
**The Crane-Flies from Southern Rhodesia in the
Natal Museum (Diptera : Ptychopteridæ and Tipulidæ).**

BY

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**The Crane-Flies from Southern Rhodesia in
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(Diptera : Ptychopteridæ and Tipulidæ).¹

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With 22 Text-figures.

INTRODUCTION.

DURING January 1955, Messrs. Brian Stuckenberg and Peter Graham made a collecting trip to Southern Rhodesia, where many noteworthy entomological discoveries were made, particularly in the order Diptera. I am privileged to be able to study this very interesting series of flies as it pertains to the two families Ptychopteridæ and Tipulidæ.

The majority of the species are from Southern Rhodesia, where they were found chiefly in the Chirinda Forest at Mount Silinda; in the Rhodes-Inyanga National Park; the Umtali area, particularly at Leopard Rock and the Nyachowa Falls in the Vumba Mountains; and at Zimbabwe near Fort Victoria. A few specimens are from Moçambique, taken at Machapanda, and at Spungabera which is across the border from Mount Silinda, while a few interesting forms were captured *en route* at Wylies Poort in the Zoutpansberg Range, Northern Transvaal.

I wish to express my deep thanks to Mr. Graham and to Mr. Stuckenberg for the special attention that was devoted to the collecting of these fragile and only too often neglected flies. The types and representatives of the various species are preserved in the collections of the Natal Museum.

PTYCHOPTERIDÆ.

1. *Ptychoptera stuckenbergi* Alexander.

Ptychoptera stuckenbergi Alexander, 1956; Bull. Brooklyn ent. Soc., 51: 78-79.

Southern Rhodesia: Rhodes—Inyanga National Park, near Inyanga, January 14, 1955; type, female.

Anterior sclerites of mesonotum chiefly black, posterior part and pleura yellow; wings greyish, conspicuously patterned with brown, including an irregular band along cord and broad seams over the veins beyond the cord; vein R_2 transverse; abdominal tergites black, the bases of the fourth and fifth segments obscure yellow, genital segment and ovipositor orange.

Female.—Length about 9 mm.; wing 8.5 mm.

¹ Contribution No. 1228 from the Department of Entomology, University of Massachusetts Amherst, Mass., United States of America.

This interesting fly, which was named in honour of Mr. B. Stuckenberg, is quite distinct from the only other regional species, *Ptychoptera capensis* Alexander, in the pattern of the thorax and wings.

TIPULIDÆ.

TIPULINÆ.

2. *Ctenacroscelis albovittatus* (Macquart).

Tipula albovittata Macquart, 1838; Dipt. exot., 1, part 1: 53.

Tipula brunnea Bigot, 1859; Ann. Soc. ent. Fr., ser. 3, 7: 121, pl. 3, fig. 2.

Tipula rubiginosa Bigot, 1863; in Maillard, Note sur l'île de la Réunion, 2, Dipteres, 37.

Southern Rhodesia: Zimbabwe, near Fort Victoria, January 29, 1955.

3. *Longurio (Longurio) aspropoda* n. sp. Text-figs. 1, 8.

Size medium (wing, 10–11 mm.); antennæ of male slightly longer than either the wing or body; mesonotum light brown, the posterior sclerites more yellowed; halteres elongate, stem obscure yellow, knob brownish-black; legs with femora and tibiae brown or brownish black, tarsi and outer ends of posterior tibiae white; wings with a strong blackish tinge, with whitened obliterative areas before and beyond stigma and across cell 1st M_2 , the first larger and more conspicuous; *m-cu* shortly before mid-length of M_{3+4} ; abdominal segments ringed with black and obscure brownish-yellow, hypopygium black; male hypopygium with the outer end of tergite truncate, outer dististyle bifid at apex.

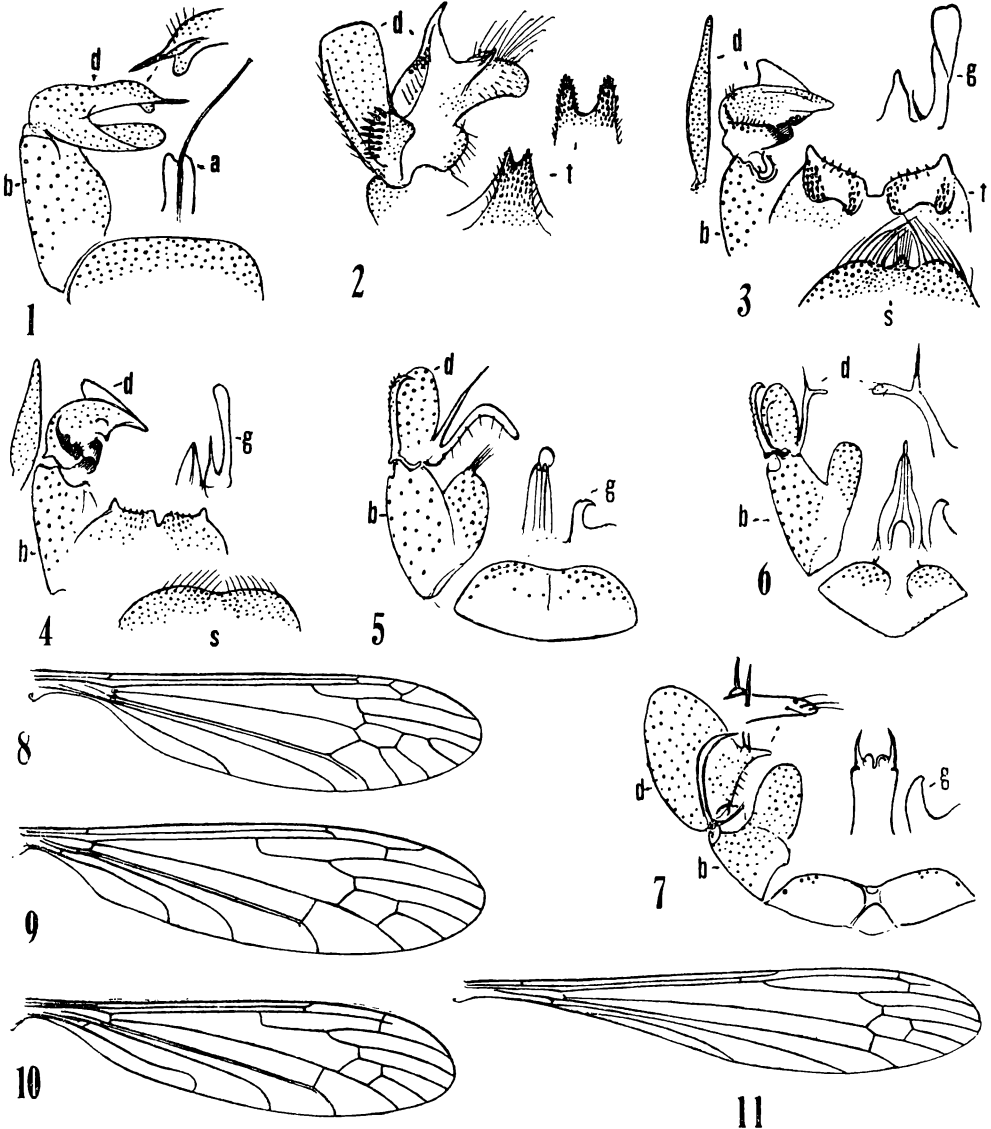
Male.—Length about 9–10 mm.; wing 9–10.5 mm.; antenna about 11–12 mm.

Female.—Length about 12 mm.; wing 11 mm.

Rostrum dark brown, short, without nasus; palpi black. Antennæ of male longer than either the body or wing; scape and pedicel light brown, flagellum brownish-black; flagellar segments very long-cylindrical, with a delicate white pubescence that is inconspicuous because of the colour, the individual hairs longer than the diameter of the segment. In the female, antennæ much shorter, if bent backward extending about to the root of halteres. Head medium brown, with virtually the entire vertex occupied by a large tubercle that is impressed medially; anterior vertex broad, slightly more than twice the diameter of the scape.

Pronotum dark brown. Mesonotum light to medium brown, the præscutum and scutum without clearly defined pattern; præscutal vestiture very short and sparse; posterior sclerites of notum more brownish-yellow. Pleura somewhat darker brownish-yellow. Halteres elongate, stem obscure yellow, knob brownish-black. Legs with coxæ obscure yellow; trochanters yellow; femora brownish-yellow, gradually darker outwardly, very extensively so on the fore legs; tibiae brownish black, the tips of the posterior pair dirty white, including about the outer fourth of segment, of the other tibiae not or but

TEXT-FIGS. 1-11.



1. *Longurio (Longurio) aspropoda* n. sp. ; male hypopygium. 2. *Tipula (Acutipula) nyasae* Alexander ; male hypopygium. 3. *Nephrotoma livingstonei* Alexander ; male hypopygium. 4. *Nephrotoma oligocheta* n. sp. ; male hypopygium. 5. *Limonia (Limonia) potnia* n. sp. ; male hypopygium. 6. *Limonia (Limonia) saucroptera* n. sp. ; male hypopygium. 7. *Limonia (Thrypticomys) niveitibia* n. sp. ; male hypopygium. 8. *Longurio (Longurio) aspropoda* n. sp. ; venation. 9. *Limonia (Limonia) potnia* n. sp. ; venation. 10. *Limonia (Limonia) saucroptera* n. sp. ; venation. 11. *Limonia (Thrypticomys) niveitibia* n. sp. ; venation.

(Hypopygial symbols : a, aedeagus ; b, basistyle ; d, dististyle ; g, gonapophysis ; s, 8th sternite ; t, 9th tergite.)

vaguely brightened; tarsi snowy white, terminal segment black. Wings (text-fig. 8) with a strong blackish tinge, the stigma, costal region and a narrow seam at anterior cord still darker; a very conspicuous prestigmal whitened area, with less evident brightenings beyond stigma and across cell 1st M_2 ; veins dark brown. Venation: Free tip of Sc_2 and R_{1+2} strongly preserved; R_s arcuated to feebly angulated at origin; cell M_1 short, only a little longer than its petiole; $m-cu$ shortly before mid-length of M_{3+4} .

Abdominal segments indistinctly bicoloured, the bases brownish-yellow, the subequal posterior borders dark brown; hypopygium and ovipositor black. Ovipositor with cerci elongate but not heavily sclerotized, compressed-flattened, the tips obtusely rounded. Male hypopygium (text-fig. 1) with the tergite, t , transverse, the posterior border truncate, the outer half with abundant short yellow setæ. Dististyles, d , fused for about the proximal half, the outer style unequally bifid at tip, the outer lobe flattened, obtuse, the inner extended into a long straight black spine; inner style subequal in length, compressed, pale. Ædeagus, a , sheathing the very slender elongate penis.

Holotype, ♂, Chirinda Forest, Southern Rhodesia, January 25, 1955. *Allotopotype*, ♀. *Paratype*, ♂, Spungabera, Moçambique, near Mount Silinda, January 21, 1955.

The most similar described species is *Longurio (Longurio) edwardsiana* (Alexander), known from the Gold Coast (Ashanti) and the Cameroons. This differs in the details of coloration of the body and wings and especially in the distinct pattern of the legs.

4. *Longurio (Longurio) rhodesiæ* (Alexander).

Habromastix rhodesiæ Alexander, 1937; Occas. Pap. Rhod. Mus. No. 6: 1-2.

The type was from the Chirinda Forest, Southern Rhodesia, taken in November 1930 by Cuthbertson.

Southern Rhodesia: Chirinda Forest, January 25, 1955. Leopard Rock, Vumba Mountains, January 1955.

The ovipositor has the valves sclerotized, the cerci long and slender.

5. *Nephrotoma fumidapicalis* Alexander.

Nephrotoma fumidapicalis Alexander, 1921; Ann. Mag. nat. Hist., ser. 9, 7: 103-105.

The types were from Mount Milanje, Nyasaland, and Mount Silinda, Southern Rhodesia.

Southern Rhodesia: Chirinda Forest, January 25, 1955.

6. *Nephrotoma livingstonei* Alexander. Text-fig. 3.

Nephrotoma livingstonei Alexander, 1921; Ann. Mag. nat. Hist., ser. 9, 7: 115-117.

The type was from Blantyre, Nyasaland, collected in May 1914 by J. B. Davey.

Southern Rhodesia: Chirinda Forest, January 25, 1955.

The single specimen available agrees well with my original description of the type except for certain details, as follows :

Occipital brand pale but evident, very elongate-triangular in outline. All præscutal stripes entirely black. Scutellum and parascutella alike in colour, dark brown. Tips of posterior femora more extensively darkened than indicated.

Male hypopygium (text-fig. 3) agreeing well with the brief original description. Ninth tergite, *t*, transverse, the two lobes separated by a broad median notch ; margins of lobes obliquely truncated, the outer angles extended into blunt points ; plate on either lobe weakly sclerotized and consequently well delimited, with strong spicules, those of the lower face arranged in two distinct groups. Outer dististyle, *d*, unusually slender, more than five times as long as broad, tapering to the narrowly obtuse tip. Inner dististyle with the beak relatively short and blunt, the lower margin obtuse, not produced into a spine ; lower beak blackened, produced backward into a weakly sclerotized flange, without spines or points in the region of the outer basal lobe ; dorsal crest unusually high, precipitous behind. Gonapophysis, *g*, with the blades unusually broad ; axillary spine very small and delicate. Eighth sternite, *s*, broad, its posterior margin gently emarginate, the low lobes with very long dark brown and horn-yellow setæ that are decussate at the mid-line ; a small median lobe that is provided with long, more delicate setæ that are directed caudad.

7. *Nephrotoma oligochæta* n. sp. Text-fig. 4.

General coloration yellow, patterned with dark brown and black ; præscutum with three stripes, the central one broadly paler medially ; antennæ black, scape orange ; occipital brand elongate-triangular, pale ; propleura and fore coxæ dark brown ; femora brownish-yellow, the tips rather narrowly brownish-black ; claws of male toothed ; wings subhyaline, cells *C* and *Sc* a trifle more darkened ; stigma pale brown, with trichia ; abdomen yellow, the tergites with a central brownish-black spot just before margin, not forming bands ; sternites darkened on either side of mid-line, more extensively so on the eighth sternite ; male hypopygium with the inner dististyle produced into an elevated dorsal crest ; outer basal lobe a low blackened erose flange, without spines ; eighth sternite with its posterior border very feebly emarginate, the low lobes with relatively short and sparse setæ that do not form strong brushes.

Male.—Length about 13 mm. ; wing 12 mm. ; antenna about 5.2 mm.

Frontal prolongation of head yellow, with abundant black setæ on dorsum ; palpi dark brown, the proximal part of the terminal segment paler. Antennæ with scape orange, pedicel brownish-yellow, flagellum uniformly black ; flagellar segments moderately incised, the basal enlargement conspicuous ; verticils shorter than the segments. Front, vertical tubercle and posterior orbits light

yellow ; central part of posterior vertex more orange ; occipital brand elongate-triangular, pale in colour, especially behind, anteriorly extended into an acute point ; vertical tubercle relatively small, very feebly notched at summit.

Pronotum yellow medially, the sides and propleura dark brown. Mesonotal præscutum light yellow, with three polished black stripes, the central one broadly paler medially and behind, thus appearing divided ; lateral stripes with a paler area opposite their anterior end and thus appearing outcurved ; scutum light yellow, each lobe with an arcuated black area that involves the lateral end of the suture ; scutellum, including the parascutella, testaceous yellow ; mediotergite light yellow, with a pair of brown spots on posterior third, surface virtually glabrous, with a few scattered pale setæ only ; pleurotergite chinese white anteriorly, encircled behind and above by brownish-black. Pleura chiefly chinese white, the anepisternum brown, the ventral sternopleurite and meron darker brown ; metapleura yellow. Halteres with stem brownish-yellow, knob dark-brown, its apex obscure yellow. Legs with the fore coxæ brownish-black, remaining coxæ brownish-yellow, the bases very narrowly darker ; trochanters obscure yellow ; femora of all legs brownish-yellow, clearer basally, the tips rather narrowly brownish-black ; tibiæ brownish-black, tarsi passing into black ; claws of male toothed. Wings subhyaline, cells *C* and *Sc* a trifle more darkened ; stigma pale brown ; veins brown. Stigma with numerous trichia on proximal half ; outer end of cell R_5 with further trichia. Venation : *Rs* a little longer than the basal section of R_{4+5} , gently arcuated ; cell M_1 very short-petiolate ; *m-cu* about one-fourth its length before the fork of M_4 .

Abdomen yellow ; anterior end of basal tergite dark brown, succeeding segments with a central brownish-black spot just before the margin, not forming bands ; sternites darkened on either side of mid-line, most extensive on the eighth sternite ; hypopygium obscure yellow. Male hypopygium (text-fig. 4) with the tergite transverse, the posterior border virtually truncate, divided into two broad lobes by a small U-shaped emargination ; outer lateral angles slightly produced ; dorsal surface of lobes with sparse small spicules, the lower surface with larger spicules arranged in two more or less distinct groups ; cephalic half of tergal plate without setæ. Outer dististyle, *d*, elongate, tapering gradually to the narrowly obtuse apex, the length about five times the greatest width. Inner dististyle with the beak slender, its lower margin near base produced into an acute black spine ; lower beak black ; obtuse ; dorsal crest elevated, precipitous behind ; region of outer basal lobe without spines, produced into a blackened erose flange, the higher more basal part with scattered strong setæ. Phallosome including the short subtriangular ædeagus and the much larger gonapophyses, *g*, the latter with an axillary spine that tapers into a pale hair-like point. Eighth sternite, *s*, with the posterior border very feebly emarginate, the low lobes with relatively few and short setæ that do not form strong brushes.

Holotype, ♂, Zimbabwe, near Fort Victoria, Southern Rhodesia, January 29, 1955.

Most similar to species such as *Nephrotoma thysia* Alexander, to where it runs in keys to the tropical African species of the genus. It differs in details of coloration and structure of the male hypopygium.

8. *Nephrotoma tigrinoides* Alexander.

Nephrotoma tigrinoides Alexander, 1921; Ann. Mag. nat. Hist., ser. 9, 7: 113-114.

The types were from Mount Milanje, Nyasaland.

Southern Rhodesia: Chirinda Forest, January 25, 1955.

9. *Nephrotoma tincta* (Walker).

Tipula tincta Walker, 1856; Insect. Saunders., 1, Diptera: 444.

Pachyrrhina tincta Bergroth, 1888; Ent. Tidskr. 9: 140-141.

Nephrotoma tincta Alexander, 1917; Ann. S. Afr. Mus., 17: 179, figs. 40, 66.

Known from Nyasaland, Southern Rhodesia, Transvaal, Natal and Cape Province.

Southern Rhodesia: Chirinda Forest, January 25, 1955.

10. *Tipula (Tipula) frater* Alexander.

Tipula frater Alexander, 1921; Ann. S. Afr. Mus., 18: 224-226.

The type was from Pretoria, Transvaal, taken January 17, 1913 by H. K. Munro.

Southern Rhodesia: Penhalonga, January 17, 1955.

Although only a single female specimen is available I believe the determination is correct. The species has the darkest legs of any of the regional members of the *oleracea* group of the genus. The tips of the femora are broadly black, involving about the outer seventh; tibiæ brownish-black, the extreme bases yellow; tarsi black.

11. *Tipula (Tipula) setosipennis* Alexander.

Tipula setosipennis Alexander, 1920; Ann. Mag. nat. Hist., ser. 9, 5: 61-62.

The types were from Pretoria, Transvaal, taken from December to February 1918-19, by A. J. T. Janse.

Northern Transvaal: Wylies Poort, Zoutpansberg Range, January 30, 1955.

12. *Tipula (Acutipula) nyasæ* Alexander. Text-fig. 2.

Tipula alphaspis nyasæ Alexander, 1920; Canad. Ent., 52: 155.

The types were from Mount Milanje, Nyasaland, taken in January by S. A. Neave. Known also from the southern Belgian Congo (Katanga) and Southern Rhodesia.

Southern Rhodesia: Near Inyanga, January 14, 1955.

Male hypopygium (text-fig. 2) with the tergal lobe, *t*, relatively broad,

emarginate at tip, the lobules and surface back from them spiculose. Outer dististyle, *d*, broad, tip subtruncate; outer margin near base slightly expanded. Inner dististyle with the rostral blade broad, obtuse at tip; outer margin with long setæ; outer part of style produced into a long conical point, its tip acute; outer basal lobe with stout spinoid setæ, as also in some allied forms.

13. *Tipula (Acutipula) silinda* Alexander.

Tipula silinda Alexander, 1920; Canad. Ent., 52: 148-149.

The type was from Mount Chirinda, Southern Rhodesia, taken at an altitude of 3,800 ft. in June 1911 by C. F. M. Swynnerton.

Southern Rhodesia: Chirinda Forest, January 25, 1955.

14. *Tipula (Acutipula) zuluensis* Alexander.

Tipula (Acutipula) zuluensis Alexander, 1956; Durban Museum Novitates (in press).

Described from Eshowe, Zululand, Natal, collected by Lionel Bevis. Although closely allied to *T. (A.) grahamsi* Alexander, the present fly appears to be distinct.

Southern Rhodesia: Near Inyanga, January 14, 1955.

15. *Dolichozepeza (Trichodolichozepeza) insincera* Alexander.

Dolichozepeza (Trichodolichozepeza) insincera Alexander, 1946; Proc. Roy. ent. Soc. Lond., ser. B, 15: 132-133.

The type was from the Vumba Mountains, taken in March 1935 by Cuthbertson.

Southern Rhodesia: Near Inyanga, January 14, 1955; Leopard Rock, Vumba Mountains, January 16, 1955.

16. *Dolichozepeza (Trichodolichozepeza) vumbicola* Alexander.

Dolichozepeza (Trichodolichozepeza) vumbicola Alexander, 1946; Proc. Roy. ent. Soc. Lon., ser. B, 15: 133-134.

The unique type was from the Vumba Mountains, collected in March 1935 by Cuthbertson.

Southern Rhodesia: Umtali, Vumba Mountains, 5,000 ft. January 19, 1955; Nyachowa Falls, near Umtali, January 16, 1955.

Moçambique: Spungabera (near Mount Silinda), January 21, 1955.

LIMONIINAE.

LIMONIINI.

17. *Limonia (Limonia) ditior subditior* n. subsp.

Generally as in the larger *ditior* Alexander, 1946, differing as follows:

Antennæ with flagellar segments black, the glabrous apical necks yellowed. Mesonotal scutellum yellow, narrowly bordered by darker. Pleural markings

very faintly indicated. Knobs of halteres clear light yellow. Wings with cell 1st M_2 different in shape, nearly rectangular, slightly widened outwardly, distinctly shorter than either M_{1+2} or M_3 beyond it.

Male.—Length about 8.5 mm.; wing 10 mm.

Female.—Length about 8 mm.; wing 9 mm.

Holotype, ♀, Leopard Rock, Vumba Mountains, Southern Rhodesia, January 16, 1955. *Allotype*, a badly damaged ♂, Chirinda Forest, January 25, 1955. *Paratypes*, 1 ♀, with the allotype; 2 ♀, near Inyanga, January 14, 1955.

18. *Limonia (Limonia) irrorata* Enderlein.

Limonia irrorata Enderlein, 1912; Zool. Jahrb., Syst., 32: 74–75, fig.

Described from the Zoutpansberg, Transvaal.

Southern Rhodesia: Penhalonga, January 17, 1955: Umtali, January 19, 1955.

19. *Limonia (Limonia) omnifulva* n. sp.

General coloration of entire thorax fulvous, without dark pattern; rostrum shiny black; antennæ with scape black, succeeding segments brownish-yellow, the outer ones brown; knobs of halteres infuscated; femora yellow with a broad nearly terminal black ring; wings yellow, with a very restricted and inconspicuous brown dotted pattern; abdomen fulvous, with a narrow dark brown lateral stripe.

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

Rostrum shiny black; palpi black. Antennæ with the scape black; succeeding segments brownish-yellow, beyond the fifth flagellar segment passing into dark brown; basal flagellar segments oval, becoming more elongate outwardly; terminal segment about one-third longer than the penultimate. Head black, dark grey pruinose; anterior vertex less than the diameter of two rows of ommatidia.

Pronotum and mesonotum fulvous, without dark pattern; postnotum and pleura a trifle more yellowed. Halteres with stem brownish-yellow, knob infuscated. Legs with the coxæ and trochanters fulvous to yellow; femora yellow with a broad nearly terminal black ring; tibiæ brownish-yellow, the tips more narrowly brownish-black; tarsi light brown, passing into black. Wings yellow, the prearcular and costal fields more saturated yellow; stigma appearing as narrow seams to the veins at end of R ; elsewhere on wing, veins beyond cord narrowly and vaguely seamed with brown and the individual cells with one or very few scattered pale brown dots; veins brownish-black. Venation: Sc relatively long, Sc_2 near tip of Sc_1 , ending about opposite two-thirds the length of Rs ; R_2 a little shorter than the free tip of Sc_2 and in alignment with it; vein R_3 strongly decurved, ending close to wing tip; cell 1st M_2 pentagonal, about as long as the distal section of vein M_3 ; $m-cu$ at fork of M .

Abdomen fulvous; first tergite brown medially; a narrow dark brown lateral line, involving the extreme borders of both the tergites and sternites. Ovipositor with the cerci short, very slender, gently upcurved.

Holotype, ♀, near Inyanga, Southern Rhodesia, January 14, 1955.

Limonia (*Limonia*) *omnifulva* differs from other regional species that are allied to *L. (L.) irrorata* Enderlein, including also *L. (L.) nyasænsis* (Alexander) and *L. (L.) rhanteria* (Alexander), in the uniform fulvous colour of the thorax and the almost unpatterned wings.

20. *Limonia* (*Limonia*) *potnia* n. sp. Text-figs. 5, 9.

Allied to *recedens* and *pothos*; general coloration dull black, the præscutum with three more reddish-brown stripes; antennæ black, the first flagellar segment pale yellow; front silvery; halteres black, the base of stem yellow; femora brown, the extreme tips darker, preceded by a narrow paler ring, tarsi paling to whitish-yellow; wings whitish subhyaline, with a heavy brown pattern that is nearly twice as extensive as the ground; male hypopygium with the terminal lobule of the ventromesal lobe of basistyle very small.

Male.—Length about 5.5 mm.; wing 6.5 mm.

Rostrum very reduced; palpi, small, black. Antennæ with scape and pedicel black, first flagellar segment pale yellow, remainder of organ brownish-black; flagellar segments passing from short-oval to elongate, with long conspicuous verticils. Front silvery; remainder of head dark brown, the occipital region somewhat paler; anterior vertex broad, approximately two-and-one-half times the diameter of the scape.

Pronotum dull black, the scutellum a little brightened. Mesonotal præscutum dull black with three slightly paler reddish-brown stripes, the median one broad; remainder of thorax dull black, sparsely pruinose. Halteres blackened, the base of stem narrowly yellow. Legs with the coxæ brownish-black; trochanters obscure yellow; femora brown, the bases restrictedly yellow, darkened outwardly, with indications of a narrow pale ring before the subequal blackened tip; tibiæ brownish-black, the base narrowly whitened, the tips pale, including about the outer fourth or fifth; tarsi whitish-yellow, terminal segment darker; claws long and slender, strongly curved, with a long erect basal spine and two smaller subappressed spines at and near mid-length of claw. Wings (text-fig. 9) with the restricted ground colour whitish subhyaline, very heavily patterned with brown, the markings arranged much as in *recedens* and *pothos* but with the dark colour even more extensive, about twice the area of the ground. Venation much as in *pothos*, the anal veins bent more strongly into the margin.

Abdomen, including the hypopygium, brownish-black, the incisures of the outer segments narrowly paler. Male hypopygium (text-fig. 5) much as in *recedens*; ventromesal lobe of basistyle *b*, with the terminal lobule very small, tipped with about six long powerful bristles. Dorsal dististyle, *d*, scabrous, as in the group. Ventral dististyle small, its area slightly more than that of

the lobe of the basistyle ; rostral prolongation long and narrow, bent like a boomerang ; spine single, placed in axil, much shorter than its basal tubercle. Gonapophysis, *g*, with the ventromesal lobe conspicuous, bent laterad into a point. *Æ*deagus slender, apex simple.

Holotype, ♂, Chirinda Forest, Southern Rhodesia, January 25, 1955.

Although it is closely related to *Limonia* (*Limonia*) *recedens* (Alexander), I consider this fly to be distinct in the colorational characters listed. *L.* (*L.*) *pothos* Alexander, of Southern Tanganyika, is more evidently distinct though also allied.

21. *Limonia* (*Limonia*) *prætor* Alexander.

Limonia (*Limonia*) *prætor* Alexander, 1945 ; Proc. Roy. ent. Soc. Lond., ser. B, 14 : 98-99.

The types were from the Chirinda Forest, collected by Cuthbertson. Southern Rhodesia : Chirinda Forest, January 25, 1955. Two male specimens, one much larger than the other.

22. *Limonia* (*Limonia*) *saucroptera* n. sp. Text-figs. 6, 10.

Belongs to the *trigonia* group, allied to *recedens* ; general coloration of thorax dark brown, the præscutum with three paler brown stripes, the centres of the scutal lobes pale brown ; antennæ black, pedicel obscure yellow ; femora brown, the tips abruptly whitened, tips of tibiæ and the tarsi light yellow ; wings with a strong dusky tinge, heavily patterned with dark brown ; free tip of *Sc*₂ in approximate transverse alignment with *R*₂, vein *R*₁₊₂ projecting beyond as a long spur ; male hypopygium with the ventromesal lobe of basistyle simple ; rostral prolongation of ventral dististyle long and slender, bearing a single spine at near two-thirds the length.

Male.—Length about 6.5-7 mm.; wing 8.5-9 mm.; antenna about 1.5-1.6 mm.

Rostrum obscure yellow to brownish-yellow ; palpi black. Antennæ black, pedicel obscure yellow ; basal flagellar segments short-oval, with short apical pedicels, the outer segments elongate, with long conspicuous verticils. Head dark cinnamon brown ; anterior vertex narrow.

Pronotum dark brownish-grey ; scutellum yellow, darkened laterally. Mesonotal præscutum dark brown, with three paler brown stripes, the scutal lobes similarly patterned ; remainder of notum dark brown, the posterior half of the mediotergite obscure yellow. Pleura and pleurotergite dark brown, variegated by obscure brownish-yellow on pleurotergite and dorsal sternopleurite. Halteres with stem light brown, paler basally, knob dark brown. Legs with coxæ dark brown, trochanters abruptly pale yellow ; femora brown, obscure yellow basally, passing into black, the tips narrowly and abruptly whitened ; tibiæ brown, the bases narrowly whitened, the tips paling to light yellow ; tarsi similarly pale. Wings (text-fig. 10) with a strong dusky tinge, conspicuously patterned with dark brown, including large marks at arculus,

mid-distance to origin of *Rs*, as well as at the latter ; fork of *Rs*, stigma, cord and outer end of cell 1st *M*₂; smaller areas at ends of anal veins and fork of *Sc*; wing tip slightly darkened at ends of the veins; veins dark brown slightly deeper in the patterned areas. Venation: *Sc* relatively long, *Sc*₁ ending about opposite two-thirds the length of *Rs*, *Sc*₂ at its tip; *Rs* angulated to square at origin; free tip of *Sc*₂ in transverse alignment with *R*₂ or virtually so, *R*₁₊₂ jutting beyond this point as a spur; *m-cu* shortly before fork of *M*; anal veins strongly recurved at tips.

Abdomen dark brown. Male hypopygium (text-fig. 6) with the tergite transverse, its posterior border emarginate, forming two low lobes bearing several strong setæ; from the mid-region projects caudad a quadrate sheet or plate, presumably representing the proctiger, its surface with abundant squamose roughenings. Basistyle, *b*, with the ventromesal lobe large, its apex obtuse, simple. Dorsal dististyle, *d*, nearly straight, the tip a little enlarged and slightly curved to an acute point, the outer surface scabrous. Ventral dististyle relatively small, the body area not greatly different from that of the lobe of the basistyle; rostral prolongation arising from the extreme base, appearing as a slender boomerang-like structure, with a single spine placed at near two-thirds the length, arising from a basal tubercle of moderate length. Gonapophysis, *g*, with mesal-apical lobe broad, narrowed outwardly, the short blackened tip curved laterad. Ædeagus terminating in a simple appressed blade.

Holotype, ♂, Chirinda Forest, Southern Rhodesia, January 25, 1955. *Paratopotypes*, 2' ♂, with the type.

Although generally similar in its general appearance to species like *Limonia* (*Limonia*) *pothos* Alexander and *L. (L.) recedens* (Alexander), the present fly is quite distinct in the venation, whitened tips of the femora, and especially in the structure of the male hypopygium, particularly the basistyle and ventral dististyle. There are other allied species of the *trigonia* group in the Oriental Region.

23. *Limonia (Limonia) uniflava* (Riedel).

Limnobia uniflava Riedel, 1914; *Voy. Allaud et Jeannel Afrique Orientale* (1911-1912), Ins. Dipt., part 3, *Nematocera polyneura*, p. 75.

Known from Uganda, Kenya and Southern Rhodesia.

Southern Rhodesia: Near Inyanga, January 14, 1955.

A single specimen that agrees closely with Riedel's description of his type (from Mount Ruwenzori, Uganda), differing chiefly in the darkened head.

24. *Limonia (Metalimnobia) trichoptera* (Alexander).

Limnobia trichoptera Alexander, 1920; *Ann. Mag. nat. Hist.*, ser. 9, 6: 4-6.

The type was from Mount Chirinda, Southern Rhodesia. Known also from Uganda.

Southern Rhodesia : Umtali, Vumba Mountains, 5,000 ft., January 19, 1955.

25. *Limonia (Dicranomyia) tipulipes* (Karsch).

Dicranomyia tipulipes Karsch, 1886 ; Ent. Nachr., 12 : 51.

Dicranomyia consimilis Bergroth, 1888 ; Ent. Tidskr., 9 : 127.

Dicranomyia confinis Bergroth, 1889 ; Ent. Z., 8 : 116.

Widespread in South Africa and in Madagascar with its satellite islands.

Southern Rhodesia : Near Inyanga, January 14, 1955.

Northern Transvaal : Wylies Poort, Zoutpansberg Range, January 30, 1955.

26. *Limonia (Thrypticomyia) niveitibia* n. sp. Text-figs. 7, 11.

General coloration of mesonotum light chestnut-yellow, pleura obscure yellow ; legs brownish-black, the tips of tibiæ and all tarsi snowy white ; wings strongly and evenly infuscated, stigma conspicuous, darker brown ; Sc_1 extending beyond the origin of Rs ; inner end of cell 1st M_2 somewhat arcuated ; male hypopygium with each tergal lobe with about five long marginal setæ ; rostral spines two, one arising from a low tubercle.

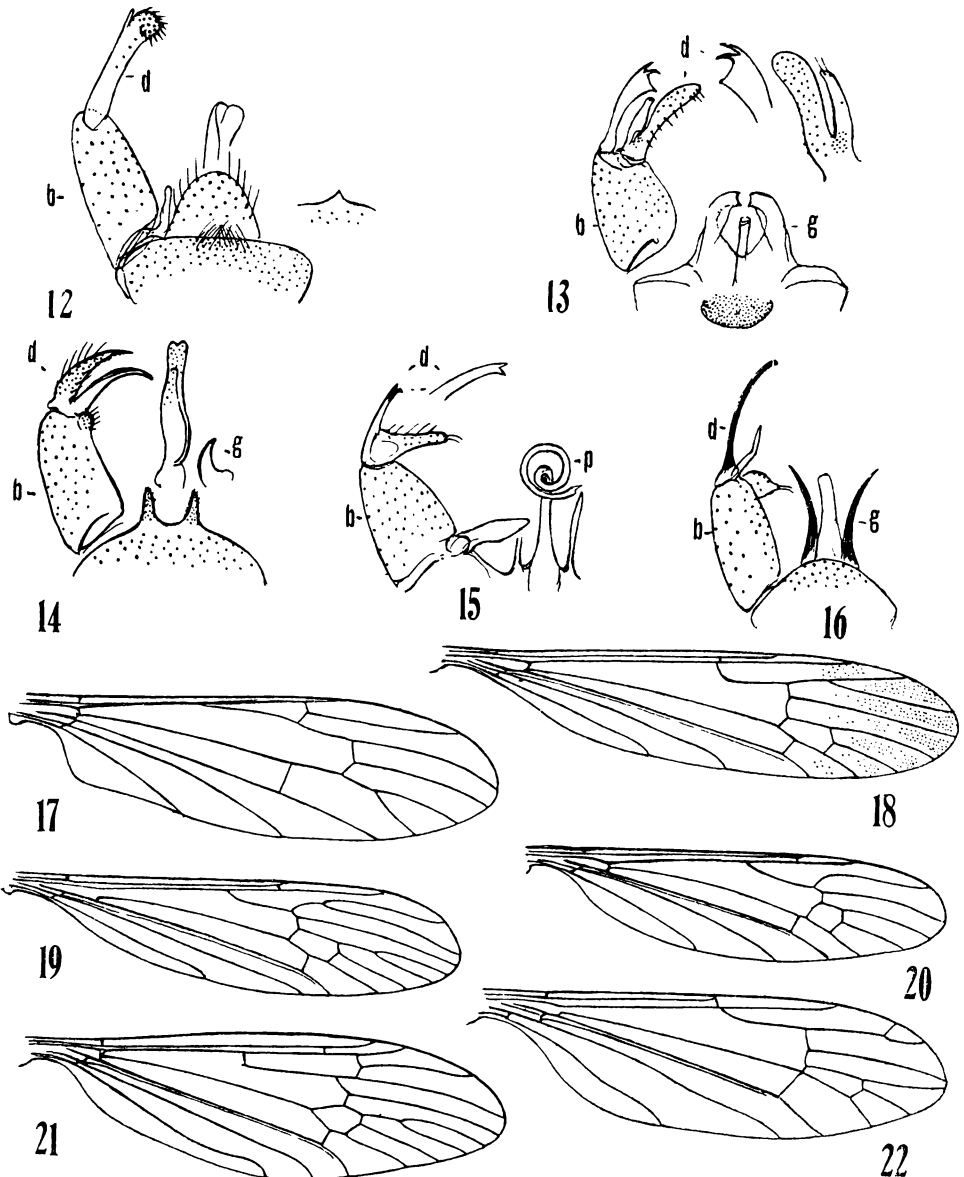
Male.—Length about 5.5 mm.; wing 6.7 mm.

Rostrum obscure yellow, mouthparts a little darker. Antennæ with the scape yellow, remainder dark brown ; flagellar segments oval, with a long glabrous apical neck ; longest verticils approximately twice the segments, unilaterally distributed. Head dark brown : anterior vertex broad.

Pronotal scutum brown, paler on sides, scutellum testaceous yellow. Mesonotum light chestnut-yellow, the central region of the præscutum darker ; scutal lobes and disk of scutellum weakly darkened ; remainder of mesonotum yellowed. Pleura obscure yellow. Halteres elongate, stem obscure yellow, knob brownish-black. Legs with all coxæ and trochanters yellow ; femora dark brown, paler basally ; tibiæ brownish-black, the tips broadly snowy-white, including about the outer fifth or sixth ; tarsi snowy-white. Wings (text-fig. 11) strongly and uniformly infuscated, prearcular field more whitened ; stigma conspicuous, darker brown ; veins dark brown. Venation : Sc unusually long, Sc_1 extending to about opposite one-seventh of the length of the long Rs , Sc_1 alone longer than $m-cu$; free tip of Sc_2 about one-half as long as vein R_1 beyond it ; apical spur of vein R_{1+2} long, about twice R_2 ; inner end of cell 1st M_2 somewhat arcuated ; $m-cu$ about one-half its length beyond the fork of M .

Abdomen, including hypopygium, dark brown, sternites more yellowed. Male hypopygium (text-fig. 7) narrowly transverse, the posterior border broadly emarginate, each lobe with about five long setæ near margin. Basistyle, b , with its ventromesal lobe large, the tip obtuse, without specially modified setæ. Dorsal dististyle, d , a gently curved sickle, the long tip acute. Ventral

TEXT-FIGS. 12-22.



12. *Antocha (Orimargula) melina* n. sp.; male hypopygium. 13. *Paradelphomyia (Oxyrhiza) bilobata* n. sp.; male hypopygium. 14. *Austrolimnophila (Austrolimnophila) pleurolineata* n. sp.; male hypopygium. 15. *Elephantomyia (Elephantomyia) grahamsi* n. sp.; male hypopygium. 16. *Gonomyia (Lipophleps) silinda* n. sp.; male hypopygium. 17. *Antocha (Orimargula) melina* n. sp.; venation. 18. *Paradelphomyia (Oxyrhiza) bilobata* n. sp.; venation. 19. *Austrolimnophila (Austrolimnophila) pleurolineata* n. sp.; venation. 20. *Elephantomyia (Elephantomyia) grahamsi* n. sp.; venation. 21. *Clydonozus stuckenbergi* n. sp.; venation. 22. *Gonomyia (Lipophleps) silinda* n. sp.; venation.

(Hypopygial symbols: a, aedeagus; b, basistyle; d, dististyle; j, gonapophysis; p, penefilum.)

dististyle large and fleshy, the area more than twice that of the basistyle ; rostral prolongation relatively slender, the two spines near its base, the inner one arising from a low tubercle. Gonapophysis, *g*, appearing as a short stout blade. *Ædeagus* at apex produced into pale needle-like points.

Holotype, ♂, Spungabera, Moçambique, January 21, 1955.

The present fly is readily told from the other described Ethiopian members of the subgenus, *Limonia* (*Thrypticomyia*) *nigeriensis* Alexander and *L. (T.) seychellensis* (Edwards) by the broadly whitened tips of the tibiae.

27. *Antocha* (*Orimargula*) *melina* n. sp. Text-figs. 12, 17.

General coloration fulvous to yellow ; antennæ of male relatively long, flagellar segments long-oval ; knobs of halteres infuscated ; wings subhyaline, prearcular and costal fields slightly more yellowed ; male hypopygium with a single dististyle that bears a small blade on outer margin just before the setiferous apex.

Male.—Length about 4 mm.; wing 4.7 mm.; antenna about 1.0 mm.

Rostrum brownish-yellow ; palpi brownish-black. Antennæ of male relatively long, as shown by the measurements, brownish-black ; flagellar segments long-oval, with a dense erect pale pubescence ; proximal flagellar segments longer than their verticils. Head dark.

Pronotum and mesonotum light fulvous to yellow, the præscutum a trifle darker. Pleura fulvous yellow. Halteres with stem yellow, knob infuscated. Legs with coxæ yellow ; remainder of legs yellow, the tips of the femora vaguely darker ; claws long and slender, with a conspicuous spine before mid-length, with about three abruptly smaller denticles nearer the base, the outermost one larger. Wings (text-fig. 17) subhyaline, the prearcular and costal fields a trifle more yellowed ; veins pale brown. Long conspicuous trichia on veins beyond cord, lacking on *Rs*, *R*₂₊₃₊₄, *R*₂ and basal third of *R*₃₊₄. Venation as in the subgenus and as figured.

Abdomen brownish-yellow, the subterminal segments darker to form a weak ring, the tergites broadly yellowed laterally. Male hypopygium (text-fig. 12) with the tergite large, its posterior border truncate ; surface with scattered setæ that are more abundant and concentrated near the mid-line. What appears to be the proctiger is a large semioval plate, provided with scattered unusually long setæ on both surfaces. Dististyle, *d*, single, the apex with abundant strong setæ ; outer margin before apex extended into a slender blade that appears to represent the free tip of the otherwise fused outer style. Gonapophysis small, blade-like.

Holotype. ♂, Nyachowa Falls, near Umtali, Vumba Mountains, Southern Rhodesia, January 16, 1955.

The most similar regional species is *Antocha* (*Orimargula*) *transvaalia* (Alexander) which differs conspicuously in the general coloration, short antennæ, and especially in the structure of the male hypopygium.

28. *Antocha (Orimargula) transvaalia* (Alexander).

Orimargula transvaalia Alexander, 1921 ; Ann. S. Afr. Mus., 18 : 187-188.

Described from Komati Poort, Eastern Transvaal.

Southern Rhodesia : Odzani River, January 15, 1955.

29. *Helius (Helius) capensis* (Alexander).

Rhamphidia capensis Alexander, 1917 ; Ann. S. Afr. Mus., 17 : 145-146.

Described from Krantz Kloof, Natal, now known also from Uganda, Kenya, Southern Rhodesia and the Transvaal.

Southern Rhodesia : Near Inyanga, January 14, 1955.

The single imperfect specimen available is darker than usual, particularly the legs, but there seems to be no doubt as to the identity.

30. *Helius (Helius) dugaldi* Alexander.

Helius (Helius) dugaldi Alexander, 1945 ; Proc. Roy. ent. Soc. Lond., ser. B, 14 : 100-102.

The types were from the Chirinda Forest and Vumba Mountains, collected by Cuthbertson.

Southern Rhodesia : Leopard Rock, Vumba Mountains, January 16, 1955.

HEXATOMINI.

31. *Paradelphomyia (Oxyrhiza) bilobata* n. sp. Text-figs. 13, 18.

General coloration of head and thorax brownish-black, pleura with the posterior sclerites paler ; middle and hind coxæ pale ; wings with a dusky tinge, scarcely patterned except for the stigma ; *Rs* relatively short ; abdominal segments bicoloured, brownish-black, the posterior borders obscure yellow, more conspicuous on the sternites ; genital shield of ovipositor and basistyles of male hypopygium yellowed ; male hypopygium with a slender lobule at base of inner dististyle.

Male.—Length about 6.3-6.5 mm.; wing 6-6.5 mm.

Female.—Length about 7.5 mm.; wing 7 mm.

Rostrum dark brown ; palpi black. Antennæ dark brown ; basal flagellar segments oval, the outer ones more elongate, with long verticils, more conspicuous on the outer segments. Head brownish-black, sparsely pruinose.

Pronotum and mesonotum brownish-black, the surface slightly yellow pollinose to pruinose ; humeral and lateral portions of the præscutum slightly more chestnut ; vestiture of præscutum sparse and weak. Pleura brownish-black, the pteropleurite, meron and metapleura paler. Halteres with stem light brown, knob darker brown. Legs with the fore coxæ slightly darkened, remaining coxæ and all trochanters yellow ; femora yellowish-brown, the tips slightly darker ; tibiæ dark brown, tarsi black ; vestiture of legs relatively long and conspicuous. Wings (text-fig. 18) with a dusky tinge ; stigma oval,

darker brown; very narrow to scarcely evident darker seams over cord and at origin of *Rs*; veins brown. Conspicuous macrotrichia in centres of cells *R*₂, *R*₃, *R*₅, 2nd *M*₂, *M*₃, and in outer end of cell *M*₄ (position indicated in figure by stippling). Venation: *Sc*₁ ending nearly opposite the fork of *Rs*, *Sc*₂ far retracted, *Sc*₁ alone exceeding one-half and usually two-thirds *Rs*, the latter short; vein *R*₂ not clearly evident; cell *M*₁ lacking; *m-cu* before mid-length of *M*₃₊₄; cell 2nd *A* narrow.

Abdominal tergites brownish-black, the posterior borders of the segments conspicuously obscure yellow, of the intermediate sternites even more so; basistyles of male and base of genital shield of female yellow. Ovipositor with cerci light yellow basally, the upcurved outer half dark brown. Male hypopygium (text-fig. 13) with the outer dististyle black, widened outwardly, with two slender outer spines, the lower apical angle acute. Inner dististyle, *d*, deeply bilobed, there being a slender cylindrical lobule at the base of the style, lying in the axil of the two styli, the lobe about two-thirds as long as the blade-like inner style. Phallosome with the two gonapophyses, *g*, fused at the mid-line, the arms incurved, slightly notched at tips, the lower angle acute. *Æ*deagus relatively short.

Holotype, ♂, Umtali, Vumba Mountains, Southern Rhodesia, 5,000 ft., January 19, 1955. *Allotopotype*, ♀, pinned with type. *Paratopotype*, 1 ♂.

This species is quite distinct from *Paradelphomyia (Oxyrhiza) vumbensis* Alexander, likewise known from the Vumba Mountains, in the virtually unpatterned wings, with the venational details different. In the short *Rs* the fly is more like *P. (O.) ugandæ* (Riedel), which differs in coloration and in venational details. The conspicuously bilobed condition of the inner dististyle of the male hypopygium is noteworthy since it marks the culmination, as known, of the condition, the nearest approach in the Ethiopian species being found in *P. (O.) alticola* Alexander.

32. *Austrolimnophila (Phragmocrypta) albocoxalis* (Alexander).

Pseudolimnophila albocoxalis Alexander, 1934; *Encycl. ent. Diptera*, 7: 52-53.

Austrolimnophila (Phragmocrypta) albocoxalis Alexander, 1956; *Ruwenzori Exped. 1934-35* (Brit. Mus. Nat. Hist.), 1, no. 7: 263, 265.

The type was from Mount Chirinda, 3,600 ft., taken in November 1930 by Cuthbertson.

Southern Rhodesia: Chirinda Forest, January 25, 1955.

33. *Austrolimnophila (Austrolimnophila) pleurolineata* n. sp. Text-figs. 14, 19.

General coloration of thorax ochreous, the præscutum with a brown median stripe; dorsal thoracic pleura with a brown longitudinal stripe; antennæ short; wings weakly tinged with brown, vaguely patterned with darker; vein *R*₂ lacking; male hypopygium with the posterior border of tergite produced

into two finger-like setuliferous lobes; outer dististyle narrowed into a long simple black spine; gonapophysis a short darkened horn, the tip subacute; ædeagus long, simple, unarmed.

Male.—Length about 6 mm.; wing 6.5 mm.; antenna about 1.1 mm.

Rostrum and palpi black. Antennæ black, scape slightly pruinose; flagellar segments passing from long-oval to oval, the longest verticils exceeding the segments. Head dark brown, pruinose.

Pronotum buffy, infuscated on sides. Mesonotal præscutum ochreous with a brown median stripe, lateral stripes lacking or barely indicated; scutal lobes buffy brown; scutellum testaceous; postnotum obscure yellow. Pleura yellow, with a conspicuous brown longitudinal stripe that extends from the cervical region to the posterior thoracic spiracle, becoming paler and narrower behind. Halteres yellow, knobs weakly infuscated. Legs with coxæ and trochanters yellow; femora brownish-yellow, tips slightly darker; tibiæ and tarsi brown, the latter passing into dark brown; scales of legs very narrow, appearing almost like setæ. Wings (text-fig. 19) weakly tinged with brown, the stigma and vague seams at origin of *Rs*, along cord, and over *Cu* slightly darker; veins brown. Macrotrichia of veins conspicuous. Venation: Sc_1 ending shortly before fork of *Rs*, Sc_1 and Sc_2 subequal; *Rs* relatively short, less than twice R_{2+3+4} ; vein R_2 lacking; cell M_1 longer than its petiole; cell 1st M_2 rectangular, with *m-cu* close to midlength.

Abdomen buffy, with a narrow darker lateral line; terminal segments brownish-black, the styli paler. Male hypopygium (text-fig. 14) with posterior border of tergite convexly rounded, on either side of mid-line produced into a slender pale lobe that is microscopically setulose, the lobes separated by a deep U-shaped emargination. Basistyle, *b*, with a low setiferous lobe at apex of mesal face. Outer dististyle, *d*, pale, gradually narrowed to a long simple black spine, the lower margin of base of which bears microscopic scabrous points; surface of style with abundant coarse setæ. Inner dististyle subequal in length, slender, gradually narrowed to the obtuse apex, the surface with several small pale punctures that bear short setæ. Gonapophysis, *g*, a short darkened horn, curved outward to the subacute tip. Ædeagus unusually long, simple, terminating in pale membrane, the outer end with scattered microscopic punctures but without further armature.

Holotype, ♂, near Inyanga, Southern Rhodesia, January 14, 1955.

The most similar regional species is *Austrolimnophila* (*Austrolimnophila*) *pleurostris* Alexander, of Natal, which differs very evidently in the structure of the male hypopygium, especially the tergite, outer dististyle and phallosome.

34. *Elephantomyia* (*Elephantomyia*) *grahami* n. sp. Text-figs. 15, 20.

Rostrum relatively short, about two-thirds the remainder of body; mesonotum reddish-brown, præscutum and scutal lobes patterned with brownish-black; halteres yellow; wings subhyaline, stigma short-oval, very pale and

inconspicuous; costal fringe short; *Sc* relatively short, *Rs* in virtual longitudinal alignment with its posterior branch; cell 1st M_2 subquadrate, shorter than vein M_4 ; abdomen dark brown, hypopygium yellowed; male hypopygium with the outer dististyle glabrous, its tip blackened, bidentate; ædeagus a relatively stout and simple penefilum.

Male.—Length, excluding rostrum, about 6.5 mm.; wing 7.3 mm.; rostrum about 4 mm.

Rostrum moderately long, about two-thirds the remainder of body, dark brown; palpi black. Antennæ black throughout; fusion-segment oval, succeeding segments short-cylindrical, passing into oval, with elongate verticils. Head light grey, the posterior part possibly darker (damaged in unique type); anterior vertex moderately broad, subequal in width to the enlarged pedicel, with two rows of erect setæ.

Cervical region black. Pronotum dark brown, scutellum somewhat paler. Mesonotal præscutum reddish-brown, with a brownish-black central stripe that is vaguely divided at posterior end; pseudosutural foveæ reddened; posterior sclerites of notum reddish-brown, each scutal lobe with a single blackened area, postnotum somewhat more yellowed. Pleura with the dorsal pleurites brownish-grey, the ventral ones more reddened. Halteres yellow. Legs with all coxæ and trochanters testaceous yellow; femora and tibiæ brownish-yellow, a trifle more darkened outwardly; tarsi pale brown, the terminal segment slightly darker; tibial spurs present. Wings (text-fig. 20) subhyaline, the prearcular and costal regions a little more yellowed; stigma short-oval, very pale brownish-yellow to scarcely evident; veins pale brown. Costal fringe short; veins beyond cord with abundant trichia. Venation: *Sc* relatively short, Sc_1 ending about opposite three-fourths *Rs*, Sc_2 not far from its tip; anterior branch of *Rs* arcuated at origin, *Rs* being in approximate longitudinal alignment with the posterior branch, R_5 ; cell R_2 at margin more extensive than R_4 ; cell 1st M_2 subquadrate, shorter than vein M_4 ; position of *m-cu* variable, from about one-fourth its length before the fork of *M* to virtually at the fork.

Abdomen dark brown; hypopygium yellowed. Male hypopygium (text-fig. 15) with the basistyle, *b*, stout; dististyles, *d*, terminal; outer style a small glabrous nearly straight rod, blackened at the bidentate tip; inner style longer, cylindrical, the apex obtuse. Lateral apophyses (or interbase) appearing as a flattened pale blade, broadest at near mid-length, the tip narrowly obtuse; inner apophyses appearing as slender straight blades. Ædeagus a relatively stout and simple penefilum, *p*.

Holotype, ♂, Odzani River, Southern Rhodesia, on main road between Inyanga and Umtali, January 15, 1955.

I am very pleased to dedicate this fly to the collector of various interesting species in the present series of specimens. It is most similar to species such as *Elephantomyia* (*Elephantomyia*) *hargreavesi* Alexander and *E. (E.) maculistigma* (Enderlein), differing in all details of coloration and structure of the male

hypopygium. The very pale stigma and short costal fringe in the male sex should be noted.

ERIOPTERINI.

35. *Clydonodozus stuckenbergi* n. sp. Text-fig. 21.

General coloration fulvous ; head dark brown, opaque ; rostrum and palpi black ; antennæ black, with a well-developed fusion-segment ; mesonotal præscutum with four brown stripes, the intermediate pair narrowly separated ; femora yellow, tips abruptly black ; wings yellow, heavily patterned with dark brown ; *Rs* angulated at origin ; abdomen clear fulvous yellow.

Male.—Length about 14 mm.; wing 10 mm.

Rostrum brown ; palpi black. Antennæ black, the base of the scape more reddish beneath ; basal four flagellar segments united into a compact fusion-segment, the outer ones becoming elongate, with very long verticils. Head dark brown, the surface opaque with sparse yellow pollen.

Cervical region and pronotum fulvous, narrowly darkened above. Mesonotal præscutum obscure yellow, with four brown stripes, the intermediate pair narrow, separated by a capillary ground vitta ; posterior end of præscutum and all other sclerites of notum dark brown, sparsely pruinose. Pleura brownish-yellow, patterned with brown on the more dorsal sclerites, the ventral ones clearer yellow. Halteres with stem pale brown, knob brownish-black. Legs with the coxæ and trochanters fulvous yellow ; femora yellow, the tips abruptly black, including about one-tenth of the fore femur ; tibiæ brownish-yellow, tips more narrowly blackened ; proximal tarsal segments brownish yellow, tips very narrowly black, outer tarsal segments more uniformly blackened. Wings (text-fig. 21) yellow, heavily patterned with dark brown, including the outer two-thirds of cell *C* except along vein *Sc* ; large rounded brown spots and seams at origin of *Rs*, cord, outer end of cell 1st *M*₂ and as circular marginal areas at ends of longitudinal veins, the largest at 2nd *A*, these areas nearly continuous, forming a narrow border to the wing ; still other darkenings at fork of *M*₁₊₂, at near one-fourth the length of cell *R*, and as conspicuous washes over the bases of cells *R* and *M* ; centre of cell 1st *M*₂ pale ; veins yellow, infuscated in the patterned areas ; veins glabrous. Venation : *R*₂₊₃ subequal to or shorter than *R*₂ alone ; *Rs* angulated at origin ; cell *C* broad.

Abdomen clear fulvous yellow, restrictedly darkened before the castaneous hypopygium ; sides of third and succeeding tergites with conspicuous erect black setæ.

Holotype, ♂, Nyachowa Falls, near Umtali, Vumba Mountains, Southern Rhodesia, January 16, 1955.

This interesting crane-fly is named in honour of Mr. Brian Stuckenberg, to whom we owe much of our recent knowledge of the Tipulidæ of south-eastern Africa. The species is very close to *Clydonodozus neavei* Alexander, of the Belgian Congo, differing in the details of coloration of the head and body and in the

pattern of the wings, the dark pattern in the medial field and on the basal third of the wing here being less extensive. The present is the first record of occurrence of the genus in Southern Africa.

36. *Trentepohlia* (*Trentepohlia*) *humeralis zuluensis* Alexander.

Trentepohlia (*Trentepohlia*) *humeralis zuluensis* Alexander, 1956; Durban Museum Novitates (in press).

This subspecies was described from Pietermaritzburg and Eshowe, Zululand, Natal.

Southern Rhodesia: Nyachowa Falls, near Umtali, Vumba Mountains, January 16, 1955; Zimbabwe, Fort Victoria, January 29, 1955.

37. *Gonomyia* (*Lipophleps*) *silinda* n. sp. Text-figs. 16, 22.

General coloration brownish-grey; rostrum brownish-black; pretergites and posterior border of scutellum conspicuously whitened; a whitish longitudinal pleural stripe; knobs of halteres variegated dark brown and white; femora brownish-yellow with a brownish-black nearly terminal ring; wings dusky, conspicuously variegated by whitened areas; stigma and other costal markings darker; Sc_2 ending opposite origin of R_s ; cell R_3 present; abdomen dark brown, the posterior borders of the segments pale; male hypopygium with three simple dististyles, the outer one longest; gonapophysis appearing as a strong black glabrous horn.

Male.—Length about 3 mm.; wing 3.5 mm.

Rostrum brownish-black; palpi black. Antennæ black, of moderate length; outer flagellar segments long and slender, with verticils of moderate length, those of the more proximal segments very long. Head chiefly dark brown.

Pronotum white, patterned laterally with brown; pretergites broadly white. Mesonotal præscutum brownish-grey, humeral region paler; scutum brownish-grey, posterior margin of lobes narrowly yellow; scutellum greyish-brown, the posterior border broadly whitened, parascutella more yellowed; mediotergite brownish-grey. Pleura brownish-grey, with a conspicuous whitish longitudinal stripe extending from behind the fore coxæ, widened behind, reaching the base of the abdomen; dorsopleural membrane darkened. Halteres with stem light brown, knob darker, narrowly but conspicuously margined with white. Legs with the coxæ whitened, narrowly infuscated basally, the fore pair more extensively so; trochanters yellow; femora brownish-yellow, with a conspicuous brownish-black ring shortly before the pale tips; tibiæ obscure brownish-yellow; tarsi light brown, passing into brownish-black. Wings (text-fig. 22) dusky, conspicuously variegated with whitened areas, arranged as follows: Prearcular and costal fields, before and beyond the stigma, vague pale areas across the wing before the cord, and in the outer cells; slightly darker areas at h , fork of Sc , stigma, and over vein

R_3 ; veins brown, paler in the whitened areas. Venation: *Sc* ending opposite origin of *Rs*, *Sc*₂ at extreme tip of *Sc*₁; cell R_3 present, small; vein R_3 suberect; *m-cu* at fork of *M*.

Abdomen dark brown, the posterior borders of the segments broadly pale; hypopygium dark. Male hypopygium (text-fig. 16) with three simple dististyles, *d*, the outermost longest, appearing as a very gently curved slender rod, its tip obtuse; intermediate style about one-third as long, pale and very slender, especially on nearly the outer half; inner style a very stout fleshy lobe, at apex a little produced and here with two approximated fasciculate bristles; remaining setæ stout but smaller. Gonapophysis, *g*, appearing as a strong black glabrous horn, narrowed to the acute tip.

Holotype, ♂, Chirinda Forest, Southern Rhodesia, January 25, 1955.

The most similar regional species is *Gonomyia (Lipophleps) noctabunda* Alexander, of southern and eastern Africa, differing especially in the structure of the male hypopygium, as the three dististyles and glabrous gonapophyses.

38. *Cheilotrichia (Cheilotrichia)* n. sp.

An undescribed species, known also from Natal and eastern Cape Province, that is being described in the more comprehensive discussion of the Tipulidæ of South Africa, in Dr. Per Brinck's 'South African Animal Life,' results of the Lund University Expedition in 1950-51.

Southern Rhodesia: Near Inyanga, January 14, 1955; a single ♀ that is included in the original description as a paratype.

39. *Erioptera (Erioptera) carior* Alexander.

Erioptera (Erioptera) carior Alexander, 1920; Ann. Mag. nat. Hist., ser. 9, 5: 466-467.

The type was from near Kaapmuiden, Eastern Transvaal, taken in October 1919 by H. K. Munro.

Northern Transvaal: Wylies Poort, Zoutpansberg Range, January 30, 1955.

40. *Erioptera (Erioptera) circumambiens* n. sp.

General coloration of thorax fulvous, the præscutum with a narrow brown median vitta that widens behind on the posterior sclerites; basal segments of antennæ yellow, the remainder brownish-black; head yellow; knob of halteres dark brown; legs yellow, the outer tarsal segments weakly infuscated; wings yellow, restrictedly patterned with darker, including narrow brown seams over cord, along vein *Cu*, and as a narrow border around the wing tip, enclosing a large discal area beyond the cord.

Female.—Length about 6 mm.; wing 5.5 mm.

Rostrum yellow; palpi brownish-black. Antennæ with the proximal four segments yellow, the remainder brownish-black; flagellar segments oval to long-oval. Head yellow, the posterior vertex with a faint whitish bloom.

Pronotum buffy; pretergites very pale yellowish-white. Mesonotal præscutum fulvous, with a narrow brown median vitta, humeral region more yellowed; posterior sclerites of notum yellowed to buffy laterally, the central region infuscated, forming a relatively broad stripe. Pleura and pleurotergite chiefly yellow, very weakly tinged with darker on the central part. Halteres with stem yellow, knob dark brown. Legs yellow, the outer tarsal segments weakly infuscated; intermediate-sized setæ appearing as very slender scales that are smaller than the normal setæ. Wings yellow, restrictedly patterned with darker, including narrow brown seams over cord and along vein *Cu* and as a narrow border around the wing tip from the stigma to *Cu*₁, enclosing an outer pale discal ground area beyond the cord; veins yellow, darker in the patterned areas. Venation: Vein 2nd *A* long and strongly sinuous, as in the subgenus.

Abdomen obscure yellow, the sternites clearer yellow. Ovipositor with the cerci reddish horn colour, elongate, moderately upcurved.

Holotype, ♀, near Inyanga, Southern Rhodesia, January 14, 1955.

Erioptera (Erioptera) circumambiens is readily told from other regional members of the subgenus by the distinctive wing pattern. It is most similar to *E. (E.) angusticincta* Alexander, which has only the narrow darkened seam over the cord of the wings.

41. *Erioptera subirrorata* Alexander.

Erioptera subirrorata Alexander, 1920; Ann. Mag. nat. Hist., ser. 9, 6: 29-30.

Originally described from Kenya, now known from Southern Rhodesia and the Transvaal.

Southern Rhodesia: Penhalonga, January 17, 1955.

42. *Erioptera (Podoneura) anthracogramma* (Bergroth).

Podoneura anthracogramma Bergroth, 1888; Ent. Tidskr., 9: 133-134.

Widely distributed in eastern and southern Africa and in Madagascar.

Southern Rhodesia: Near Inyanga, January 14, 1955.

43. *Toxorhina (Ceratocheilus) drysdalei* Alexander.

Toxorhina (Ceratocheilus) drysdalei Alexander, 1937; Occas. Pap. Rhod. Mus., 6: 10-11.

Described from the Vumba Mountains, near Umtali, taken in December by the late Major J. E. Drysdale.

Southern Rhodesia: Chirinda Forest, January 25, 1955.

44. *Toxorhina (Ceratocheilus)* near *scimitar* Alexander

Toxorhina (Ceratocheilus) scimitar Alexander, 1956; Ruwenzori Exped. 1934-35 (Brit. Mus. Nat. Hist.), 1, no. 7: 369-370.

A single broken female from Zimbabwe, near Fort Victoria, Southern Rhodesia, January 29, 1955. A single wing and leg remains and the fly cannot well be determined more accurately.

45. *Styringomyia vittata* Edwards.

Styringomyia vittata Edwards, 1914 ; Trans. ent. Soc. Lond., 1914, 217-218.

The holotype was from Salisbury, Southern Rhodesia. As at present known, the species has an unusually wide range throughout tropical Africa.

Southern Rhodesia : Nyachowa Falls, near Umtali, Vumba Mountains, January 16, 1955.

Mozambique : Machapanda, near Umtali, January 19, 1955.