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**Contributions à l'étude
de la faune entomologique du Ruanda-Urundi
(Mission P. BASILEWSKY 1953)**

XXVII. Diptera Ptychopteridae et Tipulidae

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I am greatly indebted to Mr. P. BASILEWSKY, Chief of the Entomological Section of the Musée Royal du Congo Belge, for the opportunity to study the crane-flies, Ptychopteridae and Tipulidae, taken by him on his recent trip to the eastern Congo. Despite the relatively small number of species, the collection proved to be of unusual interest and added materially to our knowledge of this prolific region. Types and uniques of the species have been returned for deposition in the Musée Royal du Congo Belge; duplicates of certain of the species have been retained in my own collection.

Fam. **PTYCHOPTERIDAE**

Ptychoptera basilewskyi, sp. n.

General coloration black, the fourth abdominal tergite and basal sternites brightened; coxae pale, the posterior pair more infuscated; femora obscure yellow, the tips passing into black; tibiae and basitarsi brownish black, remainder of tarsi black; wings brownish yellow with a narrow entire crossband at cord; veins R_1 and R_{2+3} approximated, narrowing the cells and shortening vein R_2 , the latter transverse; male hypopygium with the tergal lobes and dististyle very long and slender, acute at tips.

Male. — Length about 8 mm.; wing 7.5 mm.; antenna about 6 mm.

Mouthparts yellow; palpi obscure brownish yellow, the terminal segment a little darker. Antennae brownish black, more than three-fourths the length of wing; flagellar segments elongate-cylindrical, the dorsal verticils long, the ventral series short, approximately twice as long as the dense pale pubescence. Head intensely polished black.

Thoracic dorsum black, somewhat less polished than the head, the anteromedian region of the praescutum and the central part of the scutellum vaguely more reddened. Pleura and pleurotergite black. Halteres with stem weakly darkened, the base narrowly yellowed, the knob dark brown. Legs with the fore and middle coxae brownish yellow, the posterior pair more

strongly infuscated; trochanters yellowish brown; femora obscure yellow, the tips passing into black; tibiae and basitarsi brownish black, the remainder of tarsi black. Wings (fig. 1) brownish yellow, the costal border narrowly more brownish yellow; posterior prearcular region paler; wing apex as far basad as the fork of R_{4+5} weakly infuscated; a narrow conspicuous darker brown crossband at the cord, widest at anterior end, gradually narrowed behind, becoming obsolete at the bend of the distal section of vein *Cu*, the band solidly colored, not interrupted by subhyaline areas, as in *ghesquierei*; no darkened clouds at the forks of the veins; veins brown, pale in the costal field. Abundant macrotrichia in outer wing cells, involving the outer two-thirds or more of the radial and medial cells, extending more basad in cell M_3 ; basad of cord with trichia in outer end of cell *Cu*. Venation: R_1 and R_{2+3} approximated, narrowing the cells and shortening the transverse vein R_2 ; *r-m* joining R_5 some distance beyond origin.

Abdominal tergites chiefly black, the fourth segment orange, the third and outer end of the second vaguely brightened; basal and intermediate sternites more extensively yellowed; outer lobes and appendages of the hypopygium paling to obscure yellow. Male hypopygium (fig. 2) with the ninth tergite, *9t*, profoundly divided into two long slender decurved lobes that gradually narrow into acute points, before apex on mesal face with a small knob or tubercle. Basistyle, *b*, entirely distinct from both the tergite and the sternite. Disistyle, *d*, similarly long and slender, gradually narrowed to the acute apex, the surface with long conspicuous setae, those of the ventral portion more evident; a very short stout lobe at base of style, tipped with abundant black setae, with a longer and more slender lobule immediately beyond directed inwardly. Ninth sternite *9s*, extensive, on posterior margin at near the middle of its height with a small flattened pale blade that is margined with several very long black setae. Central organs of genital chamber orange, not sufficiently clear in the unique dried type to be described or figured.

Holotype, ♂, Urundi: Bururi, 1,800-2,000 meters, March 5-12, 1953 (P. BASILEWSKY).

I take great pleasure in naming this very interesting fly for Mr. BASILEWSKY, who has added materially to our knowledge of the African crane-fly fauna. The most similar regional species include *Ptychoptera uelensis* ALEXANDER and *P. ghesquierei* (COLLART), which have the thorax uniformly darkened, as in the present fly, differing in details of pattern and venation of the wings. The male hypopygium of these two species has not been described. In the present fly, the extreme length and slenderness of the tergal lobes and the dististyle reach the maximum as known for any species in the local fauna.

The members of the genus now known from the Ethiopian region, including Madagascar, are as follows:

Ptychoptera africana ALEXANDER; Entomologist, 53: 101-102; 1920. Southern Nigeria.

- P. basilewskyi*, sp. n.; described herewith. Belgian Congo : Urundi.
- P. camerounensis* ALEXANDER; Insec. Inscit. Menst., 9 : 145-146; 1921. Cameroon.
- P. capensis* ALEXANDER; Ann. South African Mus., 17 : 139-140, p.l 10, fig. 1 (wing); 1917. Natal, Transvaal.
- P. ghesquièrei* (COLLART); Bull. Mus. Roy. Hist. Nat. Belgique, 11, n° 3 : 1-4, fig. (wing), as *Liriope*; 1935. Belgian Congo : Eala.
- P. hopkinsi* EDWARDS; Stylops, 1 : 99; 1932. Uganda.
- P. madagascariensis* ALEXANDER; Bull. Brooklyn Ent. Soc., 32 : 142-143; 1937. Madagascar.
- P. uelensis* ALEXANDER; Rev. Zool. Bot. Africaine, 16 : 25-26, fig. (wing); 1928. Belgian Congo : Upper Uele.

Fam. **TIPULIDAE**

TIPULINAE

***Nephrotoma chaetopyga* ALEXANDER**

Nephrotoma chaetopyga ALEXANDER; Ann. Mag. Nat. Hist., (9) 7 : 98-99; 1921. Urundi : Bururi, 1.800-2.000 meters, March 5-12.1953 (P. BASILEWSKY).

***Nephrotoma fuscipennis triflava* ALEXANDER**

Nephrotoma fuscipennis triflava ALEXANDER; Ann. Mag. Nat. Hist., (9) 7 : 107; 1921.

Urundi : Bururi, 1.800-2.000 meters, March 5-12.1953 (P. BASILEWSKY). Formerly from Uganda and Tanganyika.

***Nephrotoma ruanda*, sp. n.**

General coloration black, including the head and thorax, antennae, halteres and legs; vertical tubercle orange; abdomen black, the basal ring of second tergite and basal two sternites orange; wings with a strong brownish tinge; male hypopygium with the outer dististyle long and narrow; inner dististyle very slender, with a large membranous dorsal crest, the outer basal lobe heavily blackened; eighth sternite large and sheathing, the convexly rounded posterior margin with abundant long coarse setae.

Male. — Length about 11 mm.; wing 12.5 mm.; antenna about 5 mm.

Frontal prolongation of head uniformly black; nasus elongate; palpi black. Antennae black throughout; flagellar segments rather strongly incised, a little exceeding the verticils. Head black, with an extensive dull orange area involving the unusually high and conspicuous vertical tubercle and the posterior vertex immediately behind, the posterior part of head and the narrow orbits black.

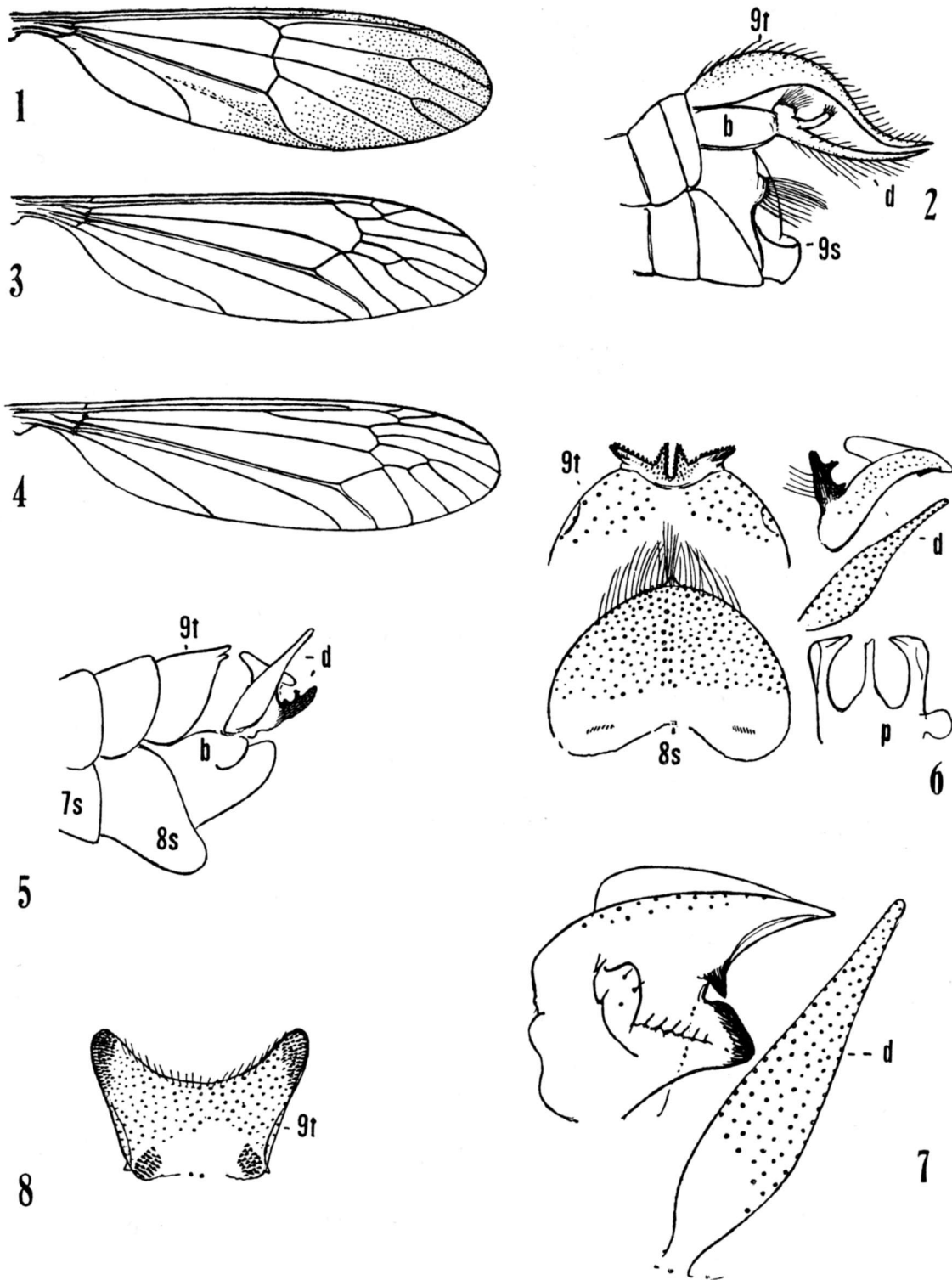


Fig. 1. — *Ptychoptera basilewskyi*, sp. n.; venation.
 Fig. 2. — *Ptychoptera basilewskyi*, sp. n.; male hypopygium, lateral.
 Fig. 3. — *Nephrotoma ruanda*, sp. n.; venation.
 Fig. 4. — *Tipula (Afrotipula) infracta*, sp. n.; venation.
 Fig. 5. — *Nephrotoma ruanda*, sp. n.; male hypopygium, lateral.
 Fig. 6. — *Nephrotoma ruanda*, sp. n.; male hypopygium, details.
 Fig. 7. — *Nephrotoma subdentata*, sp. n.; male hypopygium, details.
 Fig. 8. — *Tipula (Afrotipula) infracta*, sp. n.; male hypopygium, tergite.

(Symbols: *a*, aedeagus; *b*, basistyle; *d*, dististyle; *g*, gonapophysis; *p*, phallosome; *s*, sternite; *t*, tergite).

Thorax uniformly black, the surface subnitidous. Halteres black. Legs uniformly black, coxae faintly pruinose; claws toothed. Wings (fig. 3) with a strong brownish tinge, the small stigma still darker; prearcular and costal regions slightly darker; veins dark brown. About 15 trichia in proximal end of stigma. Venation: Sc_2 ending opposite origin of the short R_s ; cell M_1 barely sessile.

Abdomen black, the basal ring of the second tergite, and proximal two sternites orange; a vague brightening at base of third tergite. Male hypopygium (figs. 5, 6) with the ninth tergite, $9t$, having the posterior border produced into two low lobes, separated by a very narrow U-shaped notch, the lobes further bilobulate by a shallow emargination, the mesal lobule slender, the lateral one low and flat, both with abundant black apicules. Ninth sternite, $9s$, produced caudad beyond the level of the basistyle. Outer dististyle, d , unusually long and narrow, especially on outer half. Inner dististyle distinctive, very slender, with a large membranous dorsal crest; outer basal lobe a strong blackened structure that bears smaller spinose points. Phallosome, p , with the apophyses appearing as flat darkened blades, incurved at tips toward the aedeagus, at base produced into a small oval pale blade on either side. Eighth sternite, $8s$, large and sheathing, the posterior border convexly rounded, provided with abundant long coarse setae, longer and more conspicuous at and near the midline where the plate is slightly produced; a weak median furrow extends backward about one-half the distance, margined with strong setae.

Holotype, ♂, Ruanda: Rutovu, forêt du Rugege, 2,350 meters, January 20-23.1953 (P. BASILEWSKY).

In its general appearance and structure of the male hypopygium, the present fly is most like *Nephrotoma chaetopyga* ALEXANDER, differing in all details of coloration and structure of the hypopygium.

***Nephrotoma ruwenzoriana* ALEXANDER**

Nephrotoma ruwenzoriana ALEXANDER; Bull. Amer. Mus. Nat. Hist., 43: 20, fig. 6; 1920.

Nephrotoma ruwenzoriana ALEXANDER; Rev. Zool. Africaine, 11, fasc. 1: 14-16; 1923.

Ruanda: Rutovu, forêt du Rugege, 2,350 meters, January 20-23.1953 (P. BASILEWSKY).

Urundi: Bururi, 1,800-2,000 meters, March 5-12.1953 (P. BASILEWSKY).

The type was from the Congo side of Mount Ruwenzori, at an altitude of 3,000 meters. Frontal prolongation of head obscure yellow on sides, narrowly black above, including the nasus. Occipital band and darkening very small. The females have the anterior part of the mediotergite yellow, one with the scutellum likewise yellow, the other black. Abdomen uniformly black, one female with the second tergite extensively yellowed.

Nephrotoma subdentata, sp. n.

General coloration of mesonotum pale yellow, the praescutum with three brown stripes, the lateral pair appearing outcurved; antennae (male) relatively long, nearly one-half the body; fore femora black, the basal third yellow, remaining femora chiefly yellow with about the outer fourth black; abdominal tergites yellow, the posterior borders of the segments with a subcircular brown spot, these becoming smaller on outer segments; eighth segment blackened, forming a narrow subterminal ring; male hypopygium with the lower margin of beak of the inner dististyle produced into a blackened spine or tooth.

Male. — Length about 10-10.5 mm.; wing 10.5-11 mm.; antenna about 4.5-5 mm.

Female. — Length about 12-16 mm.; wing 11-13.5 mm.

Frontal prolongation of head short, polished yellow, the slender nasus darker; palpi brown. Antennae (male) relatively long; scape and pedicel yellow, flagellum brownish black to black, the basal swellings a trifle darker; flagellar segments longer than the verticils. Head orange; occipital brand relatively small and inconspicuous; vertical tubercle high, virtually entire.

Pronotum orange yellow. Mesonotal praescutum with the restricted ground pale yellow, with three brown stripes, the anterior end of the median stripe restrictedly paler, lateral stripes appearing outcurved to the border; scutum yellow, the lobes extensively blackened; scutellum reddish yellow; mediotergite whitened, the posterior border narrowly darker pleurotergite reddish yellow, the anterior half more whitened, confluent with a similar area on the pteropleurite; remainder of pleura reddish, the dorso-pleural region pale yellow. Halteres infuscated, the base of stem narrowly reddened. Legs with the coxae and trochanters yellow; fore femora black, the basal third yellow, remaining femora chiefly yellow, with about the outer fourth blackened; tibiae brown, the tips narrowly dark brown tarsi passing into black; claws toothed. Wings tinged with brown, the prearcular and costal fields more yellowish brown; stigma oval, darker brown, with sparse trichia; veins brown, more yellowish brown in the brightened fields. A very few trichia in extreme outer end of cell R_5 . Venation: R_s about one-half longer than the basal section of R_{4+5} ; cell M_1 short-petiolate to narrowly sessile; $m-cu$ a short distance before fork of M .

Abdominal tergites yellow, the posterior borders with a subcircular brown spot, not pointed at anterior end, the areas becoming smaller on outer segments; eighth segment blackened, forming a narrow subterminal ring; sternites and hypopygium yellow. Male hypopygium (fig. 7) generally as in *thysia*, with the ninth tergite, outer dististyle, gonapophysis, and eighth sternite much the same. Inner dististyle, d , with the beak slender; dorsal crest low and pale, precipitous behind; base of lower beak produced into an acute blackened spine, directed toward the broadly obtuse blackened lower beak, suggesting the specific name.

Holotype, ♂, Kilembe, Ruwenzori Range, Uganda, 4,500 feet, December 1934-January 1935 (FRED W. EDWARDS); British Museum (Natural History). *Allotopotype*, ♀. *Paratype*, 1 ♂, Fort Portal, Ruwenzori Range, Uganda, 5,000 feet, December 1934-January 1935 (EDWARDS); 1 ♂, Kalinzu Forest, southwest Uganda, January 1935 (T. H. E. JACKSON), British Museum; 3 ♀♀, Bururi, Urundi, Belgian Congo, 1,800-2,000 meters, March 5-12, 1953 (P. BASILEWSKY). Additional material from the type locality in the British Museum (EDWARDS N° 56).

The present fly was one of rather numerous species of *Nephrotoma* discovered by EDWARDS on Mount Ruwenzori. It is most nearly allied to *Nephrotoma thysia* ALEXANDER, differing in details of coloration and of the male hypopygium, as described above.

Tipula LINNAEUS

Afrotipula, subgen. nov.

Frontal prolongation of head short and stout; nasus short. Tibial spur formula 1-1-2; claws (male) simple. Wings without squamal setae; veins beyond cord with abundant trichia. Venation: Cell M_1 sessile; $M_3 + 4$ long, more than twice $r-m$; $m-cu$, basal section of M_3 and m in oblique alignment. Male hypopygium small, the tergite, sternite and basistyle fused into a continuous ring. Outer dististyle conspicuously bifid. Ovipositor with the cerci long and slender, straight; hypovalvae short, compressed-flattened, the tips obtusely rounded.

Type of subgenus. — *Tipula* (*Afrotipula*) *infracta*, sp. n. (Ethiopian Region). *Tipula* (*Afrotipula*) *brachycera* RIEDEL likewise belongs here.

The most nearly related subgeneric groups include *Tipula* LINNAEUS, *Yamatotipula* MATSUMURA, and *Acutipula* ALEXANDER. Because of the combination of characters listed above, it appears inadvisable to place these flies in any of these groups. The sessile cell M_1 gives an appearance somewhat as in *Nephrotoma* MEIGEN, *Ozodicera* MACQUART, and some other unrelated groups.

Tipula (**Afrotipula**) **infracta**, sp. n.

Size large (wing, male, over 18 mm.); antennae (male) elongate; general coloration grayish brown, the praescutum with four poorly defined more reddish brown stripes that are narrowly bordered by darker; wings yellowish brown, with a very restricted dark pattern, including a linear area in cell R_1 before the stigma; abdominal segments conspicuously bicolored.

Male. — Length about 17-19 mm.; wing 18-19 mm.; antenna about 6.5-8 mm.

Frontal prolongation of head brown above, darker below; palpi black. Antennae elongate; basal three or four segments yellow, the succeeding flagellar segments with the small basal enlargements more blackened, the pe-

diells yellowish brown to light brown, the outermost segments more uniformly darkened; verticils long and conspicuous, the longest a little shorter than the segments. Head brown; vertical tubercle low, with a deep median split; anterior vertex broad.

Pronotum light brown. Mesonotal praescutum with the ground grayish brown, with four poorly defined more reddish brown stripes that are best-delimited by still darker borders, the lateral margins of the intermediate pair of stripes becoming subobsolete; scutum chiefly reddish brown; scutellum and mediotergite yellow with a central brown line, broadest on the scutellum; pleurotergite with the suture between the anapleurotergite and katapleurotergite deeply incised and weakly darkened. Pleura, including the dorsopleural membrane, chiefly yellow, the ventral sclerites somewhat more darkened. Halteres infuscated, base of stem yellow, knob somewhat more intensely darkened. Legs with the coxae brownish yellow; trochanters yellow; femora yellow, the tips weakly darkened, the amount subequal on all legs; remainder of legs yellow, the tibial tips even less infuscated; outer tarsal segments passing into black. Wings (fig. 4) with a yellowish brown tinge, the costal region somewhat brighter yellow; a restricted and inconspicuous brown pattern, the darker areas at origin of *Rs*, a linear dash in cell R_1 before the paler brown stigma, and very inconspicuous darkenings along cord and outer end of cell $1st\ M_2$; still less evident marginal clouds at ends of veins, smallest at and near wing tip; centers of outer radial cells vaguely clouded; cell Cu_1 more infuscated; veins brown, Si_1 , R_2 , *m-cu* and some adjoining veins somewhat more yellowish brown. Venation: *Rs* elongate, about twice the long *m-cu*; R_{1+2} strongly persistent, in direct longitudinal alignment with R_1 ; cell $1st\ M_2$ elongate, strongly pointed at outer end, cell M_1 narrowly to more broadly sessile; M_{3+4} longer than basal section of M_{1+2} and nearly equal to basal section of M_3 ; cell M_4 short and broad, *m-cu* being only a little shorter than either M_4 or distal section of Cu_1 .

Abdomen conspicuously bicolored; tergites with a major brown central area on the posterior ring, the basal clearing yellow, lateral tergal borders broadly gray, the posterior margins very narrowly pale; sternites yellow, trivittate with dark brown, interrupted on the basal rings, outer sternites more uniformly darkened; hypopygium yellow. Male hypopygium (fig. 8) with the tergite, *9t*, produced into a broadly transverse plate, the caudal margin of which is shallowly emarginate; lateral lobes long and conspicuous, each with a dense group of blackened peglike spines, with a smaller similar patch of spines at the cephalic lateral part of the plate; remainder of tergal surface with unusually strong setae, the more basal and lateral ones longer and more powerful. Basistyle very small, unarmed. Outer dististyle pale and translucent, deeply bilobed, the more dorsal or anterior lobe larger, more obtuse at apex.

Holotype, ♂, Fort Portal, Ruwenzori Range, Uganda, 5,000 feet, December 4, 1934 (FRED W. EDWARDS); N° 25. *Paratopotype*, 1 ♂; 5 additional

males in British Museum; « mostly taken in house at light. No females seen »
EDWARDS. *Paratype* ♂, Nyabikenke, terr. Nyanza, Ruanda, Belgian Congo,
1.700 meters, January 12, 1953 (P. BASILEWSKY).

Readily distinguished from the only other member of the subgenus at present known, *Tipula* (*Afrotipula*) *brachycera* RIEDEL, by the long antennae, and the pattern of the wings and body.

***Tipula* (*Acutipula*) *urundiana*, sp. n.**

Size large (wing, male, over 20 mm.); mesonotum with four brownish gray stripes that are broadly margined with brownish black; mediotergite yellow, with two large oval brownish black areas on disk; pleura yellow, with a brown dorsal stripe; femora brownish yellow, the tips black; claws (male) bidentate; wings with a brownish tinge, restrictedly patterned with darker brown and obscure whitish, the latter including an area before cord, crossing cell *1st M*₂ into the bases of cells *M*₁ to *M*₃, inclusive; narrow brown seams on anterior cord and over posterior end of *m-cu*; abdomen reddish brown, the tergites with three brownish black stripes; male hypopygium with the tergite produced into a central plate, the apex weakly notched and spiculate; inner dististyle with a low rounded lobe on outer margin near base provided with about sixteen spinous setae.

Male. Length about 21-22 mm.; wing 22-23 mm.; antenna about 4-4.1 mm.

Female. Length about 27 mm.; wing 26 mm.

Frontal prolongation of head obscure fulvous above, darker on sides; nasus elongate; palpi black. Antennae with scape and pedicel yellow; first flagellar segment brownish yellow, succeeding segments passing into brown; basal enlargements small, verticils very long, the longest about one-fourth longer than the segment. Head above fulvous, darkened behind the eyes and beneath; vertical tubercle very low to scarcely evident; anterior vertex relatively narrow, about three times the greatest diameter of scape.

Pronotum yellow medially, with a brownish black spot on sides. Mesonotal praescutum with the ground brownish black, representing the broad borders of four more brownish gray stripes, lateral praescutal margins restrictedly obscure yellow; each scutal lobe with two confluent brownish gray areas bordered by brownish black, the central region restrictedly yellow; scutellum light yellow, parascutella black; mediotergite yellow, with two large oval brownish black areas separated by a nearly equal central ground area, the posterior border broadly yellow; pleurotergite darkened above, yellow beneath. Pleura yellow with a conspicuous dorsal brown stripe, extending from the cervical region to the wing root, including the most dorsal pleurites. Halteres slender, dark brown. Legs with the coxae and trochanters yellow; femora obscure brownish yellow, the tips black; tibiae brownish yellow, the tips more narrowly and gradually infuscated; tarsi passing into black; claws (male) with two teeth, the outer one larger. Wings (fig. 9) with a brownish tinge, restrictedly patterned with darker brown and obscure whitish areas; prearcular and costal fields darker, especially cell *Sc*; stigma

brown; narrow brown seams at anterior cord, in bases of cells R_3 and R_5 , and over $m-cu$, the last widened behind; the whitened areas lie before cord, crossing cell $1st\ M_2$ and including the bases of cells M_1 , $2nd\ M_2$ and M_3 ;

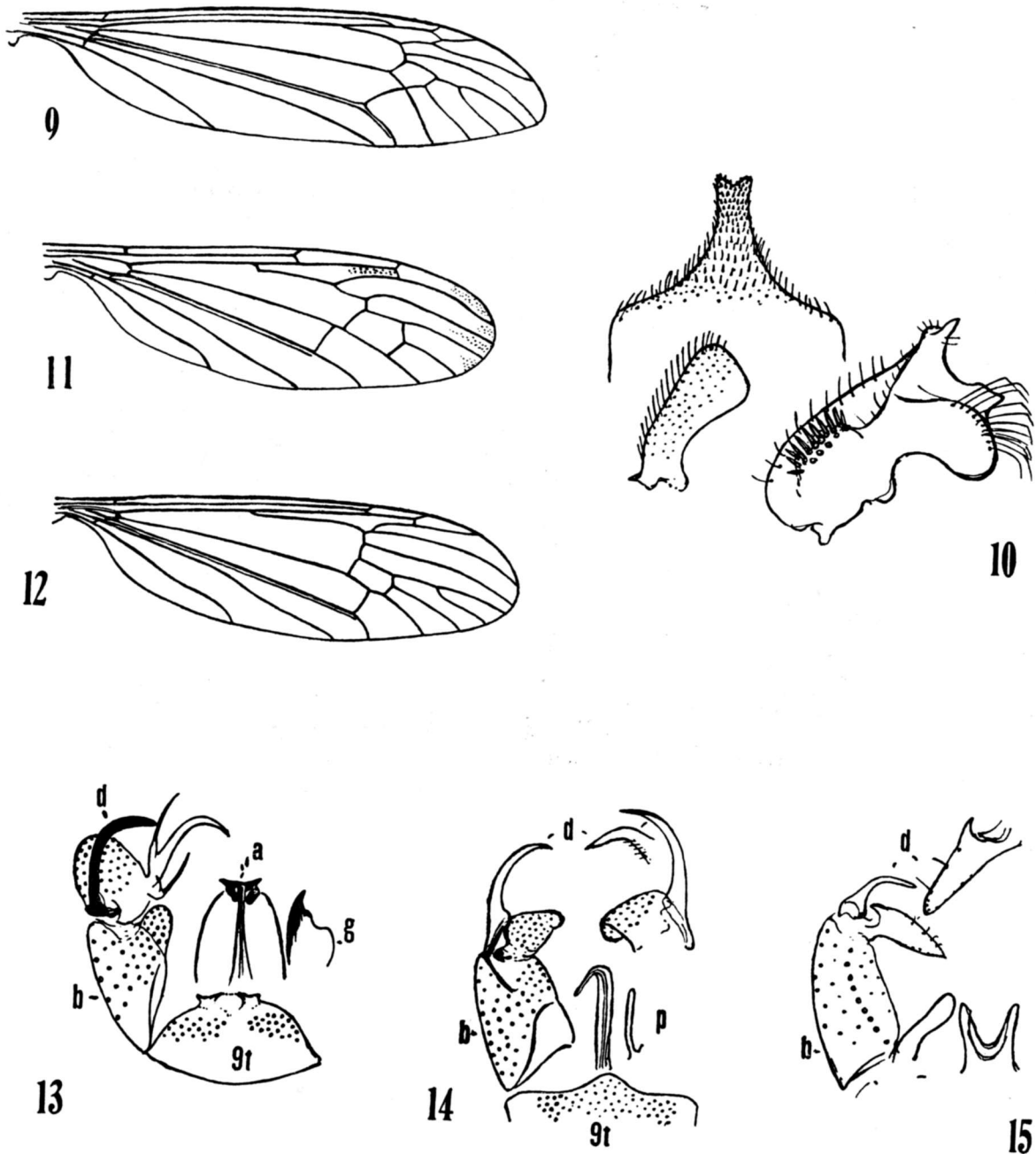


Fig. 9. — *Tipula (Acutipula) urundiana*, sp. n.; venation.
 Fig. 10. — *Tipula (Acutipula) urundiana*, sp. n.; male hypopygium, details.
 Fig. 11. — *Limonia (Metalimnobia) oligotricha*, sp. n.; venation.
 Fig. 12. — *Limnophila (Afrolimnophila) urundiana*, sp. n.; venation.
 Fig. 13. — *Limonia (Metalimnobia) oligotricha*, sp. n.; male hypopygium.
 Fig. 14. — *Limnophila (Afrolimnophila) urundiana*, sp. n.; male hypopygium.
 Fig. 15. — *Toxorhina (Ceratocheilus) scychellarum subimmaculata*, subsp. n.; male hypopygium.

veins brown. Squama with setae. Venation: Cell R_2 relatively broad; M_{3+4} subequal to or longer than basal section of M_{1+2} ; petiole of cell M_1 and m subequal.

Abdominal tergites reddish brown to darker brown, with three broad brownish black stripes, the posterior borders of segments very narrowly pale; sternites yellow; hypopygium chiefly dark brown. Male hypopygium (fig. 10) with the ninth tergite, *9t*, produced posteriorly into a narrow central plate, its apex shallowly notched, the lower face back from tip with two parallel flanges; apex of lobe with abundant black spinous setae that become more elongate back from the tip, merging gradually into normal setae. Outer dististyle, *d*, large, pale, the apex truncated, the outer half slightly broader than the base; setae numerous, lacking on the obtuse outer apical portion. Inner dististyle with the beak compressed flattened, obtuse at apex, the outer margin with more than a score of long setae that are angularly bent before the long-produced tips; base of style on outer margin with a rounded lobe provided with about sixteen or seventeen strong spinous setae.

Holotype, ♂, Urundi: Bururi, 2,000 meters, March 5-12, 1953 (P. BASILEWSKY). *Allotopotype*, ♀. *Paratopotype*, ♂.

This large and conspicuous fly is most similar to *Tipula (Acutipula) alphaspis* SPEISER and a group of allied forms in Tropical Africa, differing in the pattern of the wing and the structure of the male hypopygium.

LIMONIINAE

LIMONIINI

***Limonia (Metalimnobia) oligotricha*, sp. n.**

Mesonotal praescutum obscure yellow with four brown stripes; scutal lobes conspicuously blackened on mesal margin; scutellum greenish yellow narrowly darkened medially; mediotergite brownish black with a yellow triangular area on cephalic half; femora yellow, with four dark brown rings, the outermost subterminal; wings pale yellow, conspicuously patterned with dark areas and pale brown clouds; sparse macrotrichia in stigmal area and in outermost wing cells; male hypopygium with the rostral prolongation of the ventral dististyle elongate, narrowed to an acute point, the rostral spines from long basal tubercles; aedeagus very broad.

Male. Length about 9.5-10 mm.; wing 11-11.5 mm.

Female. Length about 12 mm.; wing 10 mm.

Rostrum and palpi black. Antennae black, the scape and base of pedicel yellow; proximal flagellar segments short and crowded, with short verticils, the outer segments elongate, the verticils very long and conspicuous, more than one-half longer than the segments. Head brownish gray; anterior vertex moderately wide, approximately equal to the greatest diameter of the scape.

Pronotum brown medially, the lateral borders narrowly yellow. Mesonotal praescutum obscure yellow, with four brown stripes, the intermediate pair narrow, the lateral stripes broad, reaching the margin; central interspace broad; scutum testaceous medially, the lobes obscure brownish yellow, their

mesal edge broadly blackened, the outer part of disk more narrowly so; scutellum greenish yellow, narrowly darkened medially, the parascutella more obscure; mediotergite brownish black with an elongate central yellow triangle on anterior half, the point directed backward; posterior portion of mediotergite paling to obscure yellow. Pleura brownish yellow, patterned vertically with darker on anterior border of mesepisternum and on the pteropleurite; ventral sternopleurite weakly darkened. Halteres with stem brownish yellow, the extreme base clearer, knob infuscated, with greenish tints. Legs with the coxae weakly infuscated; trochanters yellow; femora yellow, with four narrow dark brown rings, the outermost subterminal, the basal ring subobsolete; tibia yellow basally. Wings (fig. 11) with the ground color pale yellow, conspicuously patterned with dark and paler brown, the darkest pattern chiefly on anterior half of wing, with four areas in cell *R*, the third at origin of *Rs*, the fourth at the fork; narrow and less distinct dark seams over the remainder of cord and outer end of cell *1st M*₂; remainder of wing with extensive paler brown washes and clouds, chiefly involving the peripheral cells, *M* being most nearly free from pattern; veins brown. Sparse macrotrichia in stigmal region and in outer ends of cells *Sc*₂ to *2nd M*₂, inclusive (shown in figure by stippling). Venation: *Sc*₁ ending about opposite midlength of *Rs*, *Sc*₂ near its tip; second section of vein *R*₄₊₅ strongly arched beyond origin; *m-cu* a short distance before fork of *M*.

Abdominal tergites obscure brownish yellow, darker on posterior borders and less evidently so on sides; sternites clear yellow, weakly darkened posteriorly; hypopygium brownish yellow. Ovipositor with the cerci relatively slender, gently upcurved. Male hypopygium (fig. 13) with the tergite, *9t*, transverse, the caudal border slightly produced on either side of the midline. Basistyle, *b*, relatively small. Dorsal dististyle, *d*, strongly curved. Ventral dististyle very small, its total area about three-fifths that of the basistyle; rostral prolongation slender, narrowed to an acute point, with two strong spines from lengthened basal tubercles, these placed near base of prolongation on the upper and lower margin. Gonapophysis, *g*, with the mesal-apical lobe terminating in an acute darkened point. Aedeagus, *a*, very broad.

Holotype, ♂, Parc National Albert, Belgian Congo, Gitebe, volcan Nyamuragira, 2.324 meters, June 14-26, 1935 (DE WITTE); N° 1514. *Allotype*, ♀, Nambwamba Valley, Ruwenzori Range, Uganda, 6.500 feet, December 1934-January 1935 (EDWARDS); British Museum (Natural History). *Paratopotypes*, 2 ♂♂, (DE WITTE, N° 1511). *Paratypes*, 1 ♂, with the allotype; 1 ♂, Kalinzu Forest, southwest Uganda, January 1935 (T. H. E. JACKSON); British Museum (Natural History), with further specimens in Museum under EDWARDS N° 69; 1 ♀, Bururi, Urundi, Belgian Congo, 1.800-2.000 meters, March 5-12, 1953 (P. BASILEWSKY).

The present fly is closest to *Limonia* (*Metalimnobia*) *trichoptera* ALEXANDER and some others, readily distinguished by the pattern of the body and wings, the nature of the wing trichiation, and the structure of the male hypopygium

Limonia (Rhipidia), near femorasetosa ALEXANDER

Limonia (Rhipidia) femorasetosa ALEXANDER; Ruwenzori Expedition 1934-5, Diptera, Tipulidae (in press).

One broken female, presumably of this species. Urundi: Bururi, 1,800-2,000 meters, March 5-12, 1953 (P. BASILEWSKY).

Limonia (Rhipidia) sigilloides, sp. n.

Allied to *sigilla*; mesonotal praescutum with three brown stripes; pleura brownish gray, with two narrow dark brown longitudinal lines; antenna with flagellum brownish black, segments ten to thirteen, inclusive, yellow; legs yellow, femora unpatterned; wings yellowed, with an abundant dotted pattern; male hypopygium with the tergite transverse, the posterior border convex; ventral dististyle with five rostral spines placed before midlength of the prolongation.

Male. Length about 7 mm.; wing 7.8 mm.

Rostrum and palpi black. Antennae (male) subpectinate; scape and pedicel black; proximal seven flagellar segments brownish black, the abrupt apical pedicels yellow, succeeding four segments (ten to thirteen inclusive) uniformly yellow, the long terminal segment black, nearly twice as long as the penultimate; first flagellar segment subserrate, the second less strongly so, the remainder gradually smaller, with shorter pedicels. Head dark gray anterior vertex narrow, about one-half the diameter of the scape.

Mesonotal praescutum chiefly covered by three broad brown stripes, the humeri and lateral borders yellow pollinose; scutal lobes dark brown, the central area, with the posterior sclerites, heavily gray pruinose. Pleura brownish gray, with two narrow dark brown stripes, the more dorsal one passing beneath the root of the halteres, the ventral stripe including the bases of the coxae and the ventral sternopleurite. Halteres short, stem yellow, knob weakly infuscated. Legs with the coxae yellow except for the darkened bases, as described; trochanters yellow; remainder of legs yellow, the femora without darkened pattern; tarsal segments broken. Wings with the ground pale yellowish gray, with a very abundant gray dotted pattern and a few small darker brown areas, including one at middistance between arculus and origin of *Rs*, another at this origin, and a separate one at fork of *Sc*; a very small stigmal area at fork of *R*₁; darkened areas along cord small, only a little more conspicuous than the very numerous gray dots in the cells; veins yellow, darker in the brown spots. Venation: *Sc*₁ ending about opposite one-fourth the length of *Rs*, *Sc*₂ near its tip, subequal; cell *1st M*₂ subequal to distal section of vein *M*₁₊₂; *m-cu* about three-fourths its length before fork of *M*.

Abdomen, including hypopygium, brown, the pleural membrane darker brown. Male hypopygium with the tergite transverse, the caudal border convex, with a very slight to scarcely indicated median emargination; about fifteen strong setae on either side. Basistyle with the ventromesal lobe dark-

ened, with a low accessory lobule near its base. Dorsal dististyle a strongly curved rod, a little expanded before the straight terminal spine. Ventral dististyle fleshy, its area about two and one-half times that of the basistyle; rostral prolongation relatively long, with five spines in a compact group on basal half of outer margin. Gonapophysis with mesal-apical lobe blackened, gently curved to the subacute tip. Aedeagus terminating in two short tubular points.

Holotype, ♂, Ruanda: Contref. Est Muhavura, 2,100 meters January 28, 1953 (P. BASILEWSKY).

Very closely allied to *Limonia (Rhipidia) sigilla* ALEXANDER, of Uganda, which has approximately the same antennal structure and pattern, differing in details of structure of the male hypopygium, particularly the rostrum and its spines. In *sigilla* there are four spines placed far out on the prolongation.

HEXATOMINI

***Limnophila (Afrolimnophila) urundiana*, sp. n.**

Allied to *dichroica*; general coloration of thorax brownish black; femora black, the fore pair with about the proximal third yellow; tibiae and basitarsi yellowish brown; wings with a strong brownish yellow tinge, restrictedly patterned with darker brown, including a narrow band at cord; male hypopygium with the outer dististyle a simple rod, inner dististyle untoothed.

Male. Length about 8-8,5 mm.; wing 9-9,8 mm.; antenna about 2,2-2,4 mm.

Rostrum and palpi black. Antennae black throughout; basal five flagellar segments with the lower face protuberant, densely pubescent, without verticils; succeeding segments with strong ventral verticils, additional to the others; terminal segment a little longer than the penultimate. Head brownish black.

Thorax dull brownish black, the posterior sclerites of notum still darker. Halteres dark brown. Legs with the coxae dark brown; trochanters yellow; fore femora black with about the proximal third yellow, remaining femora black; tibiae and basitarsi yellow, the tips narrowly blackened; remainder of tarsi black. Wings (fig. 12) with a strong brownish yellow suffusion, restrictedly patterned with darker brown; a narrow band at cord, widest in the costal region, very narrow behind; further darkenings beyond cord include marginal spots at ends of all longitudinal veins, excepting R_5 , the outer end of cell *1st M*₂ and fork of M_{1+2} ; basad of cord with a spot at origin of R_s and two others in transverse alignment on vein *1st A* and tip of *2nd A*; prearcular field and a large postarcular cloud in cells *R* and *M* slightly paler brown; veins dark yellow, brown in the clouded areas. Venation: Sc_1 ending distinctly beyond fork of R_s , Sc_2 near its tip; cell R_3 short-petiolate; cell M_1 a little longer than its petiole; *m-cu* at or beyond midlength of cell *1st M*₂.

Abdomen black, the hypopygium yellow. Male hypopygium (fig. 14) having the general conformation of the subgenotype, *dichroica*, differing in important details. Outer dististyle, *d* a little stouter, simple; inner style mas-

sive, without the conspicuous lateral tooth on outer margin. Central area of tergite, *9t*, a little produced, densely setulose, with small pale scattered setae, lateral of which with long blackened bristles.

Holotype, ♂, Urundi: Bururi, 1.800-2.000 meters, March 5-12, 1953 (P. BASILEWSKY). *Paratopotype*, ♂.

The most similar species is *Limnophila* (*Afrolimnophila*) *dichroica* ALEXANDER, of Uganda, which differs especially in hypopygial characters and in the details of coloration. In *dichroica* there is a conspicuous difference in coloration of the thorax and wings in the two sexes and it is possible that a similar dichroism will be found to occur in the present fly.

ERIOPTERINI

Gymnastes (Gymnastes) teucholaboides (ALEXANDER)

Paratropeza (*Gymnastes*) *teucholaboides* ALEXANDER; Ann. Mag. Nat. Hist., (9) 5 : 346-347; 1920.

Ruanda: Rutovu, forêt du Rugege, 2.350 meters, January 20-23, 1953 (P. BASILEWSKY).

Urundi: Bururi, 1.800-2.000 meters, March 5-12, 1953 (P. BASILEWSKY).

Widely distributed in East Africa, as far south as Southern Rhodesia.

Toxorhina (Ceratocheilus) seychellarum subimmaculata, subsp. n.

Ceratocheilus seychellarum EDWARDS; Trans. Linn. Soc. London, 2, Zool., 15 : 203-204; 1912.

Male. Length, excluding rostrum, about 5.5 mm.; wing 5.9 mm.; rostrum about 3.5 mm.

Rostrum dark brown, exceeding one-half the length of the wing. Antennae black throughout. Head gray, more infuscated on center of posterior vertex; corniculus distinct, widened distally.

Pronotum dark brown. Mesonotal praescutum gray with three brown stripes, the lateral praescutal borders brownish yellow; posterior sclerites of notum gray, the scutal lobes variegated with brown. Pleura dark brown. Halteres yellow. Legs with the coxae and trochanters obscure yellow; remainder of legs brown. Wings grayish yellow, the prearcular and costal fields clearer yellow; a slightly indicated dark brown pattern, indicated as a darkening of the veins, including the base of the anterior branch of *Rs*, the cord and outer end of cell *1st M*₂; very small and faint brown spots at ends of veins *R*₅ to *Cu*₁, inclusive; remaining veins yellow. Venation: *Sc* short, *Sc*₁ ending just beyond origin of *Rs*, *Sc*₂ only a short distance from its tip, *Sc*₁ alone about one-third to one-half longer than *Rs*; *Rs* short, a little more than one-third its anterior branch; cell *1st M*₂ closed; *m-cu* just beyond fork of *M*.

Abdomen, including hypopygium, dark brown. Male hypopygium (fig. 15) with the basistyle, *b*, stout, with a row of strong setae on mesal face.

Outer dististyle, *d*, slender, strongly curved; inner dististyle larger, appearing as a pale flattened blade, with a strong retrorse spur on outer margin near base. Arms of aedeagus relatively short.

Holotype, ♂, Urundi: Bururi, 1.800-2.000 meters, March 5-12, 1953 (P. BASILEWSKY).

Close to the typical form (Seychelles Islands) but larger, with proportionately shorter rostrum, and with slight colorational differences. (Typical *seychellarum*, Length 5 mm.; wing 4 mm.; rostrum 4 mm.).