

**The Crane-Flies of South Africa in the Natal
Museum (Diptera : Tipulidæ)**

BY

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**The Crane-Flies of South Africa in the Natal Museum
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PART VI¹

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With 36 Text-figures.

INTRODUCTION.

IN the present report I am continuing the survey of the very interesting series of Tipulidæ collected by Mr. Brian Stuckenberg of the Natal Museum staff. Virtually all of the species considered herewith are from Natal, including materials from the Enon Estate, Richmond; Geekie's Farm, Karkloof; Kranskop; Lion's Bush, Nottingham Road; Nhluzana Mountain; Zwartkop Mountain, and from various stations in and near Pietermaritzburg. A further very interesting series of species was taken during February 1957 by Mr. Stuckenberg in Zululand and I am including his interesting notes on this material.

"I have just returned from a collecting trip to two most peculiar and interesting forests in Zululand, namely the Gwalaweni Forest on the Lebombo Range, south of Ingwavuma, and the Ngoye Forest, south-west of Empangeni. The Gwalaweni is a very strange forest, rather dry, with dense undergrowth, generally less than 2,200 ft. above sea-level, and composed of trees not often found in forests to the south. The fauna is odd, containing rare endemics, groups with southern affinities, and some groups with a marked Rhodesian facies. Tipulids were not abundant but I managed to find quite a few species, all of which seem strange to me.

"From Gwalaweni we proceeded to the Ngoye Forest, which is to the south-west on an elevated region between Eshowe and Empangeni. Ngoye is famous for its endemics, having peculiar butterflies, frogs, cryptofauna and a bird, the Woodward's Barbet. Collecting was good and I was able to get several species of Tipulids."—B. Stuckenberg.

The types and representative specimens of all species have been returned to the Natal Museum. In order to complete the data I have included one further species based on materials taken by my friend Mr. Noël L. H. Krauss at Eshowe, Zululand.

¹ Contribution No. 1283 from the Department of Entomology, University of Massachusetts, Amherst, Mass., United States of America.

TIPULIDÆ.

TIPULINÆ.

61. *Longurio eshowensis* n. sp. Text-fig. 5.

General coloration of mesonotum light brown, without distinct pattern: frons and prolongation of head light yellow, vertex buffy yellow, the disk extensively infuscated; legs pale brownish yellow to obscure yellow, including the tarsi; wings strongly tinged with pale brown, the costal border and stigma only slightly darker, obliterative areas very restricted.

Female.—Length about 14 mm.; wing 12 mm.; antenna about 3 mm.

Frontal prolongation of head light yellow above, more infuscated on sides and beneath; nasus lacking; palpi with basal segments testaceous yellow, outer segments more infuscated. Antennæ relatively long for the female sex. Front silvery yellow, with a brown central spot; vertex buffy yellow, the disk extensively infuscated; vertical tubercle small; head unusually broad, reducing the area of the posterior vertex.

Pronotum brown, darker medially. Mesonotal præscutum and scutum almost uniform light brown, without pattern, humeral region darker: scutellum and postnotum brownish yellow, unmarked. Pleura chiefly obscure yellow, the propleura and ventral sternopleurite darker, to produce a weak pattern. Halteres elongate, brown, base of stem narrowly yellow. Legs with coxæ obscure yellow, vaguely clouded with darker, especially the fore and middle pairs; trochanters yellow; remainder of legs pale brownish yellow to obscure yellow, only the last tarsal segment darkened. Wings (text-fig. 5) with a strong pale brown tinge, the costal border and stigma only slightly darker; very restricted obliterative areas at the cord; veins brown. Macrotrichia of veins sparse, occurring as weak series on veins R_3 to distal section of Cu_1 , inclusive. Venation; Sc_1 strongly preserved, longer than Sc_2 , before fork of Rs ; Rs nearly straight to gently arcuate, about one-third longer than R_{2+3} ; R_{1+2} suberect, narrowing cell Sc_2 ; R_3 long, more than twice R_{2+3} ; cell M_1 deep, short-petiolate to nearly sessile; $m-cu$ at near two-thirds the length of M_{3+4} ; cell 2nd A moderately broad.

Abdominal tergites dark brown, the disk variegated with yellow on either side of the midline, the outer segments uniformly darkened; sternites more extensively yellow, patterned with darker. Abdomen filled with eggs to obscure the normal colour. Ovipositor with the cerci long, straight and very slender; hypovalvæ stouter.

Holotype, ♀, Eshowe, Zululand, Natal, 1,650 ft., January 1957 (Noël L. H. Krauss); in author's collection.

The most similar described species is *Longurio africanus* (Alexander), likewise from Natal, the two flies differing in the coloration and in details of venation. A further important distinction lies in the nature of trichiation of the wing veins which are much more numerous and well distributed in

africanus, including a strong series on the outer half of the main stem of M and over vein M_{3+4} .

62. *Longurio mitiformis* n. sp. Text-figs. 1, 6.

Size small (wing under 10 mm.); general coloration of thorax yellow, the pleura clearer; legs brownish yellow, claws of male toothed; antennæ of male moderately long, flagellar segments cylindrical, with abundant short pale setæ; wings with cell M_1 petiolate; vein Cu_2 (the delicate vein lying behind and parallel to Cu_1) some distance removed from Cu_1 , the latter cell correspondingly widened; abdomen obscure yellow, patterned with brown; male hypopygium with the posterior border of tergite truncate; a single mitten-shaped dististyle, the inner substyle bidentate.

Male.—Length about 8.5 mm.; wing 8 mm.; antenna about 3.4 mm.

Female.—Length about 11.5 mm.; wing 9.2 mm.

Frontal prolongation of head yellow, less than one-half the remainder of head, without nasus; palpi testaceous brown. Antennæ of male 12-segmented, relatively long, as shown by the measurements; basal three segments brownish yellow, succeeding ones dark brown; basal flagellar segment short, subequal in length to the scape, succeeding segments elongate, cylindrical; outer segments gradually shorter, terminal one nearly as long as the penultimate; segments clothed with abundant short delicate erect pale setæ, the verticils not differentiated; antennæ of female shorter. Head above light fulvous, the anterior vertex, orbits and occiput paler; a capillary darker brown central vitta; a concentration of small black setæ on posterior vertex, directed laterad, bordering the orbital line.

Pronotum testaceous yellow. Mesonotum yellow, not or scarcely patterned; surface glabrous and nearly opaque. Pleura clearer yellow. Halteres elongate, stem brownish yellow, clearer basally, knob brown. Legs with coxæ and trochanters yellow, the latter with a brown spot on inner face; femora brownish yellow, the tips narrowly and inconspicuously darker; tibiæ and tarsi yellowish brown; claw of male with a single erect spine before midlength. Wings (text-fig. 6) tinged with brown; stigma long-oval, darker brown; a whitened ante-stigmal area and a pale line in outer half of cell R , crossing 1st M_2 into base of M_3 ; veins brown. In the male, the veins beyond cord with abundant short macrotrichia; in female these much more sparse, being practically restricted to veins R_3 , outer two-thirds of R_{4+5} , outer medial branches and the distal section of Cu_1 . Venation: R_{1+2} shorter and more erect in male (as shown); cell M_1 from about one-third to two-thirds longer than its petiole; $m-cu$ before midlength of M_{3+4} ; Cu_2 some distance from vein Cu_1 , the cell thus unusually wide.

Abdomen relatively long in both sexes but especially in the female; tergites obscure yellow, the posterior borders narrowly infuscated, the end of the basal

ring of each segment less evidently so, sternites clearer yellow; hypopygium brownish yellow, ovipositor and preceding segments dark brown. Ovipositor with cerci compressed long-triangular, the tips acute. Male hypopygium (text-fig. 1) with the tergite, *t*, large, posterior border truncate, Dististyle, *d*, single, divided at near midlength into two substyles, the outer flattened, oval, the slightly shorter inner style unequally bifid at tip, the two points blackened. Ædeagus very short and stout.

Holotype, ♂, Ngoye Forest, Zululand, Natal, February 17–19, 1957 (B. Stuckenberg). *Allotopotype*, ♀, with the type.

The present fly is most similar to species such as *Longurio syndactyla* Alexander, differing in details of coloration, toothed claws of the male, and in the structure of the male hypopygium, particularly the dististyle. The length of the male antenna in *syndactyla* is still unknown. In the present poorly known state of knowledge of the genus, as it occurs in South Africa and in Madagascar, I do not think it advisable to try to place the various species in subgeneric groups as has been done in other complex genera, such as *Tipula*. With the accession of more abundant material and the discovery of further unknown species which must certainly exist such a subdivision may be attempted.

63. *Dolichozeza* (*Trichodolichozeza*) *dingaan* n. sp. Text-figs. 2, 7.

Size large (wing 10 mm. or more); antennæ relatively short, less than one-half the wing or body, flagellum black; anterior vertex yellow; mesonotal præscutum light brown with three darker brown stripes; pleura dull yellow, variegated with brown; apex of knob of halteres yellow; legs brownish black; wings strongly blackened, stigma still darker, preceded and followed by conspicuous whitened areas; abundant macrotrichia in outer wing cells; outer medial forks deep; abdominal segments in male bicoloured; male hypopygium with the tergite unproduced medially, lateral arms oval, with coarse spicules; inner dististyle a long simple curved rod, the tip microscopically bidentate, outer style small.

Male.—Length about 9–9.5 mm.; wing 10–10.5 mm.: antenna about 4–4.2 mm.

Female.—Length about 10 mm.: wing 11 mm.

Frontal prolongation of head brown above, obscure yellow beneath; region of nasus tufted with very long black setæ; palpi black. Antennæ of male moderately long, as shown by the measurements; scape and pedicel obscure yellow, the former darkened at apex, flagellum black; flagellar segments long-cylindrical, exceeding the verticils. Anterior vertex light yellow, posterior vertex brownish grey, variegated by more velvety black areas.

Pronotum dark brown, variegated by paler brownish grey. Mesonotal præscutum light brown with three darker brown stripes, anterior border more infuscated; posterior sclerites of notum dark brown, mediotergite somewhat

paler, especially on borders, pleurotergite chiefly obscure yellow. Pleura obscure testaceous or dull yellow, patterned with brown on the ventral anepisternum, ventral sternopleurite, meron and dorsal pteropleurite. Halteres with stem brown, yellow at base, knob blackened, the tip extensively pale yellow. Legs with coxæ pale yellow, the fore pair narrowly darkened basally; trochanters pale yellow; remainder of legs brownish black, femoral bases and genua vaguely brightened, tarsi slightly paler. Wings (text-fig. 7) strongly blackened, prearcular and costal regions a trifle darker; stigma oval, dark brown, preceded and followed by conspicuous whitened areas, with a smaller oblitative spot across the fork of M ; veins brown. Abundant macrotrichia in outer cells (position shown in figure by stippling). Venation: R_{1+2} atrophied or vaguely indicated by a pale streak; medial forks deep, cell M_1 in male about five times its petiole, in allotype female about three times the petiole; $m-cu$ about one-half its length before fork of M ; cell $2nd\ A$ moderately deep.

Abdomen, in male, bicoloured, intermediate tergites black with a large yellow area on either side before apex, this becoming obsolete beyond the sixth segment; sternite paler yellow, the base and apex of segments narrowly blackened; hypopygium relatively large, obscure yellow; in the female, abdomen more blackened, especially the tergites, sternites variegated by paler. Male hypopygium (text-fig. 2) with the posterior margin of tergite, t , subtruncate, narrowly blackened, without projections; lateral arms oval, blackened, with relatively few stout blackened pegs. Outer dististyle, d , small, with long setæ, the tip obliquely truncate; inner style a long simple curved rod, widened and pale on basal half, the narrowed outer part black, the apex vaguely bidentate, the lower tooth more acute; at base of the blackened part with a low obtuse tooth. Ædeagus blackened, appearing as a cylindrical tubular structure.

Holotype, ♂, Kranskop, Natal, October 12, 1956 (B. Stuckenberg). *Allotype*, ♀. *Paratopotype*, 1 ♂.

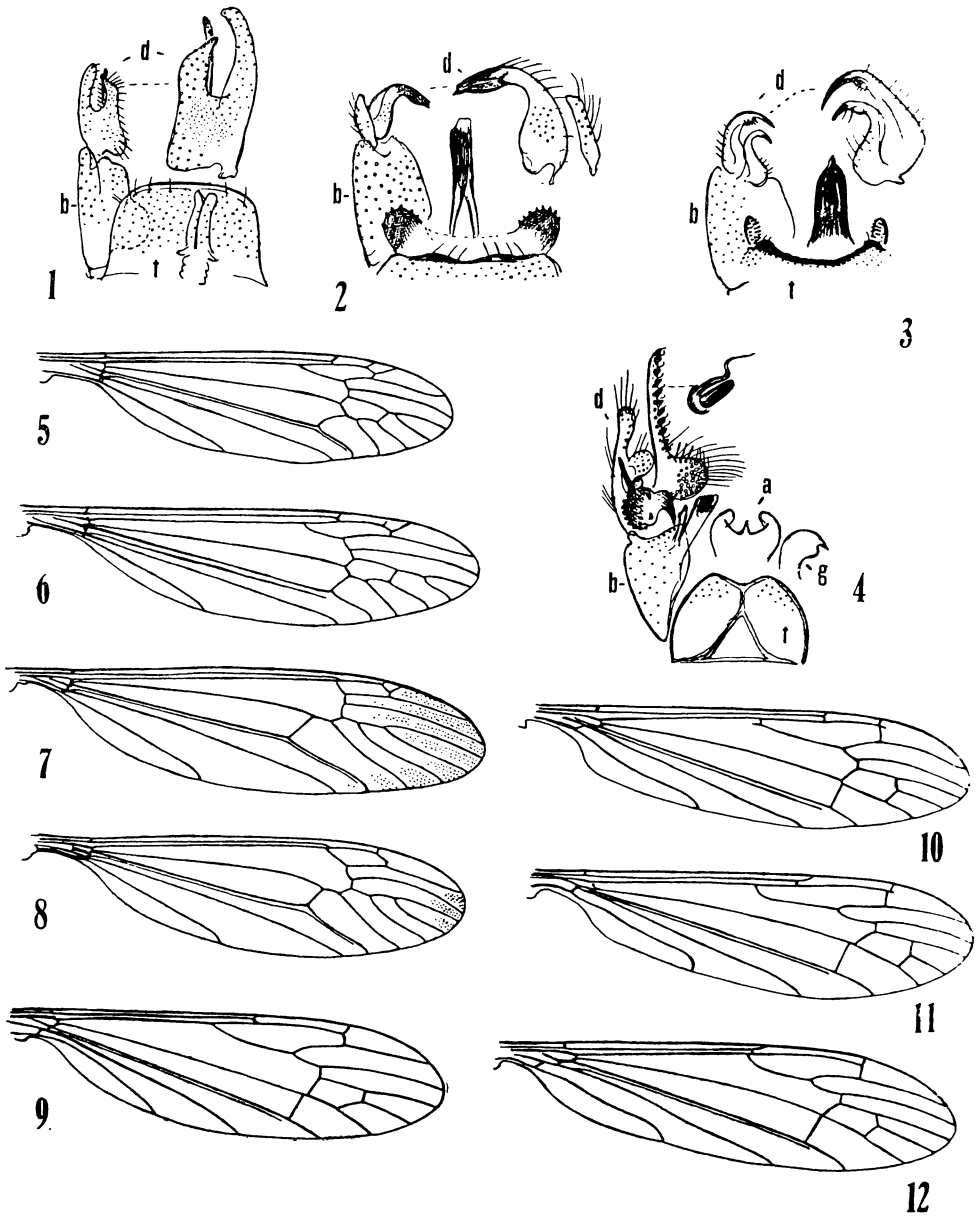
The specific name, *dingaana*, is that of a Zulu chief of the nineteenth century, brother of Panda and Chaka (Tchaka), the latter of whom he murdered in 1828.

Dolichozeza (Trichodolichozeza) dingaana is readily told from related regional species, such as *D. (T.) cathedralis* Alexander and *D. (T.) parvistyla* Alexander, by the venation, trichiation of the wing cells and, especially, the details of structure of the male hypopygium, particularly the tergite and inner dististyle.

64. *Dolichozeza (Trichodolichozeza) senzangakona* n. sp. Text-figs. 3, 8.

Size very large (wing 14 mm. or over); general coloration of mesonotum orange, the disk with four light brown stripes; pleura obscure yellow, without pattern; wings brownish yellow, patterned with medium brown, stigma darker; restricted macrotrichia in outer ends of cells R_3 to M_1 inclusive;

TEXT-FIGS. 1-12.



1. *Longurio mitiformis* n. sp.; male hypopygium. 2. *Dolichozeza (Trichodolichozeza) dingaan* n. sp.; male hypopygium. 3. *Dolichozeza (Trichodolichozeza) senzangakona* n. sp.; male hypopygium. 4. *Limonia (Limonia) flavopyga* (Alexander); male hypopygium. 5. *Longurio eshowensis* n. sp.; venation. 6. *Longurio mitiformis* n. sp.; venation. 7. *Dolichozeza (Trichodolichozeza) dingaan* n. sp.; venation. 8. *Dolichozeza (Trichodolichozeza) senzangakona* n. sp.; venation. 9. *Limonia (Limonia) argopoda* n. sp.; venation. 10. *Limonia (Limonia) dingaan* n. sp.; venation. 11. *Limonia (Limonia) lebombo* n. sp.; venation. 12. *Limonia (Dicranomyia) viator* n. sp.; venation.

(Hypopygial symbols: b, basistyle; d, dististyle; g, gonapophysis; t, 9th tergite.)

male hypopygium with both dististyles pointed at tips; ninth sternite beneath with a pencil of setæ on either side of midline.

Male.—Length about 14 mm.; wing 14 mm.; antenna about 3.5 mm.

Female.—Length about 13–14 mm.; wing 14–14.5 mm.

Frontal prolongation of head brownish yellow; palpi brown, passing into dark brown, incisures paler. Antennæ relatively short, as shown by the measurements; scape yellow, pedicel testaceous, flagellum black; flagellar segments cylindrical, subequal to the longest verticils. Head light yellow on anterior vertex, more fulvous behind; setæ small, black.

Cervical region narrowly darkened above, orange on sides. Pronotum yellowish brown medially, yellow on sides. Mesonotal præscutum with the restricted ground orange, disk with four light brown stripes, the intermediate pair separated by a capillary pale vitta only on anterior part; humeral region behind the linear foveæ weakly darkened; scutum and scutellum light brown, median region of former very narrowly yellow; mediotergite chiefly yellowed, pleurotergite somewhat darker. Pleura obscure yellow, unpatterned. Halteres with stem weakly darkened, base narrowly yellow, apex of knob obscure yellow, base more darkened. Legs with coxæ and trochanters yellow; femora blackened, bases restrictedly brightened; tibiæ brownish black; tarsi brown. Wings (text-fig. 8) with the restricted ground brownish yellow, extensively patterned with medium brown at tip and as seams along veins from cord outwardly; cells *C* and *Sc* slightly darkened, especially outwardly; stigma oval, dark brown, conspicuous, preceded and followed by more yellowed areas; a small yellow marking across the fork of *M*; veins brown. Macrotrichia in outer ends of cells R_3 , R_5 and M_1 (position shown in figure by stippling). Venation: R_{1+2} atrophied or represented by a short spur; medial cells deep, M_1 about four times its petiole; *m-cu* from one-third to one-half times its length before the fork of *M*.

Abdomen with basal segments yellowed, succeeding ones bicoloured, brown basally, the somewhat more extensive outer ends yellowed, subterminal segments more uniformly darkened; hypopygium brownish yellow. Male hypopygium (text-fig. 3) with the tergal margin, *t*, narrowly blackened, concave, the edge slightly roughened; ventral armature including oblique oval plates provided with abundant blackened spicules. Ninth sternite beneath on either side of midline with a small group of very long setæ that form a pencil. Dististyles, *d*, terminal, both narrowed outwardly, the longer outer style curved to the acute tip, with a group of setæ beyond midlength of lower face; the smaller inner style is of somewhat similar shape, dilated basally, the blackened tip subacute to very narrowly obtuse. *Ædeagus* blackened, terminating in a small central point.

Holotype, ♂, Geekie's Farm, Karkloof, Natal, January 9, 1957 (B. Stuckenberg). *Allotopotype*, ♀. *Paratopotype*, ♀.

The specific name, *senzangakona*, is that of the founder of the line of Amazulu kings, father of Chaka, Dingaan and Panda.

The regional species having the structure of the male hypopygium most as in the present fly is *Dolichopeza (Trichodolichopeza) chaka* Alexander, a much smaller fly with the coloration and details of the hypopygium quite distinct.

LIMONIINÆ.

LIMONIINI.

65. *Limonia (Limonia) argopoda* n. sp. Text-fig. 9.

Size small (wing of female about 4 mm.); general coloration of mesonotum uniformly polished liver brown, the pleura more yellowed; antennæ black, flagellar segments subglobular to short-oval, with short apical necks; legs light brown, posterior tarsi chiefly snowy white; wings with a strong brownish tinge, without pattern; Sc_1 ending opposite or shortly before midlength of R_s .

Female.—Length about 3.5 mm.; wing 4.1 mm.

Rostrum and palpi black. Antennæ black throughout; basal flagellar segments subglobular to short-oval, with short apical necks; outer segments more oval, the narrowed apex becoming evanescent on the subterminal segment; terminal segment elongate, the outer half strongly narrowed; longest verticils unilaterally distributed, subequal to the segments. Head brown; anterior vertex relatively wide, broader than the diameter of scape; ommatidia of eyes coarse, conspicuous.

Thoracic dorsum uniformly polished liver brown, without pattern, unusually glabrous, with few scattered setæ only. Pleura and pleurotergite more yellowed, dorsoplural region dusky. Halteres with stem brown, knob brownish black. Legs with coxæ and trochanters yellowed; fore and middle legs light brown or yellowish brown, including the tarsi; posterior femora and tibiæ light brown, posterior tarsi with segments one to three snowy white, the fifth and apex of fourth brownish black. Wings (text-fig. 9) with a strong brownish tinge, without stigma; veins pale brown, trichia black. Veins of outer half of wing with strong trichia, including a series over virtually the whole length of R_s and a few at outer end of vein M ; no trichia in wing cells. Venation: Sc_1 ending opposite or shortly before midlength of R_s , Sc_2 near its tip and longer; free tip of Sc_2 and R_2 in transverse alignment; basal section of R_{4+5} about one-third R_s ; M_{3+4} shorter than M_4 ; $m-cu$ at or just before fork of M . The left wing of the type has cell M_2 open by the atrophy of the basal section of M_3 , closed on the opposite wing.

Abdominal tergites dark brown, sternites paler. Ovipositor with valves relatively short, the cerci each with a microscopic tooth on dorsal edge before apex.

Holotype, ♀, Ngoye Forest, Zululand, Natal, February 17–19, 1957 (B. Stuckenberg).

In my key to the Tropical African species of the genus (' Ruwenzori Report ', Tipulidæ, 1956, pp. 199–207) the present fly runs to *Limonia (Limonia) metatarsalba* (Alexander), of the Cameroons, a slightly larger fly that differs in the details of coloration of the legs and wings, as well as in the venation.

66. *Limonia (Limonia) dingaan* n. sp. Text-figs. 7, 13.

General coloration of mesonotum dark reddish brown, dorsal thoracic pleura with a broad brownish black longitudinal stripe; legs dark brown; wings strongly tinged with brown, sparsely patterned with darker; *Sc* long, *Sc*₁ ending opposite or beyond two-thirds the length of *Rs*; male hypopygium with the cephalic border of the tergite strongly convex; ventral dististyle small, the rostral prolongation long and slender, at base of outer margin with two long straight black spines, closely approximated at origin; ædeagus dilated at outer end.

Male.—Length about 5·5·3 mm.; wing 5·8–6 mm.; antenna about 0·7–0·8 mm.

Rostrum and palpi black. Antennæ short, black throughout; basal flagellar segments short-oval, the intermediate ones long-oval, the outer three or four elongate; terminal segment a trifle longer than the penultimate; verticils subequal to or shorter than the segments. Head dark brownish grey, clearer grey anteriorly; anterior vertex narrow, about one-third the diameter of the scape.

Cervical sclerites brownish black. Pronotum reddish brown, darker laterally. Mesonotal præscutum dark reddish brown, surface shiny; scutal lobes reddish brown, median region, with the scutellum, testaceous yellow; mediotergite darker brown, the upper part of the pleurotergite brownish yellow. Pleura reddish brown ventrally, the dorsal part occupied by a very conspicuous brownish black stripe extending from the prothorax to the abdomen, passing through the bases of the halteres and involving the ventral pleurotergite. Halteres brownish black, the extreme base of stem paler. Legs with the coxæ and trochanters testaceous yellow; remainder of legs dark brown. Wings (text-fig. 7) with a strong brownish tinge; stigma short-oval, darker brown; vague darkenings over cord and outer end of cell 1st *M*₂; wing tip in outer radial field more or less darkened; veins dark brown. Venation: *Sc* long, *Sc*₁ ending from about opposite two-thirds to four-fifths *Rs*, *Sc*₂ near its tip and slightly longer; *Rs* relatively long, in cases weakly spurred near origin; free tip of *Sc*₂ and *R*₂ in alignment, *R*₁₊₂ jutting beyond as a short spur; cell 1st *M*₂ longer than vein *M*₄; *m-cu* at or beyond the fork of *M*.

Abdominal tergites and hypopygium dark brown; basal sternites more or less bicoloured, the apices of the segments pale. Male hypopygium (text-fig. 13) with the tergite, *t*, long, the posterior border bilobed, its median notch small and narrow, cephalic margin very strongly convex. Basistyle, *b*, with the

ventromesal lobe pale, long and conspicuous. Dorsal dististyle, *d*, a slender rod, the outer half strongly curved and narrowed to the long acute tip; ventral style a small oval fleshy pale lobe, the area subequal to the body of the basistyle; rostral prolongation long and slender, rostral spines two, long and straight, placed close together at base of outer face of prolongation. Gonapophysis, *g*, with the mesal-apical lobe a slightly curved darkened spine. Ædeagus relatively slender, the apex more dilated.

· *Holotype*, ♂, Gwalaweni Forest, Zululand, Natal, February 14–16, 1957, (B. Stuckenberg). *Paratype*, ♂, Ngoye Forest, Zululand, February 17–19, 1957 (B. Stuckenberg).

· The species is named for Dingaana, brother of Chaka (Tchaka); the famous Zulu chief is supposed to have been buried in the Gwalaweni Forest.

· Although superficially the present fly is much like *Limonia* (*Limonia*) *umbrata* (de Meijere), the two species differ strikingly in the structure of the male hypopygia. A third species, *L. (L.) marleyi* (Alexander), still known to me only from the female sex, differs in the details of coloration and venation.

67. *Limonia* (*Limonia*) *flavopyga* (Alexander). Text-fig. 4.

Dicranomyia flavopyga Alexander, 1921; Ann. Mag. Nat. Hist. (9) 7: 307–308.

Teucholabis nova Wood, 1952; Ann. S. Afr. Mus., 39: 263–265, fig. 86 (venation, hypopygial details).

Type from Shafton Grange, Natal, taken April 28, 1919, by A. G. Shaw. Ngoye Forest, Zululand, Natal, February 17–19, 1957 (B. Stuckenberg).

Throughout the world there are numerous species in the genus *Limonia* that have the structure of the male hypopygium of unusual complexity, the present fly being one of these. No adequate description of the infinite detail has been prepared, that by Wood as cited above being the most complete and accurate.

· Male hypopygium (text-fig. 4) with the tergite, *t*, very large, transverse, gently narrowed posteriorly, the caudal margin with a shallow notch; central strut appearing like an inverted Y, the stem shorter than the arms. Basistyle, *b*, stout, with two unequal lobes on the mesal face, the longer more cephalic one clavate, near its outer end with a concentrated mass of about a score of blackened spines, their tips obtuse; second lobe much smaller, lying more distally, slightly expanded outwardly, the apex with numerous strong setæ. Dististyle, *d*, unusually complex; what appears to represent the usual dorsal style is a small slender darkened rod, nearly straight, the tip subacute to narrowly obtuse, its base expanded; ventral dististyle with two major elongate structures that are directed caudad, the outer unequally bilobed, its outer arm more slender, with strong setæ; the inner arm short and stout, also with long setæ; second elongate structure lying inside the first, being the larger element, appearing as a long straight rod from an enlarged oval base, the latter with very abundant elongate setæ, on mesal face of rod with a row of very long setæ and

a further line of about a dozen (11–13) blackened pegs, each with a subtending strongly bent bristle, the latter pale at end ; at base of the two outer lobes of the ventral style with a further complex structure, consisting of an outer blackened mace-like mass, provided with abundant short points and an inner cleaver-like blade that terminates in a decurved point, near its base with two further small spines. Gonapophysis, *g*, very stout, the expanded tip directed laterad, the narrowly blackened apex unequally bifid, the cephalic point stout and obtuse, the outer one more pointed. *Ædeagus* very broad, its apex trifid, including broader lateral blades and a more acute central point.

68. *Limonia (Limonia) lebombo* n. sp. Text-figs. 11, 14.

Mesonotal præscutum buffy yellow, with three confluent darker stripes ; legs light yellow, claws without teeth ; wings conspicuously patterned with brown ; *Sc* long ; male hypopygium with rostral prolongation of the ventral dististyle long and slender, with two long black spines.

Male.—Length about 4.8 mm. ; wing 5 mm.

Female.—Length about 7 mm. ; wing 5.8 mm.

Rostrum dark brown ; palpi black. Antennæ with basal four or five segments black, the outer ones paling to brown ; basal flagellar segments short-oval, the outer ones more elongate ; verticils short. Head black, very sparsely pruinose ; anterior vertex relatively narrow, less than the diameter of scape.

Pronotum above brownish yellow. Mesonotal præscutum with the sides buffy yellow, the central part with three confluent darker stripes, the lateral pair crossing the suture onto the inner part of the scutal lobe, remainder of scutum buffy ; scutellum buffy, darker on central part ; mediotergite dark brown, sparsely pollinose, pleurotergite chiefly brownish yellow, darker ventrally. Pleura with dorsal half darkened to form an indistinct stripe, ventral sclerites and sternum light yellow. Halteres short, stem pale, knob dark brown. Legs with coxæ and trochanters light yellow, the fore coxæ very slightly darkened ; remainder of legs light yellow, the outer tarsal segments darkened ; claws long, without teeth, as is common in the genus. Wings (text-fig. 11) with cells *C* and *Sc* weakly yellowed, disk partly suffused with brown, more whitened in the vicinity of the cord, before origin of *Rs* and in outer ends of the cells from the medial field posteriorly, with an isolated pale spot beyond the stigma ; further still darker brown pattern including separate spots at origin of *Rs* and fork of *Sc*, stigma, the extensively darkened outer radial field and as narrow but conspicuous seams over the cord and outer end of cell 1st *M*₂ ; brown spots at ends of anal veins, larger on 2nd *A* ; veins brown, more yellowed in costal field. Venation : *Sc* long, *Sc*₁ ending about opposite two-thirds the length of *Rs*, *Sc*₂ slightly removed, *Sc*₁ alone about equal to vein *R*₂ ; free tip of *Sc*₂ pale, lying just beyond level of *R*₂, *R*₁₊₂ jutting beyond as a short spur ; basal section of *R*₄₊₅ very long, subequal to *R*₂₊₃ ; cell 1st *M*₂ about as long as distal

section of M_{1+2} ; *m-cu* near fork of *M*; vein *2nd A* bent strongly into margin.

Abdominal segments weakly bicoloured, brown, the bases or incisures more brownish yellow; hypopygium chiefly obscure yellow. Male hypopygium (text-fig. 14) small. Ninth tergite, *t*, transverse, narrowed outwardly, posterior border very gently emarginate, cephalic margin very gently convex; tergal setæ sparse but long and conspicuous. Basistyle, *b*, with ventromesal lobe darkened, short and subconical, provided with long setæ. Two dististyles, the dorsal style a smooth strongly curved hook, the outer half curved and narrowed to a long apical point; ventral style, *d*, small, rostral prolongation long and slender, with two long black spines placed close together on outer margin of prolongation at near midlength, the innermost from a small basal tubercle; face of style beyond base of prolongation with two very long setæ, approximated at bases. Gonapophysis with mesal-apical lobe long and slender, only gently curved. *Ædeagus* pale, glabrous, conspicuously bilobed at apex.

Holotype, ♂, Gwalaweni Forest, Zululand, Natal, February 14–16, 1957 (B. Stuckenberg). *Allotype*, ♀, Pietermaritzburg, Natal, at light, January 27, 1957 (B. Stuckenberg).

Quite distinct from all other regional species in the nature of the wing pattern and structure of the male hypopygium.

69. *Limonia (Limonia) shawi* (Alexander).

Dicranomyia shawi Alexander, 1921; Ann. Mag. nat. Hist. (9) 7: 306–307.

Limonia (Limonia) shawi Alexander, 1956; Ruwenzori Exped., 1934–35 (Brit. Mus. Nat. Hist.), 1, No. 7, Tipulidæ: 240, fig. 90.

Natal: Ngoye Forest, Zululand, February 17–19, 1957 (B. Stuckenberg).

70. *Limonia (Dicranomyia) viator* n. sp. Text-figs. 12, 15.

Size large (wing over 9 mm.); general coloration of mesonotum obscure brownish yellow, pruinose on sides, disk with three dark brown stripes; pleura yellow, pruinose, narrowly striped with brown; antennæ of male long; wings tinged with brown, costal border darker; narrow dark seams at cord and outer end of cell *1st M*₂; ovipositor with cercus long and slender, slightly decurved, surface with setæ; male hypopygium with tergite transverse, posterior border truncate or virtually so; ventral dististyle large and fleshy, rostral prolongation small, pendant, the two spines near base on lower face.

Male.—Length about 7.5–8 mm.; wing 9.5–10 mm.; antenna about 2.6–2.7 mm.

Female.—Length about 8–8.5 mm.; wing 9.5–10 mm.

Rostrum and palpi black. Antennæ black throughout, unusually long in male, flagellar segments long-suboval, a little shorter than the verticils; shorter in the female, basal flagellar segments oval, outer ones more elongate, shorter than the verticils. Head brown; anterior vertex narrow, about one-half the diameter of the scape.

Pronotum brown to dark brown. Mesonotal præscutum with the ground obscure brownish yellow to clearer yellow, more pruinose on the sides, disk with three conspicuous dark brown stripes; scutal lobes with central part obscure yellow, margined at both ends by brownish black; scutellum and postnotum dark brown. Pleura and pleurotergite yellow, pruinose, with a very narrow darker dorsal stripe involving the propleura and fore coxæ, ending at the pteropleurite; ventral sternopleurite darkened. Halteres with stem light brown, more yellowed at base, knob infuscated, the tip a little brightened. Legs with coxæ and trochanters yellow, fore coxæ darker; femora light brown, the tips darker; tibiæ and tarsi darker brown, passing into black, posterior legs somewhat paler. Wings (text-fig. 12) tinged with brown, the costal border, including cells *C* and *Sc*, darker brown; stigma oval, brown; narrow but conspicuous brown seams at origin of *Rs*, cord and outer end of cell 1st *M*₂; veins brownish black. Venation: *Sc*₁ ending shortly beyond origin of *Rs*, *Sc*₂ at or close to this origin; free tip of *Sc*₂ and *R*₂ in approximately transverse alignment; *m-cu* at or just before fork of *M*.

Abdomen with basal two or three segments brown, the outer tergites, including the hypopygium, darker; sternites light brown, the bases narrowly darker. Ovipositor with the cerci long and slender, slightly decurved, the tips weakly dilated; surface with conspicuous erect setæ. Male hypopygium (text-fig. 15) with the tergite, *t*, transverse, narrowed outwardly, posterior border virtually truncate or with an exceedingly shallow emargination, provided with abundant long setæ. Basistyle, *b*, black, the simple ventromesal lobe paler, with strong setæ, some very long. Dorsal dististyle, *d*, small but stout, narrowed beyond base, at apex produced into a straight spine; ventral style large and fleshy, its area about twice that of the basistyle; two rostral spines placed close together on lower face of prolongation near base. Gonapophysis with mesal-apical lobe slender, the tip subacute.

Holotype, ♂, Geekie's Farm, Karkloof, Natal, January 9, 1957 (B. Stuckenberg). *Allotopotype*, ♀, pinned with type. *Paratopotypes*, 1 ♂, 1 ♀; 1 ♀, January 1, 1957.

The most similar regional species is *Limonia (Dicranomyia) satura* Alexander, which differs in coloration, short antennæ, and in the structure of the male hypopygium. Attention is directed to the somewhat peculiar structure of the ovipositor in the present fly.

71. *Helius (Helius) capensis* (Alexander).

Rhamphidia capensis Alexander, 1917; Ann. S. Afr. Mus., 17: 145-146, pl. 10, fig. 7 (wing).
Helius (Helius) capensis Alexander, 1956; Ruwenzori Exped., 1934-35 (Brit. Mus. Nat. Hist.), 1, No. 7: 252.

The type was from Krantz Kloof, Natal, collected in November 1915 by

Bell-Marley. The species is now known to be widespread in eastern and south-eastern Africa.

Natal : Gwalaweni Forest, Zululand, February 14–16, 1957 (B. Stuckenberg).

72. *Dicranoptycha natalia* Alexander. Text-fig. 16.

Dicranoptycha natalia Alexander, 1920 ; Ann. Mag. nat. Hist. (9) 5 : 54–55.

The types were from Pietermaritzburg, Natal, collected in 1916 by Dr. Conrad Akerman.

Natal : Gwalaweni Forest, Zululand, February 14–16, 1957 (B. Stuckenberg).

Male hypopygium (text-fig. 16) with the outer dististyle, *d*, relatively short and broad, gently curved, terminating in a single nearly straight spine ; outer surface with abundant subappressed spines, inner margin before apex with still smaller microscopic denticles ; inner style subequal in length, narrowed gradually to the blunt glabrous apex, the surface with conspicuous setæ, those of the outer face longer, erect. Gonapophysis narrow, tip obtuse. Ædeagus smooth, sides reflexed ; a superimposed smaller depressed plate, the margins of which are microscopically corrugated.

The only other continental African black-winged species is *Dicranoptycha atricolor* Alexander, of Uganda and Kenya, a larger fly with the hypopygial structure quite distinct (basistyle with a major ventromesal lobe ; outer dististyle long and slender, entirely smooth).

HEXATOMINI.

73. *Pseudolimnophila* (*Calolimnophila*) *xanthomelania* n. sp. Text-fig. 20.

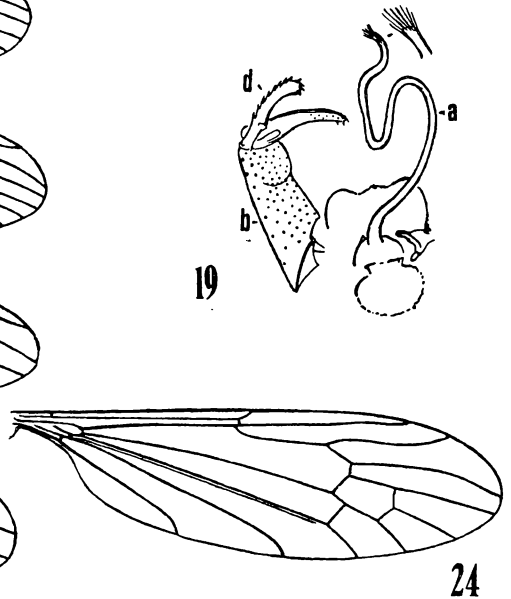
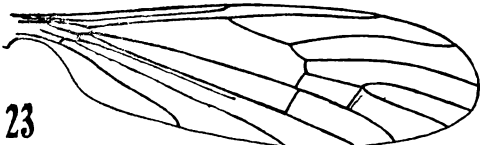
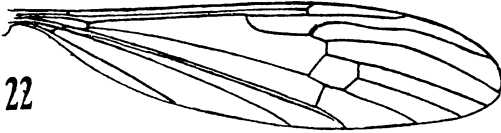
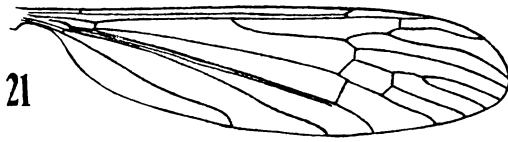
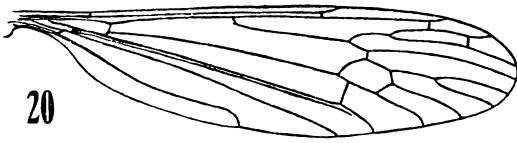
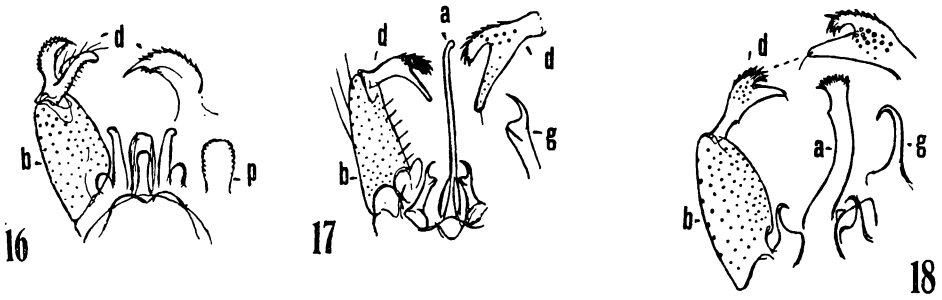
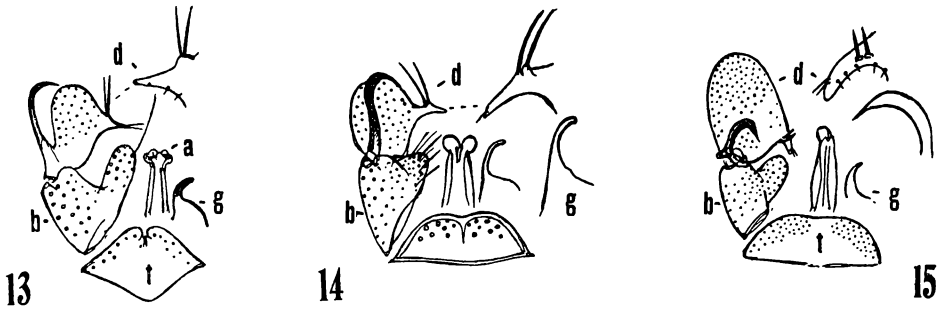
Size large (wing of male 9 mm. or more) ; mesonotum light brown, patterned with darker, pleura variegated grey and dark brown ; basal flagellar segments bicoloured ; legs with femora black, tips narrowly whitened, tibiæ and tarsi clear light yellow ; wings light brown, outer cells clearer yellow, conspicuously patterned with brown ; a supernumerary cross-vein in cell R_3 , as in the subgenus.

Male.—Length about 8–8.5 mm.; wing 9–9.5 mm.; antenna about 2.6–2.7 mm.

Rostrum brown, palpi brownish black. Antennæ with scape blackened beneath, pruinose above, pedicel black ; first flagellar segment light yellow, succeeding three or four segments bicoloured, black basally, the tips light yellow, the amount of the latter decreasing on the outer segments, the remainder of organ black ; flagellar segments elongate, the outer ones especially so, with conspicuous verticils. Head brownish grey ; vertex with a central brown line, widest in front, narrowed to a point on the occiput ; head strongly produced and narrowed behind.

Pronotum pale, pruinose, vaguely patterned with brown ; sides of anterior

TEXT-FIGS. 13-24.



13. *Limonia (Limonia) dingaan* n. sp.; male hypopygium. 14. *Limonia (Limonia) lebombo* n. sp.; male hypopygium. 15. *Limonia (Dicranomyia) viator* n. sp.; male hypopygium. 16. *Dicranoptycha natalia* Alexander; male hypopygium. 17. *Atarba (Atarba) dolichophallus* n. sp.; male hypopygium. 18. *Atarba (Atarba) rhodesiae* Alexander; male hypopygium. 19. *Atarba (Atarba) stuckenbergi* n. sp.; male hypopygium. 20. *Pseudolimnophila (Calolimnophila) xanthomelania* n. sp.; venation. 21. *Pseudolimnophila (Calolimnophila) eremnonota* n. sp.; venation. 22. *Elephantomyia (Elephantomyia) laetifica* n. sp.; venation. 23. *Atarba (Atarba) dolichophallus* n. sp.; venation. 24. *Atarba (Atarba) stuckenbergi* n. sp.; venation.

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

end of scutum produced light yellow. Mesonotal præscutum light brown, with a capillary dull black central vitta that reaches the suture behind, more or less interrupted on the somewhat produced anterior end; a major brown area on side of præscutum behind the pseudosutural fovea; scutal lobes light brown, the median region narrowly darker, the declivitous sides of each lobe with a major darkened area; scutellum dark brown at base, the posterior margin brownish yellow, parascutella chiefly pale, the inner margins lined with brown; mediotergite with anterior and central parts grey, the area narrowed behind, with a darkened central line, the broad posterior angles and adjoining part of pleurotergite dark brown, remainder of latter pruinose behind. Pleura ventrally grey pruinose, the mesopleura conspicuously variegated with dark brown on the anepisternum and dorsal sternopleurite; dorso-pleural membrane buffy in front, darker behind. Halteres with stem whitened, knob dark brown. Legs with the fore coxæ greyish white, variegated with brown at base and at near midlength, remaining coxæ conspicuously whitened; trochanters brown to dark brown; femora black, the tips narrowly but conspicuously whitened, fore femora with about the basal third more yellowish brown, middle femora with a vague obscure yellow brightening shortly beyond the blackened base; tibiæ and tarsi of all legs clear light yellow, only the claws and tibial spurs black. Wings (text-fig. 20) with the disk and costal border suffused with light brown, the outer cells from the end of vein *Sc* around the wing clearer yellow; a conspicuous brown pattern, including major areas at origin of *Rs*, end of *Sc*, stigma and tip of vein R_3 ; smaller clouds over cord, outer end of cell 1st M_2 , forks of *Rs*, R_{2+3+4} and M_{1+2} , and as conspicuous marginal spots at ends of all veins beyond the stigma, smallest at wing tip, largest at vein 2nd *A*; a further cloud near base of cell 2nd *A*; a series of about eight darkened spots in cell *M* adjoining vein *Cu*, these alternating with subequal clear yellow areas; veins light brown, somewhat darker in the patterned areas, more yellowed in the costal interspaces. Costal fringe short; veins of outer two-thirds of wing with abundant macrotrichia, on *M* extending basad almost to the arculus. Venation: R_{2+3+4} strongly arched at origin; a supernumerary cross-vein at near two-thirds the length of cell R_3 , as in the subgenus; basal section of R_5 long, in approximate longitudinal alignment with *Rs* and outer section of R_5 ; petiole of cell M_1 from about one-third to one-half the cell; inner end of cell 1st M_2 arcuated; *m-cu* at from one-third to one-fourth the length of M_{3+4} .

Abdomen dark brown to brownish black, including the hypopygium.

Holotype, ♂, Ngoye Forest, Zululand, Natal, February 17–19, 1957 (B. Stuckenberg). *Paratopotypes*, 2 ♂♂.

This is the first record of a species of the subgenus *Calolimnophila* Alexander in South Africa. Elsewhere there are approximately ten species, occurring in continental Africa and in Madagascar and Mauritius. The present fly differs from all described species in the conspicuous black and yellow pattern of the legs.

74. *Pseudolimnophila (Pseudolimnophila) eremnonota* n. sp. Text-fig. 21.

General coloration of thoracic dorsum intense black, the pleura light yellow; antennæ black throughout; wings strongly tinged with brown, unpatterned except for the darker stigma; petiole of cell M_1 at least twice m ; abdomen, including hypopygium, brownish black.

Male.—Length about 7.5 mm.; wing 8.5 mm.; antenna about 2.4 mm.

Rostrum and palpi black. Antennæ black, scape a trifle paler; moderately long, if bent backward extending about to the root of the halteres; basal flagellar segments suboval, the outer ones becoming long to very long, with conspicuous verticils. Head blackish, dusted with grey, more heavily so on anterior vertex; head not as markedly prolonged behind as in some other species.

Pronotum black, not as large as in certain other species, the anterior lobes not or scarcely produced. Mesonotum intense black, the surface shiny; post-notal pleurotergite black dorsally, the ventral margin yellowed. Pleura conspicuously light yellow, the dorsopleural region and dorsal part of the pleurotergite darkened. Halteres blackened. Legs with all coxæ and trochanters bright yellow; femora light brown, more yellowed basally, the outer ends brownish black, most extensive on fore legs where more than the outer two-thirds is included, on mid-femora about the outer half, on posterior femora only about the outer seventh; tibiæ dark brown to brownish black; tarsi black. Wings (text-fig. 21) with a strong brownish tinge, the costal border somewhat more saturated; stigma oval, slightly darker brown; no other darkenings on surface; veins dark brown. Veins of outer half of wing with continuous series of macrotrichia. Venation; Sc_2 close to tip of Sc_1 ; petiole of cell M_1 at least twice m or about one-third to one-half the length of cell M_1 ; $m-cu$ about one-third its length beyond fork of M . An incomplete vein or spur from vein R_4 , jutting cephalad into cell R_3 .

Abdomen, including hypopygium, brownish black.

Holotype, ♂, Byrne District, Enon Estate, Natal, January 25, 1957 (B. Stuckenberg).

Pseudolimnophila (Pseudolimnophila) eremnonota is entirely distinct from the other regional members of the genus in the polished black mesonotum and unpatterned wings. Except for the very different body coloration, the fly is most similar to *P. (P.) auranticollis* Alexander. The incomplete vein or spur in cell R_3 of wings indicates the possibility of this perhaps being a normally complete supernumerary vein in a series of specimens, in which case the fly would fall in the subgenus *Calolimnophila* Alexander. All known species of this latter group have patterned wings, the least heavily so being *P. (C.) sottiiauxi* Alexander, of the Belgian Congo.

75. *Elephantomyia (Elephantomyia) lætifica* n. sp. Text-fig. 22.

Size medium (wing of female 6 mm.); rostrum short, about one-half the

wing; general coloration light yellow, with a conspicuous black central stripe extending from the posterior part of head to the base of abdomen; halteres and legs brownish black to black; wings weakly suffused, stigma darker, veins very distinct; cell 1st M_2 quadrate, with *m-cu* at near midlength; abdominal tergites uniformly blackened, sternites abruptly yellow.

Female.—Length, excluding rostrum, about 7 mm.; wing 6 mm.; rostrum about 3.2 mm.

Rostrum black, slightly exceeding one-half the length of wings. Antennæ with scape light yellow, pedicel abruptly black; flagellum broken. Head fulvous behind, more whitened on anterior vertex; on posterior vertex with a conspicuous black central stripe extending onto the occiput.

Pronotum light yellow, narrowly blackened medially. Mesonotum with sides of præscutum and scutal lobes, together with the parascutella and sides of mediotergite, polished light yellow, the whole central area with a very conspicuous black stripe extended over the entire dorsum. Pleura and pleurotergite light yellow. Halteres brownish black, base of stem yellow. Legs with all coxæ light yellow; trochanters obscure yellow, the tips narrowly darkened; fore femora black, the remaining femora brownish black, their tips blackened; tibiæ and tarsi black. Wings (text-fig. 22) weakly suffused, stigma long-oval, darker brown; veins dark brown, very conspicuous. Venation: Sc_1 and Sc_2 ending opposite fork of R_s , the latter strongly arcuated at origin; branches of R_s generally parallel to one another, cell R_2 at margin nearly twice as extensive as cell R_3 ; anterior branch beneath the stigma sinuous; cell 1st M_2 subquadrate, much shorter than any of the veins beyond it, with *m-cu* at near midlength; cell 2nd A narrow.

Abdominal tergites black, the subterminal segments vaguely brightened, especially on sides; genital shield black; sternites abruptly yellow; cerci dark brown, yellowed at tips; hypovalvæ horn-yellow.

Holotype, ♀, Hilton Road, Pietermaritzburg, Natal, December 1956 (P. Graham).

The most similar regional species is *Elephantomyia* (*Elephantomyia*) *wahlbergi* Bergroth, which differs conspicuously in the coloration of the halteres and legs, and in the banded abdomen.

76. *Atarba* (*Atarba*) *dolichophallus* n. sp. Text-figs. 17, 18, 23.

General coloration of body fulvous yellow; mouthparts and antennæ black; halteres yellow; legs yellow, the tips of femora and tibiæ, with the outer tarsal segments, black; wings strongly tinged with yellow, unpatterned; cell M_2 closed or open by atrophy of basal section of M_3 ; male hypopygium with the outer apical angle of gonapophysis produced into a gently curved spine; ædeagus long and slender.

Male.—Length about 4.5–4.6 mm.; wing 4.7–5 mm.; antenna about 1.4–1.5 mm.

Female.—Length about 5.5–6 mm.; wing 6–6.5 mm.

Rostrum brownish black; palpi black. Antennæ black throughout; flagellar segments oval, shorter than the verticils. Head variable in colour, from dark brown (in holotype) to reddish.

Pronotum and mesonotum almost uniform fulvous yellow, without pattern, the pleura more yellowed. Halteres obscure yellow. Legs with coxæ and trochanters yellow; femora yellow, tips narrowly and abruptly black; tibiæ yellow, tips more narrowly darkened; basitarsi obscure yellow, the tips and remainder of tarsi black; tibial spurs present. Wings (text-fig. 23) strongly tinged with yellow, the costal border somewhat more saturated; veins yellow, trichia black. Abundant macrotrichia on most veins, including virtually the whole length of 2nd *A*; some veins, particularly the bases of *M* and 1st *A*, very faint to scarcely indicated. Venation: *Sc* short, *Sc*₁ ending about opposite origin of *Rs*, branches of the latter only gently divergent, cell *R*₂ at margin more extensive than cell *R*₃; cell 1st *M*₂ closed, in cases open by atrophy of basal section of *M*₃; *m-cu* in cases very faint, close to or before the fork of *M*.

Abdomen obscure yellow, or brownish yellow, hypopygium weakly darkened. Male hypopygium (text-fig. 17) with the basistyle, *b*, long, slender; a single dististyle, *d*, broadest at midlength and here with a strong curved blackened arm on outer margin, the outer surface and apex with appressed blackened spines; axis of style beyond the fork long and slender, the tip narrowly obtuse. Gonapophysis, *g*, appearing as a narrow plate, the outer apical angle produced farther into a gently curved spine. Ædeagus comparatively long and slender, on slide mounts extending caudad to opposite the ends of the styli; apex pale and membranous but apparently not fimbriate as in *rhodesiæ* and *stuckenbergi*. In *Atarba rhodesiæ*, the hypopygium (text-fig. 18) is generally the same as in the present fly, differing most evidently in the longer apical spine of the gonapophysis, *g*, that is strongly curved at tip, and in the short and very stout ædeagus which is evidently densely fimbriate at apex.

Holotype, ♂, Zwartkop, near Pietermaritzburg, Natal, May 16, 1957 (B. Stuckenberg). *Allotopotype*, ♀, pinned with type. *Paratopotypes*, 4 ♂♀.

The most similar regional species is *Atarba (Atarba) rhodesiæ* Alexander, which differs most evidently in the structure of the male hypopygium, particularly the gonapophysis and ædeagus, as described and figured herewith.

77. *Atarba (Atarba) stuckenbergi* n. sp. Text-figs. 19, 24.

General coloration of mesonotum light yellowish brown, narrowly bordered by darker brown; pleura yellow, patterned with dark brown; antennæ pale yellow; halteres yellow; legs yellow, the tips of fore and middle femora broadly brownish black, of the posterior femora less distinctly so; wings pale yellow, conspicuously patterned with brown; *Sc* short, cell 1st *M*₂ closed; male hypopygium with the two dististyles united only at base; ædeagus very long and sinuous.

Male.—Length about 5.5 mm.; wing 5 mm.; antenna about 0.9 mm.

Female.—Length about 6–6.5 mm.; wing 5–6.8 mm.

Rostrum and palpi black. Antennæ pale yellow, the basal segments weakly suffused; basal flagellar segments oval, becoming more elongate outwardly, subequal to or longer than the inconspicuous verticils. Head of male very large, including the eyes; vertex brownish grey, clearer grey in front, with a narrow dark brown median line.

Prothorax and cervical region whitened. Mesonotal præscutum and scutum light yellowish brown, narrowly bordered by darker brown; anterior end of præscutum strongly produced; midregion of scutum and the posterior callosities obscure yellow; scutellum and postnotum dark brown. Pleura whitened, with a conspicuous dark brown central area, beginning at the fore coxa, extended obliquely backward to the postnotum, crossing the mesepisternum, central pteropleurite and pleurotergite; dorsopleural region whitened. Halteres pale yellow. Legs with fore coxæ patterned as described, remaining coxæ and all trochanters whitened; fore and middle femora yellow, the tips broadly and conspicuously brownish black, on the hind femora the ring generally narrower and much paler brown, in the darkest specimens only a little paler at tip; tibiæ yellow, the apices narrowly but conspicuously black; tarsi yellow, outer segments infuscated; tibial spurs distinct. Wings (text-fig. 24) pale yellow, conspicuously patterned with brown, including a major area across outer end of cell R_1 , crossing cell R_3 to vein R_5 ; other darkenings include a small common area involving origin of R_s and tip of Sc , cord and outer end of cell 1st M_2 , and small marginal spots at ends of all longitudinal veins, smallest on M_{1+2} ; in cases the marginal darkenings larger, at wing tip becoming confluent; extreme wing base blackened; veins pale yellow, light brown in the patterned areas. Venation: Sc short, Sc_1 ending opposite or shortly beyond origin of R_s ; anterior branch of R_s gently sinuous, cell R_2 at margin about one-half as extensive as cell R_3 ; cell 1st M_2 closed, longer than vein M_4 ; $m-cu$ at near one-third the length of vein M_{3+4} .

Basal abdominal tergite blackened, succeeding two segments light yellow, the sides restrictedly patterned with brownish black, the posterior borders more distinctly so, third segment yellow basally, the apex broadly darkened; outer segments uniformly brownish black, the hypopygium a very little more brightened; in female, the amount of dark colour on basal segments more extensive, the basal sternites clear yellow, the outer ones more or less darkened. Male hypopygium (text-fig. 19) with the basistyle, b , weakly emarginate on inner face at near two-thirds the length. Dististyles, d , two, terminal in position, united only at base; outer style shorter, blackened, the outer margin and apex with microscopic subappressed spines. Ædeagus, a , of unusual length, fully one-half longer than the basistyle, strongly sinuous, the extreme tip pale, divided into numerous fimbriations.

Holotype, ♂, Ngoye Forest, Zululand, Natal, February 17–19, 1957 (B.

Stuckenberg). *Allotype*, ♀, Zwartkop, near Pietermaritzburg, Natal, May 16, 1957 (B. Stuckenberg). *Paratopotype*, 1 ♀.

This unusually distinct and attractive fly is dedicated to the collector, Mr. Brian Stuckenberg, to whom most of our knowledge of the Tipulidæ of Natal is due. The fly is readily told from all other regional species by the conspicuously patterned body and wings. It now appears that all of the members of the genus *Atarba* known from South Africa have tibial spurs and thus are referable to the typical subgenus.

ERIOPTERINI.

(8) *Idiognophomyia capicola* (Alexander). Text-fig. 25.

Gnophomyia capicola Alexander, 1934; *Encycl. Entomol.*, Diptera, 7: 57-58.

Gnophomyia (Idiognophomyia) capicola Alexander, 1956; *Ann. Natal Mus.* 13: 403-404, fig. 4 (venation).

Natal: Zwartkop, near Pietermaritzburg, May 16, 1957 (B. Stuckenberg).

Male hypopygium (text-fig. 25) with the central region of the tergite, *t*, produced caudad into a depressed-flattened plate, the median area membranous and slightly more produced; vestiture of tergite restricted to a triangular group of numerous setæ, the point of the triangle directed cephalad. Basistyle, *b*, relatively stout, on mesal face near base produced into a strong lobe that bears very numerous blackened setæ, those on the caudad aspect shorter and more delicate, the lower ones longer and stronger. Outer dististyle, *d*, with the basal lobe or flange relatively small; outer blade slightly curved, its margin with a longitudinal row of spinous points; inner style unusually stout, especially the base; outer free part broad, apex subtruncate, surface with scattered setæ.

The close relationship of *Idiognophomyia* to the nearly apterous *Quathlambia* Alexander is best shown by the details of structure of the legs and the male hypopygium.

78. *Idiognophomyia patula* n. sp. Text-figs. 26, 33.

Mesonotal præscutum and scutum black, posterior sclerites of notum dark but more obscure; pleura yellow, with a blackened area on anepisternum; wings with cell M_2 open by atrophy of basal section of M_3 ; male hypopygium without a modified lobe on mesal face of basistyle; phallosome including a broad blackened central structure.

Male.—Length about 7-7.5 mm.; wing 7.5-8.5 mm.; antenna about 2.7-2.8 mm.

Female.—Length about 6.5-6.6 mm.; wing 7.8-8 mm.; antenna about 2.8 mm.

Rostrum black, paler beneath; palpi black. Antennæ black, relatively

long in both sexes; flagellar segments elongate, with conspicuous verticils. Head plumbeous grey; anterior vertex with conspicuous setæ.

Pronotum light yellow, the sides of the scutum blackened; pretergites yellow. Mesonotal præscutum and scutum uniformly black, humeral region restrictedly yellow; scutellum and postnotum opaque, brown, more or less pruinose; suture between mediotergite and pleurotergite pale. Pleura yellow to fulvous yellow; a major blackened area on anepisternum. Halteres with stem dusky, knob brownish black. Legs with coxæ fulvous yellow; trochanters yellow; femora obscure yellow, the colour obscured by the usual scales and setæ, darker outwardly; tibiæ and tarsi dark brown to black. Wings (text-fig. 33) with a strong dusky suffusion; stigma vaguely darker; veins dark brown. Venation: Sc_1 long, approximately twice $m-cu$; $r-m$ at or shortly before fork of Rs ; cell M_2 open by atrophy of basal section of M_3 ; $m-cu$ close to fork of M .

Abdominal tergites and hypopygium black, basal sternites somewhat paler. Ovipositor with valves short and obtuse. Male hypopygium (text-fig. 26) small. Region of what appears to be the sternite broad, its posterior margin truncate or virtually so. Basistyle, b , simple, without a basal mesal lobe, as in *capicola*. Outer dististyle, d , with the outer blade relatively short and stout, the inner margin with obtuse inconspicuous denticles; inner style narrowed and heavily blackened on outer two-thirds. Phallosome including a broad blackened central structure.

Holotype, ♂, Zwartkop, near Pietermaritzburg, Natal, May 16, 1957 (B. Stuckenberg). *Allotopotype*, ♀. *Paratopotypes*, 4 ♂♀; *paratype*, 1 ♀, Lion's Bush, Nottingham Road, Natal, April 27, 1955 (B. Stuckenberg).

The present fly is entirely distinct from *Idiognophomyia capicola* (Alexander) in the open cell M_2 of the wings and in the structure of the male hypopygium, particularly the basistyle and phallosome.

79. *Gonomyia* (*Progonomyia*) *transvaalensis* n. sp.

General coloration of mesonotal præscutum dark grey, with three poorly differentiated brown stripes; antennæ with scape light yellow, pedicel and flagellum black; pronotum above broadly light yellow; posterior sclerites of notum, including the scutellum, dark plumbeous grey; pleura blackened above, more reddish brown below, the two areas separated by a broad pale yellow longitudinal stripe; halteres dark brown; femora and tibiæ dark brown, tips still darker; wings weakly tinged with brown, stigma barely darker; vein R_2 beyond the fork, a short element of R_{2+3} being preserved; cell 2nd M_2 deep, nearly twice its petiole; $m-cu$ at fork of M .

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

Rostrum black, sparsely pruinose; palpi black. Antennæ with scape light yellow, pedicel and flagellum black; flagellar segments oval, the outer

ones scarcely more elongate, subequal to their verticils. Head clear grey.

Pronotum above broadly yellow, including the centre of the scutum and all of the scutellum, as well as the pretergites, the sides blackened. Mesonotal præscutum dark grey, with three poorly differentiated brown stripes; pseudo-sutural foveæ black; posterior sclerites of notum dark plumbeous grey, the scutal lobes a trifle more infuscated; pleurotergite brownish grey, more reddened at either end. Pleura blackened on propleura and anepisternum, the pteropleurite and ventral sternopleurite more reddish brown, the intermediate part occupied by a conspicuous pale yellow longitudinal stripe; sternum medially broadly yellow. Halteres dark brown. Legs with coxæ reddish brown; trochanters brownish yellow; femora and tibiæ dark brown, the tips still darker; tarsi black. Wings weakly tinged with brown, the stigma slightly darker; veins pale brown. Venation: *Sc* long, *Sc*₁ ending just before two-thirds the length of *Rs*, *Sc*₁ long, nearly three times *R*₂₊₃₊₄, the latter shorter than the more arcuated basal section of *R*₅; *R*₂ just beyond the fork, a very short *R*₂₊₃ being present; veins *R*₃ and *R*₄ divergent, cell *R*₃ at margin nearly twice cell *R*₂; cell 2nd *M*₂ nearly twice its petiole; *m-cu* at fork of *M*.

Abdominal tergites brownish black, sternites more yellowed, especially the borders, the disk darker but apparently this caused by discoloration; pleural membrane more or less yellowed; genital region paler brown. Ovipositor with cerci strongly developed, upcurved to the narrowly obtuse tips.

Holotype, ♀, Mariepskop, Eastern Transvaal, 4,400 ft., October 4–8, 1956 (B. Stuckenberg).

The most similar species is *Gonomyia (Progonomyia) natalensis* Alexander, which differs in details of coloration and venation, as given in the diagnosis.

80. *Gonomyia (Idiocera) contracta* n. sp. Text-fig. 32.

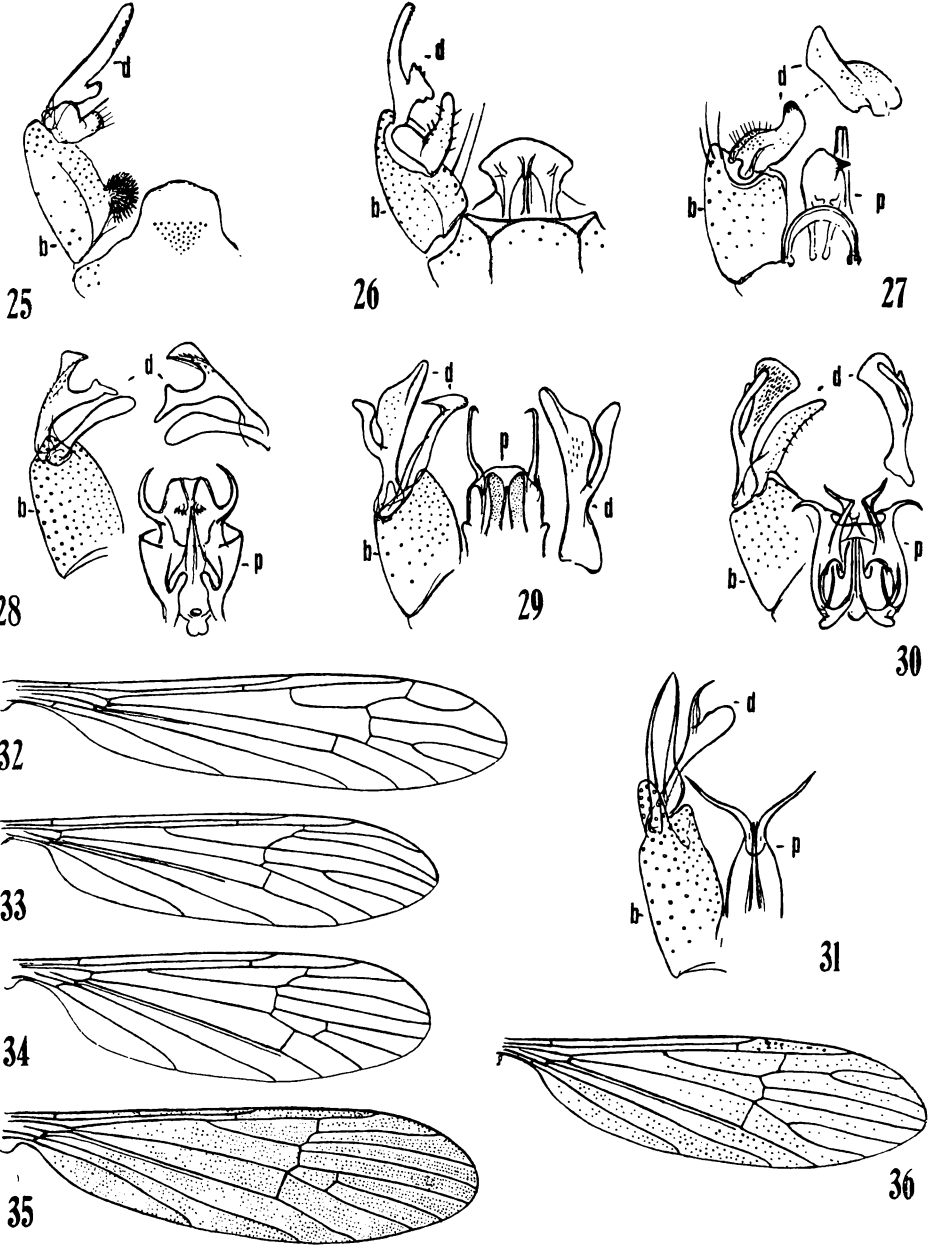
Size large (wing of female over 7.5 mm.); general coloration of mesonotum grey, the præscutum with an intermediate pair of brown stripes; pleura brownish grey, with a very broad whitened longitudinal stripe; tips of tibiæ narrowly brownish black; wings whitish, restrictedly patterned with dark brown, including the short-oval stigma; anterior cord transverse; *Sc* short, *Sc*₁ ending opposite origin of *Rs*; *m-cu* a little more than its own length before the fork of *M*.

Female.—Length about 8 mm.; wing 7.8 mm.

Rostrum brownish black; palpi black. Antennæ with scape pale yellow above, the lower surface dark brown; pedicel chiefly pale yellow, more darkened basally beneath; flagellum dark brown, the segments elongate, subequal to the verticils. Head above grey, the front, anterior vertex and anterior orbits yellowed; posterior vertex with conspicuous black setigerous punctures.

Pronotum brownish grey, the lateral borders and a spot on either side of midline of scutum yellowed; scutellum and pretergites pale yellow, the latter

TEXT-FIGS. 25-36.



25. *Idiognophomyia capicola* (Alexander); male hypopygium. 26. *Idiognophomyia patula* n. sp.; male hypopygium. 27. *Cryptolabis (Bæoura) producticornis* n. sp.; male hypopygium. 28. *Ormosia (Trichotrimicra) antilopa* n. sp.; male hypopygium. 29. *Ormosia (Trichotrimicra) hirtipennis* (Alexander); male hypopygium. 30. *Ormosia (Trichotrimicra) ichaka* n. sp.; male hypopygium. 31. *Cheilotrichia (Empeda) telacantha* n. sp.; male hypopygium. 32. *Gonomyia (Idiocera) contracta* n. sp.; venation. 33. *Idiognophomyia patula* n. sp.; venation. 34. *Cryptolabis (Bæoura) producticornis* n. sp.; venation. 35. *Ormosia (Trichotrimicra) antilopa* n. sp.; venation. 36. *Cheilotrichia (Empeda) telacantha* n. sp.; venation.

(Hypopygial symbols: b, basistyle; d, dististyle; p, phallosome.)

with a black spot. Mesonotal præscutum grey with two intermediate brown stripes, widened posteriorly, somewhat constricted opposite the pseudosutural foveæ, the latter dark reddish brown, conspicuous; yellowed areas before the foveæ and on lateral border; posterior sclerites of notum grey, each lobe restrictedly patterned with brown; scutellum more reddish brown; anterio-lateral part of mediotergite and most of pleurotergite brownish yellow, the latter with the ventral third more pruinose. Pleura chiefly brownish grey, with a very broad and conspicuous whitened longitudinal stripe, including the dorsal sternopleurite, ventral pteropleurite and metapleura. Halteres with stem dusky, knob infuscated. Legs with coxæ pale, the fore pair more darkened; trochanters obscure yellow; femora brownish yellow, the tips vaguely more darkened; tibiæ brownish yellow, tips narrowly brownish black; basitarsi brownish yellow, the tips and remainder of tarsi black. Wings (text-fig. 32) whitish, restrictedly patterned with dark brown, including the short-oval stigma and narrow seams at origin of *Rs* and over cord; paler brown washes near outer ends of cells *R*₃ and *R*₄, the latter more conspicuous; veins brown, yellowed in the prearcular and costal regions, brownish black in the patterned parts. Venation: *Sc* very short, *Sc*₁ ending opposite origin of *Rs*, *Sc*₂ some distance before this origin; *Rs* nearly square at base; distance on *C* between veins *R*₁₊₂ and *R*₃ about one-third the length of the latter; petiole of cell *R*₃ about twice vein *R*₃, shorter than vein *R*₄; anterior cord transverse; cell 2nd *M*₂ about one-half longer than its petiole; *m-cu* a little more than its length before the fork of *M*.

Abdominal tergites dark brown, the extreme posterior borders of the intermediate segments yellowed, first tergite more extensively yellowed at base and on lateral borders; sternites chiefly pale yellow. Ovipositor with cerci strongly upcurved, brown, paler at tips.

Holotype, ♀, Pietermaritzburg, Natal, October 23, 1956 (B. Stuckenberg).

This conspicuous fly is most similar to *Gonomyia (Idiocera) dædalus* Alexander, which differs evidently in the coloration of the body and legs and especially in the pattern and venation of the wings.

81. *Gonomyia (Idiocera) tuckeri* Alexander.

Gonomyia (Gonomyia) tuckeri Alexander, 1921; Ann. S. Afr. Mus., 18: 198-199.

The badly broken type, of unknown sex, was from Komatipoort, eastern Transvaal, taken in November 1918, by R. W. Tucker, after whom the species was named.

Eastern Transvaal: Five miles east of Badplaats, between Carolina and Barberton, taken at light in tent along roadside near a small stream in mountainous grassy veld, October 2, 1956 (Stuckenberg and Cookson).

82. *Cryptolabis (Bæoura) producticornis* n. sp. Text-figs. 27, 34.

Size relatively large (wing of male about 6 mm.); general coloration of mesonotum almost uniformly brownish black, the posterior sclerites, together with the pleura, more pruinose; antennæ of male elongate, nearly one-half the body; wings with cell 1st M_2 closed; male hypopygium with the dististyle narrowed and blackened on outer half.

Male.—Length about 5 mm.; wing 6 mm.; antenna about 2.3 mm.

Female.—Length about 4 mm.; wing 5.5 mm.; antenna about 1.4 mm.

Rostrum and palpi black. Antennæ black throughout, elongate in male where it is nearly one-half the body, shorter in female; in male, flagellar segments very long-oval, with dense erect setæ, the verticils only slightly longer; in female, flagellar segments long-oval, with short setæ and longer and more abundant verticils. Head dark brownish grey; anterior vertex broad.

Pronotum dark brown, scutellum narrowly yellowed. Mesonotal præscutum and scutum almost uniformly brownish black, the central area of the latter and the posterior sclerites more pruinose. Pleura, including the dorsopleural membrane, lighter grey pruinose. Halteres blackened, base of stem slightly paler. Legs with coxæ and trochanters brownish black; remainder of legs black; vestiture only moderately long and outspreading, especially so on femora. Wings (text-fig. 34) with a strong dusky tinge, stigmal region diffusely darker; veins and macrotrichia darker brown. Veins of outer two-thirds of wing with long conspicuous macrotrichia. Venation: Sc_1 ending nearly opposite the fork of R_s , Sc_1 alone about twice R_{2+3+4} ; R_s long, subequal to or slightly longer than vein R_4 and approximately three times R ; vein R_2 slightly oblique; R_{2+3+4} longer than basal section of R_5 ; cell 1st M_2 closed, a little shorter than M_4 ; $m-cu$ just beyond midlength of M_{3+4} ; cell 2nd A moderately broad.

Abdomen, including genitalia, dark brown to brownish black. Ovipositor with blunt valves, as in the genus. Male hypopygium (text-fig. 27) with the dististyle, d , slightly dilated on basal half, the outer part narrowed and blackened, extended into the blunt apex, the base with abundant pale erect setæ. Phallosome, p , and superimposed parts as they appear on a slide about as figured; the apparently single simple apex of the stouter structure, shown as being directed laterad, presumably is directed ventrad in unmounted material.

Holotype, ♂, Byrne District, Enon Estates, Natal, January 25, 1957 (B. Stuckenberg). *Allotopotype*, ♀.

The only other regional species of the subgenus with cell 1st M_2 closed is *Cryptolabis (Bæoura) cooksoni* Alexander, of the eastern Transvaal, which differs in the smaller size, short antennæ in both sexes, and especially in the structure of the male hypopygium, including the dististyle and all details of the phallosome.

83. *Ormosia (Trichotrimicra) antilopa* n. sp. Text-figs. 28, 35.

Generally as in *hirtipennis*; colour of wings darker; male hypopygium

with the outer dististyle deeply forked, inner style without a tooth on outer margin; phallosome broad, on either side with a strong gently curved horn.

Male.—Length about 4.2–4.3 mm.; wing 5–5.2 mm.; antenna about 0.9–1.0 mm.

Female.—Length about 4.5 mm.; wing 5 mm.

Rostrum and palpi brown. Antennæ brown; flagellar segments long-oval, with conspicuous verticils. Head brown, with black setæ.

Pronotum dark brown, with very long erect setæ; scutellum and pretergites yellowed. Mesonotum dark brown, the lateral præscutal borders a little paler; postnotum more pruinose. Pleura dark brown, dorsopleural membrane paler. Halteres with basal half of stem yellow, the remainder dark brown. Legs with coxæ testaceous; trochanters yellow; remainder of legs light brown, last tarsal segment dark brown; legs with very long setæ. Wings (text-fig. 35) with a brownish tinge, the stigmal region slightly darker; veins and trichia dark brown. Cells of wing with abundant macrotrichia (position indicated in figure by stippling), lacking near wing base, in outer cells more concentrated in central portions. Venation: *Sc* short, *Sc*₁ ending opposite or before midlength of *Rs*, usually at near two-fifths the length; *R*₂ at fork of *R*₂₊₃₊₄ or slightly beyond (as shown); veins beyond cell 1st *M*₂ long, exceeding twice *M*₃₊₄.

Abdominal tergites and hypopygium dark brown, sternites paler brown. Ovipositor with cerci slender, straight to just before the slightly upturned tip; hypovalvæ a trifle longer. Male hypopygium (text-fig. 28) with the apex of the basistyle, *b*, only slightly produced. Dististyles, *d*, two, terminal or virtually so; outer style very large, before midlength deeply forked into two subequal arms, the outer more expanded, stem slender; inner style a simple flattened blade, without a point on outer margin before apex. Phallosome, *p*, distinctive, stout, on either side produced into a slender gently curved horn, the whole effect suggesting the head of an antelope (*Antilopa*).

Holotype, ♂, Zwartkop, near Pietermaritzburg, Natal, May 16, 1957 (B. Stuckenberg). *Allotopotype*, ♀, pinned with type. *Paratopotypes*, 3 ♂♂.

Ormosia (Trichotrimicra) antilopa is quite distinct from the other regional species, *O. (T.) hirtipennis* (Alexander) and *O. (T.) tchaka* n. sp., in the structure of the male hypopygium, as described and figured in the present report.

(56). *Ormosia (Trichotrimicra) hirtipennis* (Alexander). Text-fig. 29.

Trimicra (Trichotrimicra) hirtipennis Alexander, 1921; Ann. S. Afr. Mus., 18: 195–196.

Ormosia (Trichotrimicra) hirtipennis Alexander, 1956; Ruwenzori Exped. 1934–35 (Brit. Mus. Nat. Hist.), 1, No. 7: 343.

Ormosia (Trichotrimicra) hirtipennis Alexander, 1958; Ann. Natal Mus., 14, pt. 2: 274.

Male hypopygium (text-fig. 29) with the basistyle, *b*, short and stout. Dististyles, *d*, two, terminal; outer style large and conspicuous, forked at near midlength, the main stem or axis dilated beyond the fork, gradually narrowed to a more slender point, near inner margin with a low ridge parallel

to the margin; surface of disk with sparse scattered microscopic setæ; outer arm very strong and powerful, more dilated at end, the apex obliquely truncated; inner style subequal in length but more slender, nearly straight, slightly expanded at end; outer margin at base of dilated part with a recurved spine, variable in size, with about the extreme development in the specimen figured, much smaller in other individuals. Phallosome, *p*, distinctive, appearing as a central mass, the outer angles produced caudad into long very slender arms, nearly straight, their extreme tips recurved.

84. *Ormosia (Trichotrimicra) tchaka* n. sp. Text-fig. 30.

Size relatively large (wing approximately 6 mm. or more); general coloration dark brownish grey to plumbeous; male hypopygium with the outer dististyle profoundly bifid, the outer arm slender; phallosome with the outer arms outcurved, each bispinous.

Male.—Length about 4.5–5 mm.; wing 5.8–6.8 mm.; antenna about 1–1.2 mm.

Female.—Length about 5 mm.; wing 5.8–6 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments oval to long-oval, with long conspicuous verticils. Head dark grey.

Pronotum dark brownish grey, the pretergites restrictedly obscure yellow. Mesonotum dark brownish grey to dark plumbeous, the humeral region of the præscutum very restrictedly yellow; pseudosutural foveæ black. Pleura dark grey; dorsopleural membrane pale brown. Halteres with stem dusky, base yellowed, knobs blackened. Legs with fore coxæ brownish black, remaining coxæ and trochanters testaceous yellow; femora obscure yellow, gradually darkened outwardly, especially at the extreme tips; tibiæ and tarsi yellow to brownish yellow, the terminal two segments brown; vestiture of legs long and conspicuous. Wings strongly tinged with dusky, especially the stigmal region; veins and trichia darker brown. Distribution of macrotrichia in cells about as in other regional members of the subgenus. Venation: Sc_1 ending nearly opposite to slightly before midlength of R_s ; R_2 at or slightly before the fork, in the latter case leaving a short element R_{3+4} which is approximately one-third as long as R_2 or less; *m-cu* at or before fork of *M*.

Abdomen, including the hypopygium, dark brown. Ovipositor with valves yellow, the cerci slender. Male hypopygium (text-fig. 30) distinctive, relatively complex in structure. Outer dististyle, *d*, profoundly bifid, stem short, outer arm slender, slightly dilated to weakly bilobed near apex; inner arm broad, obtuse at tip, the outer angle broadly rounded, surface of arm with abundant microscopic setulæ; inner style a relatively narrow flattened blade. Phallosome, *p*, distinctive, about as figured; lateral arms outcurved into gently bent spines, near base on inner edge with a smaller spine that is directed mesad; inner apophysis projecting slightly beyond the level of the other elements of the

phallosome, near tip strongly bent, narrowed to the slightly curved tip.

Holotype, ♂, Nhuzana Mountain, Dargle District, Natal, in a small patch of bush growing along a stream, north-west of the mountain and above 5,000 ft., May 10, 1957 (B. Stuckenberg). *Allotopotype*, ♀. *Paratopotypes*, 3 ♂♂.

Ormosia (Trichotrimicra) tchaka is named for the renowned Zulu chief, Tchaka (Chaka). The species is most readily told from other South African members of the subgenus by the hypopygial characters, as described and figured herewith for all species made known to this date.

85. *Cheilotrichia (Empeda) telacantha* n. sp. Text-figs. 31, 36.

General coloration brown; halteres dark brown, base of stem yellow; wings weakly suffused, the cells with macrotrichia; Sc_1 ending shortly before fork of R_s ; cell M_2 open by atrophy of m ; cell 2nd A relatively narrow; male hypopygium with three dististyles, the inner two appearing as long simple spines; phallosome terminating in two long slender divergent spines.

Male.—Length about 3.5 mm.; wing 4 mm.

Female.—Length about 4 mm.; wing 4.3 mm.

Rostrum and palpi dark brown. Antennæ dark brown to brownish black; flagellar segments long-oval, with long conspicuous verticils. Head dark brown.

Prothorax dark brown. Mesonotum almost uniform brown, without pattern: præscutal interspaces with relatively sparse but long erect setæ. Pleura slightly paler brown; no setæ on pteropleurite; metapleura with a few long setæ. Halteres dark brown, base of stem yellow. Legs with coxæ and trochanters testaceous yellow; remainder of legs obscure brownish yellow to pale brown. Wings (text-fig. 36) weakly suffused, the costal region and stigma vaguely darker; veins pale brown, trichia darker, long and conspicuous. Cells of wing with macrotrichia, sparse and restricted to the centres of the cells beyond the cord, more abundant in the outer cubital and anal cells (position indicated in figure by stippling). Venation: Sc relatively long, Sc_1 ending shortly before the fork of R_s , Sc_1 about twice Sc_2 ; vein R_2 oblique; veins R_4 and R_5 long, generally parallel for most of their lengths; cell M_2 open by atrophy of m ; cell 2nd A relatively narrow.

Abdomen brown. Male hypopygium (text-fig. 31) with the apical lobe of basistyle, b , conspicuous. Three dististyles, d , all interconnected at base; outer style slender basally, expanded on outer half, forked into a slender outer spine and a broad obtusely rounded blade; inner styles appearing as long slender simple spines that narrow into acute points. Phallosome, p , moderately broad, terminating in two long slender divergent spines.

Holotype, ♂, Zwartkop, near Pietermaritzburg, Natal, May 16, 1957 (B. Stuckenberg). *Allotopotype*, ♀. *Paratopotype*, 1 ♀.

Cheilotrichia (Empeda) telacantha is readily distinguished from *C. (E)*.

bonæspei (Alexander), the most similar regional species. by the hairy wings, distinct venational details, and, especially, the very different male hypopygium. The structure of the hypopygium in *bonæspei* has been described and figured by Wood ('Ann. S. Afr. Mus.', 39 ; 329-295, fig. 96, 1952).