins brown, darker in the patterned areas. Venation : Sc_1 ending nearly opposite R_2 , Sc_2 far removed, at or beyond one-third the length of R_s ; R_2 and $R_2 + 3$ subequal ; a more or less distinct spur jutting into cell $1st\ M_2$ from the basal section of M_3 ; $m-cu$ nearly its own length before the fork of M ; fork of vein $2nd\ A$ extended.

Abdominal tergites black, sternites brownish black, the lateral borders of both restrictedly yellow, forming a pale lateral stripe ; hypopygium dark. Male hypopygium (fig. 17) most similar to that of *bequaertiana*, especially in the structure of the dististyles, d , the outer style with both points long and acute, the axial one longer ; no vestiture excepting microscopic setulae along the outer margin. Gonapophysis, g , distinctive in the long slender inner spine and a well-developed but shorter outer point.

Holotype, ♂, IFAN : mont Tonkoui, Côte d'Ivoire, in primaeval forest, 900-1 200 m, September 1-20, 1946 (A. Villiers). *Allotopotype*, ♀. *Paratopotypes*, 2 broken ♂, ♀.

The most similar described species is *Erioptera* (*Podoneura*) *bequaertiana* (ALEXANDER), of the high mountains of Uganda and the Belgian Congo. This likewise has the legs uniformly blackened, differing in the pattern of the wings and in the details of structure of the male hypopygium.

Toxorhina (Ceratocheilus) claripennis n. sp. (figs. 13, 18).

Size medium (wing of male 5 mm) ; general coloration of mesonotum brown, including three praescutal stripes and darkened interspaces, the lateral praescutal borders gray ; knob of halteres weakly darkened ; legs brown ; wings weakly brownish gray, entirely unpatterned, veins very pale brown ; Sc , ending opposite origin of R_s , the latter shorter than its anterior branch ; male hypopygium with two dististyles, the larger inner style with a strong horn on face ; arms of aedeagus short.

♂. Length, excluding rostrum, about 6.5 mm ; wing 5 mm ; rostrum about 3.3 mm.

♀. Length, excluding rostrum, about 8 mm ; wing 6 mm ; rostrum about 4 mm.

Rostrum black. Antennae black, of normal structure. Head brownish gray, clearer gray behind ; a distinct oval corniculus, the anterior vertex between it and the antennal bases blackened.

Cervical region and pronotum blackened. Praescutum with the disk chiefly occupied by three brown stripes, the posterior interspaces a trifle more brownish gray ; anterior lateral praescutal borders light gray ; posterior sclerites of notum gray, the scutal lobes patterned with darker. Pleura almost uniformly grayish brown, darker in male, especially dorsally. Halteres with stem yellowed, knob weakly infuscated. Legs with the fore coxae dark brown, the posterior pairs darker ; trochanters brownish yellow ; femora obscure yellow basally, passing into brown ; tibiae and tarsi darker brown. Wings (fig. 13) weakly brownish gray, entirely without pattern, prearcular and costal fields more yellowed ; veins very pale brown, inconspicuous against the ground. Veins beyond cord unusually glabrous, with only two or three trichia on each of veins R_5 , M_{1+2} and M_3 . Venation : Sc_1 ending opposite or just before origin of R_s , Sc_2 some distance from its tip ; anterior branch of R_s strongly elevated at origin, the outer two-thirds nearly parallel to R_{1+2} , the vein longer than R_s ; R_5 deflected strongly caudad, ending almost at the wing tip ; cell 1st M_2 large, subequal to the distal section of vein M_{1+2} ; $m-cu$ at fork of M .

Abdomen dark brown. Male hypopygium (fig. 18) with two dististyles, d , or profound branches of a single style ; outer style smaller, stout basally, curved and narrowed to the acute tip ; inner style narrowed to a subacute point, on face with a strong curved lobe or horn ; on microscope slide, this horn is directed cephalad or ventrad, not erect and on outer margin of style as in some allied forms. Gonapophyses appearing as broad flattened pale blades, not or scarcely expanded at ends. Arms of aedeagus, a , short, only about one-fourth as long as the length of the basistyle along its outer face.

Holotype, ♂, Salisbury, Southern Rhodesia, at light, April 3, 1956 (C. N. Smithers). *Allotopotype*, ♀, April 7, 1956.

From the other regional species of the subgenus having entirely unpatterned wings, including *Toxorhina* (*Ceratocheilus*) *gilesi*

EDWARDS) and *T. (C.) pollex* ALEXANDER, the present fly is closer to *gilesi*, of West Africa, differing in the trichiation of the wing veins, venation, and details of structure of the male hypopygium.

It is less close to *pollex*, which likewise has numerous macrotrichia on the outer wing veins.

Toxorhina (Toxorhina) tonkouiana n. sp. (figs. 14, 19).

Size small (wing of male 4.5 mm) ; general coloration plumbeous gray, unpatterned ; legs black ; wings whitish subhyaline, veins black ; male hypopygium with the dististyle single, at two-thirds the length suddenly narrowed into a spine, the outer face excavated at this point ; gonapophysis strongly dilated at outer end ; arms of aedeagus long and slender, exceeding the length of the outer face of basistyle.

♂. Length, excluding rostrum, about 5 mm ; wing 4.5 mm ; rostrum about 3 mm.

Rostrum brownish black to black, approximately two-thirds the wing. Antennae brownish black, relatively short ; flagellar segments oval, crowded. Head gray.

Thorax plumbeous gray, without evident pattern. Halteres with stem light brown, paler basally, knob dark brown. Legs with the coxae gray ; trochanters brownish yellow ; remainder of legs black, the femoral bases slightly brightened. Wings (fig. 14) whitish subhyaline, prearcular field more yellowed ; veins black, those at base paler. Venation : *Sc* variable in length, much longer in the holotype, extending about to one-fourth the length of *Rs*, in the paratype only slightly beyond the origin of the latter ; vein *R*₅ strongly decurved, ending virtually at the wing tip ; cell *1st M*₂ large, nearly as long as the distal section of *M*₁₊₂ ; *m-cu* shortly before the fork of *M*.

Abdomen dark brown, more or less pruinose ; hypopygium paler brown. Male hypopygium (fig. 19) with the dististyle, *d*, single, its basal two-thirds relatively stout, narrowed outwardly, the distal part suddenly narrowed into a slender beak, the upper margin with a low flange, the outer margin at point of narrowing strongly excavated. Gonapophysis strongly dilated at outer end. Arms of aedeagus, *a*, long and slender, exceeding the length of the outer face of the basistyle.

Holotype, ♂, IFAN : mont Tonkoui, Côte d'Ivoire, in primaeval forest, 900-1 200 m, September 20-30, 1946 (A. Villiers). *Paratype*, a broken specimen, sex uncertain.

The most similar described species is *Toxorhina (Toxorhina) grahami* (WESCHÉ), described from female specimens from Ashanti,

Gold Coast. Edwards later identified the species, presumably following comparison with the types, and his material is distinct from the present fly, especially in the hypopygial characters, as the dististyle, gonapophysis and aedeagus. I have determined materials of *grahami* from EDWARDS and had previously figured the hypopygium (Ruwenzori Report, 1934-35, 1, No. 7 : 368, fig. 187 ; 1956).

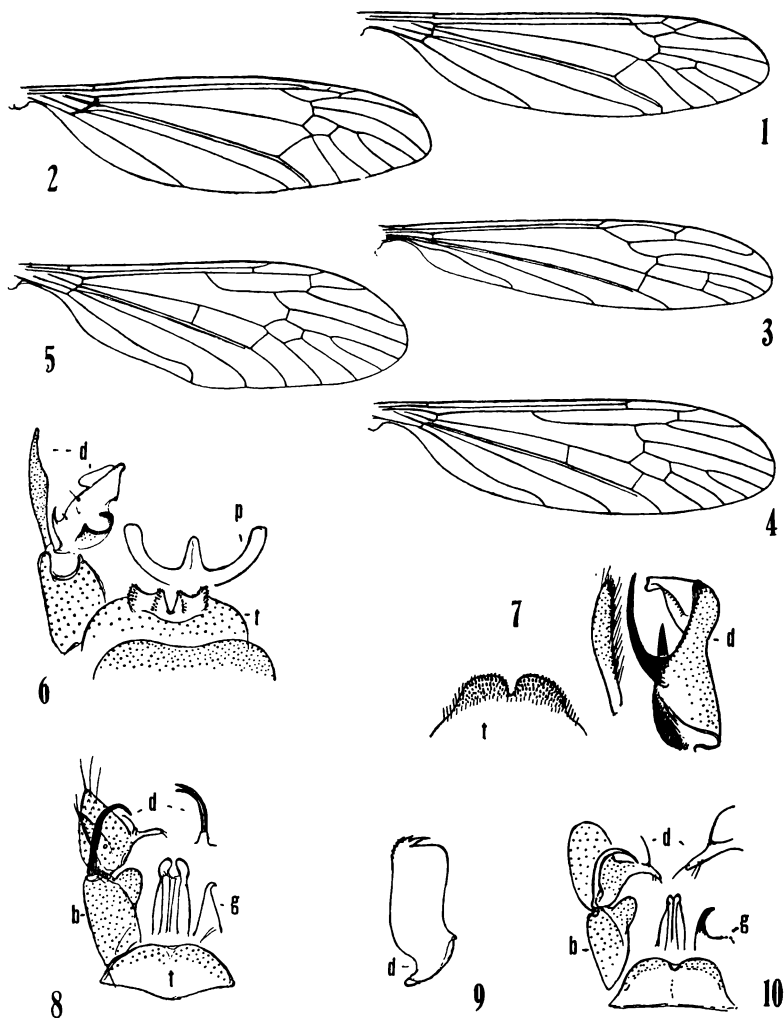


FIG. 1 à 10. — Fig. 1, *Nephrotoma fulvomedea* n. sp.; venation. FIG. 2, *Tipula* (*Acutipula*) *gola* n. sp.; venation. FIG. 3, *Limonia* (*Dicranomyia*) *neoguttula* n. sp.; venation. FIG. 4, *Limnophila* (*Elaeophila*) *smithersi* n. sp.; venation. FIG. 5, *Limnophila* (*Elaeophila*) *villiersi* n. sp.; venation. FIG. 6, *Nephrotoma fulvomedea* n. sp.; male hypopygium. FIG. 7, *Tipula* (*Acutipula*) *gola* n. sp.; male hypopygium. FIG. 8, *Limonia* (*Limonia*) *lophema* n. sp.; male hypopygium. FIG. 9, *Limnophila* (*Elaeophila*) *villiersi* n. sp.; male hypopygium. FIG. 10, *Limonia* (*Dicranomyia*) *neoguttula* n. sp.; male hypopygium (Symbols: b, basistyle; d, dististyle; g, gonapophysis; p, phallosome; t, tergite).

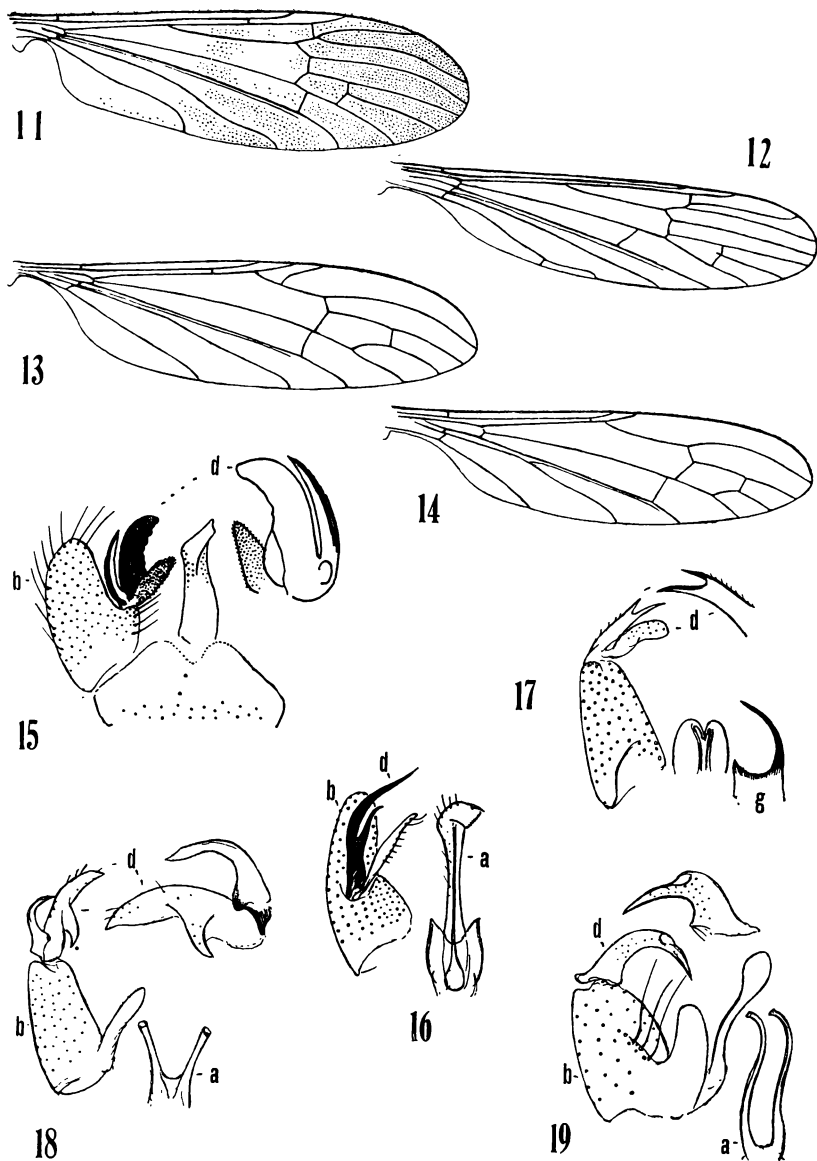


FIG. 11-19. — Fig. 11, *Gnophomyia* (*Eugnophomyia*) *perlæta* n. sp.; venation. Fig. 12 *Erioptera* (*Podoneura*) *aphidion* n. sp.; venation. Fig. 13, *Toxorhina* (*Ceratocheilus*) *claripennis* n. sp.; venation. Fig. 14, *Toxorhina* (*Toxorhina*) *tonkouiana* n. sp.; venation. Fig. 15, *Gnophomyia* (*Eugnophomyia*) *perlæta* n. sp.; male hypopygium. Fig. 16, *Gonomya* (*Idiocera*) *bistylata* n. sp.; male hypopygium. Fig. 17, *Eriopetra* (*Podoneura*) *aphidion* n. sp.; male hypopygium. Fig. 18, *Toxorhina* (*Ceratocheilus*) *claripennis* n. sp.; male hypopygium. Fig. 19, *Toxorhina* (*Toxorhina*) *tonkouiana* n. sp.; male hypopygium. (Symbols : a, aedeagus ; b, basistyle ; d, dististyle ; g, gonapophysis).